

# MK Product Catalogue



WIRELESS  
WIRING DEVICES  
CIRCUIT PROTECTION





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Our total commitment to customer service reflects the growing needs of specifiers, distributors and installers

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# Wiring Devices



| Range  | Product Pages | Technical Data |
|--|---------------|----------------|
| <b>Wireless</b>  |               |                |
| <b>Echo</b><br>Wireless, batteryless, self-powered technology  | 19-29         | 297-300        |
| <b>White</b>   |               |                |
| <b>Logic Plus</b><br>Widest selection of wiring devices in one range                                     | 30-50         | 301-344        |
| <b>Ceiling Accessories</b><br>Lampholders, pendant sets and ceiling switches                             | 51-55         | 346-348        |
| <b>Decorative</b>  |               |                |
| <b>Decorative Introduction</b>   | 64-66         |                |
| <b>Elements</b><br>Revolutionary range of stylish wiring devices with touch control switches and dimmers | 67-95         | 351-379        |
| <b>Aspect</b><br>Range of slimline, flawless profile devices   | 96-127        | 301-344        |
| <b>Insignia</b><br>Function and style with very slim profile frontplate                                  | 128-164       | 301-344        |
| <b>Albany Plus</b><br>Satin Gold and Brushed Chrome devices  | 165-186       | 301-344        |
| <b>Modular</b>   |               |                |
| <b>Grid Plus</b><br>Modular switching and monitoring system  | 187-205       | 380-386        |
| <b>Lighting Controls</b>   |               |                |
| <b>Link</b><br>Plug-in connection and distribution system for lighting                                   | 56-60         | 349-350        |
| <b>Sensors</b><br>A range of energy saving and lighting management products                              | 62-63         | 345            |
| <b>High Power Dimmer</b><br>Range of dimmers to control large lighting loads                             | 206-208       | 388-390        |



# Wiring Devices & Circuit Protection

| Range   | Product Pages | Technical Data |
|---|---------------|----------------|
| <b>Boxes and Ancillary Products</b>   |               |                |
| <b>Boxes</b><br>Wide selection of surface and flush mounted, metal and PVC boxes                | 209-215       | 391            |
| <b>Ancillary Products</b><br>A selection of miscellaneous wiring devices                        | 216-221       | NA             |
| <b>Surface</b>  |               |                |
| <b>Metalclad Plus</b><br>Tough, impact resistant surface mounted devices                        | 222-232       | 301-344        |
| <b>Portable Power</b>   |               |                |
| <b>Duraplug</b><br>Durable, strong and reliable accessories                                     | 233-237       | 392-394        |
| <b>Plugs and Adaptors</b><br>High quality plugs and adaptors                                    | 238-239       | 395            |
| <b>Ingress Protected</b>  |               |                |
| <b>Masterseal Plus</b><br>Comprehensive range of IP66 weatherproof devices                      | 240-247       | 396-407        |
| <b>Masterseal Compact</b>   | 248-253       | 408-409        |
| <b>Commando Safetyswitch</b><br>Impact resistant switches for indoors or outdoors               | 256-257       | NA             |
| <b>Commando Plugs and Sockets</b><br>Comprehensive selection of industrial plugs and connectors | 258-267       | 410-421        |
| <b>Commando Combination Units</b><br>RCD protection with high impact PBT units                  | 268-271       | 422-427        |
| <b>Circuit Protection</b>   |               |                |
| <b>Sentry</b><br>Consumer units and a wide variety of modular protection and control products   | 273-288       | 429-458        |
| <b>Sentrysocket</b><br>RCD protected switchsockets with active and passive control circuits     | 291-292       | 460-461        |



# SERVING THE REGION FOR ALMOST 100 YEARS



MK Electric has key manufacturing facilities in Europe, Saudi Arabia and Asia Pacific, sales offices across Europe and the Middle East, that distribute to over 100 countries and employ over 1500 people worldwide.

**Honeywell**  
THE POWER OF CONNECTED



**Ex-Or**  
by Honeywell

Sockets | Wireless | Switches | Circuit Protection |  
Cable Management Anti-Microbial | Sensors | Lighting  
Management | Power Distribution | Security Lighting |  
Doorbells



# HONEYWELL BUILDING TECHNOLOGY AND ELECTRICAL PRODUCTS



For almost 100 years, MK Electric has led the market in electrical wiring accessories.

Today, MK Electric continues to lead the way in innovation with additions to the widest range of wiring accessories such as LED Dimmers, USB Charging Solutions, wireless, batteryless Echo switches, as well as the stylish MK Elements collection of wiring accessories.

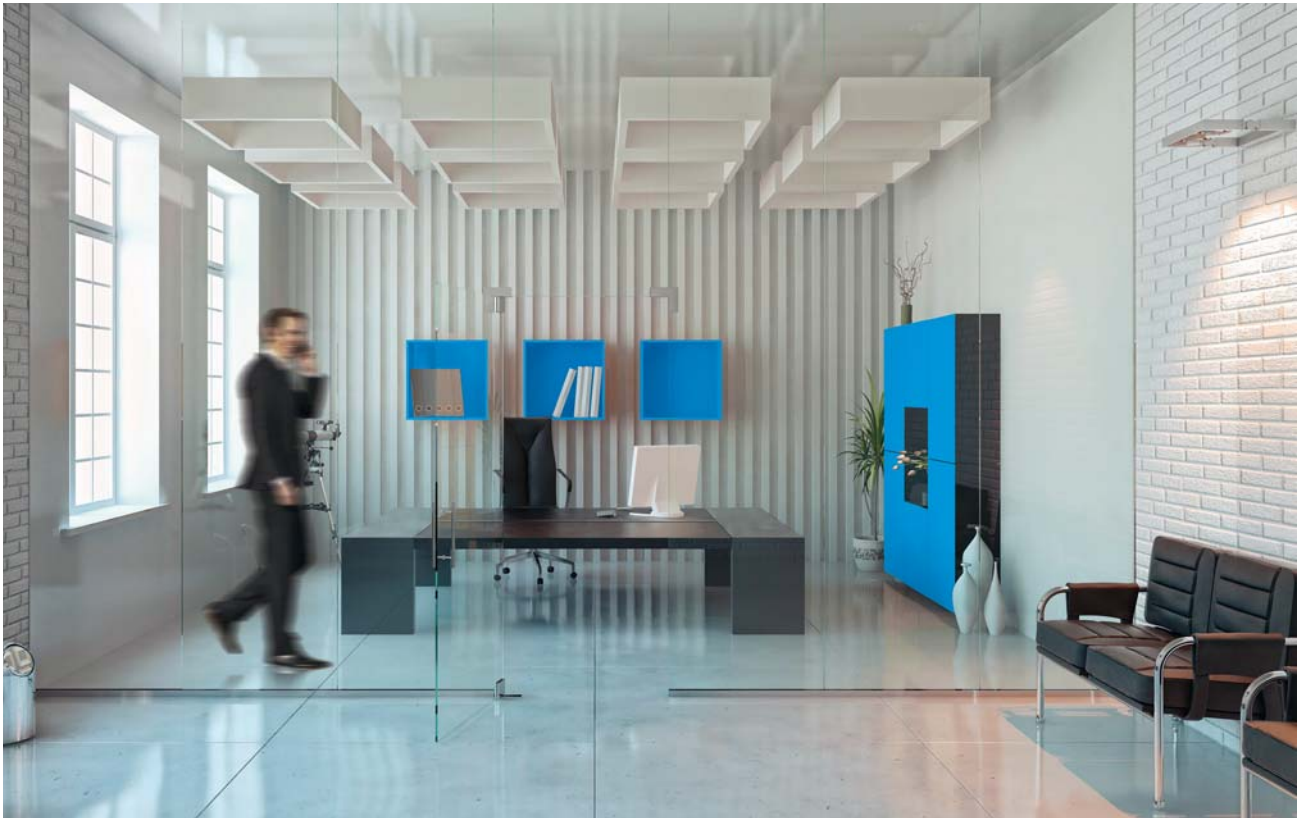
MK Electric also manufactures a host of other products, including overhead and underfloor power and data distribution, cable management and circuit protection.





Ex-Or are acknowledged leaders in developing elegant and innovative lighting control systems that are easy to install and maintain. Ex-Or solutions help customers to reduce their energy bills, lower their carbon footprints, and improve performance.

Ex-Or's range of new generation lighting controls switch lights off when no-one's there, and dim or switch them off when there's enough natural light, helping to reduce energy costs, sometimes as much as 70%, year after year.





# Made GREAT In Britain



**MK Electric: leading the market in Quality, Reliability, Safety and Responsibility since 1919.**

**As MK Electric nears its 100th anniversary the business is still evolving and innovating to meet the ever changing demands of our customers and the market place.**

Quality, Reliability, Safety and Responsibility are embedded at all levels of the company. These, and our unrivalled product portfolio, see us well equipped to face the challenges that lie before us. As ever, our customers are at the centre of everything we do, and MK and Honeywell solutions and technologies are delivering new products and processes which are more energy efficient and less harmful to the environment.

## Where does it come from?

Over 80% of MK products are manufactured in the UK. In the example of the MK Logic Plus 2 Gang Switch Socket Outlet for the UK market, it is estimated that the components and product travel a distance of 16 times less when manufactured in one of MK's UK facilities, compared to one produced in a Far Eastern facility. With over 70,000 less miles travelled from the UK manufactured socket there is a clear reduction in the products' carbon footprint when compared to one of its Far Eastern manufactured counterparts.

Wherever possible MK Electric manufacture within, or close to, a local market. This not only keeps the transportation of components and finished products to a minimum, but also allows us to react quickly to changes in the market requirements. Products come off the production line and are delivered direct to our UK warehouse within 24 hours. Far Eastern manufactured products can often spend over 3 months in transit, negating any opportunity for late changes in production to meet a specific market or customer demand.



## Who made it?

All MK Electric factories operate to the Health, Safety and Environmental Management Standards implemented globally by Honeywell. In addition all MK Electric Operating Sites are accredited to the following third party assessed international standards:

**ISO 9001**

**Quality**

**OHSAS 18001**

**Health & Safety**

**ISO 14001**

**Environment**

## MK Electric

*"We consider the well being of workers in our international supply chains to be a priority.*

*As a condition of supply we ensure that all goods made on our behalf are produced in conditions that are safe, decent and that support working people in maintaining a reasonable standard of living".*

# MK ELECTRIC BRAND VALUES

Responding to our customers' and market feedback, we are constantly striving to develop ever more innovative products underpinned by excellent customer service levels.



MK Electric's range of w

## Quality and Reliability

At MK we pride ourselves on using superior manufacturing techniques in all our manufacturing sites. All MK products are manufactured from superior quality materials to ISO 9001 certification.

Whilst other manufacturers may make claims on reliability, MK products are truly reliable, we demonstrate this with comprehensive product guarantees of up to 20 years\*.

All MK products undergo rigorous testing to ensure maximum Quality, Reliability and Safety. Each product undergoes 100% electrical and visual testing at the point of manufacture. British Standards require a socket outlet to be tested to 15,000 socket insertions – the MK test laboratory has tested MK sockets to over 1,000,000 plug insertions with no reported faults, or issues with wear and tear. Similarly, British Standards require a 10A switch to be tested to 20,000 switches, the MK test laboratory has tested MK switches to over 1,000,000 on-off switch operations with no reported faults, or issues with wear and tear.

\*See individual ranges for exceptions



LOGIC PLUS



ELEMENTS



ASPECT



INSIGNIA



MASTERSEAL PLUS

CONTOURED TO BLEND INTO THE WALL

#### DOUBLE POLE SWITCHING

Switches both live and neutral (neutral makes first, breaks last) means added safety for the user

OPTIONAL NEON INDICATOR ILLUMINATES WHEN SWITCH IS ON

3mm MINIMUM SWITCH CONTACT GAP

#### 3-PIN "CHILD RESISTANT SHUTTER SYSTEM"

Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

#### HIGH GLOSS, HIGH QUALITY THERMOSET MATERIAL

Inherent antimicrobial properties, resists scratching, maintains appearance

## wiring devices



ECHO



ALBANY PLUS



METALCLAD PLUS

- ✓ **Quality** – Manufactured to ISO 9001 certification, using superior manufacturing techniques
- ✓ **Reliability** – Comprehensive 20 year product guarantee, 10 years for Electronic Devices, Circuit Protection and Cable Management\*
- ✓ **Safety** – 100% factory tested, each product undergoes up to 200 individual tests, for a 'fit and forget' installation every time
- ✓ **Responsibility** – Our solutions and technologies expand sustainable capacity and improve the efficiency of products and processes, fostering sustainability.

## Safety

### MK Sockets – The Safest Available

MK's sockets have a "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all three pins of a British plug are in position.

By choosing our sockets, you can be sure that you are giving your building the ultimate in electrical protection. All electrical sockets manufactured to the British Standard must incorporate a shutter mechanism. British Standards require that a minimum safety level is achieved in the design and manufacture of electrical accessories. MK's socket design offers the maximum safety benefit and is the most difficult shutter mechanism to defeat unless correctly used with a British plug.

All standard 13A MK sockets incorporate the 3-pin operated shutter system.

\*See individual ranges for exceptions



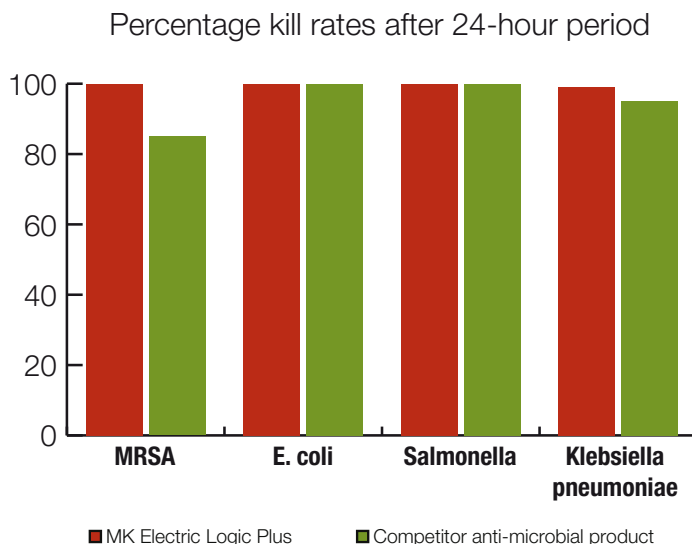
# MK ELECTRIC BRAND VALUES

## Safety

### Anti-Microbial Products

The issues around the cleanliness within health establishments such as hospitals, surgeries and dentists etc. continue to be raised by health professionals, government departments, the media and the general public.

In 2008, MK Electric commissioned independent testing on the Logic Plus range and a competitor's 'Anti-Microbial' range by a reputable independent UKAS accredited laboratory. The laboratory tested the products, after cleaning with disinfectant (the Government's 'Deep Clean' policy targeted all hospitals to adopt a deep clean program, which includes cleaning all fixtures and fittings). The organisms MRSA, E-Coli, Salmonella and Klebsiella Pneumoniae were applied to the products. Results were collected at 0 minutes, 4 hour, 8 hour and 24 hour intervals.



Source: MK commissioned report, 2008



## The Results

### MRSA

Logic Plus has a kill rate of 99.9% compared to the competitor's Anti Microbial product with only 86.4%. Both products had an equal 99.9% kill rate for **E-Coli** and **Salmonella**.

### Klebsiella Pneumoniae

Logic Plus has a kill rate of 98.9%, compared to the competitor's Anti Microbial product with 95.4%. The Logic Plus range is produced using Urea Formaldehyde, a high grade thermoset material, which has similar inherent properties to antimicrobial additives, which inhibit the growth of infectious diseases such as MRSA, E-Coli, Salmonella and Klebsiella Pneumoniae. In addition, Logic Plus products are scratch-free thanks to high quality mould tools, which means there are no dirt traps for bacteria to breed. Whilst cleanliness is key to fighting these infections, and not replaced by the use of MK's Logic Plus products, the independent results show that the range is more effective than a competitor's Anti-Microbial products at killing MRSA organisms and contributes beneficially to any hygiene regime.







MK SENSORS: ENERGY SAVING SOLUTIONS  
FOR LIGHTING CONTROL

## Responsibility

MK Electric, and the wider Honeywell business, has teams of engineers and technology specialists working to develop new products for our customers and processes for our business.

**Honeywell's energy efficient technologies help our global customers better meet the growing demand for electricity while curbing fossil fuel emissions. 50% of Honeywell's \$38.6 billion product portfolio is geared towards delivering energy savings and efficiency – from building management and process solutions systems to biofuel technologies and turbocharged engine platforms.**

To Honeywell, environmental stewardship means acting in a way that is both productive and sustainable. We design products that help conserve energy, reduce waste, and protect our homes, offices and public buildings. We help other companies become more efficient and productive with our products and solutions.

Honeywell solutions and technologies expand sustainable capacity and improve the efficiency of products and processes, fostering what we call our 'Sustainable Opportunity'.



ALL MK MANUFACTURING SITES ARE WORKING UNDER ENVIRONMENTAL MANAGEMENT SYSTEMS TO REDUCE THEIR IMPACT ON THE ENVIRONMENT

# JUST PRODUCTS THE WAY YOU WANT THEM

**The MK Design Service offers customers bespoke products, perfect for when only a customised solution can meet your requirements. Whether you want to highlight furnishings, accentuate lighting or simply blend in with the overall décor, our dedicated team can help to put the accent on style and creativity – from concept to completion.**

Sometimes though it's about more than just aesthetics. The MK Design Service Team have created additional tamper proof features on products destined for prisons or schools, unique combination plates hosting a range of European or worldwide sockets for global hotel chains along with many other custom solutions, in order to satisfy specific project requirements.

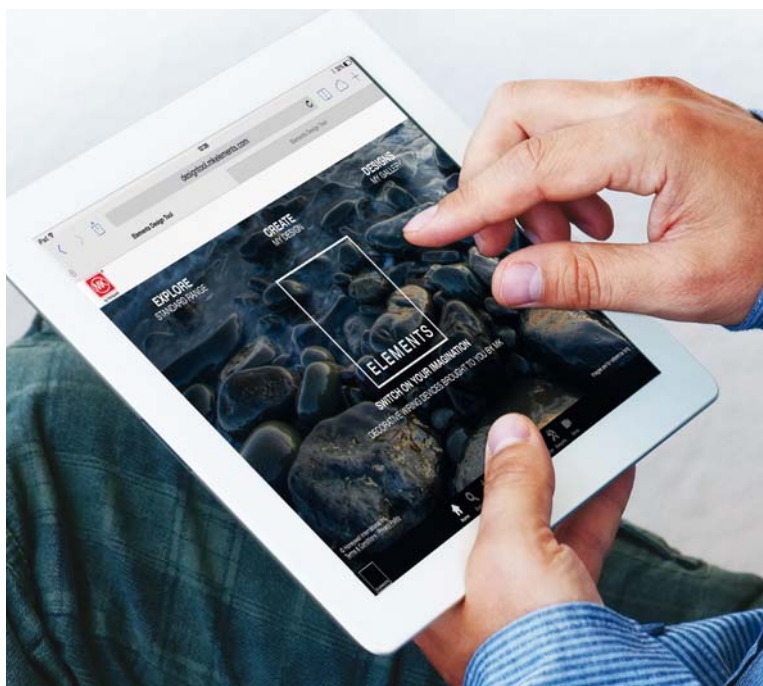
## The Right Tools

The MK Design Service Team spent six months interviewing architects and interior designers to assess how technology could help them do a better job of delivering bespoke light switches and electric sockets for their clients and the results were fascinating. The designers interviewed all stressed the importance of instantaneous samples in order to effectively source materials for a room or space. Paired with this, the ability to change that sample graphically in real time was also a key priority.

For example, if a designer is with a client or customer and there are 5-6 different finishes that may work for a room – they may be looking for the perfect front plate to match a black granite countertop or a metallic finish to blend with stainless steel appliances.

The tool allows designers to work with their clients to narrow that selection down to 2-3 just by having the ability to show the selected background or surroundings.

*The MK Electric Design Tool is optimised to work with MK Elements Collection on a tablet or laptop\*.*



Ultimately ensuring designers are equipped with a tool where they can produce, store and manage their own wiring accessory designs – with the ability to generate thousands of new design combinations with different colours, textures and materials – will result in satisfied clients, quicker turnaround for room completion and further differentiation from competitors.



## Function

In addition to the aesthetics of the product, the MK Design Service Team can work with you to create bespoke functionality into your creation.

Giving you total control at your fingertips. Such functionality could include enhanced security features, providing you with a product suitable for the most demanding environments.



## Figure

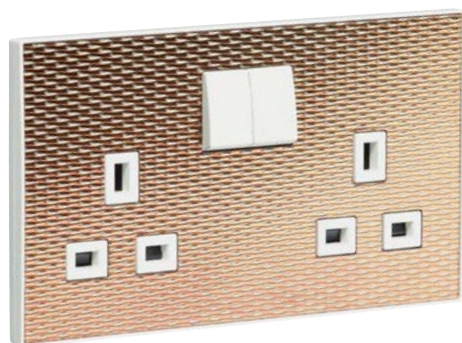
The devil is in the detail, you can add a level of detail that identifies key functions or adds that personal or corporate touch with discreet logos, symbols or text.



## Form

If square and rectangle do not suit, then that's not a problem. Together with MK, design unique shapes to suit your aspirations.

Good design however, is nothing without delivery. The MK Design Service is totally focused on achieving the perfect result, utilising its technical, manufacturing and supply expertise to ensure your vision is realised.



*Turn an idea into reality, a desire into a finished design, an inspiration into a statement. MK's Design Service Team can help you achieve your design goals.*



# HONEYWELL'S SUSTAINABLE OPPORTUNITY POLICY



**Based on the principle that by integrating health, safety, and environmental considerations into all aspects of its business, Honeywell protects its people, its communities, and the environment; achieves sustainable growth and accelerated productivity; drives compliance with all applicable regulations; and develops technologies that expand the sustainable capacity of our world.**

## Greenhouse Gas and Energy Efficiency

Our commitment to be more efficient and responsible is reflected in the extensive work we do to make our businesses more environmentally friendly, safer, and more sustainable. By 2019 Honeywell will reduce our global greenhouse gas emissions by an additional 10 percent per dollar of revenue from our 2013 levels.

We exceeded our first public goal to reduce global greenhouse gases by more than 30 percent and improve energy efficiency by more than 20 percent between 2004 and 2011.

A second five-year goal, set to reduce greenhouse gas emissions by an additional 15 percent per dollar of revenue from 2011 levels, was met three years early.

Since 2010, our facilities have implemented more than 2,100 efficiency projects including building automation/controls, lighting, and mechanical upgrades.

Honeywell is making our business more environmentally friendly, safer and more sustainable. By 2019, Honeywell will reduce our global green house gas emissions by an additional 10% per dollar of revenue from our 2013 levels.



## Safety

A sustainable environment is also a safe environment. Our corporate-wide core processes identify and address risks and promote a culture of safety excellence. In fact, we have achieved a safety record that is more than two times better than the average of the industries in which we do business.

Nearly 50 percent of our portfolio is dedicated to energy efficient products and services. From programmable thermostats and energy management systems to turbochargers and green fuels to industrial controls and lighter aircraft components, our technologies are building a world that is safer and more secure, more comfortable and energy efficient, and more innovative and productive... right now.

In fact, the use of Honeywell technologies could reduce energy demand in the United States and Europe by 20 to 25 percent if they were immediately and comprehensively adopted across the residential, commercial, industrial, and transportation sectors.

- ✓ 65% reduction in our green house gas emissions (arrow) 2004 -2017
- ✓ 60% increase in our energy efficiency 2004-2012.
- ✓ 20M Gallons of water conserved in water stressed areas.



# GETTING READY FOR LEVEL 2 BIM COMPLIANCE

Building Information Modeling (BIM), the generation and management of digital representations of physical and functional characteristics, has been around for over 20 years and has gained steady traction in the construction industry.



BIM, and the coordination, efficiency, cost and planning benefits it provides has been championed by the UK government. They have introduced legislation requiring all manufacturers to become Level 2 BIM compliant by 1st April 2016, ensuring they provide the minimum amount of data regarding products now being required for all UK Government projects.

Manufacturers already have the required information to become compliant, but a simple and industry-wide approach to product data parameters and templates has until now been a challenge.

The industry must come together to create a single and unified approach to product data. Without this, the cost and time savings released by BIM will not be achieved, as key functions such as clash detection and product compatibility issues will be missed. Environmental benefits from product re-use and recycling will also likely be overlooked.

MK Electric, alongside Honeywell, is leading the way in BIM standardisation for the industry working with BEAMA, CIBSE, the UK government, and several other manufacturers to ensure that the industry collaborates and defines a consistent way forward.

MK Electric is committed to supporting the evolving needs of the digital construction industry, by providing contractors, architects and consultants access to the accurate and reliable data they need to comply with relevant European and international standards.

Visit [mkelectric.co.uk](http://mkelectric.co.uk) for more information.



# ECHO™

## RANGE INTRODUCTION

Imagine switch technology and automated systems that need no wiring, use no batteries and are effortless to install and commission. Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches and controls which can work together offering even more convenience and energy saving opportunities.

Echo™ enables you to create your own automated control system for a domestic or commercial environment. With the ability to incorporate a range of transmitters from switches and presence detectors, alongside a range of receivers, the installer can create a flexible system which can deliver safety, comfort, cost savings and energy efficiency for the building owner or user.

The MK Echo™ portfolio is enabled by EnOcean technology. EnOcean based products make use of the energy generated by slight changes in pressure, light levels or temperature, to provide self-powered, batteryless and wireless solutions. This technology is used by many world leading manufacturers, products from these companies can be used together to provide solutions for energy efficient buildings which are more flexible and cost efficient to design, build and operate.

### FEATURES & BENEFITS

#### WIRELESS

Instant installation and location flexibility, reducing disruption and cost, as there is no need to run switching cables.

#### SELF-POWERED

Innovative patented technology to 'harvest' energy means zero maintenance as there are no batteries to change.

#### ULTIMATE FLEXIBILITY

Each receiver can be controlled by up to 32 switches/transmitters.

#### ENERGY SAVINGS

With additional local control, alongside the use of presence detectors users can create an energy efficient environment.

### HOW TO SPECIFY

A range of switches and controls which are self powered and to be enabled by EnOcean technology. Transmitters to be totally wireless and batteryless, with no direct connection to the final circuit. All transmitter modules to be available in a range of aesthetics and finishes which match to other required wiring accessories. Receivers to have the ability to be controlled by up to 32 switches/transmitters. All products to be manufactured in Europe.

# Echo™



## APPLICATION EXAMPLE: HOTEL BEDROOM

In this example the installer is able to create an automated system ensuring comfort for the guest, whilst delivering energy efficiency and cost savings for the hotel without disturbing the fabric of the room. In addition, with wireless transmitters, the layout and positioning is completely flexible and can be changed quickly without disruption.

The guest is able to easily control their local environment from a number of locations within the room. A 2 channel transmitter by the entry doorway enables control of both the bedroom and living area lighting. An additional 4 channel transmitter next to the bed gives further control of the bedroom and living area lighting and an all off function. There is additional control in the bathroom and on the balcony.

The hotel is able to control all lighting, heating and cooling by the card switch transmitter, ensuring guests do not leave lighting or air conditioning on when they leave the room. The hotel is also able to ensure a safe environment; the presence detector can be programmed to turn low level lighting on when a guest enters the room. In addition the presence detector can be programmed to turn lighting off, or dim to a low level when no presence is detected in the room but the card switch is still in place. Door contacts ensure the air conditioning is not in use whilst the balcony doors are open, offering further energy savings.



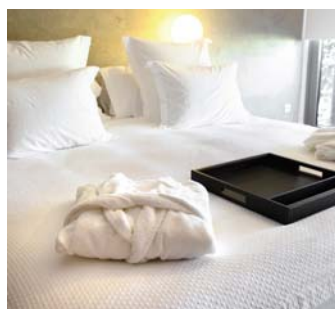
WIRELESS



BATTERYLESS



SELF-POWERED



SWITCH RECEIVER



PLUG-THROUGH SWITCH RECEIVER

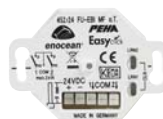


4 CHANNEL TRANSMITTER

- 1 - Living area lights
- 2 - Bedroom lights
- 3 - Plug-through light
- 4 - All off



1 CHANNEL TRANSMITTER



SWITCH RECEIVER

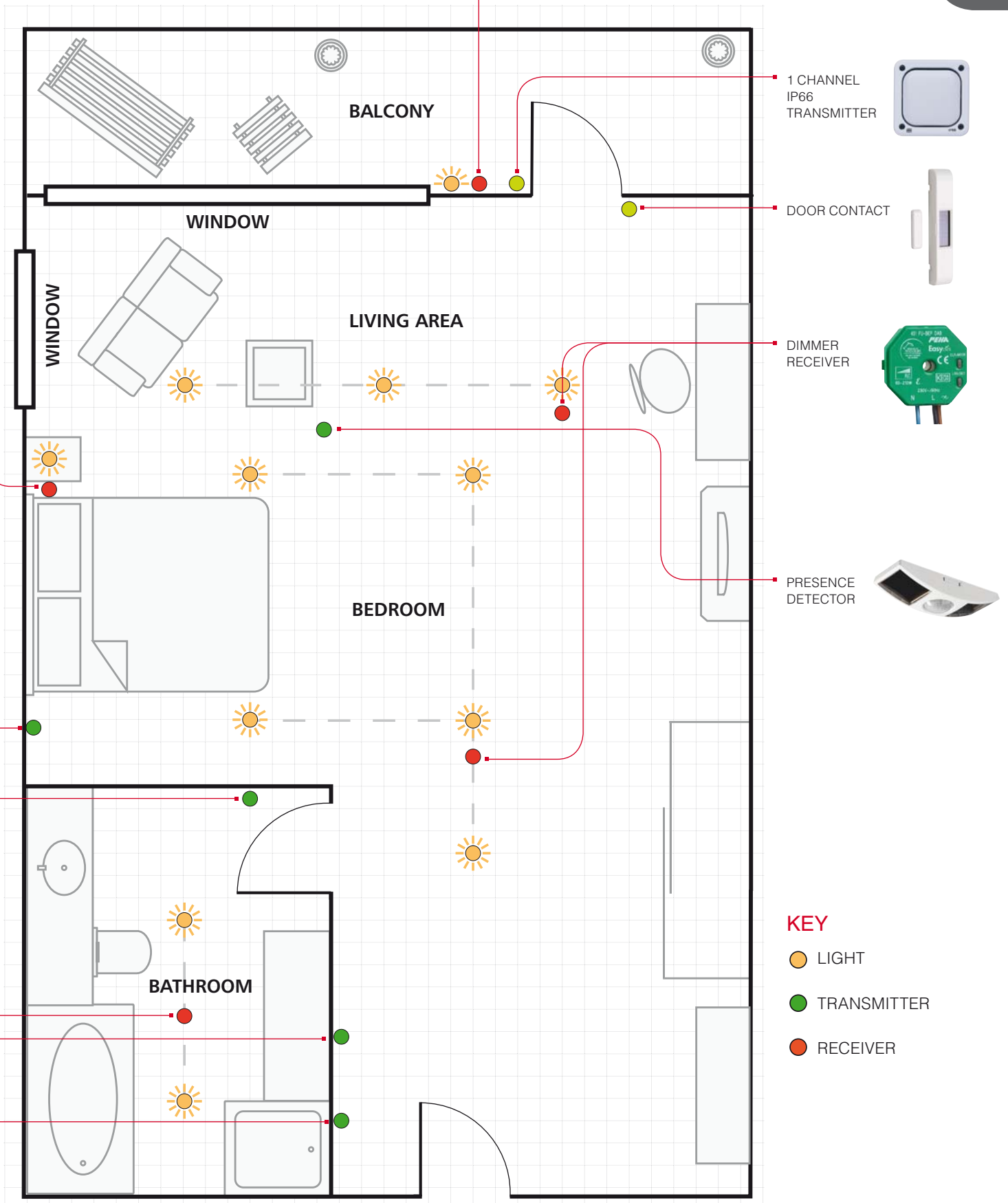


2 CHANNEL TRANSMITTER

- 1 - Bedroom Lights
- 2 - Living area



CARD TRANSMITTER



### Modular Transmitters

1 CHANNEL  
MODULAR  
TRANSMITTER

2 CHANNEL  
MODULAR  
TRANSMITTER

MODULAR  
CARD SWITCH  
TRANSMITTER

#### FINISHES

WHITE

K5786WHI

1

K5789WHI

1

K5744CWHI

1

BLACK

K5786BLK

1

K5789BLK

1

K5744CBLK

1

ALUMINIUM

K5786ALU

1

K5789ALU

1

K5744CALU

1

For use with K5776, K5779 frames and K5412 locator.

#### OPERATING FREQUENCY

868.3Mhz

#### IP RATING

IP2 x D

#### DIMENSIONS

55 x 55mm

ETSI EN 301489-1/3

ETSI EN 300220-1/2

For use with K5776, K5779 frames and K5412 locator.

#### OPERATING FREQUENCY

868.3Mhz

#### IP RATING

IP2 x D

#### DIMENSIONS

55 x 55mm

ETSI EN 301489-1/3

ETSI EN 300220-1/2

For use with K5776, K5779 frames and K5412 locator.

#### OPERATING FREQUENCY

868.3Mhz

#### IP RATING

IP2 x D

#### DIMENSIONS

55 x 55mm

ETSI EN 301489-1/3

ETSI EN 300220-1/2

**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied.

All can be mounted to back boxes – screws supplied.

Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads







## Modular Frames

1G FRAME  
GLOSSY FINISH

2G FRAME  
GLOSSY FINISH

1G FRAME  
GLOSSY FINISH

2G FRAME  
GLOSSY FINISH

| FINISHES  |  |  | FINISHES                 |  |  |
|-----------|---|---|--------------------------|---|---|
| WHITE     | K5776WHI 1  | K5779WHI 1  | GLASS, BLACK             | K5776GLAB 1   | K5779GLAB 1   |
| BLACK     | K5776BLK 1  | K5779BLK 1  | GLASS, GREEN             | K5776GLAG 1   | K5779GLAG 1   |
| ALUMINIUM | K5776ALU 1  | K5779ALU 1  | GLASS, ALUMINIUM         | K5776GLAA 1   | K5779GLAA 1   |
|           |   |   | GLASS, GROOVED ALUMINIUM | K5776GLAGA 1  | K5779GLAGA 1  |

For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters.  
Surface mount installation only.

**DIMENSIONS**  
83 x 83mm

For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters.  
Surface mount installation only.

**DIMENSIONS**  
83 x 154mm

For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters.  
Surface mount installation only.

**DIMENSIONS**  
85 x 85mm

For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters.  
Surface mount installation only.

**DIMENSIONS**  
85 x 157mm

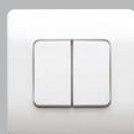
**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied.

All can be mounted to back boxes – screws supplied.

Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads

## Transmitters

## Logic Plus™

1 CHANNEL  
TRANSMITTER2 CHANNEL  
TRANSMITTER

| FINISHES |           |           |
|----------|-----------|-----------|
| WHITE    | K4786WHI1 | K4789WHI1 |
| GRAPHITE | K4786GRA1 | K4789GRA1 |

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

## Aspect

1 CHANNEL  
TRANSMITTER2 CHANNEL  
TRANSMITTER

| FINISHES                |            |                |
|-------------------------|------------|----------------|
| BRUSHED STAINLESS STEEL | K23476BSS* | 1 K23477BSS* 1 |
| LACQUERED BRUSHED STEEL | K23476LBS* | 1 K23477LBS* 1 |
| BRUSHED CHROME          | K23476BRC* | 1 K23477BRC* 1 |
| POLISHED CHROME         | K23476POC* | 1 K23477POC* 1 |
| SATIN GOLD              | K23476SAG* | 1 K23477SAG* 1 |
| PORCELAIN WHITE         | K23476WHIW | 1 K23477WHIW 1 |
| LUSTROUS IVORY          | K23476LIVW | 1 K23477LIVW 1 |
| LUSTROUS BLACK          | K23476LBKB | 1 K23477LBKB 1 |
| POLISHED BRASS          | K23476PBR* | 1 K23477PBR* 1 |
| TEXTURED IRON           | K23476TIRB | 1 K23477TIRB 1 |
| DESERT BRONZE           | K23476DBZB | 1 K23477DBZB 1 |
| ANTIQUE BRASS           | K23476ABSB | 1 K23477ABSB 1 |
| TEXTURED COPPER         | K23476TCOB | 1 K23477TCOB 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.

Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads

## Insignia

1 CHANNEL  
TRANSMITTER



2 CHANNEL  
TRANSMITTER



## Albany Plus™

1 CHANNEL  
TRANSMITTER



2 CHANNEL  
TRANSMITTER



|            |   |            |   |          |   |          |   |
|------------|---|------------|---|----------|---|----------|---|
| K13476BSS* | 1 | K13477BSS* | 1 | K4766BSS | 1 | K4767BSS | 1 |
| K13476LBS* | 1 | K13477LBS* | 1 |          |   |          |   |
| K13476BRC* | 1 | K13477BRC* | 1 | K4766BRC | 1 | K4767BRC | 1 |
| K13476POC* | 1 | K13477POC* | 1 | K4766PCR | 1 | K4767PCR | 1 |
| K13476SAG* | 1 | K13477SAG* | 1 | K4766SAG | 1 | K4767SAG | 1 |
| K13476WHIW | 1 | K13477WHIW | 1 |          |   |          |   |
| K13476LIVW | 1 | K13477LIVW | 1 |          |   |          |   |
| K13476LBKB | 1 | K13477LBKB | 1 |          |   |          |   |
| K13476PBR* | 1 | K13477PBR* | 1 |          |   |          |   |
| K13476TIRB | 1 | K13477TIRB | 1 |          |   |          |   |
| K13476DBZB | 1 | K13477DBZB | 1 |          |   |          |   |
| K13476ABSB | 1 | K13477ABSB | 1 |          |   |          |   |
| K13476TCOB | 1 | K13477TCOB | 1 |          |   |          |   |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

OPERATING FREQUENCY  
868.3Mhz  
IP RATING  
IP2 x D  
DIMENSIONS  
86 x 86mm  
ETSI EN 301 489-1 + -3 :  
ESTI EN 300 220-3

**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied.  
Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads

## Echo™



## Transmitters

## Metalclad Plus™

1 CHANNEL  
TRANSMITTER2 CHANNEL  
TRANSMITTER

## Masterseal Plus™

1 CHANNEL  
TRANSMITTER2 CHANNEL  
TRANSMITTER

## Other

REMOTE  
CONTROL  
TRANSMITTERWINDOW/  
DOOR CONTACT  
TRANSMITTER

## FINISHES

ALUMINIUM

K3786ALM

1

K3787ALM

1

GREY

K55400GRY

1

K55406GRY

1

WHITE

K3786WHI

1

K3787WHI

1

K55400WHI

1

K55406WHI

1

BLACK

K55400BLK

1

K55406BLK

1

K5417R

1

K5421

1

## OPERATING

## FREQUENCY:

868.3 Mhz

## IP RATING

IP2 x D

## DIMENSIONS

50 x 82 x 21mm

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

Provides interlock  
functionality for use  
with multi-function  
receivers.

Solar powered.

## OPERATING

## FREQUENCY:

868.3Mhz

## IP RATING

IP40

## DIMENSIONS

110 x 19 x 15mm

and 23 x 14 x 6mm

BS EN 301489-1/3

BS EN 300220-1/2

## OPERATING

## FREQUENCY

868.3 Mhz

## IP RATING

IP2 x D

## DIMENSIONS

86 x 86mm

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

## OPERATING

## FREQUENCY

868.3 Mhz

## IP RATING

IP2 x D

## DIMENSIONS

86 x 86mm

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

## OPERATING

## FREQUENCY

868.3 Mhz

## IP RATING

IP66

## DIMENSIONS

95 x 95 x 57mm

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

## OPERATING

## FREQUENCY

868.3 Mhz

## IP RATING

IP66

## DIMENSIONS

95 x 95 x 57mm

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads



## Receivers

### 1 Channel Switch Receivers

### 2 Channel Switch Receivers

### 1 Channel Dimmer Receiver



#### K5432R 1 CHANNEL MULTI-FUNCTION SWITCH RECEIVER

1

Multi-functional device with repeater functionality providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

**SUPPLY**  
230V / 50Hz  
**LOAD RATINGS**  
GLS/Incandescent: 2500W  
Halogen: 1200W  
Inductive: 600VA  
**ELECTRONIC BALLASTS**  
3 units  
**OPERATING FREQUENCY**  
868.3MHz  
**DIMENSIONS**  
Depth: 27mm  
BS EN 60669-2-1  
BS EN 301489-1/3  
BS EN 300220-1/2

#### K5431R 1 CHANNEL VOLT-FREE, MULTI-FUNCTION SWITCH RECEIVER

1

Multi-functional device with repeater functionality providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

**SUPPLY**  
230V / 50Hz  
**LOAD RATINGS**  
GLS/Incandescent:  
1200W @ 230Vac  
50W @ 30Vdc  
Halogen: 600W @ 230Vac  
**OPERATING FREQUENCY**  
868.3MHz  
**DIMENSIONS**  
Depth: 27mm  
BS EN 60669-2-1  
BS EN 301489-1/3  
BS EN 300220-1/2

#### K5437R 1 CHANNEL MULTI-FUNCTIONAL SWITCH RECEIVER LEADED

1

Multi-functional device with repeater functionality providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

**SUPPLY**  
230V / 50Hz  
**LOAD RATINGS**  
GLS/Incandescent: 2500W  
Halogen: 1200W  
Inductive: 600VA  
**ELECTRONIC BALLASTS**  
3 units  
**OPERATING FREQUENCY**  
868.3MHz  
**DIMENSIONS**  
Depth: 27mm  
BS EN 60669-2-1  
BS EN 301489-1/3  
BS EN 300220-1/2

#### K5433R 2 CHANNEL MULTI-FUNCTION SWITCH RECEIVER

1

Multi-functional device with repeater functionality providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

**SUPPLY**  
230V / 50Hz  
**LOAD RATINGS**  
(per channel)  
GLS / incandescent: 500W  
Halogen: 100W  
Inductive: 100VA  
Electronic Ballasts: 1 unit  
**OPERATING FREQUENCY**  
868.3MHz  
**DIMENSIONS**  
Depth: 27mm  
BS EN 60669-2-1  
BS EN 301489-1/3  
BS EN 300220-1/2

#### K5436R 1 CHANNEL MULTI-FUNCTIONAL DIMMER RECEIVER LEADED

1

Multi-functional device providing: soft start, turn-on memory, switch, stairwell and scene operating modes.

**SUPPLY**  
230V / 50Hz  
**LOAD RATINGS**  
60-210W  
Suitable for use with GLS/ Incandescent/Halogen lamps and 12V low voltage lighting powered by dimmable electronic transformers only.  
**OPERATING FREQUENCY**  
868.3MHz  
**DIMENSIONS**  
Depth: 27mm  
BS EN 60669-2-1  
BS EN 301489-1/3  
BS EN 300220-1/2

# Echo™



## Receivers

### Plug-Through Receiver

### Alternative Receiver



#### **K5427S** PLUG-THROUGH SWITCH

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

##### SUPPLY

230V / 50Hz

##### LOAD RATINGS

GLS/Incandescent: 2500W

Halogen: 1250W

Inductive: 600VA

Electronic Ballasts: 3 units

##### OPERATING FREQUENCY

868.3MHz

##### DIMENSIONS

130 x 68 x 48mm

BS EN 60669-2-1

BS EN 301489-1/3

BS EN 300220-1/2



1

#### **K5420R** 10AX SWITCH RECEIVER/REPEATER

##### OPERATING FREQUENCY

868.3MHz

##### IP RATING

IP2 x D

##### DIMENSIONS

175.5 x 50.3 x 32.25mm

BS EN 60669-1 :

BS EN 60669-2-1 :

ETSI EN 301 489-1 + -3 :

ESTI EN 300 220-3

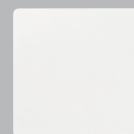
1



## Presence Detector

## Accessories

SOLAR-PRESENCE  
DETECTOR



**K5756** 1  
SENDS WIRELESS  
SIGNALS TO RECEIVING  
DEVICES WHEN MOTION  
IS DETECTED.

HARVESTS INDOOR LIGHT  
TO POWER THE SENSOR  
WITH OPTIONAL BACKUP  
BATTERY.

### OPERATING FREQUENCY

868.3Mhz

### IP RATING

IP50

### DIMENSIONS

160 x 60 x 37mm

EN301489-1/3

EN300220-1/2

**K5412L** 1  
LUMINOUS LOCATOR  
FRAME FOR USE WITH  
MODULAR TRANSMITTERS

**K4710P** 1  
SURFACE MOUNTED  
PATTRESS FOR USE WITH  
LOGIC PLUS™ TRANSMITTER

**K55000GRY** 1  
**K55000WHI** 1  
**K55000BLK** 1  
IP66 ENCLOSURE FOR USE  
WITH RECEIVERS, CHECK  
INDIVIDUAL RECEIVER  
DIMENSIONS

**KPAD** 1  
ADHESIVE PAD  
FOR USE WITH LOGIC  
PLUS™ SWITCH  
TRANSMITTER AND  
ASPECT SWITCH  
TRANSMITTER

**MOUNTING SWITCH TRANSMITTERS:** All can be mounted directly to the wall surface – screws supplied.

All can be mounted to back boxes – screws supplied.

Logic Plus™ and Aspect type transmitters can also be mounted using supplied adhesive pads



# LOGIC PLUS™

## RANGE INTRODUCTION

Logic Plus™ wiring devices from MK Electric have been designed to perfectly complement modern interiors, offering an unobtrusive and sophisticated look totally in keeping with today's design.

Technically, they exceed British Standard requirements with patented features that make these products the most advanced and safest available.

Logic Plus™ products are made from a high grade thermoset material which has an inherent antimicrobial property.

The Logic Plus™ products were equal to, or exceeded, competitor 'Anti-Bac' products when tested for resistance to MRSA, E.Coli, Salmonella and Klebsiella pneumoniae.

They are easy to install and available through our extensive distributor network. The range is backed by MK's quality and reliability and provides the largest selection of wiring devices in any single range.

### HOW TO SPECIFY

A Urea moulded Anti-Bacterial range of wiring accessories, designed with a soft curved edge and a chamfered top edge that prevents dust collection, whilst offering a slim unobtrusive appearance. Cable connections must be upward facing, with easy to identify white markings on a dark background and grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts arranged such that the neutral pole makes before and breaks after the live pole to improve safety.

## FEATURES & BENEFITS

### TOTAL SAFETY

3-pin operated 'child resistant shutter system', which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position. Logic Plus™ products include an inherent antimicrobial property as a result of the high grade thermoset material used to manufacture.

### UNRIVALLED QUALITY AND RELIABILITY

Products are made from the very best materials and production processes. All products are 100% tested.

### QUICK AND EASY TO INSTALL

Features to ensure a quick and easy installation come as standard across the range, including in-line terminals, funnel entrances to terminals, backed out and captive screws and clear terminal markings.

### EXTENSIVE RANGE

Outstanding selection of wiring devices providing a total solution.

### 20 YEAR GUARANTEE

Gives total peace of mind to you and your customers. (Up to 10 year guarantee on electronic products)



CONTOURED TO BLEND INTO THE WALL

**DOUBLE POLE SWITCHING**  
Switches both live and neutral (neutral makes first, breaks last) means added safety for the user

**OPTIONAL NEON INDICATOR SHOWS WHEN SWITCH IS ON**

**3mm MINIMUM SWITCH CONTACT GAP**

**3-PIN "CHILD RESISTANT SHUTTER SYSTEM"**  
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

**HIGH GLOSS, HIGH QUALITY THERMOSET MATERIAL**  
Inherent antimicrobial properties, resists scratching, maintains appearance

**TERMINAL SCREWS**  
Backed out and held captive within the terminal housing

**TERMINAL MARKINGS**  
Clearly marked on all rear mouldings

**IN-LINE TERMINALS**  
Allow wire to be cut stripped to the same length

**FUNNEL ENTRANCE TO TERMINALS**  
Terminals are upwards facing to make installation easier

**DUAL EARTH TERMINALS**  
Available for installations that require high integrity earthing



Comprehensive range of Part M compliant products including socket outlets with outboard rockers, wide rocker switches and graphite coloured frontplates



Combined TV, FM, DAB, satellite and telephone sockets save on installation time and space



Simple but effective screwless cord grip on connection units – securely holds the cable

## Specification Notes



The 3 pin operated safety shutter makes Logic Plus™ sockets the safest available.



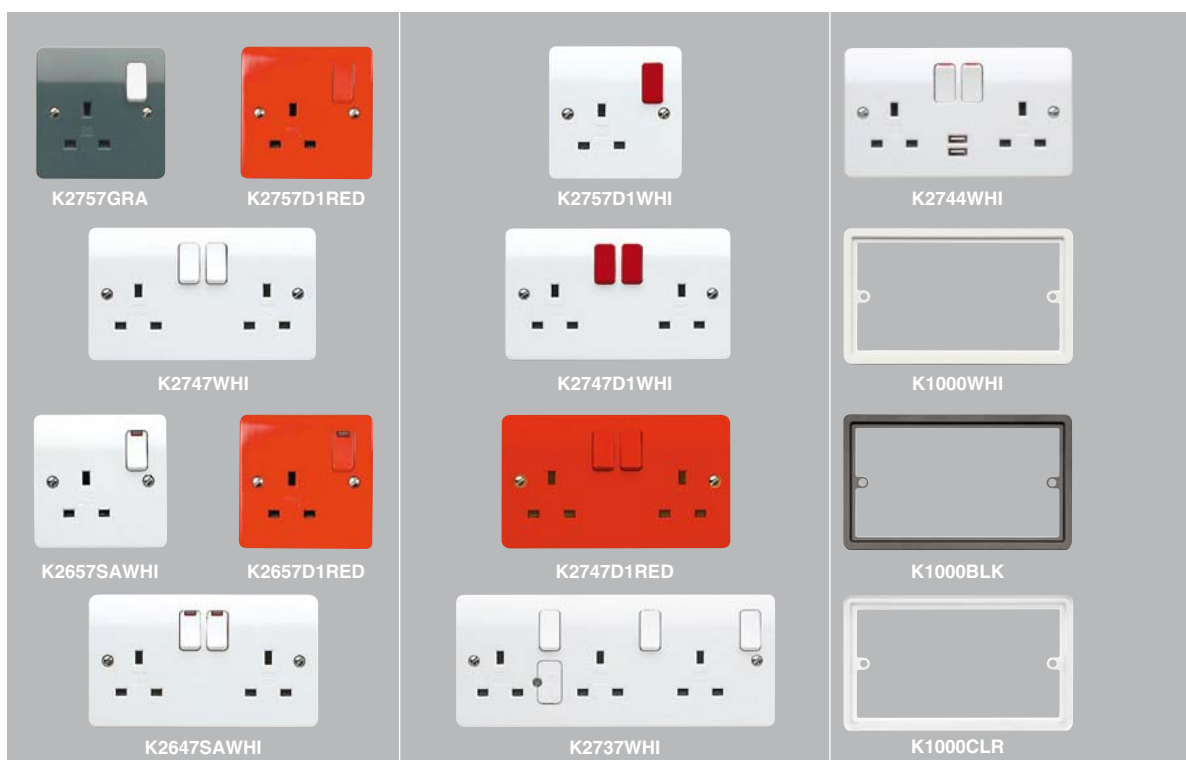
Many sockets are fitted with two earth terminals to provide high integrity earthing.



Terminals are grouped in-line with terminal screws backed out ready for easy wiring. Clear marking on dark background makes the terminals easily identifiable.

## Switchsocket Outlets

FLUSH  
13 AMP



|  |    |
|--|----|
| <b>K2757SAWHI</b>  | 10 |
| <b>K2757GRA</b>  | 10 |
| 1 GANG DP<br>WITH DUAL EARTH TERMINALS   |    |
| <b>K2757D1RED</b>  | 5  |
| 1 GANG DP<br>WITH RED FRONTPLATE, RED ROCKER<br>AND DUAL EARTH TERMINALS       |    |
| <b>K2747WHI</b>  | 50 |
| 2 GANG DP  |    |
| <b>K2657SAWHI</b>  | 10 |
| <b>K2657GRA</b>  | 10 |
| 1 GANG DP WITH NEON<br>AND DUAL EARTH TERMINALS                                |    |
| <b>K2657D1RED</b>  | 5  |
| 1 GANG DP<br>WITH RED FRONTPLATE, RED ROCKER,<br>NEON AND DUAL EARTH TERMINALS |    |
| <b>K2647SAWHI</b>  | 5  |
| 2 GANG DP WITH NEONS   |    |

|                          |                  |
|--------------------------|------------------|
| <b>MOUNTING BOXES</b>    | 3 GANG: K2153WHI |
| <b>FLUSH 25MM</b>        |                  |
| 1 GANG: 861ZIC           |                  |
| 2 GANG: 862ZIC           |                  |
| <b>FLUSH 35MM</b>        |                  |
| (for extra wiring space) |                  |
| 1 GANG: 866ZIC           |                  |
| 2 GANG: 866ZIC           |                  |
| 3 GANG: K863             |                  |
| <b>SURFACE</b>           |                  |
| 1 GANG: K2140WHI         |                  |
| 2 GANG: K2142WHI         |                  |

|                       |
|-----------------------|
| <b>DIMENSIONS</b>     |
| 1 GANG: 86 x 86mm     |
| 2 GANG: 86 x 146mm    |
| 3 GANG: 86 x 206mm    |
| <b>FIXING CENTRES</b> |
| 1 GANG: 60.3mm        |
| 2 GANG: 120.6mm       |
| 3 GANG: 180.9mm       |
| BS 1363 Pt 2:1995     |

|  |    |
|--|----|
| <b>K2757D1WHI</b>  | 10 |
| 1 GANG DP<br>WITH RED ROCKER<br>AND DUAL EARTH TERMINALS   |    |
| <b>K2757D2WHI</b>  | 10 |
| 1 GANG DP<br>WITH GREEN ROCKER AND DUAL<br>EARTH TERMINALS |    |
| <b>K2747D1WHI</b>  | 5  |
| 2 GANG DP<br>WITH RED ROCKERS                              |    |
| <b>K2747D1RED</b>  | 5  |
| 2 GANG DP<br>WITH RED FRONTPLATE AND<br>RED ROCKERS        |    |
| <b>K2737WHI</b>  | 5  |
| 3 GANG DP<br>WITH DUAL EARTH TERMINALS                     |    |

**HIGH INTEGRITY EARTHING**  
**K2757, K2657, K2743 and K2737**  
Fitted earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671 IET Wiring Regulations

**K2737**

13A fuse protects all three outlets

|   |   |
|---|---|
| <b>K2744WHI</b>   | 1 |
| <b>K2744GRA</b>   | 1 |
| 2 GANG DP WITH 2 X USB<br>CHARGING PORTS<br>AND DUAL EARTH<br>TERMINALS |   |
| <b>K1000WHI</b>   | 1 |
| 2 GANG 10MM<br>WHITE PATRESS  |   |
| <b>K1000BLK</b>   | 1 |
| 2 GANG 10MM<br>BLACK PATRESS  |   |
| <b>K1000CLR</b>   | 1 |
| 2 GANG 10MM<br>CLEAR PATRESS  |   |

**MOUNTING BOXES**  
**FLUSH 25MM**  
862ZIC  
**FLUSH 47MM**  
(for extra wiring space)  
887ZIC  
BS 5733:2010

**K2744WHI**  
Features 2 USB charging sockets, each capable of supporting 2A charge (total of 2A)

**K1000WHI, K1000BLK, K1000CLR**  
Patresses for use where existing back box is too shallow

WITH OUTBOARD  
ROCKERS  
FLUSH  
13 AMP



K2746WHI



K2746GRA



K2476WHI



K2476GRA



K2746D1WHI



K2746D1RED



K2746D2WHI



**K2746WHI** 10  
**K2746GRA** 10  
 2 GANG DP  
 WITH OUTBOARD ROCKERS  
 AND DUAL EARTH TERMINALS  
**K2746CEWHI** 10  
 2 GANG DP  
 WITH OUTBOARD ROCKERS  
 AND 'CLEAN EARTH' FACILITY  
**K2476WHI** 10  
**K2476GRA** 10  
 2 GANG DP  
 WITH OUTBOARD ROCKERS  
 DUAL EARTH AND NEONS  
**K2746CEWHI** 10  
 2 GANG DP  
 WITH OUTBOARD ROCKERS,  
 NEONS AND 'CLEAN EARTH'  
 FACILITY

**K2746CEWHI & K2476CEWHI**  
 Provided with facility for 'clean earth' connection  
**DIMENSIONS**

86 x 146mm  
**FIXING CENTRES**  
 120.6mm

BS 1363 Pt 2:1995

**HIGH INTEGRITY EARTHING**

Fitted earth terminals to provide a double earth  
 facility for use when installations require a high  
 integrity protective connection as specified within  
 BS 7671 IET Wiring Regulations

**K2746D1WHI** 10  
**K2746D1RED** 10  
 2 GANG DP  
 WITH RED OUTBOARD  
 ROCKERS AND DUAL  
 EARTH TERMINALS  
**K2746CED1RED** 10  
 2 GANG DP WITH RED  
 OUTBOARD ROCKERS  
 WITH CLEAN EARTH  
 FACILITY  
**K2476D1WHI** 10  
**K2476D1RED** 10  
 2 GANG DP  
 WITH RED OUTBOARD  
 ROCKERS, NEONS AND  
 DUAL EARTH TERMINALS  
**K2746D2WHI** 10  
 2 GANG DP  
 WITH GREEN OUTBOARD  
 ROCKERS AND DUAL  
 EARTH TERMINALS

**DIMENSIONS**

86 x 146mm  
**FIXING CENTRES**  
 120.6mm

BS 1363 Pt 2:1995

RCD PROTECTED  
 FLUSH  
 13 AMP

FILTERED  
 FLUSH  
 13 AMP



K6231WHI



K6233WHI



K6300WHI



K6303WHI



K1816WHI



K1826WHI



K1800WHI

**K6231WHI** 1  
 2 GANG SP  
 30mA RATED TRIPPING  
 CURRENT  
 ACTIVE CONTROL CIRCUIT  
**K6233WHI** 1  
 2 GANG SP  
 30mA RATED TRIPPING  
 CURRENT  
 PASSIVE CONTROL CIRCUIT

**MOUNTING BOXES**  
**FLUSH**

886ZIC – 35mm deep

**SURFACE**

K2140WHI – 30mm deep

**EARTH PIN OPERATED SHUTTER**

These a.c. and pulsating d.c. fault current sensitive products have up to 15mm thick frontplates and are suitable for boxes with 30mm min. depth and supply voltages of 240V 50Hz.

A 25mm deep box (862ZIC) can be used but conduit entry is restricted.

Refer to Sentrysocket section, page 288, for more information on active and passive control circuits.

**DIMENSIONS**

86 x 146mm

**FIXING CENTRES**

120.6mm

BS 7288:1990

All units are a.c. and pulsating d.c. fault current sensitive devices.

Maximum total load 13A

**K6300WHI** 1  
 1 GANG DP  
 30mA RATED TRIPPING  
 CURRENT ACTIVE  
 CONTROL CIRCUIT  
**K6303WHI** 1  
 1 GANG DP  
 30mA RATED TRIPPING  
 CURRENT PASSIVE  
 CONTROL CIRCUIT

**MOUNTING BOXES**  
**FLUSH**

886ZIC – 35mm deep

**SURFACE**

K2140WHI – 30mm deep

**EARTH PIN OPERATED SHUTTER**

These a.c. and pulsating d.c. fault current sensitive products have up to 15mm thick frontplates and are suitable for boxes with 30mm min. depth and supply voltages of 240V 50Hz.

A 25mm deep box (862ZIC) can be used but conduit entry is restricted.

Refer to Sentrysocket section, page 288, for more information on active and passive control circuits.

**DIMENSIONS**

86 x 146mm

**FIXING CENTRES**

120.6mm

BS 7288:1990

All units are a.c. and pulsating d.c. fault current sensitive devices.

Maximum total load 13A

**K1816WHI** 1  
 2 GANG DP  
 SPIKE  
**K1826WHI** 1  
 2 GANG DP  
 SPIKE AND RFI  
**K1800WHI** 5  
 REPLACEMENT FILTER  
 CASSETTE

**MOUNTING BOXES**

**FLUSH**

886ZIC

**SURFACE**

K2172WHI

**K1816**

Provides filtering to reduce voltage spikes only.

**K1826**

Provides two way filtering to reduce voltage spikes and radio frequency interference on the mains. Protected by thermal cut-out.

BS 5733:2010



## Multimedia Plates

FLUSH  
13 AMP



**K2741WHI** 1  
2 GANG DP  
COMBINATION PLATE  
WITH 4 X EURO APERTURE  
**K2740WHI** 1  
4 GANG DP  
COMBINATION PLATE WITH  
TV/FM/DAB/SAT X 2 QUAD,  
TV, TELEPHONE AND  
4 X EURO APERTURE

### MOUNTING BOXES

FLUSH 35MM  
2 GANG: 857ZIC\*  
4 GANG: 853ZIC\*

FLUSH 47MM

2 GANG: 858ZIC\*  
4 GANG: 854ZIC\*

### DIMENSIONS

K2741: 173 x 146mm  
K2740: 173 x 294mm  
BS 1363 Pt 2:1995

\*Provides segregation between power and TV/FM/SAT/DAB/  
Euro Module sections

## Switchsocket Outlets

NON STANDARD  
FLUSH  
13 AMP



**K1257WHI** 10  
1 GANG DP  
**K1246WHI** 5  
2 GANG DP  
**K1257D1WHI** 10  
1 GANG DP  
WITH RED ROCKER  
**K1246D1WHI** 5  
2 GANG DP  
WITH RED ROCKERS  
**K1246D1RED** 5  
2 GANG DP  
WITH RED FRONTPLATE  
AND RED ROCKERS

### MOUNTING BOXES

FLUSH 25MM

1 GANG: 861ZIC

2 GANG: 862ZIC

FLUSH 35MM (for extra wiring space)

1 GANG: 866ZIC. 2 GANG: 886ZIC

### SURFACE

1 GANG: K2140WHI. 2 GANG: K2142WHI

These products are provided with facilities for 'clean earth'  
connection and are suitable for non standard plugs with 'T'  
shaped earth pin. See page 240.

### DIMENSIONS

1 GANG: 86 x 86mm

2 GANG: 86 x 146mm

### FIXING CENTRES

1 GANG: 60.3mm

2 GANG: 120.6mm

BS 1363 Pt 2:1995 where relevant

ROUND PIN  
FLUSH



**K2891WHI** 10  
1 GANG  
5A DP SHUTTERED  
**K2893WHI** 10  
1 GANG  
15A DP SHUTTERED  
**K2493WHI** 10  
1 GANG  
15A DP SHUTTERED  
WITH NEON

### MOUNTING BOXES

FLUSH

861ZIC (25mm)

866ZIC (35mm for extra wiring space)

### SURFACE

K2140WHI

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 546:1950

# Logic Plus™



## Socket Outlets

FLUSH  
13 AMP

ROUND PIN  
FLUSH

127V  
FLUSH  
15 AMP  
(NON UK)



K780SAWHI



K781SAWHI



K781RED



K770WHI



K771WHI



K772WHI



K2251WHI



K2252WHI

### K780SAWHI

10

1 GANG

### K781SAWHI

5

### K781RED

5

2 GANG  
WITH DUAL EARTH  
TERMINALS

MOUNTING BOXES  
FLUSH 25MM

1 GANG: 861ZIC

2 GANG: 862ZIC

FLUSH 35MM

(for extra wiring space)

1 GANG: 866ZIC

2 GANG: 886ZIC

SURFACE

1 GANG: K2140WHI

2 GANG: K2142WHI

K781 is fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671 IET Wiring Regulations

DIMENSIONS

1 GANG: 86 x 86mm

2 GANG: 86 x 146mm

FIXING CENTRES

1 GANG: 60.3mm

2 GANG: 120.6mm

BS 1363: Pt2:1995

### K770WHI

10

1 GANG

2A SHUTTERED

### K771WHI

10

1 GANG

5A SHUTTERED

### K772WHI

10

1 GANG

15A SHUTTERED

MOUNTING BOXES

FLUSH

861ZIC (25mm)

866ZIC

(35mm for extra wiring space)

SURFACE

K2140WHI

DIMENSIONS

86 x 86mm

FIXING CENTRES

60.3mm

BS 546:1950

### K2251WHI

10

1 GANG

SHUTTERED

(NON UK)

### K2252WHI

5

2 GANG

SHUTTERED

(NON UK)

MOUNTING BOXES

FLUSH 25MM

1 GANG: 861ZIC

2 GANG: 862ZIC

FLUSH 35MM

(for extra wiring space)

1 GANG: 866ZIC

2 GANG: 886ZIC

SURFACE

1 GANG: K2140WHI

2 GANG: K2142WHI

DIMENSIONS

1 GANG: 86 x 86mm

2 GANG: 86 x 146mm

FIXING CENTRES

1 GANG: 60.3mm

2 GANG: 120.6mm

SASO 2204:2003

## Socket Outlets

2P + E  
FLUSH  
16 AMP  
(NON UK)



K4150WHI



K4152WHI

## Three Pole Fan Isolator

FLUSH  
10 AMP



K4857WHI



K4859WHI



K4858



K2000

## Shaver Socket Outlet



K700WHI

## Shaver/Toothbrush Supply Units



K701WHI

### K4150WHI

1 GANG  
16A 250V  
SHUTTERED  
(NON UK)

### K4152WHI

2 GANG  
16A 250V  
SHUTTERED  
(NON UK)

#### MOUNTING BOXES

FLUSH 35MM

1 GANG: 866ZIC

2 GANG: 886ZIC

#### SURFACE

1 GANG: K2031WHI

2 GANG: K2172WHI

These products are not suitable for installation in 25mm boxes.

#### DIMENSIONS

1 GANG: 86 x 86mm

2 GANG: 86 x 146mm

#### FIXING CENTRES

1 GANG: 60.3mm

2 GANG: 120.6mm

IEC 60884-1:2006

10

5

### K4857WHI

WITH SWITCHLOCK  
AND PADLOCK

### K4859WHI

WITHOUT SWITCHLOCK

### K4858

SWITCHLOCK  
FOR FAN ISOLATOR

### K2000

PADLOCK

#### MOUNTING BOXES

FLUSH

3995ZIC

#### SURFACE

K2160WHI

For local isolation of fans with or without timers for repair or routine maintenance.

#### DIMENSIONS

86 x 86mm

FIXING CENTRES

60.3mm

BS EN 60669-2-4

1

10

10

1

### K700WHI

SHAVER SOCKET OUTLET  
200-250 VOLTS 50/60HZ

FUSED

INCORPORATES A SELF-RESETTING  
OVERLOAD DEVICE, LIMITING  
CURRENT TO 20VA.

#### MOUNTING BOXES

FLUSH

861ZIC

#### SURFACE

K2140WHI

Must not be installed in a bathroom or shower room.

Designed for wiring onto lighting circuits.

#### DIMENSIONS

86 x 86mm

FIXING CENTRES

60.3mm

BS 4573:1970

1

### K701WHI

SHAVER/TOOTHBRUSH  
SUPPLY UNIT

DUAL VOLTAGE

115/230V OUTPUT  
(220/240V 50/60HZ INPUT)

#### MOUNTING BOXES

FLUSH

878ZIC

#### SURFACE

K2172WHI

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts it meets BS EN 61558 making it safe for use in bathrooms. Insertion of a shaver/toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

#### DIMENSIONS

146 x 86mm

FIXING CENTRES

120.6mm

BS EN 61558-2-5:1998

1

## Features and Benefits



A screwless cord grip automatically clamps and securely holds the cable in connection units with base and front flex outlets



Switched units are double pole with neutral pole contacts 'making' before and 'breaking' after live contacts. Rockers with built-in indicators are available



When servicing or repairing appliances, fuse carriers remain attached to the frontplate when opened and can be padlocked for safety



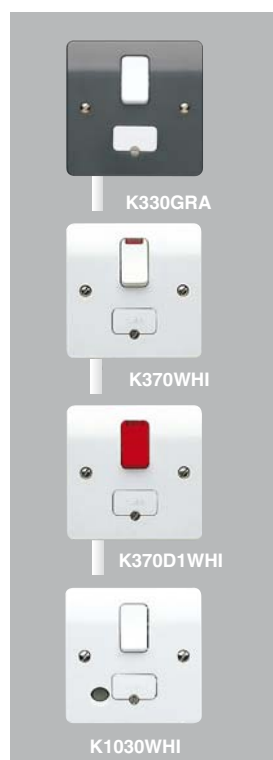
An optional tamperproof screw on fuse carriers is particularly useful for appliances in public areas



In-line terminals, backed out captive terminal screws and clear marking make installation easy

## Connection Units

### SWITCHED 13 AMP



**K330WHI**  
**K330GRA**  
DP WITH FLEX OUTLET IN BASE AND THICK FRONTPLATE  
**K370WHI**  
**K370GRA**  
DP WITH NEON, FLEX OUTLET IN BASE AND THICK FRONTPLATE  
**K370D1WHI**  
DP WITH NEON, FLEX OUTLET IN BASE, THICK FRONTPLATE AND RED ROCKER  
**K1030WHI**  
DP WITH FRONT FLEX OUTLET

#### MOUNTING BOXES K1030, K1040, K1060 and K1070

FLUSH  
866ZIC (35mm)  
SURFACE  
K2031WHI  
K330, K385 and K370  
FLUSH  
866ZIC (35mm)  
SURFACE  
K2140WHI

All units are fitted with a 13A fuse-link to BS 1362. See page 222 for spare fuse-links.

The fuse carrier can be locked in the open position by removing the fuse and using K2000 fuse carrier padlock

**K385WHI**  
13A RCD CONNECTION UNIT 30mA PASSIVE AND THICK FRONTPLATE  
**K1040WHI**  
DP  
**K1040KOWHI**  
DP WITH TAMPERPROOF SCREW  
**K1060WHI**  
DP WITH NEON  
**K1060D1WHI**  
DP WITH NEON AND RED ROCKER  
**K1070WHI**  
DP WITH FRONT FLEX OUTLET AND NEON  
**K1070D1WHI**  
DP WITH FRONT FLEX OUTLET, NEON AND RED ROCKER  
**K2000**  
PADLOCK

K1030 and K1070 front flex outlet products cannot be mounted directly onto M1 Cable Box K2131WHI. A mounting frame K2134WHI will have to be used between the product and the box.

Base entry frontplates are 12.5mm deep.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 1363 Pt 4:1995

### UNSWITCHED 13 AMP



**K337WHI**  
WITH FLEX OUTLET IN BASE AND THICK FRONTPLATE  
**K337KOWHI**  
WITH FLEX OUTLET IN BASE, THICK FRONTPLATE AND TAMPERPROOF SCREW FOR FUSE CARRIER  
**K377WHI**  
WITH FLEX OUTLET IN BASE, NEON AND THICK FRONTPLATE

#### MOUNTING BOXES: FLUSH 866ZIC (35mm) SURFACE K2140WHI

All units are fitted with a 13A fuse-link to BS 1362. See page 222 for spare fuse-links.

Base entry frontplates are 12.5mm deep. The fuse carrier can be locked in the open position by removing the fuse and using K2000 fuse carrier padlock.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 1363 Pt 4:1995  
**K1040KO AND K337KO**  
Key (3405ZIC) is supplied



## Dual Switch

FLUSH  
20 AMP



K5208WHI



K5207WHI

## DP Switches

FLUSH  
20 AMP



K5403WHI



K5423WHI



K5423WHWHI



K5423D1WHI

FLUSH  
32 AMP



K5105SAWHI

MOULDED  
FLUSH  
50 AMP



K5205WHI



K5215SAWHI



K5215CKWHI



K5215SHWHI

METAL  
50 AMP



K5230WHI



K5012WHI

**K5208WHI**  
**K5207WHI**  
WITH NEON

10  
10

FOR CONTROLLING DUAL  
IMMERSION HEATERS  
MOUNTING BOXES  
FLUSH  
866ZIC (35mm)  
SURFACE:  
K2140WHI

Only mounting boxes with an earth  
terminal should be used.  
These products are marked 'on' and  
'off' against the one-way DP switch and  
'sink' and 'bath' against the two-way  
SP switch.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS EN 60669-1:1999

**K5403WHI**  
WITH FLEX OUTLET IN BASE  
**K5423WHI**  
WITH FLEX OUTLET IN BASE  
AND NEON

10  
10

**K5423WHWHI**  
WITH FLEX OUTLET IN BASE,  
NEON AND MARKED  
'WATER HEATER'.

10

**K5423D1WHI**  
WITH FLEX OUTLET IN BASE,  
NEON AND RED ROCKER

10

**MOUNTING BOXES:**  
FLUSH  
866ZIC (35mm)

**SURFACE**  
K2140WHI  
K2031WHI (for extra wiring space)  
Base entry frontplates are  
12.5mm deep.

All switches are complete with earth  
terminals.  
Not recommended for switching large  
banks of PCs.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS EN 60669-1:1999

**K5105SAWHI**  
WITH NEON  
**K5105GRA**  
WITH NEON

1  
1

**MOUNTING BOXES:**

FLUSH  
866ZIC (6mm<sup>2</sup> conductors)  
877ZIC (10mm<sup>2</sup> conductors)  
**SURFACE**

K2140WHI (6mm<sup>2</sup> conductors)  
K2031WHI (10mm<sup>2</sup> conductors)  
Supplied with 8 self-adhesive plastic  
identification labels marked hob,  
fan, oven, water heater, shower, air  
conditioner, cooker and washing  
machine.

Not recommended for switching large  
banks of PCs.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS EN 60669-1:1999

**K5205WHI**  
**K5215SAWHI**  
WITH NEON  
**K5215CKWHI**  
WITH NEON  
AND MARKED 'COOKER'  
**K5215SHWHI**  
WITH NEON  
AND MARKED 'SHOWER'

1  
1  
1  
1

**MOUNTING BOXES:**  
FLUSH

886ZIC (6mm<sup>2</sup> conductors)  
878ZIC (10mm<sup>2</sup> conductors)

**SURFACE**  
K2172WHI  
**K5205WHI** and **K5215WHI**  
Supplied with 8 self-adhesive plastic  
identification labels marked hob,  
fan, oven, water heater, shower, air  
conditioner, cooker and washing  
machine.

Not recommended for switching large  
banks of PCs.

**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS EN 60669-1:1999

**K5230WHI**  
WITH NEON  
SURFACE MOUNTED  
**K5012WHI**  
WITH NEON  
FLUSH MOUNTED

1  
1  
1

**K5230**  
Supplied with mounting box.  
Earth terminal fitted on base of box.  
Not recommended for switching  
large banks of PCs.

**DIMENSIONS**  
150 x 89 x 50mm  
**KNOCKOUTS**  
8 x 20mm

**K5012**  
Not supplied with mounting box.  
**FLUSH**  
5120ALM  
Supplied with earth terminals.  
Not recommended for switching  
large banks of PCs.

**DIMENSIONS**  
178 x 165mm  
BS EN 60669-1:1999

# Logic Plus™



## Cooker Connection Unit

45 AMP



K5045SAWHI

## Cooker Controls

MOULDED  
FLUSH  
45 AMP



K5060WHI



K5061WHI

MOULDED  
SURFACE  
45 AMP



K5040WHI



K5041WHI

METAL  
FLUSH  
45 AMP



K5011WHI

METAL  
SURFACE  
45 AMP



K5001WHI

### K5045SAWHI

10

MOUNTING BOX  
FLUSH

877ZIC (46mm)

Supplied complete with terminal block, each terminal of which will accommodate up to two 10mm<sup>2</sup> conductors.

Moulded cover plate, cable clamp included.

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

BS EN 60670-22:2006

### K5060WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET

### K5061WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET WITH NEONS

MOUNTING BOXES  
FLUSH

886ZIC (6mm<sup>2</sup> conductors)  
878ZIC (10mm<sup>2</sup> conductors)

Rotary operated shutter.

#### DIMENSIONS

86 x 146mm

#### FIXING CENTRES

120.6mm

BS 4177:1992

### K5040WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET

### K5041WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET WITH NEONS

Supplied complete with mounting box and cable restraint.

Fitted with earth terminals.  
Rotary operated shutter.

#### DIMENSIONS

86 x 146 x 60mm

BS 4177:1992

### K5011WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET WITH NEONS

MOUNTING BOX  
FLUSH

5120ALM

Fitted with earth terminals.

Rotary operated shutter.

#### DIMENSIONS

178 x 165mm

BS 4177:1992

### K5001WHI

1

45A DP MAIN SWITCH  
AND 13A SWITCHSOCKET  
OUTLET WITH NEONS

Supplied complete with  
mounting box.

Fitted with earth terminals.

Rotary operated shutter.

#### DIMENSIONS

156 x 144 x 67mm

#### KNOCKOUTS

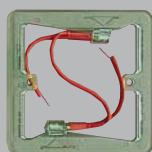
5 x 25mm.

Two in each of top and bottom, one in back.

BS 4177:1992

## Plateswitches

### NEON LOCATOR



K3041

FLUSH  
10 AMP



K4870GRA



K4871WHI



K4872WHI



K4872GRA

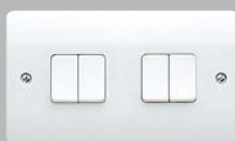
FLUSH  
10 AMP



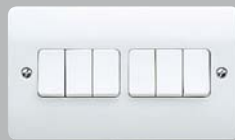
K4875WHI



K4873SAWHI



K4874WHI



K4879WHI

FLUSH  
20 AMP



K4870D2WHI



K4871D2WHI



K4872D2WHI



K4873D2WHI

FLUSH  
10 AMP



K4878BWHI



K4878PWHI

**K3041** 5  
NEON PLATESWITCH  
LOCATOR  
200-250V, 50HZ.  
TUNGSTEN GLS LAMPS ONLY

Neon Plateswitch Locator is for use with any 1, 2 and 3 GANG Logic Plus™ plateswitches.  
Used for location of switches in dark situations.  
FIXING CENTRES  
60.3mm  
BS 5733:2010

**K4870WHI** 10  
**K4870GRA** 10  
1 GANG SP  
ONE-WAY  
**K4871WHI** 10  
**K4871GRA** 10  
1 GANG SP  
TWO-WAY  
**K4872WHI** 10  
**K4872GRA** 10  
2 GANG SP  
TWO-WAY

#### MOUNTING BOXES

##### FLUSH

1, 2 & 3 GANG: 861ZIC  
4 & 6 GANG: 862ZIC

##### SURFACE

1, 2 & 3 GANG: K2160WHI  
4 & 6 GANG: K2161WHI

These switches do not have to be derated when used with fluorescent or inductive loads.

**K4871, K4872, K4873, K4874, K4879**

These switches can be wired as either one-way or two-way.

**K4875WHI** 10  
1 GANG  
INTERMEDIATE  
**K4876WHI** 10  
1 GANG DP  
ONE-WAY  
**K4873SAWHI** 10  
3 GANG SP  
TWO-WAY  
**K4874WHI** 5  
4 GANG SP  
TWO-WAY  
**K4879WHI** 5  
6 GANG SP  
TWO-WAY

#### DIMENSIONS

1, 2 & 3 GANG: 86 x 86mm  
4 & 6 GANG: 86 x 146mm

#### FIXING CENTRES

1, 2 & 3 GANG: 60.3mm  
4 & 6 GANG: 120.6mm  
BS EN 60669-1:1999

**K4870D2WHI** 10  
1 GANG SP  
ONE-WAY  
**K4871D2WHI** 10  
1 GANG SP  
TWO-WAY  
**K4872D2WHI** 10  
2 GANG SP  
TWO-WAY  
**K4873D2WHI** 10  
3 GANG SP  
TWO-WAY  
**K4874D2WHI** 5  
4 GANG SP  
TWO-WAY  
**K4875D2WHI** 10  
1 GANG INTERMEDIATE

#### MOUNTING BOXES

##### FLUSH

861ZIC

##### SURFACE

K2160WHI

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

**K4878BWHI** 10  
1 GANG SP  
TWO WAY  
PUSH SWITCH WITH  
BELL SYMBOL  
PUSH TO MAKE OR  
BREAK  
**K4878PWHI** 10  
1 GANG SP  
TWO WAY  
PUSH SWITCH MARKED  
'PRESS'  
PUSH TO MAKE OR BREAK

#### MOUNTING BOXES

##### FLUSH

861ZIC

##### SURFACE

K2160WHI

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

BS EN 60669-1:1999

# Logic Plus™



## Plateswitches

DP FLUSH  
20 AMP



K4867WHI



K4868WHI

## Lockable Fire Alarm Isolator Switch

DP FLUSH  
20 AMP



K4780WHI\*

## Architrave Switches

FLUSH  
10 AMP



K4841WHI



K4842WHI



K4848BWHI



K4848PWHI

## Wide Rocker Switches

FLUSH  
10 AMP



K4781GRA



K4782GRA



K4783WHI



K4785WHI

**K4867WHI** 10  
1 GANG DP  
**K4868WHI** 10  
2 GANG DP

### MOUNTING BOXES

866ZIC

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS EN 60669-1:1999

**K4780WHI** 1  
20A DP LOCKABLE FIRE  
ALARM ISOLATOR SWITCH

### MOUNTING BOXES

866ZIC

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 60669-2-4:2005

\*Phaseout - Please check with MK Sales team for replacement

**K4841WHI** 5  
1 GANG SP  
TWO-WAY

**K4842WHI** 5  
2 GANG SP  
TWO-WAY

**K4848BWHI** 5  
1 GANG SP PUSH SWITCH  
WITH BELL SYMBOL  
PUSH TO MAKE OR BREAK

**K4848PWHI** 5  
1 GANG SP PUSH SWITCH  
MARKED 'PRESS'  
PUSH TO MAKE OR BREAK

### MOUNTING BOXES

#### FLUSH

1 GANG: 3921ZIC

2 GANG: 3922ZIC

#### SURFACE

1 GANG: k2151WHI

2 GANG: k2152WHI

These switches do not have to be derated when used with fluorescent or inductive loads.

**K4841, K4842** These switches can be wired as either one-way or two-way.

### DIMENSIONS

1 GANG: 86 x 32mm;

2 GANG: 146 x 32mm

### FIXING CENTRES

1 GANG: 60.3mm;

2 GANG: 120.6mm

BS EN 60669-1:1999

**K4781WHI** 10  
**K4781GRA** 10

1 GANG SP TWO-WAY  
WITH WIDE ROCKER

**K4782WHI** 10  
**K4782GRA** 10

2 GANG SP TWO-WAY  
WITH WIDE ROCKERS

**K4783WHI** 10

3 GANG SP TWO-WAY  
WITH WIDE ROCKERS

**K4785WHI** 10  
**K4785GRA** 10

1 GANG SP INTERMEDIATE  
WITH WIDE ROCKER

**K4787WHI** 10  
1G 20A DP ONE-WAY  
WITH WIDE ROCKER

**K4788WHI** 10  
2 GANG DP WITH  
WIDE ROCKER

### MOUNTING BOXES

#### FLUSH

861ZIC

#### SURFACE

K2160WHI

K2140WHI (for extra

wiring space)

These switches do not have to be derated when used with fluorescent or inductive loads.

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS EN 60669-1:1999

### 20A DP VERSIONS

K4787WHI is 20A DP

1 way version of K4781.

BS EN 60669-1: 1999

K4788WHI is 20A DP

1 way version of K4782.

BS EN 60669-1:1999



## Intelligent LED Dimmer Switch

220V TO 240V A.C. 50HZ  
LED, TUNGSTEN FILAMENT  
AND LOW VOLTAGE  
HALOGEN LIGHTING



K1523WHILV



K1524WHILV

## Intelligent Dimmer Switches

230V A.C. 50HZ  
TUNGSTEN FILAMENT  
AND LOW VOLTAGE  
HALOGEN LIGHTING



K1501WHILV



K1521WHILV



K1522WHILV

## Standard Dimmer Switches

230V A.C. 50HZ  
TUNGSTEN FILAMENT



K1511WHI



K1531WHI



K1532WHI



K1533WHI

## Dimmer Switches (NON UK)

200-250V A.C.  
50 OR 60HZ



K1541WHI



K1561WHI



K1661WHI



4053PLWHIT9

### K1523WHILV

1 GANG SINGLE  
2 WAY  
40W/VA - 300W/240VA  
LED: 4-70W

### K1524WHILV

1 GANG DOUBLE  
2 WAY  
40W/VA - 300W/240VA  
LED: 4-70W

#### MOUNTING BOXES

##### FLUSH

861ZIC - 25mm deep min

##### SURFACE

K2140WHI - 30mm deep

Micro controller based circuitry to provide electronic soft-start and overload protection. Suitable for use with most major manufacturers LED lamps or electronic / wire wound transformers. Can also be used with good quality mains voltage GU10 halogen lamps.

Do not mix load types

This dimmer offers the user the ability to adjust the minimum brightness level.

Max number of lamps (10)

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

BS EN 60669-2-1

### K1501WHILV

1 GANG SINGLE  
TWO WAY 60W/VA-500W/400 VA

### K1521WHILV

1 GANG SINGLE  
TWO WAY 40W/VA-300W/240 VA

### K1522WHILV

1 GANG DOUBLE  
TWO WAY 2 X 40W/VA-300W/240 VA

#### FLUSH

861ZIC/866ZIC

#### SURFACE

K2140WHI

Micro controller based circuitry to provide electronic soft-start and overload protection. Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

Conforms to BS EN 60669-2-1

### K1511WHI

1 GANG SINGLE  
ONE WAY 65-450W

### K1531WHI

1 GANG SINGLE  
ONE WAY 40-250W

### K1532WHI

1 GANG DOUBLE  
ONE WAY 2 X 40-250W

### K1533WHI

1 GANG DOUBLE  
TWO WAY 2 X 40-250W

### K1534WHI

1 GANG SINGLE  
TWO WAY 40-250W

### K1535WHI

1 GANG SINGLE  
TWO WAY 65-450W

#### MOUNTING BOXES

##### FLUSH

861ZIC/866ZIC

##### SURFACE

K2140WHI

Not suitable for fluorescent lamps or low voltage lighting.

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

Conforms to BS EN 60669-2-1

### K1541WHI

1 GANG SINGLE  
ONE WAY

75-500W 50HZ

### K1561WHI

1 GANG SINGLE  
TWO WAY  
100-1000W 50HZ

### K1641WHI

1 GANG SINGLE  
ONE WAY  
75-500W 60HZ

### K1661WHI

1 GANG SINGLE  
TWO WAY  
100-1000W 60HZ

#### MOUNTING BOXES

##### FLUSH

861ZIC/866ZIC

##### SURFACE

K2140WHI

##### PATRESS

For mounting in 16mm deep boxes a mounting frame 40533PLWHIT9 is available.

#### DIMENSIONS

86 x 86mm

#### FIXING CENTRES

60.3mm

### 40533PLWHIT9

CAN BE USED WITH  
LOGIC PLUS DIMMERS TO  
STAND PRODUCT FROM  
MOUNTING SURFACE  
WHERE BACK BOX DEPTH  
IS NOT SUFFICIENT

#### DIMENSIONS

86 x 86mm

Patress thickness is 5mm

#### FIXING CENTRES

60.3mm

# Logic Plus™



## Blank Plates

## Flex Outlet Frontplate

## Euro Modular Frontplates

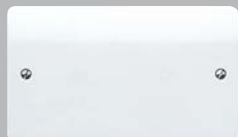
## Euro Power Modules

20 AMP



K3825WHI

K3827WHI



K3828WHI



K5033WHI



K1090SAWHI



K181WHI



K182WHI



K184WHI



K5830SAWHI



K5831WHI



K5832WHI



K5833WHI



K5834WHI



K5837WHI

**K3825WHI**  
1 GANG MOULDED  
ARCHITRAVE

10

**K3827WHI**  
1 GANG MOULDED

10

**K3828WHI**  
2 GANG MOULDED

10

**K5033WHI**  
METAL

1

**K3825WHI**  
For use with 3921ZIC and K2151WHI  
MOUNTING BOXES.

**K5033WHI**  
For use with 5120ALM deep metal box.

**DIMENSIONS**  
K3825WHI: 86 x 31mm  
K3827WHI: 86 x 86mm  
K3828WHI: 86 x 146mm  
K5033WHI: 178 x 165mm

**FIXING CENTRES**  
K3825WHI: 60.3mm  
K3827WHI: 60.3mm  
K3828WHI: 120.6mm  
K5033WHI: 133mm  
BS 5733:2010

**K1090SAWHI**  
FLEX OUTLET FRONTPLATE  
UNFUSED

10

Complete with three pairs of terminals, each  
suitable for 2 x 2.5mm<sup>2</sup> conductors and a  
1.5mm<sup>2</sup> flexible cord.  
A cord-grip is also fitted.

Frontplate thickness is 12.5mm.  
Cable entry diameter is 11mm.

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS EN 60670-22:2006

**K181WHI**  
1 GANG EURO FRONTPLATE  
ONE MODULE

10

APERTURE SIZE 25 X 50MM

**K182WHI**  
**K182GRA**

10

1 GANG EURO FRONTPLATE  
TWO MODULE

APERTURE SIZE 50 X 50MM

**K184WHI**  
**K184GRA**

10

2 GANG EURO FRONTPLATE  
FOUR MODULE

APERTURE SIZE 100 X 50MM

**K185WHI**

10

3 GANG EURO FRONTPLATE  
SIX MODULE

APERTURE SIZE 150 X 50MM

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes to  
BS 5733:2010 Refer to appropriate  
module for minimum box depth.

**K185WHI MOUNTING BOX**  
35mm VTS8035 (For use with  
Pinnacle and Premier cable  
management systems) K2153WHI  
30mm

**FIXING CENTRES**  
1 GANG: 60.3mm 2 GANG: 120.6mm  
BS 5733:2010 where applicable

Note: No grid required, modules just  
clip into place

**K5830SAWHI**  
**K5830BLK**  
UK 1 GANG EURO 2 MODULE  
13A 250V SHUTTERED

1

**K5831WHI**  
**K5831BLK**

1

GERMAN 2P+E  
16A 250V SHUTTERED

10

EURO 2 MODULE (NON UK)

10

**K5832WHI**  
**K5832BLK**

10

AMERICAN 2P+E  
15A 127V SHUTTERED

10

EURO 2 MODULE (NON UK)

**K5830**  
**MOUNTING BOX**  
35mm minimum  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
BS 1363 Pt2:1995

**K5831**  
**MOUNTING BOX**  
46mm

**DIMENSIONS**  
50 x 50mm  
IEC 60884-1:2006

**K5832**  
**MOUNTING BOX**  
35mm  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
SASO 2204:2003

**DIMENSIONS**  
50 x 50mm  
SASO 2204:2003

**DIMENSIONS**  
50 x 50mm  
SASO 2204:2003

**K5833WHI**  
**K5833BLK**  
UK 1 GANG EURO 2 MODULE  
5A 250V SHUTTERED

10

**K5834WHI**  
**K5834BLK**

10

FRENCH/BELGIAN 2P+E  
16A 250V SHUTTERED

10

EURO 2 MODULE (NON UK)

10

**K5837WHI**  
**K5837BLK**

1

USB CHARGING MODULE  
EURO 2 MODULE

1

**K5833**  
**MOUNTING BOX**  
35mm minimum  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
BS 546:1950

**K5834**  
**MOUNTING BOX**  
46mm

**DIMENSIONS**  
50 x 50mm  
NF C61-314

**K5837**  
**MOUNTING BOX**  
35mm, 46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
USB charging sockets, each capable of  
supporting 2A charge (total of 2A).

IEC 60950-1  
IEC 61000-6-1/3

IEC 60950-1  
IEC 61000-6-1/3

## Euro Datacom Modules

### RJ11/12



K5887SAWHI



K5887BLK

### RJ45 CAT 6



K5846SAWHI



K5846SBLK



K5864WHI

### RJ45 CAT 5e



K5844WHI



K5845WHI



K5845BLK

### TELEPHONE



K5820WHI



K5821WHI



K5821BLK

**K5887SAWHI**  
**K5887BLK**  
RJ11/12  
ONE MODULE 25 X 50MM

5  
5

Suitable for both RJ11 and RJ12 jacks  
RJ11: 4 wire  
RJ12: 6 wire  
**MOUNTING BOXES**  
Minimum box depth 25mm  
FCC68  
EN 41003

**K5846SAWHI**  
**K5846BLK**  
RJ45 CAT 6  
ONE MODULE 25 X 50MM

5  
5

**K5846SAWHI**  
**K5846SBLK**  
RJ45 CAT 6 SCREENED  
ONE MODULE 25 X 50MM  
**K5864WHI**  
RJ45 CAT 6 ANGLED  
ONE MODULE 25 X 50MM

5  
5

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.  
**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K5844WHI**  
RJ45 CAT 5e ANGLED  
ONE MODULE 25 X 50MM

5  
5

**K5845WHI**  
**K5845BLK**  
RJ45 CAT 5e  
ONE MODULE 25 X 50MM

5  
5

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B wiring schemes.  
Supplied with cable tie and cable anchors to secure wires in the connectors.

**MOUNTING BOXES**  
Minimum box depth 25mm standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K5820WHI**  
**K5820BLK**  
TELEPHONE MASTER  
ONE MODULE 25 X 50MM

5  
5

**K5821WHI**  
**K5821BLK**  
TELEPHONE SECONDARY  
ONE MODULE 25 X 50MM

5  
5

**MOUNTING BOXES**  
Minimum depth 25mm  
BS 6312 Pt 2

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671 IET Wiring Regulations for details.

## Euro Multimedia Modules

TV CO-AXIAL OUTLETS FOR DIGITAL TV SCREENED  
NON ISOLATED



K5850WHI



K5850BLK



K5851WHI



K5851BLK



K5855WHI



K5855BLK



K5852MWHI



K5853MWHI



K5854MWHI



K5807WHI



K5805WHI



K5806WHI

**K5850WHI** 5  
**K5850BLK** 5  
SINGLE OUTLET (IEC MALE)  
ONE MODULE 25 X 50MM  
**K5851WHI** 5  
**K5851BLK** 5  
SINGLE OUTLET  
(IEC FEMALE)  
ONE MODULE 25 X 50MM  
**K5855WHI** 5  
**K5855BLK** 5  
SINGLE F-TYPE SATELLITE  
SOCKET  
ONE MODULE 25 X 50MM

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer and TV/FM/SAT Triplexer for use within digital TV systems and interactive TV services. Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

**K5852MWHI** 5  
**K5852MBLK** 5  
TWIN OUTLET  
TV/FM DIPLEXER  
TWO MODULE 50 X 50MM  
**K5853MWHI** 5  
**K5853MBLK** 5  
TRIPLE OUTLET  
TV/FM/SATELLITE TRIPLEXER  
TWO MODULE 50 X 50MM

TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.  
TV/FM/SAT triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

**K5854MWHI** 5  
**K5854MBLK** 5  
QUAD OUTLET  
TV-FM/DAB-2XSAT  
TWO MODULE 50 X 50MM

**K5807WHI** 5  
**K5807BLK** 5  
FEMALE HDMI OUTLET

K5807 Female HDMI Outlet is HDMI 1.1, 1.2, 1.3 and 1.4 compatible, HDCP compliant.

**DATA RATE**  
Up to 2.25 Gbps

**SCAN**  
Up to 1080p/1920x1200

**INPUT CONNECTOR**  
1 x HDMI Female (Type A)

**OUTPUT CONNECTOR**  
1 x HDMI Female (Type A)  
Supports high resolution input

**PC**  
VGA, SVGA, SXVGA (1280x1024) and UXGA (1600x1200, 1920x1200)

**HDTV**  
480p, 720p, 1080i and 1080p  
HDMI input cable should be no larger than 20m.

**DIMENSIONS**  
50 x 50 x 20mm

**K5805WHI** 5  
**K5805BLK** 5  
AUDIO BINDING POST  
SET FOR SINGLE LOUD  
SPEAKER  
**K5806WHI** 5  
**K5806BLK** 5  
RCA TO SCREW  
TERMINATION SET  
1 RED AND 1 BLACK

**DIMENSIONS**  
50 x 25 x 28mm

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications

### MOUNTING BOXES

Min box depth 32mm

### DIMENSIONS

1 Module 25 x 50mm

2 Module 50 x 50mm

BS 3041:1997

IEC 169-2:1965

BS EN 50083 & BS 5733:2010

where applicable

### PERFORMANCE

#### SINGLE OUTLETS

TV/FM Iec Male Or Female

DC-950MHz

**SAT F-TYPE**

DC-1.75GHz

### TV/FM/SAT PRODUCTS

Outlet: Diplexer

TV: 5-65MHz

470-862MHz

FM/DAB: 87.5-108MHz

SAT: N/A

Outlet: Triplexer

TV: 5-65MHz

470-862MHz

FM: 87.5-108MHz

SAT1: 950-2300MHz

### TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

Outlet: Diplexer

TV: 5-65MHz

470-862MHz

FM/DAB: 87.5-230MHz

SAT OR SAT1: N/A

SAT2:

Outlet: Triplexer

TV: 5-65MHz

470-862MHz

FM: 87.5-230MHz

SAT1: 950-2300MHz

SAT2: 5-2300MHz

## LJU6C Datacom Frontplates

## LJU6C Datacom Modules

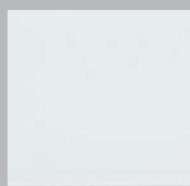
### BLANKS

### RJ11/12

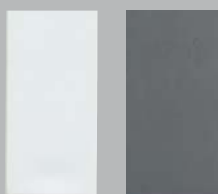
### RJ45 CAT 6

### RJ45 CAT 5e

### BLANKS



K180WHI



K188WHI

K188BLK



K186WHI

K186BLK



K172WHI



K5787WHI



K5746SAWHI



K5746BLK



K5746SWHI



K5746SBLK



K5745WHI



K5745BLK



K170WHI



K170BLK

**K180WHI** 10  
TWO MODULE  
BLANK 50 X 50MM  
**K188WHI** 10  
**K188BLK** 10  
ONE MODULE  
BLANK 25 X 50MM  
**K186WHI** 10  
**K186BLK** 10  
HALF MODULE  
BLANK 12.5 X 50MM

BS 5733:2010 where applicable

**K172WHI** 10  
1 GANG TWIN  
LJU6C FRONTPLATE  
TWO MODULE  
APERTURE SIZE  
22 X 37MM

**MOUNTING BOXES**  
suitable for flush boxes to  
BS 4662:2006 and surface  
boxes to BS 5733:2010  
Refer to appropriate module  
for minimum box depth.

**FIXING CENTRES**  
1 GANG: 60.3mm  
2 GANG: 120.6mm  
BS 5733:2010 where applicable  
Note: No grid required,  
modules just clip into place.

**K5787WHI** 5  
RJ11/12  
ONE MODULE  
Suitable for both RJ11 and  
RJ12 jacks.  
RJ11: 4 wire  
RJ12: 6 wire  
**MOUNTING BOXES**  
Minimum box depth 25mm  
FCC68  
EN41003

**K5746SAWHI** 5  
**K5746BLK** 5  
RJ45 CAT 6  
ONE MODULE  
**K5746SWHI** 5  
**K5746SBLK** 5  
RJ45 CAT 6  
SCREENED  
ONE MODULE  
Cat 6 performance.  
Suitable for both 568A and  
568B wiring schemes.  
**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K5745WHI** 5  
**K5745BLK** 5  
RJ45 CAT 5e  
ONE MODULE  
Enhanced Cat 5 performance.  
Suitable for both 568A and 568B  
wiring schemes.  
**MOUNTING BOXES**  
Minimum box depth 25mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K170WHI** 10  
**K170BLK** 10  
ONE MODULE BLANK  
BS 5733:2010 where applicable



# Logic Plus™



## Telephone Socket Outlets

FLUSH

## TV/FM and Satellite Co-Axial Socket Outlets

FOR DIGITAL AND INTERACTIVE SERVICES  
SCREENED, NON ISOLATED  
FLUSH



K422WHI



K427WHI



K4817SAWHI



K3540WHI



K3550WHI



K3551WHI



K3555WHI



K3552WHI



K3552DABWHI



K3553WHI



K3553DABWHI



K3554DABWHI

|  |           |
|--|-----------|
| <b>K422WHI</b>                             | <b>10</b> |
| 1 GANG<br>TELEPHONE MASTER                 |           |
| <b>K427WHI</b>                             | <b>10</b> |
| 1 GANG<br>TELEPHONE SECONDARY              |           |
| <b>K4817SAWHI</b>                          | <b>10</b> |
| 1 GANG<br>RJ11 TELEPHONE SOCKET            |           |
| <b>K3540WHI</b>                            | <b>10</b> |
| 3 PIN WITH<br>TELEPHONE SYMBOL<br>(NON UK) |           |
| <b>400NAT</b>                              | <b>10</b> |
| IDC INSERTION TOOL                         |           |

BS 6312 Pt 2  
K4817 FCC 68  
K3540  
Accepts standard BS 546  
2A 2 pin and earth plug where 2 pins are  
used for telephone circuits and the earth  
pin is used to ensure correct polarity.  
BS 546:1950 where applicable

|  |          |                                    |          |
|--|----------|------------------------------------|----------|
| <b>K3550WHI</b>                          | <b>1</b> | <b>K3552DABWHI</b>                 | <b>1</b> |
| SINGLE OUTLET<br>(IEC MALE)              |          | TWIN TV/FM<br>DAB DIPLEXER         |          |
| <b>K3551WHI</b>                          | <b>5</b> | <b>K3553WHI</b>                    | <b>5</b> |
| SINGLE OUTLET<br>(IEC FEMALE)            |          | TRIPLE TV/FM/SAT<br>TRIPLEXER      |          |
| <b>K3555WHI</b>                          | <b>1</b> | <b>K3553DABWHI</b>                 | <b>1</b> |
| SINGLE OUTLET<br>F-TYPE SATELLITE SOCKET |          | TRIPLE TV/FM DAB/SAT<br>TRIPLEXER  |          |
| <b>K3552WHI</b>                          | <b>5</b> | <b>K3554DABWHI</b>                 | <b>1</b> |
| TWIN TV/FM<br>DIPLEXER                   |          | QUAD TV/FM DAB/SATX2<br>QUADPLEXER |          |

Fully screened non isolated TV outlets  
containing a combination of single,  
TV/FM Diplexer, TV/FM/SAT Triplexer  
and secondary telephone outlets for  
use within digital TV systems and  
interactive TV services.

Single outlets for connection to a single  
TV, FM or Satellite co-axial aerial lead.  
TV/FM diplexer units for connection to a  
single co-axial aerial lead with combined  
TV and FM signals.

### MOUNTING BOXES

|                        |                   |
|------------------------|-------------------|
| Minimum box depth 32mm |                   |
| 1 GANG:                | Flush: 866ZIC     |
|                        | Surface: K2181WHI |
| 2 GANG:                | Flush: 886ZIC     |
|                        | Surface: K2183WHI |

### DIMENSIONS

|         |            |
|---------|------------|
| 1 GANG: | 86 x 86mm  |
| 2 GANG: | 86 x 146mm |

### FIXING CENTRES

|         |         |
|---------|---------|
| 1 GANG: | 60.3mm  |
| 2 GANG: | 120.6mm |

### PERFORMANCE

Refer to page 474 for technical  
specification.

## TV/FM and Satellite Co-Axial Socket Outlets with Telephone Outlet

FOR DIGITAL AND INTERACTIVE TV SERVICES  
FLUSH



K3557WHI



K3561WHI



K3560DABWHI



K3561DABWHI



K3562WHI



K3563WHI



K3563DABWHI



K3564DABWHI



K3565DABWHI



K3566DABWHI

**K3557WHI**  
SINGLE OUTLET  
(IEC MALE)  
WITH TELEPHONE  
SECONDARY

1

**K3561WHI**  
TRIPLE TV/FM/SAT  
TRIPLEXER  
WITH TELEPHONE  
SECONDARY

5

Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.  
TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.

**K3560DABWHI**  
TWIN TV/FM DAB DIPLEXER  
WITH TELEPHONE SECONDARY

1

**K3561DABWHI**  
TRIPLE TV/FM DAB/SAT TRIPLEXER  
WITH TELEPHONE SECONDARY

1

**K3562WHI**  
TWIN TV/FM DIPLEXER  
WITH SINGLE TV (IEC MALE)  
AND TELEPHONE SECONDARY

5

**K3563WHI**  
TRIPLE TV/FM/SAT TRIPLEXER  
WITH SINGLE TV (IEC MALE)  
AND TELEPHONE SECONDARY

5

Telephone Secondary outlet for use with interactive TV digital services.

K3562 and K3563 outlets with additional single TV (male) outlet for secondary distribution of TV signal

**K3563DABWHI**  
TRIPLE TV/FM/DAB/SAT TRIPLEXER  
WITH SINGLE TV (IEC MALE)  
AND TELEPHONE SECONDARY

1

**K3564DABWHI**  
QUAD TV/FM DAB/SATx2 QUADPLEXER  
WITH TELEPHONE SECONDARY

1

**K3565DABWHI**  
QUADPLEXER + RJ45  
AND TELEPHONE SECONDARY

1

**K3566DABWHI**  
QUADPLEXER  
WITH TELEPHONE SECONDARY  
AND SINGLE TV (IEC MALE)

1

# Logic Plus™



## TV/FM and Satellite Co-Axial Socket Outlets

NON ISOLATED  
FLUSH

ISOLATED  
FLUSH



K3520SAWHI



K3523WHI



K3525SAWHI



K3525D1WHI



K3521WHI



K3522WHI



K3631GRA



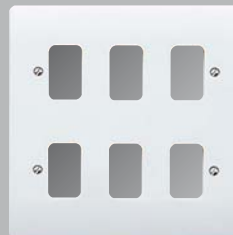
K3632WHI



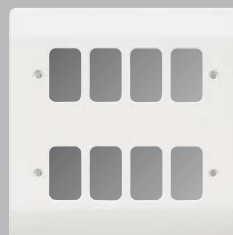
K3633GRA



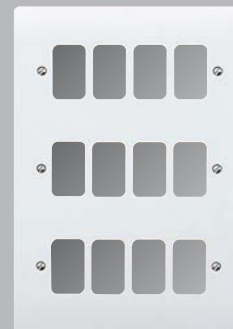
K3634WHI



K3636WHI



K3638WHI



K3639WHI

### K3520SAWHI

SINGLE OUTLET

10

### K3523WHI

TWIN OUTLET

10

### K3525SAWHI

SINGLE F TYPE  
SATELLITE SOCKET

10

### K3525D1WHI

TWIN F TYPE  
SATELLITE SOCKET

10

### MOUNTING BOXES FLUSH

861ZIC (25mm)

### SURFACE

K2140WHI

Single outlet for connection to a single TV or FM co-axial aerial lead. Twin outlet for connection to each of two separate TV/FM, co-axial aerial leads.

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 5733:2010  
where applicable

BS 3041:1977  
IEC 169-2:1965

### K3521WHI

SINGLE OUTLET

10

### K3522WHI

TWIN OUTLET  
WITH FM/TV DIPLEXER

10

### MOUNTING BOXES

FLUSH

861ZIC (25mm)

### SURFACE

K2140WHI

Provides safety isolation rated at 2000Va.c. between aerial lead and socket.

Single outlet for connection to a single TV or FM co-axial aerial lead.

Twin outlet with TV/FM diplexer for connection to single co-axial aerial lead with combined TV & FM signals.

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 5733:2010 where applicable

BS 3041:1977 IEC 169-2:1965

### K3631WHI

SINGLE OUTLET

10

### K3631GRA

1 MODULE

10

### K3632WHI

2 MODULE

10

### K3632GRA

2 MODULE

10

### K3633WHI

3 MODULE

10

### K3633GRA

3 MODULE

10

### K3634WHI

4 MODULE

10

### K3634GRA

4 MODULE

10

All modules from the Grid Plus range can be used with these frontplates.

### DIMENSIONS

1 & 2 MODULE: 86 x 86mm

3 & 4 MODULE: 86 x 146mm

6 & 8 MODULE: 146 x 146mm

12 MODULE: 206 x 146mm

BS 5733:2010

### K3636WHI

6 MODULE

1

### K3636GRA

6 MODULE

1

### K3638WHI

8 MODULE

1

### K3638GRA

8 MODULE

1

### K3639WHI

12 MODULE

1



# CEILING ACCESSORIES

## RANGE INTRODUCTION

MK Electric offers a comprehensive range of white ceiling accessories for all requirements. Included in the range are enhanced 'safety' lampholders.

Unlike most other 'safety' lampholders, when the lamp is removed Shockguard Plus automatically shields the contact by means of a specially designed shutter and it remains that way until a lamp is replaced.

Therefore when no lamp is in place contact pins are totally isolated, eliminating danger of electrocution.

## FEATURES & BENEFITS

### EASE OF INSTALLATION

Pendant sets incorporate a heat resistant lampholder, ceiling rose with a transparent base and clear terminal markings for ease of identification. Terminals are grouped in line with neutral, loop-in and earth terminals.

### SAFETY

Shockguard Plus has a specially designed shutter that automatically shields the lamp contacts, therefore eliminating the danger of electrocution.

### RELIABILITY

All products are 100% tested before delivery for confidence, so a 'fit and forget' installation can be achieved. Fully compliant with the relevant British Standards BS 7895 for bayonet lampholders with enhanced safety and BS EN 61184.

### DURABILITY

Manufactured from the highest quality materials to give a high gloss finish, which is both scratch and colour fade resistant.

# Ceiling Accessories



## Ceiling Switches

6 AMP  
SURFACE

WITHOUT  
MOUNTING BLOCKS  
FLUSH

50A  
FLUSH

## Mounting Blocks and Cords



K3191WHI



3190RCWHI



K3131WHI



3164WHI



K2051WHI

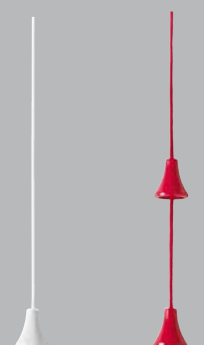
K2056WHI



K3191D1WHI



8329SSWHID1T9



8329SSWHIT9 9420SST9

**K3191WHI**  
6A SP ONE-WAY  
1.5M WHITE CORD WITH  
WHITE ACORN

**K3191D1WHI**  
6A SP ONE-WAY  
2M WHITE CORD  
AND 1X GRAPHITE BANGLE

**K3192WHI**  
6A SP TWO-WAY  
1.5M WHITE CORD  
AND WHITE ACORN

**K3192D1WHI**  
6A SP TWO-WAY  
2M WHITE CORD  
AND 1X GRAPHITE BANGLE

Supplied with mounting blocks.  
Earth terminal is riveted in base of  
mounting blocks.

**BANGLE DIAMETER**  
50mm

These switches do not have to be  
derated when used with fluorescent or  
inductive loads.

**FIXING CENTRES**  
50.8mm

BS EN 60669-1:1999

5

5

5

5

**3190RCWHI**  
6A SP TWO WAY  
2M RED CORD WITH RED ACORN  
PULL TO MAKE OR PULL TO  
BREAK (MOMENTARY SWITCH  
ACTION)

Supplied with mounting blocks.

**BANGLE DIAMETER**  
50mm  
BS EN 60669-1:1999

5

**K3131WHI**  
6A SP TWO-WAY

Mounting blocks are not supplied. Use  
K2051WHI or K2056WHI.

Suitable for installation in small circular  
conduit boxes to BS EN 61386-1:2008  
See page 354.

Ceiling switch cords are 1.5m minimum  
length.

These switches do not have to be  
derated when used with fluorescent or  
inductive loads.

**FIXING CENTRES**  
50.8mm  
BS EN 60669-1:1999

5

**3164WHI**  
50A DP ONE-WAY  
WITH NEON  
1.5M WHITE

**8329SSWHID1T9**  
2M WHITE CORD WITH JOINT  
UNION AND GRAPHITE BANGLE

### MOUNTING BOXES

Surface Moulded  
2140WHI, 2180WHI  
2031WHI (extra wiring space)

Flush Steel  
877ZIC (for full load applications)

Surface Metal  
2211ALM, 2213ALM  
Fitted with a mechanical 'OFF' indicator.  
The switch fully complies with the  
requirements within BS 7671 IET Wiring  
Regulations with respect to safety  
isolation for maintenance purposes  
and provides a full 3mm contact gap  
when 'OFF'.

### DIMENSIONS

86 x 86mm  
**BANGLE DIAMETER**  
50mm

**FIXING CENTRES**  
60.3mm  
BS EN 60669-1:1999

5

5

**K2051WHI**  
MOUNTING BLOCK  
FOR 6A OR 16A  
SWITCHES

**K2056WHI**  
MOUNTING BLOCK  
WITH NEON  
FOR 6A OR 16A  
SWITCHES

**8329SSWHIT9**  
1.5M WHITE CEILING  
SWITCH CORD COMPLETE  
WITH ACORN AND ONE PIECE  
JOINT UNION

**9420SST9**  
2M RED CEILING SWITCH  
CORD COMPLETE WITH TWO  
RED ACORNS AND ONE PIECE  
JOINT UNION

**9420SSD1**  
3M RED CEILING SWITCH CORD  
COMPLETE WITH 2 X RED  
BANGLES AND JOINT UNION

**K2051WHI and K2056WHI**  
Earth terminal riveted in base.  
**DIAMETER**  
76mm not including Neon Lens  
**FIXING CENTRES**  
50.8mm  
BS EN 60669-1:1999

10

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1

10



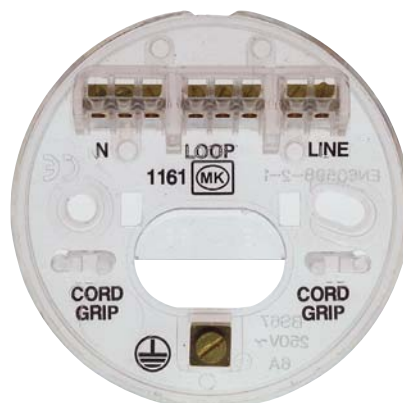
## Ceiling Roses

## Lampholders



Unlike most 'safety' lampholders, when a lamp is removed Shockguard Plus automatically seals the contact by means of specially designed shutter and it remains that way until the lamp is replaced.

This means that with no bulb in place there is no danger of electrocution from exposed contacts, as the contact pins are fully shielded.



The MK Ceiling Rose has a transparent base, precut aperture and clear markings for ease of installation. Terminal layout allows cables to be cut to the same length and the earth terminal is positioned for easier cable access.



**K1161SAWHI**  
FOUR TERMINALS  
LINE, NEUTRAL,  
LOOP-IN AND EARTH  
**K1163WHI**  
CEILING ROSE HALO

Incorporate tunnel type terminals, which accommodate 3 x 2.5mm<sup>2</sup> cables and allow for off centre cable entries, transparent terminal block and equal length wire stripping.  
Suitable for fittings of up to 5kgs. Heavier fittings must be installed using independent support eg. ceiling hook.  
The ceiling roses are suitable for mounting over BS EN 61386-1:2008 circular conduit boxes.

**DIAMETER**  
(Cover) 86mm  
**DEPTH**  
(Cover) 34mm3  
BS 67:1987

The Ceiling Rose Halo gives a neat finish should the ceiling be damaged.

**10** **K1170WHI**  
BC PENDANT LAMPHOLDER  
WITH AUTOMATIC CORDGRIP  
AND STRAIGHT SKIRT  
**10** **K1171WHI**  
BC PENDANT LAMPHOLDER  
WITH AUTOMATIC CORDGRIP  
AND PROTECTIVE SKIRT  
**10** **K1180WHI**  
STRAIGHT SKIRT FOR  
MK LAMPHOLDERS  
**10** **K1181WHI**  
PROTECTIVE SKIRT FOR  
MK LAMPHOLDERS

All MK lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.  
BS EN 61184:1997 T2 Rated.

# Ceiling Accessories



## Lampholders

SG TYPE



1150WHI

**1150WHI**  
BC PENDANT  
SG TYPE LAMPHOLDER

10

Shockguard SG Type lampholders automatically shield contacts by means of a shutter when the lamp is removed. All MK SG Type lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.  
BS EN 61184:1997  
BS 7895:1997

## Pendant Sets

SG TYPE



K1186WHI

K1189WHI

**K1186WHI**  
150MM PENDANT SET  
**K1189WHI**  
230MM PENDANT SET

10

10

**K1186WHI** and **K1189WHI** incorporate a lampholder (K1170WHI), heat resisting PVC insulated and sheathed flexible 0.75mm<sup>2</sup> two core circular cable complying with BS EN 50525-2-11 and a ceiling rose fitted with line, neutral, loop-in and earth terminals (K1161WHI). This assembly will support a light fitting of up to 3kgs.



1146WHI

1149WHI

**1146WHI**  
SG TYPE  
150MM PENDANT SET  
**1149WHI**  
SG TYPE  
230MM PENDANT SET

10

10

**1146WHI** and **1149WHI** incorporate a SG lampholder (1150WHI), heat resisting PVC insulated and sheathed flexible 0.75mm<sup>2</sup> two core circular cable complying with BS EN 50525-2-11 and a ceiling rose fitted with line, neutral, loop-in and earth terminals (1174WHI). This assembly will support a light fitting of up to 3kgs.

## Batten Lampholders

SG TYPE



K1172WHI

**K1172WHI**  
BC ANGLED  
**1174WHI**  
HEAT RESISTANT TAILS,  
LIVE, NEUTRAL, LOOP-IN  
AND EARTH TERMINALS

10

10

All MK lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.  
**1174WHI** also incorporates heat resistant wires connecting the terminals in the base to the lampholder. It has terminals mounted in the base and knockouts which accommodate 3 x 2.5 mm<sup>2</sup> cables and allow for off centre cable entries.  
BS EN 61184:1997 T2 Rated.



1152WHI

**1152WHI**  
SG TYPE  
ANGLED BATTEN  
LAMPHOLDER  
HEAT RESISTANT TAILS,  
LIVE, NEUTRAL, LOOP-IN  
AND EARTH TERMINALS  
**1154WHI**  
SG TYPE  
BATTEN LAMPHOLDER  
HEAT RESISTANT TAILS,  
LIVE, NEUTRAL, LOOP-IN  
AND EARTH TERMINALS

10

10

Shockguard SG Type lampholders automatically shield contacts by means of a shutter when the lamp is removed. All MK SG Type lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.  
**1152WHI** and **1154WHI** also incorporate heat resistant wires connecting the terminals in the base to the lampholder.  
BS EN 61184:1997 T2 Rated.  
BS 7895:1997



The MK Light Support Coupler brings plug-in convenience and versatility for lighting installations. It is modular plug and socket interface for easy maintenance of light fittings and local on-load isolation. Applications are foreseen for normal and emergency lighting fittings hence MK LSC is available in 3 pin and 4 pin configuration.

- Live contacts are inaccessible
- Earth Contact - first to make and last to break
- Mechanical and Electrical connection in one swift plugging action
- Supports static loads up to 5 kg.
- Conforms with BS6972 and BS5733 wherever applicable
- Fits standard BESA boxes with 50.8 mm fixing centers  
Surface mounting



## SOCKET OUTLET

- Fixing center at 50.8mm for surface mounting on BESA boxes.
- Terminal capacity: 2 x 4 mm<sup>2</sup> and 3 x 2.5 mm<sup>2</sup> rigid cable.
- Earth connection from both fixing holes to earth terminals.
- Construction of base is such that plug insertion is only possible in correct manner (polarised).
- High impact base material.
- 4 pins as standard can be used in 3-pin and 4-pin application.

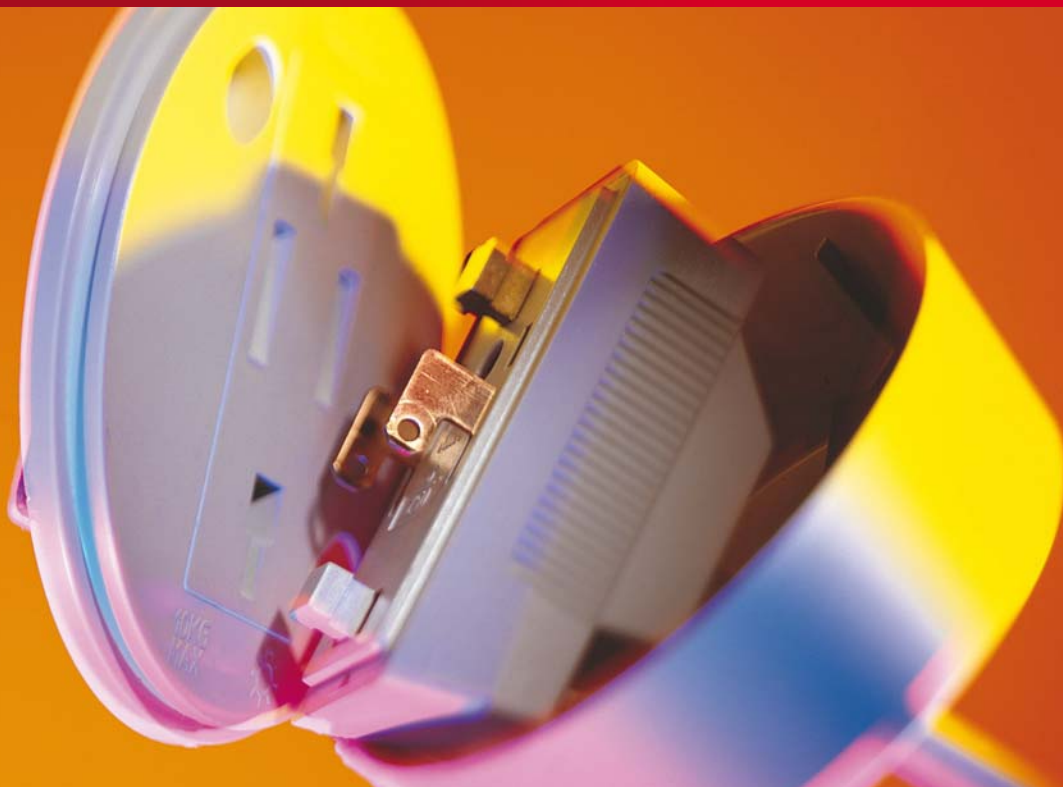
## PLUG

- Plugs in white for 3 pin & red for 4pin.
- Terminal capacity 1 x 1.5mm<sup>2</sup> flexible.
- Cable clamp to securely clamp cable outer sheath.
- Current rating: 6A max.
- Plug cover encloses all terminal screws and cable clamp.
- Construction of plug is such that it can only be inserted in one orientation.
- Earth pin makes first and breaks last.
- High impact and High temperature material.

## COVER

- Screw fixed to the periphery of the base.
- Cable aperture in cover kept to a minimum.
- High impact resistant and high temperature withstand material.

| Part No.  | Description                                    | Qty/Carton |
|-----------|--|------------|
| K3343 WHI | 3 Pin 6A Plug in Ceiling Rose White            | 10         |
| K4344 RED | 4 Pin 6A Plug in Ceiling Rose Red Plug & Cover | 10         |



# LINK

## RANGE INTRODUCTION

The MK Link connection and distribution system brings plug-in convenience and versatility for lighting installations.

It is a modular plug and socket interface that provides electrical connection in one easy click-in action. Luminaires can be plugged in without circuit isolation. All live contacts are inaccessible and the earthing connection is made before any other.

Wired products incorporate either heat resisting flex or low smoke zero halogen (LSF) insulated and sheathed flexible 0.75mm four core circular cable.

### FEATURES & BENEFITS

- Live contacts are inaccessible
- Earth contact – first to make, last to break
- Mechanical and electrical connection in one 'click-in' action
- Strong load grips support up to 5kg

### HOW TO SPECIFY

A secure lighting connection and control system, which is modular in design to enable electrical connection in one easy action. Live contacts to be inaccessible to enable luminaires to be plugged in and removed without circuit isolation. Static suspension load for plugs, sockets and pre-wired assemblies, must be able to support up to 5kg weight.

## 3 Pin Accessories

3 PIN PLUGS  
6 AMP



K3230WHI



K3212WHI



K3220WHI

3 PIN CEILING ROSES  
6 AMP



K3240WHI



## 3 Pin Pre-wired

3 PIN PLUGS  
6 AMP



K3232WHI



K3233WHI

3 PIN CEILING ROSES  
6 AMP



K3242WHI



K3243LFSF

**K3230WHI**  
WHITE 3 PIN PLUG  
WITH CORD GRIP

10

**DIMENSIONS**  
57 x 25 x 25mm

**TERMINALS**  
Phase, neutral and earth terminals  
will each accept 1 x 0.75,  
1 x 1.00mm<sup>2</sup> conductors.

**NOTE**  
K3230 can be used with the 4 pin  
socket outlets in this range.  
BS 6972 & BS 5733

**K3220WHI**  
CIRCULAR (BESA)  
**K3212WHI**  
ARCHITRAVE  
WITH TRUNKING CLAMP

10

10

**DIMENSIONS**  
K3220  
75mm dia. & 7mm depth  
K3212  
86 x 33 x 6mm deep & 7mm projection  
**FIXING CENTRES**  
K3220  
50.8mm diagonal BESA  
K3212  
60.3mm  
**MOUNTING BOXES**  
K3220: Conduit BESA Egatube boxes  
**TERMINALS**  
Phase, neutral, earth & 'loop in'  
terminals will each accept  
5 x 0.75, 5 x 1.00, 4 x 1.50, 3 x 2.50 or  
2 x 4.00mm<sup>2</sup> conductors  
**NOTE**  
only 3 pin plugs can be used with these  
sockets  
BS 6972 & BS 5733

**K3240WHI**  
CEILING ROSE (BESA)  
WITH 3 PIN PLUG

10

**DIMENSIONS**  
K3240  
75mm dia. x 44mm & 7mm fitting depth  
**FIXING CENTRES**  
K3240  
50.8mm diagonal BESA  
**MOUNTING BOXES**  
K3240: Conduit BESA Egatube boxes  
**TERMINALS**  
Phase, neutral, earth and 'loop in'  
terminals will each accept 5 x 0.75,  
5 x 1.00, 4 x 1.50, 3 x 2.50, or  
2 x 4.00mm conductors  
BS 6972 & BS 5733.

**K3232WHI**  
3 PIN PLUG FITTED WITH  
2M WHITE PVC FLEX  
**K3233WHI**  
3 PIN PLUG FITTED WITH  
3M WHITE PVC FLEX

10

5

**K3232WHI & K3233WHI** incorporate  
K3230WHI fitted with the respective  
length of heat resisting PVC insulated  
and sheathed flexible 0.75mm three  
core circular cable complying with  
BS 6500: 2000 (Table 29).

**K3242WHI**  
CEILING ROSE AND 3 PIN PLUG  
FITTED WITH 2M PVC FLEX

10

**K3243WHI**  
CEILING ROSE AND 3 PIN PLUG  
FITTED WITH 3M PVC FLEX

5

**K3242LSF**  
CEILING ROSE AND 3 PIN PLUG  
FITTED WITH 2M LSF FLEX

10

**K3243LSF**  
CEILING ROSE AND 3 PIN PLUG  
FITTED WITH 3M LSF FLEX

5

**K3242WHI & K3243WHI** incorporate  
K3240WHI fitted with the respective  
length of heat resisting PVC insulated  
and sheathed flexible 0.75mm three  
core circular cable complying with  
BS 6500: 2000 (Table 29).  
**K3242LSF & K3243LSF** incorporate  
K3240WHI fitted with the respective  
length of low smoke zero halogen  
insulated and sheathed flexible  
0.75mm three core circular cable to  
BS 6972 & BS 5733.

### GENERAL SPECIFICATION

Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz  
Rated load current for all plugs, sockets and pre-wired assemblies 6A  
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.



## 4 Pin Accessories

### 4 PIN PLUGS 6 AMP



K4230WHI

### 4 PIN SOCKETS 6 AMP



K4214WHI



K4220WHI

### 4 PIN CEILING ROSES 6 AMP



K4240WHR



K4240WHR

## 4 Pin Pre-wired

### PREWIRED 4 PIN PLUGS 6 AMP



K4232WHR



### PREWIRED 4 PIN CEILING ROSES 6 AMP



K4242WHR



K4243LSF

**K4230WHI**  
WHITE 4 PIN PLUG WITH  
CORD GRIP

**DIMENSIONS**  
57 x 35 x 44mm  
**TERMINALS**

Phase, neutral, earth and auxiliary  
terminals will each accept  
1 x 0.75, 1 x 1.00mm conductors

**NOTE**  
K4230 cannot be used with the  
3 pin socket outlets in this range.  
BS 6972 & BS 5733

10

**K4214WHI**  
ONE GANG 4 PIN SOCKET  
OUTLET

**K4220WHI**  
CIRCULAR (BESA) 4 PIN  
SOCKET OUTLET

**DIMENSIONS**

K4214  
86 x 86 x 9mm & 5mm depth

K4220  
75mm dia. & 7mm depth

**FIXING CENTRES**

K4214

60.3mm

K4220

50.8mm diagonal (BESA)

**MOUNTING BOXES**

K4214

Surface K2160WHI,  
flush dryline QFB1whi or  
flush solid 861ZIC

K4220

Conduit BESA Egatube boxes

**TERMINALS**

Phase, neutral, earth, auxiliary &  
'loop in' terminals will each accept  
5 x 0.75, 5 x 1.00, 4 x 1.50,  
3 x 2.50 or 2 x 4.00mm conductors

**NOTE**

3 and 4 pin plugs can be used with the  
4 pin socket outlets in this range.  
BS 6972 & BS 5733

10

10

**K4240WHR**  
CEILING ROSE (BESA) WITH  
RED 4 PIN PLUG

**DIMENSIONS**

**FIXING CENTRES**

50.8mm diagonal (BESA)

**MOUNTING BOXES**

Conduit BESA Egatube boxes

**TERMINALS**

Phase, neutral, earth, auxiliary &  
'loop in' terminals will each accept  
5 x 0.75, 5 x 1.00, 4 x 1.50,  
3 x 2.50 or 2 x 4.00mm conductors  
BS 6972 & BS 5733

10

**K4232WHR**  
RED 4 PIN PLUG WITH 2M  
WHITE PVC FLEX.

**K4233WHR**  
RED 4 PIN PLUG WITH 3M  
WHITE PVC FLEX

**K4232WHR & K4233WHR**

incorporate K4230WHI fitted with the  
respective length of heat resisting PVC  
insulated and sheathed flexible 0.75mm  
four core circular cable complying with  
BS 6500:2000 (Table 29)

BS 6972 & BS 5733

10

5

**K4242WHR**  
CEILING ROSE WITH RED  
4 PIN PLUG AND 2M PVC FLEX

**K4243WHR**  
CEILING ROSE WITH RED  
4 PIN PLUG AND 3M PVC FLEX

**K4242LSF**  
CEILING ROSE WITH RED  
4 PIN PLUG AND 2M LSF FLEX

**K4243LSF**  
CEILING ROSE WITH RED  
4 PIN PLUG AND 3M LSF FLEX

10

5

10

5

**K4242WHR & K4243WHR**

incorporate K4240WHR fitted  
with the respective length of  
heat resisting PVC insulating and  
sheathed flexible 0.75mm four  
core circular cable complying with  
BS 6500:2000 (Table 29)

**K4242LSF & K4243LSF** incorporate  
K4240WHR fitted with the respective  
length of low smoke zero halogen  
insulated and sheathed flexible  
0.75mm four core circular cable to  
BS 6972 & BS 5733

#### GENERAL SPECIFICATION

Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz  
Rated load current for all plugs, sockets and pre-wired assemblies 6A  
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.

## Mounting Boxes

ARCHITRAVE  
MOULDED  
FLUSH

STEEL  
FLUSH

SQUARE  
MOULDED  
FLUSH

STEEL  
FLUSH

CIRCULAR  
SURFACE



K2151WHI



3921ZIC



QFB1WHI



861ZIC



2ECR1WHI



QFB/IG1



2ECR3WHI



K2160WHI

**K2151WHI**  
1 GANG  
ARCHITRAVE BOX

10

**K2151WHI**  
Earth terminal fitted in base.  
**DIMENSIONS**  
87 x 33 x 16mm  
**FIXING CENTRES**  
60.3mm  
BS 5733:1995

**3921ZIC**  
1 GANG  
ARCHITRAVE BOX

With earth terminal  
**DIMENSIONS**  
75 x 27 x 27mm  
**FIXING CENTRES**  
60.3mm  
**KNOCKOUTS**  
3 x 16mm  
BS 4662:1970

10

**QFB1WHI**  
1 GANG  
DRY LINING BOX  
**QFB/IG1**  
1 GANG  
DRY LINING BOX  
WITH INTUMESCENT GASKET  
**K2160WHI**  
1 GANG 16MM  
MOULDED BOX

20

20

10

**QFB1**  
All round flange for flush fit. One piece moulded lug automatically snaps into place. No rear projections. Clamp device on cable entry. Will accommodate partition thicknesses between 6mm and 16mm. Earth terminal facility.

**K2160WHI**  
Earth terminal fitted in base of boxes.  
**DIMENSIONS**  
K2160: 87 x 87mm  
**FIXING CENTRES**  
60.3mm  
BS 5733:1995  
**QFB/IG1**

Pre-fitted with intumescent gaskets to give fire protection, in accordance with BS 476 Pt 22:1987. In a fire situation, a chemical reaction will occur with the intumescent material. The void behind the wiring device will be filled, providing protection against the passage of fire.

BS 4662:1970 where applicable.

**861ZIC**  
1 GANG  
ONE ADJUSTABLE LUG

With earth terminal  
**DIMENSIONS**  
75 x 75mm  
**FIXING CENTRES**  
60.3mm  
**KNOCKOUTS**  
12 x 20mm  
BS 4662:1970  
Depth 25mm

10

**2ECR13WHI** 25  
**2ECR13BLK** 25  
20MM LOOP-IN  
**2ECR1WHI** 25  
**2ECR1BLK** 25  
20MM BACK OUTLET  
**2ECR3WHI** 25  
**2ECR3BLK** 25  
20MM TWO WAY  
**2ECR8WHI** 10  
**2ECR8BLK** 10  
20MM TWO WAY AND  
BACK OUTLET

**CONDUIT BOXES**  
20mm Loop-in boxes have 4 x 20mm knockouts on underside.  
**MATERIAL**  
PVC-U  
**LID FIXING CENTRES**  
50.8mm  
**PILLAR THREAD SIZE**  
M4 (Brass inserts) All boxes contain a moulded recess for earth terminal.  
See pages 354 for the full selection of circular conduit boxes.

### GENERAL SPECIFICATION

Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz  
Rated load current for all plugs, sockets and pre-wired assemblies 6A  
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.

## Distribution Boxes



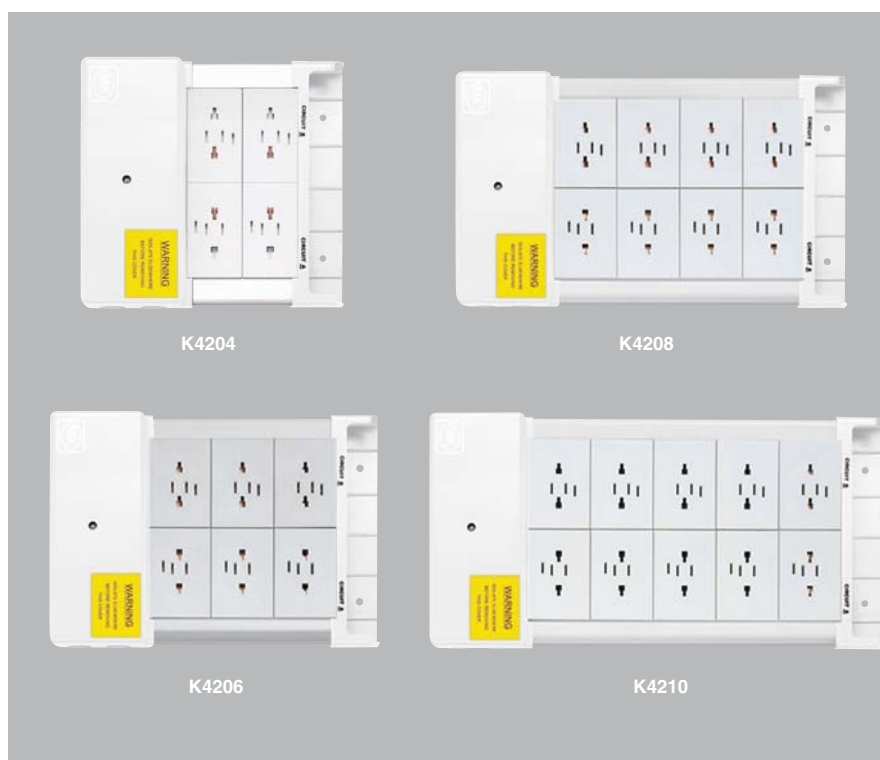
Fixing of the distribution box to lighting trunking is made easy through the choice of cable entry points.



The distribution box can be suspended on drop rods utilising Caddy Clips.\*



The distribution box can be fitted directly to the wall or ceiling using the pilot holes provided in the base.



**K4204**  
4 GANG 6A  
4 PIN SOCKET  
LIGHTING DISTRIBUTION BOX

1

**K4206**  
6 GANG 6A  
4 PIN SOCKET  
LIGHTING DISTRIBUTION BOX

1

**K4208**  
8 GANG 6A  
4 PIN SOCKET  
LIGHTING DISTRIBUTION BOX

1

**K4210**  
10 GANG 6A  
4 PIN SOCKET  
LIGHTING DISTRIBUTION BOX

1

### DIMENSIONS

K4204: 80 x 222 x 237mm  
K4206: 80 x 222 x 290mm  
K4208: 80 x 222 x 400mm  
K4210: 80 x 222 x 465mm

### MOUNTINGS

Provision for screw (No. 8) fix to walls or trunking and slots for \*Caddy Clips on top, bottom and back faces.

Conduit entries with snap fit blanks; 20 & 25mm in top, bottom and back faces. Outlets can be wired as 1 or 2 banks.

### TERMINAL CAPACITY

3 x 6mm rated at 16A.  
Each socket is rated at 6A.  
Extruded aluminium body with V0 rated plastic terminal housing. Both 3 & 4 pin plugs can be used with the distribution box 4 pin socket outlets. BS 5733

\*Caddy Clip is a registered trade mark of Erico Europa (UK) Ltd. Reading.



# CASE STUDY

## ST GEORGE BATTERSEA REACH DEVELOPMENT, LONDON

The new MK Elements range was specified extensively at the St George Battersea Reach development in London. This ongoing residential development from the Berkeley Group, is situated in the bustling vicinity of England's capital and offers a wide range of high end apartments.

The Client, St George favoured the glass effect finish and touch controlled dimmers for their elegant styling, which perfectly complements the superior character of such a prestigious development.







# SENSORS

## RANGE INTRODUCTION

---

MK Sensors are designed to deliver energy savings and lighting control in a range of commercial and domestic applications. Lighting represents 19% of a building's total energy consumption\* lighting controls can help you cut that by up to 70%.

The MK Sensor range deploys PIR and ultrasonic sensing technology to provide effective presence detection.

All products in the MK sensors range have a built in photocell, providing accurate light level detection. This allows sensors to harness natural daylight, delivering further energy savings by either holding off, switching lights off or regulating to maintain a constant light level.

\*Source: Department of Energy and Climate change (July 2012)

## FEATURES & BENEFITS

- Built in photocell provides light level detection
- Sensors can be installed for absence detection
- 2A, 6A and 10A products
- Easy to install and program
- Flush and surface mounted variants available
- Ideal for most interior environments
- Switching and digital dimming detectors  
Ideal for retrofit and new build installations



## SimpleFit Sensors

DEDICATED SURFACE  
AND FLUSH MOUNT  
**6A**



K5015\*



K5016\*

**K5015**  
SIMPLE FIT PIR SENSOR  
WITH PHOTOCELL  
FLUSH MOUNT  
CEILING MOUNT  
6M DETECTION  
6A

1

**K5016**  
SIMPLE FIT PIR SENSOR  
WITH PHOTOCELL  
SURFACE MOUNT  
CEILING MOUNT  
6M DETECTION  
6A

1

**DIMENSIONS**  
FLUSH

76 x 86mm

**SURFACE**

86 x 86mm x 54.5mm

\*Not for sale in KSA (50 Hz)



# DECORATIVE

## RANGE INTRODUCTION

---

MK's decorative wiring device portfolio now includes the MK Elements range which stylishly showcases new colours, materials and finishes for greater choice and flexibility.

With 29 high quality finishes available across 4 individual ranges you will now find a style and finish that will compliment any modern, contemporary or traditional interior design scheme.

Great design relies on that precise combination of material, texture, colour and tone to create that wow factor. The ability to do the same thing with your wiring devices means you never have to settle for second best. Whether it's a new finish, combining technology or adding engraving to your products MK's Design Service team can help you achieve your design goals.

MK Electric have continued to invest in their UK manufacturing equipment, in order to be more flexible to your decorative wiring device needs whilst still offering the same level of quality and service.

## FEATURES & BENEFITS

- 29 stunning finishes across 5 different material types including metal, glass effect and wood
- 4 Individual range options
- Choices of a screwed or screwless aesthetic
- Choice of frontplate depth – modern 1.5mm, contemporary 4mm, distinctive 7.5mm or traditional 9mm
- Compliment any interior design scheme
- Flexibility and custom options with MK's Design Service

## RANGE INTRODUCTION

### Elements Finish Options



SYNTHETIC  
CHALK WHITE  
(SCW)



GLASS EFFECT  
ICE WHITE  
(GIW)



SYNTHETIC  
NATURAL STONE  
(SNS)



GLASS EFFECT  
POLISHED ONYX  
(GPO)



SYNTHETIC  
BEACH PEBBLE  
(SBP)



METALLIC  
BRUSHED STEEL  
(MBS)



METALLIC  
SATIN PLATINUM  
(MSP)



METALLIC  
SATIN TITANIUM  
(MST)



METALLIC  
BRUSHED BRONZE  
(MBB)

# Decorative

## RANGE INTRODUCTION

Aspect, Insignia and Albany Plus Finish Options



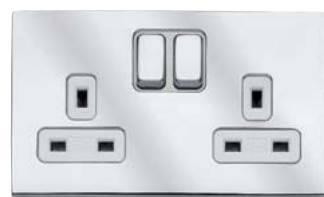
BRUSHED  
STAINLESS STEEL  
(BSS\*)



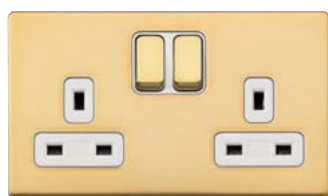
LACQUERED  
BRUSHED STEEL  
(LBS\*)



BRUSHED CHROME  
(BRC\*)



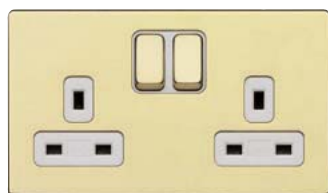
POLISHED CHROME  
(POC/PCR\*)



SATIN GOLD  
(SAG\*)



PORCELAIN WHITE  
(WHI)



POLISHED BRASS  
(PBR\*)



LUSTROUS BLACK  
(LBK)

\*Available with the option of either white or black inserts





# ELEMENTS

## RANGE INTRODUCTION

The MK Elements collection is a revolutionary range of stylish wiring devices. Innovative, iconic and inspiring, the Elements collection is the perfect fusion of distinctive design and unparalleled quality. Inspired by materials such as wood, leather and stone, and with electronic touch control switches and dimmers, the MK Elements collection offers the perfect companion for any interior.

With Elements comes the ultimate fusion of distinctive design and unparalleled quality. The range provides slim, screwless profiles and silent operation, alongside a diverse range of colours, styles and textures, providing the ultimate choice for any interior.

### HOW TO SPECIFY

A modern square edged range of wiring devices with metal, glass effect, natural & synthetic finished front plates designed to be fixed within and flush to the colour co-ordinated moulded trim. Moulded Frontplates to be polycarbonate and constructed of two colour matched sections, with an overall profile depth of 7.5mm. Frontplates to be screwless, removable by flat blade screwdriver through discreet bottom access apertures. There shall be no plastic bezel/ surround to switch rockers and socket inserts are to be designed with clean, crisp edges. Plug pins shall insert into separate individual socket apertures. Switch rockers and socket inserts to be colour matched to moulded trim. Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety. Switches to be large with a minimum 3mm contact gap with a positive 'click' to denote successful operation.

### FEATURES & BENEFITS

#### 16 STANDARD HIGH QUALITY FINISHES WITH ULTIMATE FLEXIBILITY

16 standard finishes across 4 material groups allow designers to easily complement any interior design. The design service offering also means we can create tailor-made products to suit individual needs.

#### TOTAL SAFETY

3-pin operated 'child resistant shutter system', which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position.

#### UNRIVALLED QUALITY AND RELIABILITY

Products are made from the very best materials and production processes. All products are 100% tested.

#### COMPREHENSIVE RANGE OF SOCKETS, SWITCHES AND MODULAR ANCILLARY PRODUCTS

Whatever the application, the Elements range has a wiring device to suit.

#### 20 YEAR GUARANTEE

Gives total peace of mind to you and your customers. (5 year guarantee for electronic devices)



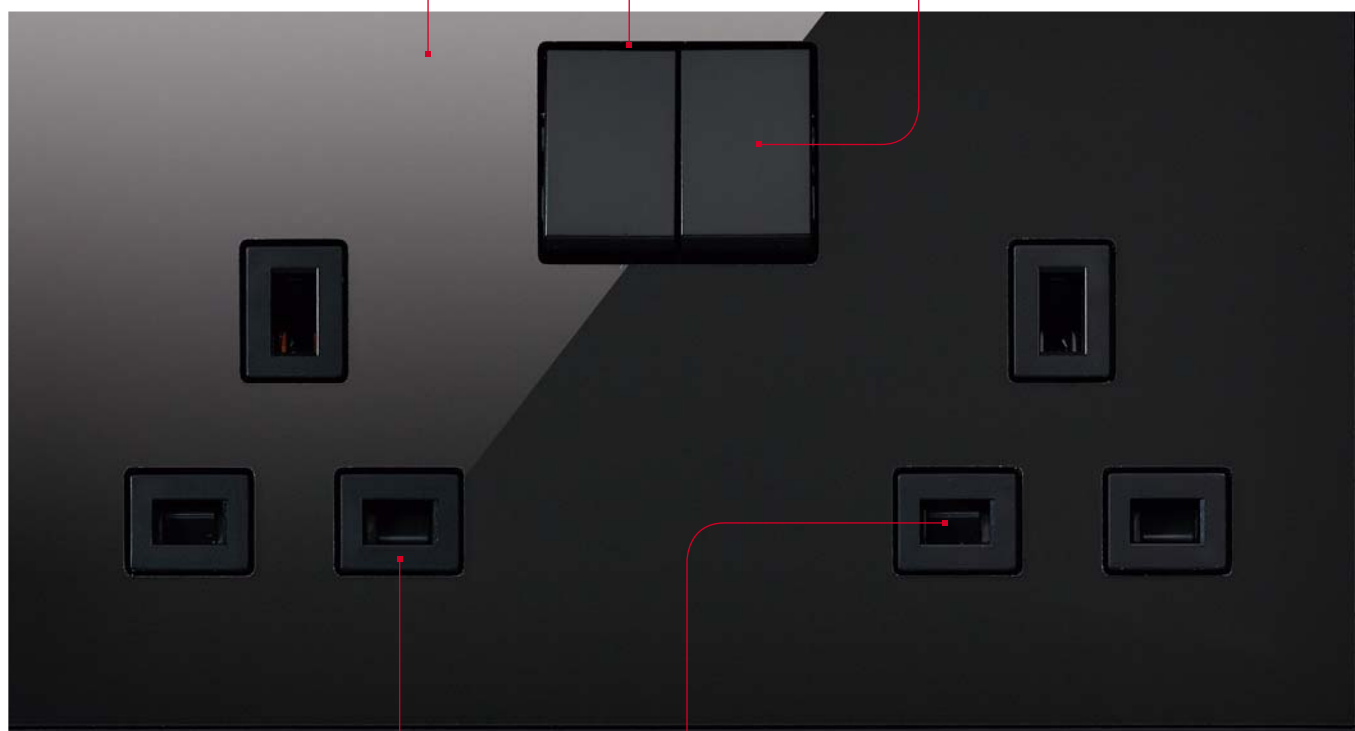
# Elements

FRONTPLATE AVAILABLE  
IN 16 FINISHES

Including Glass effect,  
Wood, Synthetic and Metal

NO VISIBLE BEZEL

DOUBLE POLE SWITCHING



OPTIONAL INSERT COLOUR

Choice of chalk white, black,  
beach pebble and natural  
stone

SLIM, SCREWLESS DESIGN  
Frontplate profile 7.5mm

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"

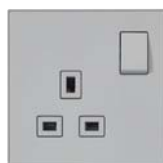
Designed to inhibit access to the electricity supply,  
unless all 3 pins of a standard 13A plug are in position



Naturals



Synthetics



Metallic



Glass Effect



## Switchsocket Outlets

1 GANG DP  
DUAL EARTH  
13 AMP

1 GANG DP  
WITH LED  
INDICATOR/  
LOCATOR DUAL  
EARTH  
13 AMP

2 GANG DP  
13 AMP

2 GANG DP  
WITH LED  
INDICATOR/  
LOCATOR  
13 AMP

2 GANG DP  
DUAL EARTH  
13 AMP

### SYNTHETIC FINISHES

|                     |           |   |            |   |           |   |            |   |           |   |
|---------------------|-----------|---|------------|---|-----------|---|------------|---|-----------|---|
| CHALK WHITE – SCW   | K34357SCW | 1 | K34357NSCW | 1 | K34347SCW | 1 | K34347NSCW | 1 | K34547SCW | 1 |
| NATURAL STONE – SNS | K34357SNS | 1 | K34357NSNS | 1 | K34347SNS | 1 | K34347NSNS | 1 | K34547SNS | 1 |
| BEACH PEBBLE – SBP  | K34357SBP | 1 | K34357NSBP | 1 | K34347SBP | 1 | K34347NSBP | 1 | K34547SBP | 1 |

### GLASS EFFECT FINISHES

|                      |           |   |            |   |           |   |            |   |           |   |
|----------------------|-----------|---|------------|---|-----------|---|------------|---|-----------|---|
| ICE WHITE – GIW      | K34357GIW | 1 | K34357NGIW | 1 | K34347GIW | 1 | K34347NGIW | 1 | K34547GIW | 1 |
| POLISHED JADE – GPJ  | K34357GPJ | 1 | K34357NGPJ | 1 | K34347GPJ | 1 | K34347NGPJ | 1 | K34547GPJ | 1 |
| POLISHED ONYX – GPO  | K34357GPO | 1 | K34357NGPO | 1 | K34347GPO | 1 | K34347NGPO | 1 | K34547GPO | 1 |
| POLISHED STONE – GPS | K34357GPS | 1 | K34357NGPS | 1 | K34347GPS | 1 | K34347NGPS | 1 | K34547GPS | 1 |

### METALLIC FINISHES

|                      |           |   |            |   |           |   |            |   |           |   |
|----------------------|-----------|---|------------|---|-----------|---|------------|---|-----------|---|
| BRUSHED STEEL – MBS  | K34357MBS | 1 | K34357NMBS | 1 | K34347MBS | 1 | K34347NMBS | 1 | K34547MBS | 1 |
| BRUSHED BRONZE – MBB | K34357MBB | 1 | K34357NMBB | 1 | K34347MBB | 1 | K34347NMBB | 1 | K34547MBB | 1 |
| CAST IRON – MCI      | K34357MCI | 1 | K34357NMCI | 1 | K34347MCI | 1 | K34347NMCI | 1 | K34547MCI | 1 |
| SATIN PLATINUM – MSP | K34357MSP | 1 | K34357NMSP | 1 | K34347MSP | 1 | K34347NMSP | 1 | K34547MSP | 1 |
| SATIN TITANIUM – MST | K34357MST | 1 | K34357NMST | 1 | K34347MST | 1 | K34347NMST | 1 | K34547MST | 1 |

### NATURAL FINISHES

|                   |           |   |            |   |           |   |            |   |           |   |
|-------------------|-----------|---|------------|---|-----------|---|------------|---|-----------|---|
| BRITISH OAK – NBO | K34357NBO | 1 | K34357NNBO | 1 | K34347NBO | 1 | K34347NNBO | 1 | K34547NBO | 1 |
| CREAM HIDE – NCH  | K34357NCH | 1 | K34357NNCH | 1 | K34347NCH | 1 | K34347NNCH | 1 | K34547NCH | 1 |
| DARK HIDE – NDH   | K34357NDH | 1 | K34357NNDH | 1 | K34347NDH | 1 | K34347NNDH | 1 | K34547NDH | 1 |
| DARK WENGE – NDW  | K34357NDW | 1 | K34357NNDW | 1 | K34347NDW | 1 | K34347NNDW | 1 | K34547NDW | 1 |

MOUNTING BOXES  
35mm  
86ZIC  
46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
35mm  
86ZIC  
46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
35mm  
886ZIC  
47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

MOUNTING BOXES  
35mm  
886ZIC  
47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

MOUNTING BOXES  
35mm  
886ZIC  
47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

# Elements



## Switchsocket Outlets

2 GANG DP  
DUAL EARTH  
WITH LED  
INDICATOR/  
LOCATOR  
**13 AMP**

2 GANG DP  
WITH 2 X USB  
CHARGING PORTS  
DUAL EARTH  
**13 AMP**





1 GANG SP  
ROUND PIN  
**5 AMP**

1 GANG SP  
ROUND PIN  
**15 AMP**

## Socket Outlets

1 GANG  
UNSWITCHED  
**13 AMP**

**\*\*TO BE AVAILABLE SOON**

|                              |  |  |  |             |  |
|------------------------------|---|---|---|-------------|---|
| <b>SYNTHETIC FINISHES</b>    |   |   |   |             |   |
| CHALK WHITE – SCW            | K34547NSCW 1  | K34343SCW 1   | K34382SCW 1   | K34383SCW 1 | K34780SCW 1   |
| NATURAL STONE – SNS          | K34547NSNS 1  | K34343SNS 1   | K34382SNS 1   |             | K34780SNS 1   |
| BEACH PEBBLE – SBP           | K34547NSBP 1  | K34343SBP 1   | K34382SBP 1   |             | K34780SBP 1   |
| <b>GLASS EFFECT FINISHES</b> |   |   |   |             |   |
| ICE WHITE – GIW              | K34547NGIW 1  | K34343GIW 1   | K34382GIW 1   |             | K34780GIW 1   |
| POLISHED JADE – GPJ          | K34547NGPJ 1  | K34343GPJ 1   | K34382GPJ 1   |             | K34780GPJ 1   |
| POLISHED ONYX – GPO          | K34547NGPO 1  | K34343GPO 1   | K34382GPO 1   |             | K34780GPO 1   |
| POLISHED STONE – GPS         | K34547NGPS 1  | K34343GPS 1   | K34382GPS 1   |             | K34780GPS 1   |
| <b>METALLIC FINISHES</b>     |   |   |   |             |   |
| BRUSHED STEEL – MBS          | K34547NMBS 1  | K34343MBS 1   | K34382MBS 1   |             | K34780MBS 1   |
| BRUSHED BRONZE – MBB         | K34547NMBB 1  | K34343MBB 1   | K34382MBS 1   |             | K34780MBB 1   |
| CAST IRON – MCI              | K34547NMCI 1  | K34343MCI 1   | K34382MCI 1   |             | K34780MCI 1   |
| SATIN PLATINUM – MSP         | K34547NMSP 1  | K34343MSP 1   | K34382MSP 1   |             | K34780MSP 1   |
| SATIN TITANIUM – MST         | K34547NMST 1  | K34343MST 1   | K34382MST 1   |             | K34780MST 1   |
| <b>NATURAL FINISHES</b>      |   |   |   |             |   |
| BRITISH OAK – NBO            | K34547NNBO 1  | K34343NBO 1   | K34382NBO 1   |             | K34780NBO 1   |
| CREAM HIDE – NCH             | K34547NNCH 1  | K34343NCH 1   | K34382NCH 1   |             | K34780NCH 1   |
| DARK HIDE – NDH              | K34547NNDH 1  | K34343NDH 1   | K34382NDH 1   |             | K34780NDH 1   |
| DARK WENGE – NDW             | K34547NNDW 1  | K34343NDW 1   | K34382NDW 1   |             | K34780NDW 1   |

MOUNTING BOXES  
35mm  
886ZIC  
47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

USB charging sockets, each capable of supporting 2A charge (total of 2A)  
Pattress available for use where existing back box is too shallow, see page 34  
MOUNTING BOXES  
35mm  
886ZIC  
47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS5733:2010

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

## Multimedia Plates

2 GANG DP  
SWITCHSOCKET,  
EURO 2 MODULE  
50 X 50MM (RIGHT SIDE)  
**13 AMP**

2 GANG DP  
SWITCHSOCKET,  
EURO 2 MODULE  
50 X 50MM (LEFT SIDE)  
**13 AMP**

2 GANG DP  
SWITCHSOCKET,  
EURO 4 MODULE  
50 X 50MM (X2)  
**13 AMP**



|           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|
| K34206SCW | 1 | K34207SCW | 1 | K34208SCW | 1 |
| K34206SNS | 1 | K34207SNS | 1 | K34208SNS | 1 |
| K34206SBP | 1 | K34207SBP | 1 | K34208SBP | 1 |
|           |   |           |   |           |   |
| K34206GIW | 1 | K34207GIW | 1 | K34208GIW | 1 |
| K34206GPJ | 1 | K34207GPJ | 1 | K34208GPJ | 1 |
| K34206GPO | 1 | K34207GPO | 1 | K34208GPO | 1 |
| K34206GPS | 1 | K34207GPS | 1 | K34208GPS | 1 |
|           |   |           |   |           |   |
| K34206MBS | 1 | K34207MBS | 1 | K34208MBS | 1 |
| K34206MBB | 1 | K34207MBB | 1 | K34208MBB | 1 |
| K34206MCI | 1 | K34207MCI | 1 | K34208MCI | 1 |
| K34206MSP | 1 | K34207MSP | 1 | K34208MSP | 1 |
| K34206MST | 1 | K34207MST | 1 | K34208MST | 1 |
|           |   |           |   |           |   |
| K34206NBO | 1 | K34207NBO | 1 | K34208NBO | 1 |
| K34206NCH | 1 | K34207NCH | 1 | K34208NCH | 1 |
| K34206NDH | 1 | K34207NDH | 1 | K34208NDH | 1 |
| K34206NDW | 1 | K34207NDW | 1 | K34208NDW | 1 |

MOUNTING BOXES  
47mm  
870ZIC  
DIMENSIONS  
90.5 x 238mm  
BS 1363-2: 1995

MOUNTING BOXES  
47mm  
870ZIC  
DIMENSIONS  
90.5 x 238mm  
BS 1363-2: 1995

MOUNTING BOXES  
47mm  
868ZIC  
DIMENSIONS  
90.5 x 325.3mm  
BS 1363-2: 1995

# Elements



## Multimedia Plates

EURO 8 MODULE  
100 X 50MM (X2)

EURO 12 MODULE  
150 X 50MM (X2)

## Shaver/Toothbrush Supply Units

DUAL VOLTAGE  
OUTPUT 115/230V  
INPUT 220/240V  
50/60HZ

### SYNTHETIC FINISHES

|                              |           |   |           |   |           |   |
|------------------------------|-----------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW            | K34209SCW | 1 | K34210SCW | 1 | K34709SCW | 1 |
| NATURAL STONE – SNS          | K34209SNS | 1 | K34210SNS | 1 | K34709SNS | 1 |
| BEACH PEBBLE – SBP           | K34209SBP | 1 | K34210SBP | 1 | K34709SBP | 1 |
| <b>GLASS EFFECT FINISHES</b> |           |   |           |   |           |   |
| ICE WHITE – GIW              | K34209GIW | 1 | K34210GIW | 1 | K34709GIW | 1 |
| POLISHED JADE – GPJ          | K34209GPJ | 1 | K34210GPJ | 1 | K34709GPJ | 1 |
| POLISHED ONYX – GPO          | K34209GPO | 1 | K34210GPO | 1 | K34709GPO | 1 |
| POLISHED STONE – GPS         | K34209GPS | 1 | K34210GPS | 1 | K34709GPS | 1 |
| <b>METALLIC FINISHES</b>     |           |   |           |   |           |   |
| BRUSHED STEEL – MBS          | K34209MBS | 1 | K34210MBS | 1 | K34709MBS | 1 |
| BRUSHED BRONZE – MBB         | K34209MBB | 1 | K34210MBB | 1 | K34709MBB | 1 |
| CAST IRON – MCI              | K34209MCI | 1 | K34210MCI | 1 | K34709MCI | 1 |
| SATIN PLATINUM – MSP         | K34209MSP | 1 | K34210MSP | 1 | K34709MSP | 1 |
| SATIN TITANIUM – MST         | K34209MST | 1 | K34210MST | 1 | K34709MST | 1 |
| <b>NATURAL FINISHES</b>      |           |   |           |   |           |   |
| BRITISH OAK – NBO            | K34209NBO | 1 | K34210NBO | 1 | K34709NBO | 1 |
| CREAM HIDE – NCH             | K34209NCH | 1 | K34210NCH | 1 | K34709NCH | 1 |
| DARK HIDE – NDH              | K34209NDH | 1 | K34210NDH | 1 | K34709NDH | 1 |
| DARK WENGE – NDW             | K34209NDW | 1 | K34210NDW | 1 | K34709NDW | 1 |

MOUNTING BOXES  
47mm  
858ZIC  
DIMENSIONS  
177.8 x 150.5mm  
BS 5733:2010

MOUNTING BOXES  
47mm  
869ZIC  
DIMENSIONS  
177.8 x 210.8mm  
BS 5733:2010

MOUNTING BOXES  
47mm  
878ZIC  
DIMENSIONS  
146 x 86mm  
FIXING CENTRES  
120.6mm  
BS EN 61558-2-5:1998



## Connection Units

SWITCHED  
13 AMP



SWITCHED  
WITH FLEX OUTLET  
& NEON  
13 AMP



UNSWITCHED  
WITH FLEX OUTLET  
& NEON  
13 AMP



## High Current Switches

1 GANG DP  
WITH NEON  
32 AMP



1 GANG DP  
50 AMP



|           |   |           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|
| K34941SCW | 1 | K34971SCW | 1 | K34978SCW | 1 | K34305SCW | 1 | K34337SCW | 1 |
| K34941SNS | 1 | K34971SNS | 1 | K34978SNS | 1 | K34305SNS | 1 | K34337SNS | 1 |
| K34941SBP | 1 | K34971SBP | 1 | K34978SBP | 1 | K34305SBP | 1 | K34337SBP | 1 |
|           |   |           |   |           |   |           |   |           |   |
| K34941GIW | 1 | K34971GIW | 1 | K34978GIW | 1 | K34305GIW | 1 | K34337GIW | 1 |
| K34941GPJ | 1 | K34971GPJ | 1 | K34978GPJ | 1 | K34305GPJ | 1 | K34337GPJ | 1 |
| K34941GPO | 1 | K34971GPO | 1 | K34978GPO | 1 | K34305GPO | 1 | K34337GPO | 1 |
| K34941GPS | 1 | K34971GPS | 1 | K34978GPS | 1 | K34305GPS | 1 | K34337GPS | 1 |
|           |   |           |   |           |   |           |   |           |   |
| K34941MBS | 1 | K34971MBS | 1 | K34978MBS | 1 | K34305MBS | 1 | K34337MBS | 1 |
| K34941MBB | 1 | K34971MBB | 1 | K34978MBB | 1 | K34305MBB | 1 | K34337MBB | 1 |
| K34941MCI | 1 | K34971MCI | 1 | K34978MCI | 1 | K34305MCI | 1 | K34337MCI | 1 |
| K34941MSP | 1 | K34971MSP | 1 | K34978MSP | 1 | K34305MSP | 1 | K34337MSP | 1 |
| K34941MST | 1 | K34971MST | 1 | K34978MST | 1 | K34305MST | 1 | K34337MST | 1 |
|           |   |           |   |           |   |           |   |           |   |
| K34941NBO | 1 | K34971NBO | 1 | K34978NBO | 1 | K34305NBO | 1 | K34337NBO | 1 |
| K34941NCH | 1 | K34971NCH | 1 | K34978NCH | 1 | K34305NCH | 1 | K34337NCH | 1 |
| K34941NDH | 1 | K34971NDH | 1 | K34978NDH | 1 | K34305NDH | 1 | K34337NDH | 1 |
| K34941NDW | 1 | K34971NDW | 1 | K34978NDW | 1 | K34305NDW | 1 | K34337NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS1363-4:1995

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS1363-4:1995

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS1363-4:1995

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BSEN60669-1:1999

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

DP Switches are not recommended for switching large banks of PCs.

# Elements



## High Current Switches

1 GANG DP  
MARKED "COOKER"  
50 AMP

1 GANG DP  
WITH NEON  
50 AMP

1 GANG DP  
WITH NEON  
MARKED "COOKER"  
50 AMP

## 3 Pole Fan Isolator

To be available soon

10 AMP



### SYNTHETIC FINISHES

|                     |             |   |            |   |              |   |           |   |
|---------------------|-------------|---|------------|---|--------------|---|-----------|---|
| CHALK WHITE – SCW   | K34337CKSCW | 1 | K34337NSCW | 1 | K34337NCKSCW | 1 | K34859SCW | 1 |
| NATURAL STONE – SNS | K34337CKSNS | 1 | K34337NSNS | 1 | K34337NCKSNS | 1 | K34859SNS | 1 |
| BEACH PEBBLE – SBP  | K34337CKSBP | 1 | K34337NSBP | 1 | K34337NCKSBP | 1 | K34859SBP | 1 |

### GLASS EFFECT FINISHES

|                      |             |   |            |   |              |   |           |   |
|----------------------|-------------|---|------------|---|--------------|---|-----------|---|
| ICE WHITE – GIW      | K34337CKGIW | 1 | K34337NGIW | 1 | K34337NCKGIW | 1 | K34859GIW | 1 |
| POLISHED JADE – GPJ  | K34337CKGPJ | 1 | K34337NGPJ | 1 | K34337NCKGPJ | 1 | K34859GPJ | 1 |
| POLISHED ONYX – GPO  | K34337CKGPO | 1 | K34337NGPO | 1 | K34337NCKGPO | 1 | K34859GPO | 1 |
| POLISHED STONE – GPS | K34337CKGPS | 1 | K34337NGPS | 1 | K34337NCKGPS | 1 | K34859GPS | 1 |

### METALLIC FINISHES

|                      |             |   |            |   |              |   |           |   |
|----------------------|-------------|---|------------|---|--------------|---|-----------|---|
| BRUSHED STEEL – MBS  | K34337CKMBS | 1 | K34337NMBS | 1 | K34337NCKMBS | 1 | K34859MBS | 1 |
| BRUSHED BRONZE – MBB | K34337CKMBB | 1 | K34337NMBB | 1 | K34337NCKMBB | 1 | K34859MBB | 1 |
| CAST IRON – MCI      | K34337CKMCI | 1 | K34337NMCI | 1 | K34337NCKMCI | 1 | K34859MCI | 1 |
| SATIN PLATINUM – MSP | K34337CKMSP | 1 | K34337NMSP | 1 | K34337NCKMSP | 1 | K34859MSP | 1 |
| SATIN TITANIUM – MST | K34337CKMST | 1 | K34337NMST | 1 | K34337NCKMST | 1 | K34859MST | 1 |

### NATURAL FINISHES

|                   |             |   |            |   |              |   |           |   |
|-------------------|-------------|---|------------|---|--------------|---|-----------|---|
| BRITISH OAK – NBO | K34337CKNBO | 1 | K34337NNBO | 1 | K34337NCKNBO | 1 | K34859NBO | 1 |
| CREAM HIDE – NCH  | K34337CKNCH | 1 | K34337NNCH | 1 | K34337NCKNCH | 1 | K34859NCH | 1 |
| DARK HIDE – NDH   | K34337CKNDH | 1 | K34337NNDH | 1 | K34337NCKNDH | 1 | K34859NDH | 1 |
| DARK WENGE – NDW  | K34337CKNDW | 1 | K34337NNDW | 1 | K34337NCKNDW | 1 | K34859NDW | 1 |

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-4  
K4858 switchlock is suitable for this product

DP Switches are not recommended for switching large banks of PCs.

## Electronic Switches

1 GANG SINGLE  
2 WAY SP  
400W

1 GANG DOUBLE  
2 WAY SP  
2 X 400W

1 GANG SINGLE  
1 WAY SP 10AX

## Electronic Dimmers

2 WAY SINGLE  
60-500W/400VA  
6-150W LED  
LEADING EDGE



|           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|
| K34371SCW | 1 | K34372SCW | 1 | K34370SCW | 1 | K34100SCW | 1 |
| K34371SNS | 1 | K34372SNS | 1 | K34370SNS | 1 | K34100SNS | 1 |
| K34371SBP | 1 | K34372SBP | 1 | K34370SBP | 1 | K34100SBP | 1 |
|           |   |           |   |           |   |           |   |
| K34371GIW | 1 | K34372GIW | 1 | K34370GIW | 1 | K34100GIW | 1 |
| K34371GPJ | 1 | K34372GPJ | 1 | K34370GPJ | 1 | K34100GPJ | 1 |
| K34371GPO | 1 | K34372GPO | 1 | K34370GPO | 1 | K34100GPO | 1 |
| K34371GPS | 1 | K34372GPS | 1 | K34370GPS | 1 | K34100GPS | 1 |
|           |   |           |   |           |   |           |   |
| K34371MBS | 1 | K34372MBS | 1 | K34370MBS | 1 | K34100MBS | 1 |
| K34371MBB | 1 | K34372MBB | 1 | K34370MBB | 1 | K34100MBB | 1 |
| K34371MCI | 1 | K34372MCI | 1 | K34370MCI | 1 | K34100MCI | 1 |
| K34371MSP | 1 | K34372MSP | 1 | K34370MSP | 1 | K34100MSP | 1 |
| K34371MST | 1 | K34372MST | 1 | K34370MST | 1 | K34100MST | 1 |
|           |   |           |   |           |   |           |   |
| K34371NBO | 1 | K34372NBO | 1 | K34370NBO | 1 | K34100NBO | 1 |
| K34371NCH | 1 | K34372NCH | 1 | K34370NCH | 1 | K34100NCH | 1 |
| K34371NDH | 1 | K34372NDH | 1 | K34370NDH | 1 | K34100NDH | 1 |
| K34371NDW | 1 | K34372NDW | 1 | K34370NDW | 1 | K34100NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

# Elements



## Electronic Dimmers

2 WAY SINGLE  
40-300W/240VA  
6-120W LED  
LEADING EDGE

2 WAY DOUBLE  
40-300W/240VA  
6-120W LED FOR EACH  
DIMMER  
LEADING EDGE

2 WAY SINGLE  
25-500W/400VA  
TRAILING EDGE

2 WAY SINGLE  
25-300W/240VA  
TRAILING EDGE

### SYNTHETIC FINISHES

|                     |           |   |           |   |           |   |           |   |
|---------------------|-----------|---|-----------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW   | K34101SCW | 1 | K34102SCW | 1 | K34103SCW | 1 | K34104SCW | 1 |
| NATURAL STONE – SNS | K34101SNS | 1 | K34102SNS | 1 | K34103SNS | 1 | K34104SNS | 1 |
| BEACH PEBBLE – SBP  | K34101SBP | 1 | K34102SBP | 1 | K34103SBP | 1 | K34104SBP | 1 |

### GLASS EFFECT FINISHES

|                      |           |   |           |   |           |   |           |   |
|----------------------|-----------|---|-----------|---|-----------|---|-----------|---|
| ICE WHITE – GIW      | K34101GIW | 1 | K34102GIW | 1 | K34103GIW | 1 | K34104GIW | 1 |
| POLISHED JADE – GPJ  | K34101GPJ | 1 | K34102GPJ | 1 | K34103GPJ | 1 | K34104GPJ | 1 |
| POLISHED ONYX – GPO  | K34101GPO | 1 | K34102GPO | 1 | K34103GPO | 1 | K34104GPO | 1 |
| POLISHED STONE – GPS | K34101GPS | 1 | K34102GPS | 1 | K34103GPS | 1 | K34104GPS | 1 |

### METALLIC FINISHES

|                      |           |   |           |   |           |   |           |   |
|----------------------|-----------|---|-----------|---|-----------|---|-----------|---|
| BRUSHED STEEL – MBS  | K34101MBS | 1 | K34102MBS | 1 | K34103MBS | 1 | K34104MBS | 1 |
| BRUSHED BRONZE – MBB | K34101MBB | 1 | K34102MBB | 1 | K34103MBB | 1 | K34104MBB | 1 |
| CAST IRON – MCI      | K34101MCI | 1 | K34102MCI | 1 | K34103MCI | 1 | K34104MCI | 1 |
| SATIN PLATINUM – MSP | K34101MSP | 1 | K34102MSP | 1 | K34103MSP | 1 | K34104MSP | 1 |
| SATIN TITANIUM – MST | K34101MST | 1 | K34102MST | 1 | K34103MST | 1 | K34104MST | 1 |

### NATURAL FINISHES

|                   |           |   |           |   |           |   |           |   |
|-------------------|-----------|---|-----------|---|-----------|---|-----------|---|
| BRITISH OAK – NBO | K34101NBO | 1 | K34102NBO | 1 | K34103NBO | 1 | K34104NBO | 1 |
| CREAM HIDE – NCH  | K34101NCH | 1 | K34102NCH | 1 | K34103NCH | 1 | K34104NCH | 1 |
| DARK HIDE – NDH   | K34101NDH | 1 | K34102NDH | 1 | K34103NDH | 1 | K34104NDH | 1 |
| DARK WENGE – NDW  | K34101NDW | 1 | K34102NDW | 1 | K34103NDW | 1 | K34104NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

## Rotary Dimmers

2 WAY DOUBLE  
25-300W/240VA  
TRAILING EDGE

1 WAY 6AX  
1-10V

2 WAY SINGLE\*\*  
230V A.C. 50HZ  
60W/VA MIN. -  
500W/400VA MAX

2 WAY DOUBLE\*\*  
230V A.C. 50HZ  
40W/VA MIN. -  
300W/240VA MAX.  
FOR EACH DIMMER



|           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|
| K34105SCW | 1 | K34499SCW | 1 | K34301SCW | 1 | K34522SCW | 1 |
| K34105SNS | 1 | K34499SNS | 1 | K34301SNS | 1 | K34522SNS | 1 |
| K34105SBP | 1 | K34499SBP | 1 | K34301SBP | 1 | K34522SBP | 1 |
|           |   |           |   |           |   |           |   |
| K34105GIW | 1 | K34499GIW | 1 | K34301GIW | 1 | K34522GIW | 1 |
| K34105GPJ | 1 | K34499GPJ | 1 | K34301GPJ | 1 | K34522GPJ | 1 |
| K34105GPO | 1 | K34499GPO | 1 | K34301GPO | 1 | K34522GPO | 1 |
| K34105GPS | 1 | K34499GPS | 1 | K34301GPS | 1 | K34522GPS | 1 |
|           |   |           |   |           |   |           |   |
| K34105MBS | 1 | K34499MBS | 1 | K34301MBS | 1 | K34522MBS | 1 |
| K34105MBB | 1 | K34499MBB | 1 | K34301MBB | 1 | K34522MBB | 1 |
| K34105MCI | 1 | K34499MCI | 1 | K34301MCI | 1 | K34522MCI | 1 |
| K34105MSP | 1 | K34499MSP | 1 | K34301MSP | 1 | K34522MSP | 1 |
| K34105MST | 1 | K34499MST | 1 | K34301MST | 1 | K34522MST | 1 |
|           |   |           |   |           |   |           |   |
| K34105NBO | 1 | K34499NBO | 1 | K34301NBO | 1 | K34522NBO | 1 |
| K34105NCH | 1 | K34499NCH | 1 | K34301NCH | 1 | K34522NCH | 1 |
| K34105NDH | 1 | K34499NDH | 1 | K34301NDH | 1 | K34522NDH | 1 |
| K34105NDW | 1 | K34499NDW | 1 | K34301NDW | 1 | K34522NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-1:2004

Includes mounting frame

\*\* TO BE AVAILABLE SOON



# Elements



## Rotary Dimmers

2 WAY SINGLE  
1GANG  
100-1000W  
DIMMER 50HZ

2 WAY SINGLE  
1GANG  
100 - 1000W  
DIMMER 60 HZ

## Grid Modular Frontplates

1 MODULE

2 MODULE

### SYNTHETIC FINISHES

|                              |           |   |           |   |           |   |           |   |
|------------------------------|-----------|---|-----------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW            | K34106SCW | 1 | K34107SCW | 1 | K35131SCW | 1 | K35132SCW | 1 |
| NATURAL STONE – SNS          | K34106SNS | 1 | K34107SNS | 1 | K35131SNS | 1 | K35132SNS | 1 |
| BEACH PEBBLE – SBP           | K34106SBP | 1 | K34107SBP | 1 | K35131SBP | 1 | K35132SBP | 1 |
| <b>GLASS EFFECT FINISHES</b> |           |   |           |   |           |   |           |   |
| ICE WHITE – GIW              | K34106GIW | 1 | K34107GIW | 1 | K35131GIW | 1 | K35132GIW | 1 |
| POLISHED JADE – GPJ          | K34106GPJ | 1 | K34107GPJ | 1 | K35131GPJ | 1 | K35132GPJ | 1 |
| POLISHED ONYX – GPO          | K34106GPO | 1 | K34107GPO | 1 | K35131GPO | 1 | K35132GPO | 1 |
| POLISHED STONE – GPS         | K34106GPS | 1 | K34107GPS | 1 | K35131GPS | 1 | K35132GPS | 1 |
| <b>METALLIC FINISHES</b>     |           |   |           |   |           |   |           |   |
| BRUSHED STEEL – MBS          | K34106MBS | 1 | K34107MBS | 1 | K35131MBS | 1 | K35132MBS | 1 |
| BRUSHED BRONZE – MBB         | K34106MBB | 1 | K34107MBB | 1 | K35131MBB | 1 | K35132MBB | 1 |
| CAST IRON – MCI              | K34106MCI | 1 | K34107MCI | 1 | K35131MCI | 1 | K35132MCI | 1 |
| SATIN PLATINUM – MSP         | K34106MSP | 1 | K34107MSP | 1 | K35131MSP | 1 | K35132MSP | 1 |
| SATIN TITANIUM – MST         | K34106MST | 1 | K34107MST | 1 | K35131MST | 1 | K35132MST | 1 |
| <b>NATURAL FINISHES</b>      |           |   |           |   |           |   |           |   |
| BRITISH OAK – NBO            | K34106NBO | 1 | K34107NBO | 1 | K35131NBO | 1 | K35132NBO | 1 |
| CREAM HIDE – NCH             | K34106NCH | 1 | K34107NCH | 1 | K35131NCH | 1 | K35132NCH | 1 |
| DARK HIDE – NDH              | K34106NDH | 1 | K34107NDH | 1 | K35131NDH | 1 | K35132NDH | 1 |
| DARK WENGE – NDW             | K34106NDW | 1 | K34107NDW | 1 | K35131NDW | 1 | K35132NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS5733:2010

MOUNTING BOXES  
35mm  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS5733:2010

## 3 MODULE

## 4 MODULE

## 6 MODULE

## 8 MODULE

## 12 MODULE



|                  |          |                  |          |                 |                 |                 |
|------------------|----------|------------------|----------|-----------------|-----------------|-----------------|
| <b>K35133SCW</b> | <b>1</b> | <b>K35134SCW</b> | <b>1</b> | <b>K3006SCW</b> | <b>K3009SCW</b> | <b>K3012SCW</b> |
| <b>K35133SNS</b> | <b>1</b> | <b>K35134SNS</b> | <b>1</b> | <b>K3006SNS</b> | <b>K3009SNS</b> |                 |
| <b>K35133SBP</b> | <b>1</b> | <b>K35134SBP</b> | <b>1</b> | <b>K3006SBP</b> | <b>K3009SBP</b> |                 |
|                  |          |                  |          |                 |                 |                 |
| <b>K35133GIW</b> | <b>1</b> | <b>K35134GIW</b> | <b>1</b> | <b>K3006GIW</b> | <b>K3009GIW</b> |                 |
| <b>K35133GPJ</b> | <b>1</b> | <b>K35134GPJ</b> | <b>1</b> | <b>K3006GPJ</b> | <b>K3009GPJ</b> |                 |
| <b>K35133GPO</b> | <b>1</b> | <b>K35134GPO</b> | <b>1</b> | <b>K3006GPO</b> | <b>K3009GPO</b> |                 |
| <b>K35133GPS</b> | <b>1</b> | <b>K35134GPS</b> | <b>1</b> | <b>K3006GPS</b> | <b>K3009GPS</b> |                 |
|                  |          |                  |          |                 |                 |                 |
| <b>K35133MBS</b> | <b>1</b> | <b>K35134MBS</b> | <b>1</b> | <b>K3006MBS</b> | <b>K3009MBS</b> |                 |
| <b>K35133MBB</b> | <b>1</b> | <b>K35134MBB</b> | <b>1</b> | <b>K3006MBB</b> | <b>K3009MBB</b> |                 |
| <b>K35133MCI</b> | <b>1</b> | <b>K35134MCI</b> | <b>1</b> | <b>K3006MCI</b> | <b>K3009MCI</b> |                 |
| <b>K35133MSP</b> | <b>1</b> | <b>K35134MSP</b> | <b>1</b> | <b>K3006MSP</b> | <b>K3009MSP</b> |                 |
| <b>K35133MST</b> | <b>1</b> | <b>K35134MST</b> | <b>1</b> | <b>K3006MST</b> | <b>K3009MST</b> |                 |
|                  |          |                  |          |                 |                 |                 |
| <b>K35133NBO</b> | <b>1</b> | <b>K35134NBO</b> | <b>1</b> | <b>K3006NBO</b> | <b>K3009NBO</b> |                 |
| <b>K35133NCH</b> | <b>1</b> | <b>K35134NCH</b> | <b>1</b> | <b>K3006NCH</b> | <b>K3009NCH</b> |                 |
| <b>K35133NDH</b> | <b>1</b> | <b>K35134NDH</b> | <b>1</b> | <b>K3006NDH</b> | <b>K3009NDH</b> |                 |
| <b>K35133NDW</b> | <b>1</b> | <b>K35134NDW</b> | <b>1</b> | <b>K3006NDW</b> | <b>K3009NDW</b> |                 |

MOUNTING BOXES  
35mm  
886ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS5733:2010

MOUNTING BOXES  
35mm  
886ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS5733:2010

MOUNTING BOXES  
60.00 +/-1.00mm  
GDW26068  
DIMENSIONS  
222 X 86 X 8 mm  
FIXING CENTRES  
196.5 mm

MOUNTING BOXES  
60.00 +/-1.00mm  
GDW260810H  
DIMENSIONS  
255 X 95 X 8 mm  
FIXING CENTRES  
217.4 mm

MOUNTING BOXES  
60.00 +/-1.00mm  
GDW261216  
DIMENSIONS  
222 X 153 X 8 mm  
FIXING CENTRES  
198 mm

Includes mounting frame

# Elements



## Grid Modules

1 WAY SP SWITCH  
10 AMP

1 WAY SP SWITCH  
LED LOCATOR  
10 AMP

1 WAY SP SW  
WIDE ROCKER  
10 AMP

1 WAY SP SW  
WIDE ROCKER  
LED LOCATOR  
10 AMP

2 WAY SP SW  
10 AMP



### SYNTHETIC FINISHES

|                     |           |   |            |   |           |   |            |   |           |   |
|---------------------|-----------|---|------------|---|-----------|---|------------|---|-----------|---|
| CHALK WHITE – SCW   | K34881SCW | 1 | K34881NSCW | 1 | K34981SCW | 1 | K34981NSCW | 1 | K34882SCW | 1 |
| NATURAL STONE – SNS | K34881SNS | 1 | K34881NSNS | 1 | K34981SNS | 1 | K34981NSNS | 1 | K34882SNS | 1 |
| BEACH PEBBLE – SBP  | K34881SBP | 1 | K34881NSBP | 1 | K34981SBP | 1 | K34981NSBP | 1 | K34882SBP | 1 |
| BLACK – BLK         | K34881BLK | 1 | K34881NBLK | 1 | K34981BLK | 1 | K34981NBLK | 1 | K34882BLK | 1 |

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

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BS EN 60669-1:1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

2 WAY SP SW  
LED LOCATOR  
10 AMP



2 WAY SP SW  
WIDE ROCKER  
10 AMP



2 WAY SP SW  
WIDE ROCKER  
LED LOCATOR  
10 AMP



2 WAY SP SW  
RETRACTIVE  
MARKED 'PRESS'  
10 AMP



2 WAY SP SW  
WIDE ROCKER  
RETRACTIVE  
MARKED 'PRESS'  
10 AMP



|                   |          |                  |          |                   |          |                  |          |                  |          |
|-------------------|----------|------------------|----------|-------------------|----------|------------------|----------|------------------|----------|
| <b>K34882NSCW</b> | <b>1</b> | <b>K34982SCW</b> | <b>1</b> | <b>K34982NSCW</b> | <b>1</b> | <b>K34910SCW</b> | <b>1</b> | <b>K34911SCW</b> | <b>1</b> |
| <b>K34882NSNS</b> | <b>1</b> | <b>K34982SNS</b> | <b>1</b> | <b>K34982NSNS</b> | <b>1</b> | <b>K34910SNS</b> | <b>1</b> | <b>K34911SNS</b> | <b>1</b> |
| <b>K34882NSBP</b> | <b>1</b> | <b>K34982SBP</b> | <b>1</b> | <b>K34982NSBP</b> | <b>1</b> | <b>K34910SBP</b> | <b>1</b> | <b>K34911SBP</b> | <b>1</b> |
| <b>K34882NBLK</b> | <b>1</b> | <b>K34982BLK</b> | <b>1</b> | <b>K34982NBLK</b> | <b>1</b> | <b>K34910BLK</b> | <b>1</b> | <b>K34911BLK</b> | <b>1</b> |

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BS EN 60669-1:1999

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BS EN 60669-1:1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

# Elements



## Grid Modules

2 WAY SP  
RETRACTIVE  
MARKED WITH  
BELL SYMBOL  
10 AMP

2 WAY SP  
WIDE ROCKER  
RETRACTIVE  
MARKED WITH  
BELL SYMBOL  
10 AMP

2 WAY SP  
RETRACTIVE PUSH  
10 AMP

2 WAY SP  
WIDE ROCKER  
RETRACTIVE PUSH  
10 AMP



### SYNTHETIC FINISHES

|                     |            |   |            |   |           |   |           |   |
|---------------------|------------|---|------------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW   | K34885BSCW | 1 | K34985BSCW | 1 | K34885SCW | 1 | K34985SCW | 1 |
| NATURAL STONE – SNS | K34885BSNS | 1 | K34985BSNS | 1 | K34885SNS | 1 | K34985SNS | 1 |
| BEACH PEBBLE – SBP  | K34885BSBP | 1 | K34985BSBP | 1 | K34885SBP | 1 | K34985SBP | 1 |
| BLACK – BLK         | K34885BBLK | 1 | K34985BBLK | 1 | K34885BLK | 1 | K34985BLK | 1 |

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999



2 WAY  
CENTRE OFF  
RETRACTIVE  
10 AMP

2 WAY  
WIDE ROCKER  
CENTRE OFF  
RETRACTIVE  
10 AMP

WIDE ROCKER  
INTERMEDIATE  
SWITCH  
10 AMP

1 WAY SP  
SWITCH  
20 AMP

1 WAY SP  
SWITCH  
LED LOCATOR  
20 AMP



|                  |          |                  |          |                  |          |                  |          |                   |          |
|------------------|----------|------------------|----------|------------------|----------|------------------|----------|-------------------|----------|
| <b>K34900SCW</b> | <b>1</b> | <b>K34901SCW</b> | <b>1</b> | <b>K34993SCW</b> | <b>1</b> | <b>K34891SCW</b> | <b>1</b> | <b>K34891NSCW</b> | <b>1</b> |
| <b>K34900SNS</b> | <b>1</b> | <b>K34901SNS</b> | <b>1</b> | <b>K34993SNS</b> | <b>1</b> | <b>K34891SNS</b> | <b>1</b> | <b>K34891NSNS</b> | <b>1</b> |
| <b>K34900SBP</b> | <b>1</b> | <b>K34901SBP</b> | <b>1</b> | <b>K34993SBP</b> | <b>1</b> | <b>K34891SBP</b> | <b>1</b> | <b>K34891NSBP</b> | <b>1</b> |
| <b>K34900BLK</b> | <b>1</b> | <b>K34901BLK</b> | <b>1</b> | <b>K34993BLK</b> | <b>1</b> | <b>K34891BLK</b> | <b>1</b> | <b>K34891NBLK</b> | <b>1</b> |

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

# Elements



## Grid Modules

1 WAY SP  
WIDE ROCKER  
20 AMP



1 WAY SP  
WIDE ROCKER  
LED LOCATOR  
20 AMP



2 WAY SP  
20 AMP



2 WAY SP  
LED LOCATOR  
20 AMP



### SYNTHETIC FINISHES

|                     |           |   |            |   |           |   |            |   |
|---------------------|-----------|---|------------|---|-----------|---|------------|---|
| CHALK WHITE – SCW   | K34991SCW | 1 | K34991NSCW | 1 | K34892SCW | 1 | K34892NSCW | 1 |
| NATURAL STONE – SNS | K34991SNS | 1 | K34991NSNS | 1 | K34892SNS | 1 | K34892NSNS | 1 |
| BEACH PEBBLE – SBP  | K34991SBP | 1 | K34991NSBP | 1 | K34892SBP | 1 | K34892NSBP | 1 |
| BLACK – BLK         | K34991BLK | 1 | K34991NBLK | 1 | K34892BLK | 1 | K34892NBLK | 1 |

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

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have to be derated when  
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inductive loads  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

2 WAY SP  
WIDE ROCKER  
20 AMP

2 WAY SP  
WIDE ROCKER  
LED LOCATOR  
20 AMP

INTERMEDIATE  
20 AMP

INTERMEDIATE  
LED LOCATOR  
20 AMP



|                  |          |                   |          |                  |          |                   |          |
|------------------|----------|-------------------|----------|------------------|----------|-------------------|----------|
| <b>K34992SCW</b> | <b>1</b> | <b>K34992NSCW</b> | <b>1</b> | <b>K34894SCW</b> | <b>1</b> | <b>K34894NSCW</b> | <b>1</b> |
| <b>K34992SNS</b> | <b>1</b> | <b>K34992NSNS</b> | <b>1</b> | <b>K34894SNS</b> | <b>1</b> | <b>K34894NSNS</b> | <b>1</b> |
| <b>K34992SBP</b> | <b>1</b> | <b>K34992NSBP</b> | <b>1</b> | <b>K34894SBP</b> | <b>1</b> | <b>K34894NSBP</b> | <b>1</b> |
| <b>K34992BLK</b> | <b>1</b> | <b>K34992NBLK</b> | <b>1</b> | <b>K34894BLK</b> | <b>1</b> | <b>K34894NBLK</b> | <b>1</b> |

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
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BS EN 60669-1:1999

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BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

# Elements



## Grid Modules

WIDE ROCKER  
INTERMEDIATE  
LED LOCATOR  
20 AMP

1 WAY DP  
20 AMP

1 WAY DP  
LED LOCATOR  
20 AMP

1 WAY DP  
WIDE ROCKER  
20 AMP



### SYNTHETIC FINISHES

|                     |            |   |           |   |            |   |           |   |
|---------------------|------------|---|-----------|---|------------|---|-----------|---|
| CHALK WHITE – SCW   | K34994NSCW | 1 | K34896SCW | 1 | K34896NSCW | 1 | K34996SCW | 1 |
| NATURAL STONE – SNS | K34994NSNS | 1 | K34896SNS | 1 | K34896NSNS | 1 | K34996SNS | 1 |
| BEACH PEBBLE – SBP  | K34994NSBP | 1 | K34896SBP | 1 | K34896NSBP | 1 | K34996SBP | 1 |
| BLACK – BLK         | K34994NBLK | 1 | K34896BLK | 1 | K34896NBLK | 1 | K34996BLK | 1 |

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

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inductive loads  
BS EN 60669-1:1999

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BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

2 WAY  
WIDE ROCKER  
LED LOCATOR  
**20 AMP**

FUSE UNIT  
**13 AMP**

BLANK INSERT

GRID  
INTERNATIONAL  
SOCKET



|                   |          |                  |          |                  |          |                 |          |
|-------------------|----------|------------------|----------|------------------|----------|-----------------|----------|
| <b>K34992NSCW</b> | <b>1</b> | <b>K34890SCW</b> | <b>1</b> | <b>K34880SCW</b> | <b>1</b> | <b>K3426SCW</b> | <b>1</b> |
| <b>K34992NSNS</b> | <b>1</b> | <b>K34890SNS</b> | <b>1</b> | <b>K34880SNS</b> | <b>1</b> | <b>K3426SNS</b> | <b>1</b> |
| <b>K34992NSBP</b> | <b>1</b> | <b>K34890SBP</b> | <b>1</b> | <b>K34880SBP</b> | <b>1</b> | <b>K3426SBP</b> | <b>1</b> |
| <b>K34992NBLK</b> | <b>1</b> | <b>K34890BLK</b> | <b>1</b> | <b>K34880BLK</b> | <b>1</b> | <b>K3426BLK</b> | <b>1</b> |

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

BS5733:2010

BS5733:2010





# Elements



## Euro Modular Frontplates

1 MODULE  
25 X 50MM

2 MODULE  
50 X 50MM

4 MODULE  
100 X 50MM

### SYNTHETIC FINISHES

|                     |           |   |           |   |           |   |
|---------------------|-----------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW   | K35111SCW | 1 | K35112SCW | 1 | K35114SCW | 1 |
| NATURAL STONE – SNS | K35111SNS | 1 | K35112SNS | 1 | K35114SNS | 1 |
| BEACH PEBBLE – SBP  | K35111SBP | 1 | K35112SBP | 1 | K35114SBP | 1 |

### GLASS EFFECT FINISHES

|                      |           |   |           |   |           |   |
|----------------------|-----------|---|-----------|---|-----------|---|
| ICE WHITE – GIW      | K35111GIW | 1 | K35112GIW | 1 | K35114GIW | 1 |
| POLISHED JADE – GPJ  | K35111GPJ | 1 | K35112GPJ | 1 | K35114GPJ | 1 |
| POLISHED ONYX – GPO  | K35111GPO | 1 | K35112GPO | 1 | K35114GPO | 1 |
| POLISHED STONE – GPS | K35111GPS | 1 | K35112GPS | 1 | K35114GPS | 1 |

### METALLIC FINISHES

|                      |           |   |           |   |           |   |
|----------------------|-----------|---|-----------|---|-----------|---|
| BRUSHED STEEL – MBS  | K35111MBS | 1 | K35112MBS | 1 | K35114MBS | 1 |
| BRUSHED BRONZE – MBB | K35111MBB | 1 | K35112MBB | 1 | K35114MBB | 1 |
| CAST IRON – MCI      | K35111MCI | 1 | K35112MCI | 1 | K35114MCI | 1 |
| SATIN PLATINUM – MSP | K35111MSP | 1 | K35112MSP | 1 | K35114MSP | 1 |
| SATIN TITANIUM – MST | K35111MST | 1 | K35112MST | 1 | K35114MST | 1 |

### NATURAL FINISHES

|                   |           |   |           |   |           |   |
|-------------------|-----------|---|-----------|---|-----------|---|
| BRITISH OAK – NBO | K35111NBO | 1 | K35112NBO | 1 | K35114NBO | 1 |
| CREAM HIDE – NCH  | K35111NCH | 1 | K35112NCH | 1 | K35114NCH | 1 |
| DARK HIDE – NDH   | K35111NDH | 1 | K35112NDH | 1 | K35114NDH | 1 |
| DARK WENGE – NDW  | K35111NDW | 1 | K35112NDW | 1 | K35114NDW | 1 |

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes to  
BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 5733:2010 where applicable.

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes to  
BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 5733:2010 where applicable.

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes to  
BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS 5733:2010 where applicable.

No grid required, modules just clip into place

## Other Switch Products

BELL PUSH  
DO NOT DISTURB  
/ MAKE UP ROOM  
SWITCH

PIR  
DETECTOR

KEY CARD SWITCH 50/60HZ  
2 WAY  
30 SEC OFF DELAY



|               |   |           |   |           |   |
|---------------|---|-----------|---|-----------|---|
| K33885DNDSCW  | 1 | K35202SCW | 1 | K35201SCW | 1 |
| K33885DNDSENS | 1 | K35202SNS | 1 | K35201SNS | 1 |
| K33885DNDSDP  | 1 | K35202SDP | 1 | K35201SDP | 1 |
|               |   |           |   |           |   |
| K33885DNDGIW  | 1 | K35202GIW | 1 | K35201GIW | 1 |
| K33885DNDGPJ  | 1 | K35202GPJ | 1 | K35201GPJ | 1 |
| K33885DNDGPO  | 1 | K35202GPO | 1 | K35201GPO | 1 |
| K33885DNDGPS  | 1 | K35202GPS | 1 | K35201GPS | 1 |
|               |   |           |   |           |   |
| K33885DNDMBS  | 1 | K35202MBS | 1 | K35201MBS | 1 |
| K33885DNDMBB  | 1 | K35202MBB | 1 | K35201MBB | 1 |
| K33885DNDMCI  | 1 | K35202MCI | 1 | K35201MCI | 1 |
| K33885DNDMSP  | 1 | K35202MSP | 1 | K35201MSP | 1 |
| K33885DNDMST  | 1 | K35202MST | 1 | K35201MST | 1 |
|               |   |           |   |           |   |
| K33885DNDNBO  | 1 | K35202NBO | 1 | K35201NBO | 1 |
| K33885DNDNCH  | 1 | K35202NCH | 1 | K35201NCH | 1 |
| K33885DNDNDH  | 1 | K35202NDH | 1 | K35201NDH | 1 |
| K33885DNDNDW  | 1 | K35202NDW | 1 | K35201NDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
IEC 60669-2-1

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
IEC 60669-2-1



# Elements



## Other Switch Products

ROLLER  
SHUTTER/BLIND  
CONTROL  
10 AMP

3 GANG  
2 WAY SP  
20 AMP

DO NOT DISTURB  
/ MAKE UP ROOM  
SWITCH



### SYNTHETIC FINISHES

|                              |           |   |           |   |              |   |
|------------------------------|-----------|---|-----------|---|--------------|---|
| CHALK WHITE – SCW            | K35203SCW | 1 | K34373SCW | 1 | K33900DNDSCW | 1 |
| NATURAL STONE – SNS          | K35203SNS | 1 | K34373SNS | 1 | K33900DNDSNS | 1 |
| BEACH PEBBLE – SBP           | K35203SBP | 1 | K34373SBP | 1 | K33900DNDSPB | 1 |
| <b>GLASS EFFECT FINISHES</b> |           |   |           |   |              |   |
| ICE WHITE – GIW              | K35203GIW | 1 | K34373GIW | 1 | K33900DNDGIW | 1 |
| POLISHED JADE – GPJ          | K35203GPJ | 1 | K34373GPJ | 1 | K33900DNDGPJ | 1 |
| POLISHED ONYX – GPO          | K35203GPO | 1 | K34373GPO | 1 | K33900DNDGPO | 1 |
| POLISHED STONE – GPS         | K35203GPS | 1 | K34373GPS | 1 | K33900DNDGPS | 1 |
| <b>METALLIC FINISHES</b>     |           |   |           |   |              |   |
| BRUSHED STEEL – MBS          | K35203MBS | 1 | K34373MBS | 1 | K33900DNDMBS | 1 |
| BRUSHED BRONZE – MBB         | K35203MBB | 1 | K34373MBB | 1 | K33900DNDMBB | 1 |
| CAST IRON – MCI              | K35203MCI | 1 | K34373MCI | 1 | K33900DNDMCI | 1 |
| SATIN PLATINUM – MSP         | K35203MSP | 1 | K34373MSP | 1 | K33900DNDMSP | 1 |
| SATIN TITANIUM – MST         | K35203MST | 1 | K34373MST | 1 | K33900DNDMST | 1 |
| <b>NATURAL FINISHES</b>      |           |   |           |   |              |   |
| BRITISH OAK – NBO            | K35203NBO | 1 | K34373NBO | 1 | K33900DNDNBO | 1 |
| CREAM HIDE – NCH             | K35203NCH | 1 | K34373NCH | 1 | K33900DNDNCH | 1 |
| DARK HIDE – NDH              | K35203NDH | 1 | K34373NDH | 1 | K33900DNDNDH | 1 |
| DARK WENGE – NDW             | K35203NDW | 1 | K34373NDW | 1 | K33900DNDNDW | 1 |

MOUNTING BOXES  
35mm  
866ZIC  
47mm  
877ZIC  
IEC 60669-1

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads  
BS EN 60669-1:1999

MOUNTING BOXES  
35mm  
866ZIC  
46mm  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

## Euro Modules

RJ11/12  
1 MODULE  
25 X 50MM

RJ45 CAT 6  
1 MODULE  
25 X 50MM

MASTER  
TELEPHONE  
1 MODULE  
25 X 50MM

SECONDARY  
TELEPHONE  
1 MODULE  
25 X 50MM

SINGLE TV  
CO-AXIAL  
NON-ISOLATED  
(IEC MALE)  
1 MODULE  
25 X 50MM



### SYNTHETIC FINISHES

|                     |          |   |          |   |          |   |          |   |          |   |
|---------------------|----------|---|----------|---|----------|---|----------|---|----------|---|
| CHALK WHITE – SCW   | K5887SCW | 5 | K5846SCW | 5 | K5820SCW | 5 | K5821SCW | 5 | K5850SCW | 5 |
| NATURAL STONE – SNS | K5887SNS | 5 | K5846SNS | 5 | K5820SNS | 5 | K5821SNS | 5 | K5850SNS | 5 |
| BEACH PEBBLE – SBP  | K5887SBP | 5 | K5846SBP | 5 | K5820SBP | 5 | K5821SBP | 5 | K5850SBP | 5 |
| BLACK – BLK         | K5887BLK | 5 | K5846BLK | 5 | K5820BLK | 5 | K5821BLK | 5 | K5850BLK | 5 |

Suitable for both RJ11 and RJ12 jacks  
RJ11; 4 wire  
RJ12; 6 wire  
**MOUNTING BOXES**  
Minimum box depth 25mm  
FCC68  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.  
**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**MOUNTING BOXES**  
Minimum depth 25mm  
BS 6312 Pt 2

**MOUNTING BOXES**  
Minimum depth 25mm  
BS 6312 Pt 2

Fully screened non isolated single TV outlets for connection to a single TV co-axial lead.  
**MOUNTING BOXES**  
Min box depth 32mm  
BS 3041:1997  
IEC 169-2:1965  
BS EN 50083 &  
BS 5733:2010  
where applicable

NOTE: CAT6A AVAILABLE IN ELEMENT EURO MODULE AS SPECIALS

# Elements



## Euro Modules

SINGLE OUTLET  
(IEC FEMALE)  
1 MODULE  
25 X 50MM

SINGLE F-TYPE  
SATELLITE SOCKET  
1 MODULE  
25 X 50MM

TWIN OUTLET  
TV/FM DIPLEXER  
2 MODULE  
50 X 50MM

TRIPLE OUTLET  
TV/FM/SATELLITE  
TRIPLEXER  
2 MODULE  
50 X 50MM

QUAD OUTLET  
TV-FM/DAB-2XSAT  
2 MODULE  
50 X 50MM

### SYNTHETIC FINISHES

|                     |          |   |          |   |           |   |           |   |           |   |
|---------------------|----------|---|----------|---|-----------|---|-----------|---|-----------|---|
| CHALK WHITE – SCW   | K5851SCW | 5 | K5855SCW | 5 | K5852MSCW | 5 | K5853MSCW | 5 | K5854MSCW | 5 |
| NATURAL STONE – SNS | K5851SNS | 5 | K5855SNS | 5 | K5852MSNS | 5 | K5853MSNS | 5 | K5854MSNS | 5 |
| BEACH PEBBLE – SBP  | K5851SBP | 5 | K5855SBP | 5 | K5852MSBP | 5 | K5853MSBP | 5 | K5854MSBP | 5 |
| BLACK – BLK         | K5851BLK | 5 | K5855BLK | 5 | K5852MBLK | 5 | K5853MBLK | 5 | K5854MBLK | 5 |

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer and TV/FM/SAT Triplexer for use within digital TV systems and interactive TV services. Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

#### PERFORMANCE SINGLE OUTLETS

TV/FM Iec Male Or Female  
DC-950MHz  
SAT F-TYPE  
DC-1.75GHz

#### MOUNTING BOXES

Min box depth 32mm  
BS 3041:1997  
IEC 169-2:1965  
BS EN 50083 & BS 5733:2010  
where applicable

#### TV/FM/SAT PRODUCTS

Outlet Diplexer  
TV 5-68MHz  
120-862MHz  
FM/DAB 87.5-108MHz FM  
SAT N/A

#### TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

Outlet Triplexer  
TV 5-68MHz  
120-862MHz  
87.5-108MHz  
SAT1 950-2250MHz

Outlet Quadplexer  
TV 5-68MHz  
120-862MHz  
87.5-230MHz  
SAT1 950-2280MHz  
SAT2 5-2250MHz

## Euro Power Modules

AMERICAN  
127V SHUTTERED  
2 MODULE 50 X 50MM  
(NON UK)  
15 AMP

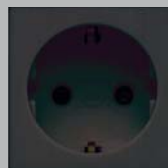
UK  
250V SHUTTERED  
2 MODULE  
50 X 50MM  
5 AMP

UK  
250V  
2 MODULE  
50 X 50MM  
13 AMP

GERMAN  
2P+E 16A  
250V SHUTTERED  
2 MODULE  
50 X 50MM  
(NON UK)  
16 AMP

FEMALE HDMI  
OUTLET  
2 MODULE  
50 X 50MM

EURO  
INTERNATIONAL  
SOCKET  
2 MODULE  
50 X 50MM



|                 |           |                 |           |                 |           |                 |           |                 |          |                 |          |
|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|----------|-----------------|----------|
| <b>K5832SCW</b> | <b>10</b> | <b>K5833SCW</b> | <b>10</b> | <b>K5830SCW</b> | <b>10</b> | <b>K5831SCW</b> | <b>10</b> | <b>K5807SCW</b> | <b>5</b> | <b>K5838SCW</b> | <b>5</b> |
| <b>K5832SNS</b> | <b>10</b> | <b>K5833SNS</b> | <b>10</b> | <b>K5830SNS</b> | <b>10</b> | <b>K5831SNS</b> | <b>10</b> | <b>K5807SNS</b> | <b>5</b> | <b>K5838SNS</b> | <b>5</b> |
| <b>K5832SBP</b> | <b>10</b> | <b>K5833SBP</b> | <b>10</b> | <b>K5830SBP</b> | <b>10</b> | <b>K5831SBP</b> | <b>10</b> | <b>K5807SBP</b> | <b>5</b> | <b>K5838SBP</b> | <b>5</b> |
| <b>K5832BLK</b> | <b>10</b> | <b>K5833BLK</b> | <b>10</b> | <b>K5830BLK</b> | <b>10</b> | <b>K5831BLK</b> | <b>10</b> | <b>K5807BLK</b> | <b>5</b> | <b>K5838BLK</b> |          |

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space)  
SASO 2204:2003

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space)  
BS 546: 1950

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space)  
BS 1363: Pt2: 1995

MOUNTING BOX  
46mm  
IEC 60884-1: 2006

K5807 Female HDMI Outlet  
is HDMI 1.1, 1.2, 1.3 and 1.4  
compatible, HDCP compliant.  
**DATA RATE**  
Up to 2.25 Gbps  
**SCAN**  
Up to 1080p/1920x1200  
**INPUT CONNECTOR**  
1 x HDMI Female (Type A)  
**OUTPUT CONNECTOR**  
1 x HDMI Female (Type A)  
Supports high resolution input  
**PC**  
VGA, SVGA, SXVGA (1280x1024)  
and UXGA (1600x1200,  
1920x1200)  
**HDTV**  
480p, 720p, 1080i and 1080p  
HDMI input cable should be no  
larger than 20m.  
**MOUNTING BOX**  
46mm



# Elements



## Euro Modules

|                                       |   |  |   |                                |                                |
|---------------------------------------|---|--|---|--------------------------------|--------------------------------|
| USB CHARGING<br>2 MODULE<br>50 X 50MM | RCA TO SCREW<br>TERMINATION<br>SET<br>1 RED AND<br>1 BLACK<br>1 MODULE<br>25 X 50MM | TERMINATION<br>SET<br>1 YELLOW,<br>1 WHITE AND<br>1 RED<br>1 MODULE<br>25 X 50MM | AUDIO<br>BINDING<br>POST FOR<br>SINGLE<br>LOUD SPEAKER<br>1 MODULE<br>25 X 50MM | BLANK<br>1 MODULE<br>25 X 50MM | BLANK<br>2 MODULE<br>50 X 50MM |
|---------------------------------------|---|--|---|--------------------------------|--------------------------------|

### SYNTHETIC FINISHES

|                     |          |   |          |   |          |   |          |   |         |    |         |    |
|---------------------|----------|---|----------|---|----------|---|----------|---|---------|----|---------|----|
| CHALK WHITE – SCW   | K5837SCW | 1 | K5806SCW | 5 | K5809SCW | 5 | K5805SCW | 5 | K188SCW | 10 | K180SCW | 10 |
| NATURAL STONE – SNS | K5837SNS | 1 | K5806SNS | 5 | K5809SNS | 5 | K5805SNS | 5 | K188SNS | 10 | K180SNS | 10 |
| BEACH PEBBLE – SBP  | K5837SBP | 1 | K5806SBP | 5 | K5809SBP | 5 | K5805SBP | 5 | K188SBP | 10 | K180SBP | 10 |
| BLACK – BLK         | K5837BLK | 1 | K5806BLK | 5 | K5809BLK | 5 | K5805BLK | 5 | K188BLK | 10 | K180BLK | 10 |

USB charging sockets,  
each capable of  
supporting 2A charge  
(total of 2A).

K5837 MOUNTING BOX  
Minimum Box depth  
35mm  
46mm for extra wiring  
space  
IEC 60950-1  
IEC 61000-6-1/3

MOUNTING BOX  
35mm minimum

MOUNTING BOX  
35mm minimum

MOUNTING BOX  
35mm minimum

BS 5733: 2010 where  
applicable

BS 5733: 2010 where  
applicable

## Blank Plates

1 GANG

2 GANG

### SYNTHETIC FINISHES

|                              |           |   |           |   |
|------------------------------|-----------|---|-----------|---|
| CHALK WHITE – SCW            | K34330SCW | 1 | K34329SCW | 1 |
| NATURAL STONE – SNS          | K34330SNS | 1 | K34329SNS | 1 |
| BEACH PEBBLE – SBP           | K34330SBP | 1 | K34329SBP | 1 |
| <b>GLASS EFFECT FINISHES</b> |           |   |           |   |
| ICE WHITE – GIW              | K34330GIW | 1 | K34329GIW | 1 |
| POLISHED JADE – GPJ          | K34330GPJ | 1 | K34329GPJ | 1 |
| POLISHED ONYX – GPO          | K34330GPO | 1 | K34329GPO | 1 |
| POLISHED STONE – GPS         | K34330GPS | 1 | K34329GPS | 1 |
| <b>METALLIC FINISHES</b>     |           |   |           |   |
| BRUSHED STEEL – MBS          | K34330MBS | 1 | K34329MBS | 1 |
| BRUSHED BRONZE – MBB         | K34330MBB | 1 | K34329MBB | 1 |
| CAST IRON – MCI              | K34330MCI | 1 | K34329MCI | 1 |
| SATIN PLATINUM – MSP         | K34330MSP | 1 | K34329MSP | 1 |
| SATIN TITANIUM – MST         | K34330MST | 1 | K34329MST | 1 |
| <b>NATURAL FINISHES</b>      |           |   |           |   |
| BRITISH OAK – NBO            | K34330NBO | 1 | K34329NBO | 1 |
| CREAM HIDE – NCH             | K34330NCH | 1 | K34329NCH | 1 |
| DARK HIDE – NDH              | K34330NDH | 1 | K34329NDH | 1 |
| DARK WENGE – NDW             | K34330NDW | 1 | K34329NDW | 1 |

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS:  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:2010





# ASPECT

## RANGE INTRODUCTION

The simple, clean styling of Aspect is both modern and contemporary, so it looks at home anywhere, in almost any kind of environment where style and quality are important.

The profile is just 4mm slim, so it's discreet, as well as stylish, while the concealed screws leave an elegant frontplate, making it more attractive still.

In addition to impressive looks, with Aspect comes unrivalled safety. Utilising MK's 3-pin operated safety shutter, that prevents misuse and unsafe access to live circuitry, Aspect offers the user the peace of mind and comfort that they have the safest range of wiring devices available installed in their surroundings.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Aspect range. Please see page 19 for details.

### HOW TO SPECIFY

A slimline metal, flush mounting range of wiring devices with screwless frontplates. Snap-on frontplates with a 4mm profile easily removable with a flat blade screwdriver through discreet bottom access apertures. Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety. Switches to be large and concave with a minimum 3mm contact gap with a positive 'click' to denote successful operation.

### FEATURES & BENEFITS

#### SLIM PROFILE 'SCREWLESS' FRONT PLATES OF ONLY 4MM

Provide a clean and flawless look that complements the décor of the finest interiors.

#### TOTAL SAFETY

3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position.

#### COMPREHENSIVE RANGE OF SOCKETS, SWITCHES AND MODULAR ANCILLARY PRODUCTS

Mean that whatever the application, the Aspect range has a wiring device to suit.

#### 13 STANDARD HIGH QUALITY FINISHES

Aspect now offers a range of fresh, reassuring and creative colours.

#### DESIGN SERVICE

Perfect for when only a creative solution will do.

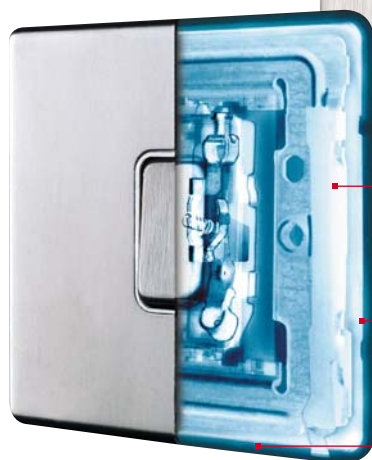
MATCHING METAL CAPPED  
ROCKERS AVAILABLE AS  
STANDARD  
(excluding porcelain white  
finish and switches with  
neons)

CHOICE OF BLACK  
OR WHITE INSERTS  
ON MOST FINISHES  
Provide impact  
resistance in any  
environment

DOUBLE POLE  
SWITCHING

13 HIGH QUALITY  
FINISHES TO CHOOSE  
FROM

STYLISH  
SLIM DESIGN  
Frontplate profile  
only 4mm



PATENTED SPRING CLIP FOR  
POSITIVE EARTHING

CORROSION RESISTANT  
SURFACE TREATED FRAME

SCREWDRIVER GUIDING RAMP

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"

Designed to inhibit access to the electricity supply, unless all 3 pins of  
a standard British 13A plug are in position

Terminal screws are backed out and  
captive Terminals are upwards facing  
to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy  
identification.

As well as a wide choice of finishes, MK Aspect is available in a range of  
outlets for interactive and digital TV, IT and telecomms services. There are  
reliable and effective dimmer switches, and a comprehensive range of modular  
switches – all simple to install.



## Switchsocket Outlets



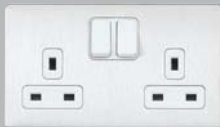


1 GANG DP  
DUAL EARTH  
13 AMP

1 GANG DP  
WITH NEON  
DUAL EARTH  
13 AMP

2 GANG DP  
DUAL EARTH  
13 AMP

2 GANG DP  
WITH 2 X USB  
CHARGING PORTS  
DUAL EARTH  
13 AMP

2 GANG DP  
WITH NEON  
DUAL EARTH  
13 AMP

| FINISHES                |  |  |  |  |  |
|-------------------------|---|---|--|---|---|
| BRUSHED STAINLESS STEEL | K24357BSS* 1  | K24657BSS* 1  | K24347BSS* 1   | K24343BSS* 1  | K24647BSS* 1  |
| LACQUERED BRUSHED STEEL | K24357LBS* 1  | K24657LBS* 1  | K24347LBS* 1   | K24343LBS* 1  | K24647LBS* 1  |
| BRUSHED CHROME          | K24357BRC* 1  | K24657BRC* 1  | K24347BRC* 1   | K24343BRC* 1  | K24647BRC* 1  |
| POLISHED CHROME         | K24357POC* 1  | K24657POC* 1  | K24347POC* 1   | K24343POC* 1  | K24647POC* 1  |
| SATIN GOLD              | K24357SAG* 1  | K24657SAG* 1  | K24347SAG* 1   | K24343SAG* 1  | K24647SAG* 1  |
| PORCELAIN WHITE         | K24357WHIW 1  | K24657WHIW 1  | K24347WHIW 1   | K24343WHIW 1  | K24647WHIW 1  |
| LUSTROUS IVORY          | K24357LIVW 1  | K24657LIVW 1  | K24347LIVW 1   | K24343LIVW 1  | K24647LIVW 1  |
| LUSTROUS BLACK          | K24357LBKB 1  | K24657LBKB 1  | K24347LBKB 1   | K24343LBKB 1  | K24647LBKB 1  |
| POLISHED BRASS          | K24357PBR* 1  | K24657PBR* 1  | K24347PBR* 1   | K24343PBR* 1  | K24647PBR* 1  |
| TEXTURED IRON           | K24357TIRB 1  | K24657TIRB 1  | K24347TIRB 1   | K24343TIRB 1  | K24647TIRB 1  |
| DESERT BRONZE           | K24357DBZB 1  | K24657DBZB 1  | K24347DBZB 1   | K24343DBZB 1  | K24647DBZB 1  |
| ANTIQUE BRASS           | K24357ABSB 1  | K24657ABSB 1  | K24347ABSB 1   | K24343ABSB 1  | K24647ABSB 1  |
| TEXTURED COPPER         | K24357TCOB 1  | K24657TCOB 1  | K24347TCOB 1   | K24343TCOB 1  | K24647TCOB 1  |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 35MM  
886ZIC  
FLUSH 47MM  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

USB charging sockets, each capable of supporting 2A charge (total of 2A)  
Pattress available for use where existing back box is too shallow, see page 34

MOUNTING BOXES  
FLUSH 35MM  
886ZIC  
FLUSH 47MM  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH 35MM  
886ZIC  
FLUSH 47MM  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995  
Neon is only available in white or black insulated rocker.

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

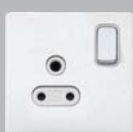
## Multimedia Plates

1 GANG DP  
ROUND PIN  
5 AMP

1 GANG DP  
ROUND PIN  
15 AMP

2 GANG DP DUAL EARTH  
SWITCHSOCKET, EURO 2 MODULE  
50 X 50MM (RIGHT SIDE)  
13 AMP

2 GANG DP DUAL EARTH  
SWITCHSOCKET, EURO 2 MODULE  
50 X 50MM (LEFT SIDE)  
13 AMP



|              |              |              |              |
|--------------|--------------|--------------|--------------|
| K24382BSS* 1 | K24383BSS* 1 | K24206BSS* 1 | K24207BSS* 1 |
| K24382LBS* 1 | K24383LBS* 1 | K24206LBS* 1 | K24207LBS* 1 |
| K24382BRC* 1 | K24383BRC* 1 | K24206BRC* 1 | K24207BRC* 1 |
| K24382POC* 1 | K24383POC* 1 | K24206POC* 1 | K24207POC* 1 |
| K24382SAG* 1 | K24383SAG* 1 | K24206SAG* 1 | K24207SAG* 1 |
| K24382WHIW 1 | K24383WHIW 1 | K24206WHIW 1 | K24207WHIW 1 |
| K24382LIVW 1 | K24383LIVW 1 | K24206LIVW 1 | K24207LIVW 1 |
| K24382LBKB 1 | K24383LBKB 1 | K24206LBKB 1 | K24207LBKB 1 |
| K24382PBR* 1 | K24383PBR* 1 | K24206PBR* 1 | K24207PBR* 1 |
| K24382TIRB 1 | K24383TIRB 1 | K24206TIRB 1 | K24207TIRB 1 |
| K24382DBZB 1 | K24383DBZB 1 | K24206DBZB 1 | K24207DBZB 1 |
| K24382ABSB 1 | K24383ABSB 1 | K24206ABSB 1 | K24207ABSB 1 |
| K24382TCOB 1 | K24383TCOB 1 | K24206TCOB 1 | K24207TCOB 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
FLUSH 47MM  
870ZIC

BS 1363 Pt 2:1995

MOUNTING BOXES  
FLUSH 47MM  
870ZIC

BS 1363 Pt 2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.



## Aspect



2 GANG DP DUAL EARTH  
SWITCHSOCKET, EURO 4  
MODULE 50 X 50MM (X2)  
**13 AMP**

EURO 8 MODULE  
100 X 50MM (X2)

EURO 12 MODULE  
150 X 50MM (X2)



| FINISHES                |            |   |           |   |           |   |
|-------------------------|------------|---|-----------|---|-----------|---|
| BRUSHED STAINLESS STEEL | K24208BSS* | 1 | K24209BSS | 1 | K24210BSS | 1 |
| LACQUERED BRUSHED STEEL | K24208LBS* | 1 | K24209LBS | 1 | K24210LBS | 1 |
| BRUSHED CHROME          | K24208BRC* | 1 | K24209BRC | 1 | K24210BRC | 1 |
| POLISHED CHROME         | K24208POC* | 1 | K24209POC | 1 | K24210POC | 1 |
| SATIN GOLD              | K24208SAG* | 1 | K24209SAG | 1 | K24210SAG | 1 |
| PORCELAIN WHITE         | K24208WHIW | 1 | K24209WHI | 1 | K24210WHI | 1 |
| LUSTROUS IVORY          | K24208LIVW | 1 | K24209LIV | 1 | K24210LIV | 1 |
| LUSTROUS BLACK          | K24208LBKB | 1 | K24209LBK | 1 | K24210LBK | 1 |
| POLISHED BRASS          | K24208PBR* | 1 | K24209PBR | 1 | K24210PBR | 1 |
| TEXTURED IRON           | K24208TIRB | 1 | K24209TIR | 1 | K24210TIR | 1 |
| DESERT BRONZE           | K24208DBZB | 1 | K24209DBZ | 1 | K24210DBZ | 1 |
| ANTIQUE BRASS           | K24208ABSB | 1 | K24209ABS | 1 | K24210ABS | 1 |
| TEXTURED COPPER         | K24208TCOB | 1 | K24209TCO | 1 | K24210TCO | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 47MM  
858ZIC  
BS 5733:2010

MOUNTING BOXES  
FLUSH 47MM  
869ZIC  
BS 5733:2010

MOUNTING BOXES  
FLUSH 47MM  
868ZIC

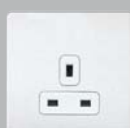
BS 1363 Pt 2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.

## Socket Outlets

1 GANG  
DUAL EARTH  
13 AMP



2 GANG  
DUAL EARTH  
13 AMP



1 GANG  
ROUND PIN  
5 AMP



## Shaver/Toothbrush Supply Outlet

DUAL VOLTAGE  
OUTPUT 115/230V  
INPUT 220/240V  
50/60HZ



|            |   |            |   |            |   |            |   |
|------------|---|------------|---|------------|---|------------|---|
| K24780BSS* | 1 | K24781BSS* | 1 | K24381BSS* | 1 | K24709BSS* | 1 |
| K24780LBS* | 1 | K24781LBS* | 1 | K24381LBS* | 1 | K24709LBS* | 1 |
| K24780BRC* | 1 | K24781BRC* | 1 | K24381BRC* | 1 | K24709BRC* | 1 |
| K24780POC* | 1 | K24781POC* | 1 | K24381POC* | 1 | K24709POC* | 1 |
| K24780SAG* | 1 | K24781SAG* | 1 | K24381SAG* | 1 | K24709SAG* | 1 |
| K24780WHIW | 1 | K24781WHIW | 1 | K24381WHIW | 1 | K24709WHIW | 1 |
| K24780LIVW | 1 | K24781LIVW | 1 | K24381LIVW | 1 | K24709LIVW | 1 |
| K24780LBKB | 1 | K24781LBKB | 1 | K24381LBKB | 1 | K24709LBKB | 1 |
| K24780PBR* | 1 | K24781PBR* | 1 | K24381PBR* | 1 | K24709PBR* | 1 |
| K24780TIRB | 1 | K24781TIRB | 1 | K24381TIRB | 1 | K24709TIRB | 1 |
| K24780DBZB | 1 | K24781DBZB | 1 | K24381DBZB | 1 | K24709DBZB | 1 |
| K24780ABSB | 1 | K24781ABSB | 1 | K24381ABSB | 1 | K24709ABSB | 1 |
| K24780TCOB | 1 | K24781TCOB | 1 | K24381TCOB | 1 | K24709TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35MM  
886ZIC  
FLUSH 47MM  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
FLUSH 46MM  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
FLUSH  
878ZIC  
This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and meets BS EN 61558-2-5: 1998 making it safe for use in bathrooms.  
Insertion of a shaver/toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.  
DIMENSIONS  
146 x 86mm  
FIXING CENTRES  
120.6mm  
BS EN 61558-2-5:1998

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

## Aspect



### Connection Units Switched

DP  
13 AMP



DP  
WITH NEON  
13 AMP



DP WITH  
NEON & FLEX OUTLET  
13 AMP



### Connection Units Unswitched

WITH NEON  
13 AMP



| FINISHES                |             |             |             |             |
|-------------------------|-------------|-------------|-------------|-------------|
| BRUSHED STAINLESS STEEL | K24941BSS*1 | K24961BSS*1 | K24971BSS*1 | K24958BSS*1 |
| LACQUERED BRUSHED STEEL | K24941LBS*1 | K24961LBS*1 | K24971LBS*1 | K24958LBS*1 |
| BRUSHED CHROME          | K24941BRC*1 | K24961BRC*1 | K24971BRC*1 | K24958BRC*1 |
| POLISHED CHROME         | K24941POC*1 | K24961POC*1 | K24971POC*1 | K24958POC*1 |
| SATIN GOLD              | K24941SAG*1 | K24961SAG*1 | K24971SAG*1 | K24958SAG*1 |
| PORCELAIN WHITE         | K24941WHIW1 | K24961WHIW1 | K24971WHIW1 | K24958WHIW1 |
| LUSTROUS IVORY          | K24941LIVW1 | K24961LIVW1 | K24971LIVW1 | K24958LIVW1 |
| LUSTROUS BLACK          | K24941LBKB1 | K24961LBKB1 | K24971LBKB1 | K24958LBKB1 |
| POLISHED BRASS          | K24941PBR*1 | K24961PBR*1 | K24971PBR*1 | K24958PBR*1 |
| TEXTURED IRON           | K24941TIRB1 | K24961TIRB1 | K24971TIRB1 | K24958TIRB1 |
| DESERT BRONZE           | K24941DBZB1 | K24961DBZB1 | K24971DBZB1 | K24958DBZB1 |
| ANTIQUE BRASS           | K24941ABSB1 | K24961ABSB1 | K24971ABSB1 | K24958ABSB1 |
| TEXTURED COPPER         | K24941TCOB1 | K24961TCOB1 | K24971TCOB1 | K24958TCOB1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW = Lustrous Ivory Finish with White inserts

MOUNTING BOXES  
FLUSH 47MM  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 47MM  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 47MM  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 47MM  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
Neon is only available in white or black insulated rocker.

Matching metal capped fuse carriers are standard on all Aspect Connection Units (except Porcelain White).

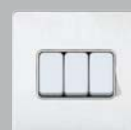
## Switches

WITH NEON &  
FLEX OUTLET  
13 AMP

1 GANG SP  
2 WAY  
20 AMP

2 GANG SP  
2 WAY  
20 AMP

3 GANG SP  
2 WAY  
10 AMP



|            |   |            |   |            |   |            |   |
|------------|---|------------|---|------------|---|------------|---|
| K24978BSS* | 1 | K24371BSS* | 1 | K24372BSS* | 1 | K24373BSS* | 1 |
| K24978LBS* | 1 | K24371LBS* | 1 | K24372LBS* | 1 | K24373LBS* | 1 |
| K24978BRC* | 1 | K24371BRC* | 1 | K24372BRC* | 1 | K24373BRC* | 1 |
| K24978POC* | 1 | K24371POC* | 1 | K24372POC* | 1 | K24373POC* | 1 |
| K24978SAG* | 1 | K24371SAG* | 1 | K24372SAG* | 1 | K24373SAG* | 1 |
| K24978WHIW | 1 | K24371WHIW | 1 | K24372WHIW | 1 | K24373WHIW | 1 |
| K24978LIVW | 1 | K24371LIVW | 1 | K24372LIVW | 1 | K24373LIVW | 1 |
| K24978LBKB | 1 | K24371LBKB | 1 | K24372LBKB | 1 | K24373LBKB | 1 |
| K24978PBR* | 1 | K24371PBR* | 1 | K24372PBR* | 1 | K24373PBR* | 1 |
| K24978TIRB | 1 | K24371TIRB | 1 | K24372TIRB | 1 | K24373TIRB | 1 |
| K24978DBZB | 1 | K24371DBZB | 1 | K24372DBZB | 1 | K24373DBZB | 1 |
| K24978ABSB | 1 | K24371ABSB | 1 | K24372ABSB | 1 | K24373ABSB | 1 |
| K24978TCOB | 1 | K24371TCOB | 1 | K24372TCOB | 1 | K24373TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW = Lustrous Ivory Finish with White inserts

MOUNTING BOXES  
FLUSH 47MM  
877ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

Matching metal capped fuse carriers are standard on all Aspect Connection Units (except Porcelain White).

## Aspect



## Switches





1 GANG SP  
2 WAY  
WITH LARGE ROCKER  
20 AMP

2 GANG SP  
2 WAY  
WITH LARGE ROCKERS  
20 AMP

1 GANG SP  
2 WAY  
WITH WIDE ROCKER  
20 AMP

## High Current Switches

1 GANG DP  
WITH NEON  
32 AMP

| FINISHES                |  |  |  |  |
|-------------------------|---|---|--|---|
| BRUSHED STAINLESS STEEL | K23471BSS* 1  | K23472BSS* 1  | K23473BSS* 1   | K24305BSS* 1  |
| LACQUERED BRUSHED STEEL | K23471LBS* 1  | K23472LBS* 1  | K23473LBS* 1   | K24305LBS* 1  |
| BRUSHED CHROME          | K23471BRC* 1  | K23472BRC* 1  | K23473BRC* 1   | K24305BRC* 1  |
| POLISHED CHROME         | K23471POC* 1  | K23472POC* 1  | K23473POC* 1   | K24305POC* 1  |
| SATIN GOLD              | K23471SAG* 1  | K23472SAG* 1  | K23473SAG* 1   | K24305SAG* 1  |
| PORCELAIN WHITE         | K23471WHIW 1  | K23472WHIW 1  | K23473WHIW 1   | K24305WHIW 1  |
| LUSTROUS IVORY          | K23471LIVW 1  | K23472LIVW 1  | K23473LIVW 1   | K24305LIVW 1  |
| LUSTROUS BLACK          | K23471LBKB 1  | K23472LBKB 1  | K23473LBKB 1   | K24305LBKB 1  |
| POLISHED BRASS          | K23471PBR* 1  | K23472PBR* 1  | K23473PBR* 1   | K24305PBR* 1  |
| TEXTURED IRON           | K23471TIRB 1  | K23472TIRB 1  | K23473TIRB 1   | K24305TIRB 1  |
| DESERT BRONZE           | K23471DBZB 1  | K23472DBZB 1  | K23473DBZB 1   | K24305DBZB 1  |
| ANTIQUE BRASS           | K23471ABSB 1  | K23472ABSB 1  | K23473ABSB 1   | K24305ABSB 1  |
| TEXTURED COPPER         | K23471TCOB 1  | K23472TCOB 1  | K23473TCOB 1   | K24305TCOB 1  |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW = Lustrous Ivory Finish with White inserts

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
ROCKER DIMENSIONS  
22 x 40mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
ROCKER DIMENSIONS  
22 x 40mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
ROCKER DIMENSIONS  
50 x 40mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

1 GANG DP  
WITH NEON  
50 AMP

## Three Pole Fan Isolator

10 AMP

## Intelligent Dimmers

2 WAY SINGLE  
230V A.C. 50HZ  
60W/VA MIN-500W/400VA  
MAX



|            |   |            |   |           |   |
|------------|---|------------|---|-----------|---|
| K24336BSS* | 1 | K24859BSS* | 1 | K24301BSS | 1 |
| K24336LBS* | 1 | K24859LBS* | 1 | K24301LBS | 1 |
| K24336BRC* | 1 | K24859BRC* | 1 | K24301BRC | 1 |
| K24336POC* | 1 | K24859POC* | 1 | K24301POC | 1 |
| K24336SAG* | 1 | K24859SAG* | 1 | K24301SAG | 1 |
| K24336WHIW | 1 | K24859WHIW | 1 | K24301WHI | 1 |
| K24336LIVW | 1 | K24859LIVW | 1 | K24301LIV | 1 |
| K24336LBKB | 1 | K24859LBKB | 1 | K24301LBK | 1 |
| K24336PBR* | 1 | K24859PBR* | 1 | K24301PBR | 1 |
| K24336TIRB | 1 | K24859TIRB | 1 | K24301TIR | 1 |
| K24336DBZB | 1 | K24859DBZB | 1 | K24301DBZ | 1 |
| K24336ABSB | 1 | K24859ABSB | 1 | K24301ABS | 1 |
| K24336TCOB | 1 | K24859TCOB | 1 | K24301TCO | 1 |



\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 47MM  
878ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-2-4

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

These dimmers employ the latest micro-controller based circuitry to provide electronic soft-start and overload protection. They are suitable for use with good quality electronic or wire-wound transformers. Can also be used with good quality halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

### NOT SUITABLE FOR FLUORESCENT LOADS.

Conform to latest standards BS EN 60669-2-1.

All intelligent dimmers have a combined push-on/push-off switch and rotary dimmer control, and are suitable for one or two-way switching. Only one dimmer can be used in a two way switching circuit.



## Aspect



## Intelligent Dimmers

2 WAY SINGLE 230V  
A.C. 50HZ 40W/VA MIN.  
300W/240VA MAX.

2 WAY DOUBLE 230V  
A.C. 50HZ 40W/VA MIN.  
300W/240VA MAX.  
FOR EACH DIMMER

## Grid Plus Modular Frontplates

SUPPLIED WITH MOUNTING FRAME

1 MODULE

2 MODULE

|                         |  |  |  |  |
|-------------------------|---|---|--|---|
| FINISHES                |   |   |  |   |
| BRUSHED STAINLESS STEEL | K24521BSS1  | K24522BSS1  | K24331BSS1   | K24332BSS1  |
| LACQUERED BRUSHED STEEL | K24521LBS1  | K24522LBS1  | K24331LBS1   | K24332LBS1  |
| BRUSHED CHROME          | K24521BRC1  | K24522BRC1  | K24331BRC1   | K24332BRC1  |
| POLISHED CHROME         | K24521POC1  | K24522POC1  | K24331POC1   | K24332POC1  |
| SATIN GOLD              | K24521SAG1  | K24522SAG1  | K24331SAG1   | K24332SAG1  |
| PORCELAIN WHITE         | K24521WHI1  | K24522WHI1  | K24331WHI1   | K24332WHI1  |
| LUSTROUS IVORY          | K24521LIV1  | K24522LIV1  | K24331LIV1   | K24332LIV1  |
| LUSTROUS BLACK          | K24521LBK1  | K24522LBK1  | K24331LBK1   | K24332LBK1  |
| POLISHED BRASS          | K24521PBR1  | K24522PBR1  | K24331PBR1   | K24332PBR1  |
| TEXTURED IRON           | K24521TIR1  | K24522TIR1  | K24331TIR1   | K24332TIR1  |
| DESERT BRONZE           | K24521DBZ1  | K24522DBZ1  | K24331DBZ1   | K24332DBZ1  |
| ANTIQUE BRASS           | K24521ABS1  | K24522ABS1  | K24331ABS1   | K24332ABS1  |
| TEXTURED COPPER         | K24521TCO1  | K24522TCO1  | K24331TCO1   | K24332TCO1  |

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

MOUNTING BOXES  
FLUSH 35MM  
866ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

These dimmers employ the latest micro-controller based circuitry to provide electronic soft-start and overload protection. They are suitable for use with good quality electronic or wire-wound transformers. Can also be used with good quality halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

## NOT SUITABLE FOR FLUORESCENT LOADS.

Conform to latest standards BS EN 60669-2-1.

All intelligent dimmers have a combined push-on/push-off switch and rotary dimmer control, and are suitable for one or two-way switching. Only one dimmer can be used in a two way switching circuit.

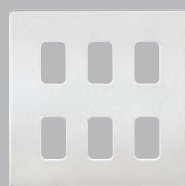
## 3 MODULE



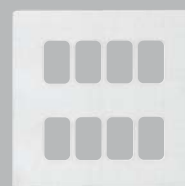
## 4 MODULE



## 6 MODULE



## 8 MODULE



|           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|
| K24333BSS | 1 | K24334BSS | 1 | K24346BSS | 1 | K24348BSS | 1 |
| K24333LBS | 1 | K24334LBS | 1 | K24346LBS | 1 | K24348LBS | 1 |
| K24333BRC | 1 | K24334BRC | 1 | K24346BRC | 1 | K24348BRC | 1 |
| K24333POC | 1 | K24334POC | 1 | K24346POC | 1 | K24348POC | 1 |
| K24333SAG | 1 | K24334SAG | 1 | K24346SAG | 1 | K24348SAG | 1 |
| K24333WHI | 1 | K24334WHI | 1 | K24346WHI | 1 | K24348WHI | 1 |
| K24333LIV | 1 | K24334LIV | 1 | K24346LIV | 1 | K24348LIV | 1 |
| K24333LBK | 1 | K24334LBK | 1 | K24346LBK | 1 | K24348LBK | 1 |
| K24333PBR | 1 | K24334PBR | 1 | K24346PBR | 1 | K24348PBR | 1 |
| K24333TIR | 1 | K24334TIR | 1 | K24346TIR | 1 | K24348TIR | 1 |
| K24333DBZ | 1 | K24334DBZ | 1 | K24346DBZ | 1 | K24348DBZ | 1 |
| K24333ABS | 1 | K24334ABS | 1 | K24346ABS | 1 | K24348ABS | 1 |
| K24333TCO | 1 | K24334TCO | 1 | K24346TCO | 1 | K24348TCO | 1 |

MOUNTING BOX  
FLUSH  
892ALM  
DIMENSIONS  
86 x 146mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
892ALM  
DIMENSIONS  
86 x 146mm  
BS 5733:2010

MOUNTING BOX  
FLUSH: 893ALM  
DIMENSIONS  
146 x 146mm  
BS 5733:2010

MOUNTING BOX  
FLUSH: 893ALM  
DIMENSIONS  
146 x 146mm  
BS 5733:2010

## Aspect

Grid  
Modules

BLANK INSERT

Switch Modules  
10 AmpSP 1 WAY  
10 AMPSwitch Modules  
10 AmpDP 1 WAY  
10 AMPSP 2 WAY  
10 AMP

| FINISHES                |            |            |            |            |
|-------------------------|------------|------------|------------|------------|
| BRUSHED STAINLESS STEEL | K4880BSS*1 | K4881BSS*1 | K4981BSS*1 | K4882BSS*1 |
| LACQUERED BRUSHED STEEL | K4880LBS*1 | K4881LBS*1 | K4981LBS*1 | K4882LBS*1 |
| BRUSHED CHROME          | K4880BRC*1 | K4881BRC*1 | K4981BRC*1 | K4882BRC*1 |
| POLISHED CHROME         | K4880POC*1 | K4881POC*1 | K4981POC*1 | K4882POC*1 |
| SATIN GOLD              | K4880SAG*1 | K4881SAG*1 | K4981SAG*1 | K4882SAG*1 |
| PORCELAIN WHITE         | K4880WHI10 | K4881WHI10 | K4981WHI10 | K4882WHI10 |
| LUSTROUS IVORY          | K4880LIVW1 | K4881LIVW1 | K4981LIVW1 | K4882LIVW1 |
| LUSTROUS BLACK          | K4880LBKB1 | K4881LBKB1 | K4981LBKB1 | K4882LBKB1 |
| POLISHED BRASS          | K4880PBR*1 | K4881PBR*1 | K4981PBR*1 | K4882PBR*1 |
| TEXTURED IRON           | K4880TIRB1 | K4881TIRB1 | K4981TIRB1 | K4882TIRB1 |
| DESERT BRONZE           | K4880DBZB1 | K4881DBZB1 | K4981DBZB1 | K4882DBZB1 |
| ANTIQUE BRASS           | K4880ABSB1 | K4881ABSB1 | K4981ABSB1 | K4882ABSB1 |
| TEXTURED COPPER         | K4880TCOB1 | K4881TCOB1 | K4981TCOB1 | K4882TCOB1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

BS 5733:2010

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

SP 2 WAY  
RETRACTIVE  
10 AMP

SP 2 WAY  
RED RETRACTIVE  
10 AMP

SP 2 WAY  
RETRACTIVE MARKED  
BELL SYMBOL  
10 AMP



|           |    |                        |        |
|-----------|----|------------------------|--------|
| K4885BSS* | 1  |                        |        |
| K4885LBS* | 1  |                        |        |
| K4885BRC* | 1  |                        |        |
| K4885POC* | 1  |                        |        |
| K4885SAG* | 1  |                        |        |
| K4885WHI  | 10 |                        |        |
| K4885LIVW | 1  |                        |        |
| K4885LBKB | 1  |                        |        |
| K4885PBR* | 1  |                        |        |
| K4885TIRB | 1  |                        |        |
| K4885DBZB | 1  |                        |        |
| K4885ABSB | 1  |                        |        |
| K4885TCOB | 1  |                        |        |
|           |    | K4885RED<br>K4885REDB  | 1<br>1 |
|           |    | K4885BWHI<br>K4885BBLK | 1<br>1 |



\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering. E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

## Switch Modules 10 Amp

SP 2 WAY  
RETRACTIVE  
MARKED 'PRESS'  
10 AMP

2 WAY  
CENTRE OFF  
RETRACTIVE  
10 AMP

## Switch Modules 20 Amp

SP 1 WAY  
20 AMP

DP  
1 WAY  
PUSH TO MAKE  
20 AMP

DP  
1 WAY  
RED ROCKER  
PUSH TO MAKE  
20 AMP

| FINISHES                  |                        |         |            |            |            |                       |         |
|---------------------------|------------------------|---------|------------|------------|------------|-----------------------|---------|
| BRUSHED STAINLESS STEEL   | K4885PWHI<br>K4885PBLK | 10<br>1 | K4900BSS*1 | K4891BSS*1 | K4910BSS*1 | K4910RED<br>K4910REDB | 10<br>1 |
| LACQUERED BRUSHED STEEL   |                        |         | K4900LBS*1 | K4891LBS*1 | K4910LBS*1 |                       |         |
| BRUSHED CHROME            |                        |         | K4900BRC*1 | K4891BRC*1 | K4910BRC*1 |                       |         |
| POLISHED CHROME           |                        |         | K4900POC*1 | K4891POC*1 | K4910POC*1 |                       |         |
| SATIN GOLD                |                        |         | K4900SAG*1 | K4891SAG*1 | K4910SAG*1 |                       |         |
| MK WHITE (PLASTIC ROCKER) |                        |         | K4900WHI10 | K4891WHI10 | K4910WHI10 |                       |         |
| LUSTROUS IVORY            |                        |         | K4900LIVW1 | K4891LIVW1 | K4910LIVW1 |                       |         |
| LUSTROUS BLACK            |                        |         | K4900LBKB1 | K4891LBKB1 | K4910LBKB1 |                       |         |
| POLISHED BRASS            |                        |         | K4900PBR*1 | K4891PBR*1 | K4910PBR*1 |                       |         |
| TEXTURED IRON             |                        |         | K4900TIRB1 | K4891TIRB1 | K4910TIRB1 |                       |         |
| DESERT BRONZE             |                        |         | K4900DBZB1 | K4891DBZB1 | K4910DBZB1 |                       |         |
| ANTIQUE BRASS             |                        |         | K4900ABSB1 | K4891ABSB1 | K4910ABSB1 |                       |         |
| TEXTURED COPPER           |                        |         | K4900TCOB1 | K4891TCOB1 | K4910TCOB1 |                       |         |

NOTE  
Push switches are not designed  
for fluorescent loads.  
BS EN 60669-1:1999

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NOTE  
Push switches are not designed  
for fluorescent loads.  
BS EN 60669-1:1999

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts.

## Switch Modules 20 Amp

DP 1 WAY  
PUSH TO BREAK  
RETRACTIVE  
20 AMP

DP 1 WAY  
RED ROCKER  
PUSH TO BREAK  
RETRACTIVE  
20 AMP

SP 2 WAY  
20 AMP

SP 2 WAY  
RED ROCKER  
20 AMP

SP 2 WAY WITH  
INTEGRAL NEON  
LOCATOR  
20 AMP

SP 2 WAY  
& CENTRE OFF  
20 AMP



|  |  |           |    |   |   |           |    |
|--|--|-----------|----|---|---|-----------|----|
| <b>K4915WHI</b> 10<br><b>K4915BLK</b> 10 | <b>K4915RED</b> 10<br><b>K4915REDB</b> 1 | K4892BSS* | 1  | <b>K4892RED</b> 10<br><b>K4892REDB</b> 10 | <b>K4892LWHI</b> 10<br><b>K4892LBLK</b> 1 | K4899BSS* | 1  |
|  |  | K4892LBS* | 1  |   |   | K4899LBS* | 1  |
|  |  | K4892BRC* | 1  |   |   | K4899BRC* | 1  |
|  |  | K4892POC* | 1  |   |   | K4899POC* | 1  |
|  |  | K4892SAG* | 1  |   |   | K4899SAG* | 1  |
|  |  | K4892WHI  | 10 |   |   | K4899WHI  | 10 |
|  |  | K4892LIVW | 1  |   |   | K4899LIVW | 1  |
|  |  | K4892LBKB | 1  |   |   | K4899LBKB | 1  |
|  |  | K4892PBR* | 1  |   |   | K4899PBR* | 1  |
|  |  | K4892TIRB | 1  |   |   | K4899TIRB | 1  |
|  |  | K4892DBZB | 1  |   |   | K4899DBZB | 1  |
|  |  | K4892ABSB | 1  |   |   | K4899ABSB | 1  |
|  |  | K4892TCOB | 1  |   |   | K4899TCOB | 1  |

**NOTE**  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999

These switches do NOT have  
to be derated when used with  
fluorescent or inductive loads.  
BS EN 60669-1:1999

These switches do NOT have to be derated when used with  
fluorescent or inductive loads.  
Additional information on printed modules available in Grid Plus  
Section, pages 175.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts.

Matching metal capped  
rockers available as  
standard  
(excluding porcelain  
white finish).

Matching metal capped  
rockers available as  
standard  
(excluding porcelain  
white finish).



## Switch Modules






SP 2 WAY  
& CENTRE OFF  
RED ROCKER  
20 AMP

INTERMEDIATE  
20 AMP

INTERMEDIATE  
RED ROCKER  
20 AMP

DP  
1 WAY  
20 AMP

DP  
1 WAY  
WITH NEON  
20 AMP

| FINISHES                  |  |  |  |  |  |
|---------------------------|---|---|---|---|---|
| BRUSHED STAINLESS STEEL   | K4899RED<br>K4899REDB   | K4893BSS* 1   | K4893RED<br>K4893REDB   | K4896BSS* 1   | K4896NWHI<br>K4896NBLK  |
| LACQUERED BRUSHED STEEL   |   | K4893LBS* 1   |   | K4896LBS* 1   |   |
| BRUSHED CHROME            |   | K4893BRC* 1   |   | K4896BRC* 1   |   |
| POLISHED CHROME           |   | K4893POC* 1   |   | K4896POC* 1   |   |
| SATIN GOLD                |   | K4893SAG* 1   |   | K4896SAG* 1   |   |
| MK WHITE (PLASTIC ROCKER) |   | K4893WHI 1  |   | K4896WHI 1  |   |
| LUSTROUS IVORY            |   | K4893LIVW 1   |   | K4896LIVW 1   |   |
| LUSTROUS BLACK            |   | K4893LBKB 1   |   | K4896LBKB 1   |   |
| POLISHED BRASS            |   | K4893PBR* 1   |   | K4896PBR* 1   |   |
| TEXTURED IRON             |   | K4893TIRB 1   |   | K4896TIRB 1   |   |
| DESERT BRONZE             |   | K4893DBZB 1   |   | K4896DBZB 1   |   |
| ANTIQUE BRASS             |   | K4893ABSB 1   |   | K4896ABSB 1   |   |
| TEXTURED COPPER           |   | K4893TCOB 1   |   | K4896TCOB 1   |   |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts.

Matching metal capped  
rockers available as  
standard (excluding  
porcelain white finish).

Matching metal capped  
rockers available as  
standard (excluding  
porcelain white finish).

## Switch Modules

DP  
1 WAY  
WITH WINDOW  
20 AMP

DP  
1 WAY  
RED ROCKER  
20 AMP



## Printed Modules with and without Neon



**K4896WWHI 10**  
**K4896WBLK 10**

**K4896RED 10**  
**K4896REDB 10**

### K4896 PRINTED MODULE

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896BRWHI OR K4896BRBLK

|                           |                            |                             |
|---------------------------|----------------------------|-----------------------------|
| BOILER<br>K4896BR         | WASTE DISPOSAL<br>K4896WD  | HOB<br>K4896HB              |
| DISHWASHER<br>K4896DW     | WASHING MACHINE<br>K4896WM | IMMERSION HEATER<br>K4896IH |
| COOKER HOOD<br>K4896CH    | TUMBLE DRYER<br>K4896TD    | PLINTH HEATER<br>K4896PH    |
| FAN<br>K4896FN            | WASHER DRYER<br>K4896WDR   | WORKTOP LIGHTING<br>K4896WL |
| FRIDGE<br>K4896Fg         | MICROWAVE<br>K4896MW       | WINE COOLER<br>K4896WC      |
| FREEZER<br>K4896FZ        | HEATER<br>K4896HR          | WARMING DRAWER<br>K4896WDA  |
| FRIDGE FREEZER<br>K4896FF | OVEN<br>K4896OV            | COFFEE MACHINE<br>K4896CM   |

### K4896N PRINTED MODULE WITH NEON

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896NBRWHI OR K4896NBRBLK

|                            |                             |                              |
|----------------------------|-----------------------------|------------------------------|
| BOILER<br>K4896NBR         | WASTE DISPOSAL<br>K4896NWD  | HOB<br>K4896NHB              |
| DISHWASHER<br>K4896NDW     | WASHING MACHINE<br>K4896NWM | IMMERSION HEATER<br>K4896NIH |
| COOKER HOOD<br>K4896NCH    | TUMBLE DRYER<br>K4896NTD    | PLINTH HEATER<br>K4896NPH    |
| FAN<br>K4896NFN            | WASHER DRYER<br>K4896NWDR   | WORKTOP LIGHTING<br>K4896NWL |
| FRIDGE<br>K4896NFg         | MICROWAVE<br>K4896NMW       | WINE COOLER<br>K4896NWC      |
| FREEZER<br>K4896NFZ        | HEATER<br>K4896NHR          | WARMING DRAWER<br>K4896NWDA  |
| FRIDGE FREEZER<br>K4896NFF | OVEN<br>K4896NOV            | COFFEE MACHINE<br>K4896NCM   |

#### NOTE

K4896NIH (Immersion Heater with Neon) is not available with black rockers.

BS EN 60669-1:1999

BS EN 60669-1:1999

## Aspect



## Key Switch Modules

INTERMEDIATE  
20 AMP

SP  
2 WAY  
20 AMP

SP 2 WAY  
EMERGENCY  
LIGHTING  
20 AMP

DP  
1 WAY  
20 AMP

DP  
EMERGENCY  
LIGHTING  
20 AMP

SP  
2 WAY  
RETRACTIVE  
20 AMP



## FINISHES

WHITE

K4894WHI 10 K4898WHI 10 K4898ELWHI 10 K4917WHI 10 K4917ELWHI 10 K4918WHI 10

BLACK

K4894BLK 1 K4898BLK 1 K4898ELBLK 1 K4917BLK 1 K4918BLK 10

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

## Indicator Modules

200-250V  
NEON



**K4889RED**  
**K4889REDB**

**10**  
**1**

BS 5733:2010

200-250V  
NEON



**K4889AMB**

**10**

BS 5733:2010

200-250V  
FLUORESCENT



**K4889GRN**

**10**

BS 5733:2010

21-36V  
FILAMENT



**K4836RED**

**10**

BS 5733:2010

21-36V  
FILAMENT



**K4836AMB**

**10**

BS 5733:2010

21-36V  
FILAMENT



**KK4836GRN**

**10**

BS 5733:2010

Will Operate On Both A.C. And D.C

Not available in other finishes





### Dimmer Switch Modules

1 GANG 40W/  
VA-220W/180VA,  
230VA.C, 50HZ  
2 WAY  
1 MODULE

1 GANG 60W/  
VA-400W/320VA,  
230VA.C, 50HZ  
2 WAY  
2 MODULE

1 GANG  
40-220W/180VA/  
4-70W LED DIMMER  
2 WAY  
1 MODULE

0-10V/1-10V  
FLUORESCENT  
CONTROLLER  
1 MODULE

|                         |  |  |  |  |
|-------------------------|---|---|---|---|
| FINISHES                |   |   |   |   |
| BRUSHED STAINLESS STEEL | K4501BSS*LV 1   | K4500BSS*LV 1   | K4511BSS*LV 1   | K4499BSS* 1   |
| LACQUERED BRUSHED STEEL | K4501LBS*LV 1   | K4500LBS*LV 1   | K4511LBS*LV 1   | K4499LBS* 1   |
| BRUSHED CHROME          | K4501BRC*LV 1   | K4500BRC*LV 1   | K4511BRC*LV 1   | K4499BRC* 1   |
| POLISHED CHROME         | K4501POC*LV 1   | K4500POC*LV 1   | K4511POC*LV 1   | K4499POC* 1   |
| SATIN GOLD              | K4501SAG*LV 1   | K4500SAG*LV 1   | K4511SAG*LV 1   | K4499SAG* 1   |
| PORCELAIN WHITE         | K4501WHIWL 1  | K4500WHIWL 1  | K4511WHIWL 1  | K4499WHI 1  |
| LUSTROUS IVORY          | K4501LIVWL 1  | K4500LIVWL 1  | K4511LIVWL 1  | K4499LIVW 1   |
| LUSTROUS BLACK          | K4501LBKBL 1  | K4500LBKBL 1  | K4511LBKBL 1  | K4499LBKB 1   |
| POLISHED BRASS          | K4501PBR*LV 1   | K4500PBR*LV 1   | K4511PBR*LV 1   | K4499PBR* 1   |
| TEXTURED IRON           | K4501TIRBL 1  | K4500TIRBL 1  | K4511TIRBL 1  | K4499TIRB 1   |
| DESERT BRONZE           | K4501DBZBL 1  | K4500DBZBL 1  | K4511DBZBL 1  | K4499DBZB 1   |
| ANTIQUE BRASS           | K4501ABSBL 1  | K4500ABSBL 1  | K4511ABSBL 1  | K4499ABSB 1   |
| TEXTURED COPPER         | K4501TCOBL 1  | K4500TCOBL 1  | K4511TCOBL 1  | K4499TCOB 1   |

These dimmers incorporate the latest in micro-controller based circuitry to provide electronic soft-start and overload protection. Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability. K4500 is only suitable for use in 2, 4 and 8 module grids. They are not suitable for fluorescent lamps.

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.






#### NOTE

Refer to technical section for derating factors when more than one unit is used in any one box.  
BS EN 60669-2-1.

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

When ordering K4500, K4501 & K4511, use the suffix 'LV' right at the end, eg. K4501BSSWL

## Accessory Modules

| SINGLE TV<br>CO-AXIAL OUTLET<br>NON-ISOLATED                                      | SINGLE TV<br>CO-AXIAL<br>OUTLET<br>ISOLATED                                       | BUZZER UNIT<br>200-250V   | BUZZER UNIT<br>21-36V   | CORD OUTLET<br>16 AMP   |  |
|---|---|---|---|---|--|
|  |  |  |  |  |  |
| <b>K4520WHI</b> 10<br><b>K4896WBLK</b> 10   | <b>K4521WHI</b> 10<br><b>K4521BLK</b> 10  | <b>K4000WHI</b> 10  | <b>K4001WHI</b> 10  | <b>K4886WHI</b> 10<br><b>K4886BLK</b> 10  |  |

For direct connection to TV or FM aerial co-axial download. NOT to be used in same enclosure as mains exceeding 50V.  
BS 3041:1977  
IEC 169-2:1965  
BS 5733:2010 where applicable.

For direct connection to TV or FM aerial co-axial download. NOT to be used in same enclosure as mains exceeding 50V.  
BS 3041:1977  
IEC 169-2:1965  
BS 5733:2010 where applicable.

200-250V  
BS 5733:2010

Sound output level  
Av 61 db @ 15 feet.  
BS 5733:2010

Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm<sup>2</sup> or 1 x 4mm<sup>2</sup> solid conductors. The load terminals are suitable for one 1.5mm<sup>2</sup> flexible cord.  
A cord grip is also fitted.  
BS 5733:2010



## Aspect



## Accessory Modules

FUSE UNIT  
13 AMP

FUSE UNIT WITH  
TAMPERPROOF  
SCREW  
13 AMP

## Euro Modular Frontplates

EURO  
1 MODULE  
25 X 50MM

EURO  
2 MODULE  
50 X 50MM

EURO  
4 MODULE  
100 X 50MM

## FINISHES

BRUSHED STAINLESS STEEL

LACQUERED BRUSHED STEEL

BRUSHED CHROME

POLISHED CHROME

SATIN GOLD

PORCELAIN WHITE

LUSTROUS IVORY

LUSTROUS BLACK

POLISHED BRASS

TEXTURED IRON

DESERT BRONZE

ANTIQUE BRASS

TEXTURED COPPER

K4890WHI  
K4890BLK

10  
10

K4890KOWHI  
K4890KOBK

10  
10

K24181BSS 1  
K24181LBS 1  
K24181BRC 1  
K24181POC 1  
K24181SAG 1  
K24181WHI 1  
K24181LIV 1  
K24181LBK 1  
K24181PBR 1  
K24181TIR 1  
K24181DBZ 1  
K24181ABS 1  
K24181TCO 1

K24182BSS 1  
K24182LBS 1  
K24182BRC 1  
K24182POC 1  
K24182SAG 1  
K24182WHI 1  
K24182LIV 1  
K24182LBK 1  
K24182PBR 1  
K24182TIR 1  
K24182DBZ 1  
K24182ABS 1  
K24182TCO 1

K24184BSS 1  
K24184LBS 1  
K24184BRC 1  
K24184POC 1  
K24184SAG 1  
K24184WHI 1  
K24184LIV 1  
K24184LBK 1  
K24184PBR 1  
K24184TIR 1  
K24184DBZ 1  
K24184ABS 1  
K24184TCO 1

Fuse carrier comes with 13A  
cartridge fuse link to BS 1362.  
BS 5733:2010

Key 3405ZIC supplied  
Fuse carrier comes with 13A  
cartridge fuse link to BS 1362.  
BS 5733:2010

## MOUNTING BOXES

Suitable for flush boxes to  
BS 4662:2006 and surface  
boxes to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.

## FIXING CENTRES

60.3mm

BS 5733:2010 where  
applicable.

Note: No grid required,  
modules just clip into place.

## MOUNTING BOXES

Suitable for flush boxes to  
BS 4662:2006 and surface  
boxes to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.

## FIXING CENTRES

60.3mm

BS 5733:2010 where  
applicable.

Note: No grid required,  
modules just clip into place.

## MOUNTING BOXES

Suitable for flush boxes to  
BS 4662:2006 and surface boxes  
to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.

## FIXING CENTRES

120.6mm

BS 5733:2010 where applicable.  
Note: No grid required, modules  
just clip into place.

## Euro Power Modules

UK  
250V  
2 MODULE  
50 X 50MM  
**13 AMP**

GERMAN  
2P+E 250V  
SHUTTERED  
2 MODULE (NON UK)  
**16 AMP**

AMERICAN  
127V SHUTTERED  
2 MODULE  
50 X 50MM (NON UK)  
**15 AMP**

UK  
250V SHUTTERED  
2 MODULE  
50 X 50MM  
**5 AMP**

FRENCH/BELGIAN  
2P+E  
250V SHUTTERED  
2 MODULE  
50 X 50MM (NON UK)  
**16 AMP**



**K5830SAWHI** **10**  
**K5830BLK** **10**

**K5831WHI** **10**  
**K5831BLK** **10**

**K5832WHI** **10**  
**K5832BLK** **10**

**K5833WHI** **10**  
**K5833BLK** **10**

**K5834WHI** **10**  
**K5834BLK** **10**

**MOUNTING BOX**  
35mm minimum  
46mm (for extra wiring space).  
**DIMENSIONS**  
50 x 50mm  
BS 1363 Part 2:1995

**MOUNTING BOX**  
46mm  
**DIMENSIONS**  
50 x 50mm  
IEC 60884-1:2006

**MOUNTING BOX**  
35mm  
46mm (for extra wiring space)  
**DIMENSIONS**  
50 x 50mm  
SASO 2204:2003

**MOUNTING BOX**  
35mm minimum  
46mm (for extra wiring space).  
**DIMENSIONS**  
50 x 50mm  
BS 546:1950

**MOUNTING BOX**  
46mm  
**DIMENSIONS**  
50 x 50mm  
NF C61-314

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

## Aspect



## Euro Power Modules

USB CHARGING  
2 MODULE  
50 X 50MM



## Euro Datacom Modules

RJ11/12  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
SCREENED  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
ANGLED  
1 MODULE  
25 X 50MM



## FINISHES

|       |                 |          |                   |          |                   |          |                  |          |                 |          |
|-------|-----------------|----------|-------------------|----------|-------------------|----------|------------------|----------|-----------------|----------|
| WHITE | <b>K5837WHI</b> | <b>1</b> | <b>K5887SAWHI</b> | <b>5</b> | <b>K5846SAWHI</b> | <b>5</b> | <b>K5846SWHI</b> | <b>5</b> | <b>K5864WHI</b> | <b>5</b> |
| BLACK | <b>K5837BLK</b> | <b>1</b> | <b>K5887BLK</b>   | <b>5</b> | <b>K5846BLK</b>   | <b>5</b> | <b>K5846SBLK</b> | <b>5</b> |                 |          |

USB charging sockets, each capable of supporting 2A charge (total of 2A)

**K5837 MOUNTING BOX**  
35mm minimum  
46mm for extra wiring space  
IEC 60950-1  
IEC 61000-6-1/3

Suitable for both RJ11 and RJ12 jacks  
RJ11; 4 wire  
RJ12; 6 wire

**MOUNTING BOXES**  
Minimum box depth 35mm  
FCC68  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

RJ45  
CAT 5e  
ANGLED  
1 MODULE  
25 X 50MM

RJ45  
CAT 5e  
1 MODULE  
25 X 50MM

TELEPHONE  
MASTER  
1 MODULE  
25 X 50MM

TELEPHONE  
SECONDARY  
1 MODULE  
25 X 50MM

BNC 50Ω  
1 MODULE  
25 X 50MM



|                 |          |                 |          |                 |          |                 |          |                 |          |
|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K5844WHI</b> | <b>5</b> | <b>K5845WHI</b> | <b>5</b> | <b>K5820WHI</b> | <b>5</b> | <b>K5821WHI</b> | <b>5</b> | <b>K5801WHI</b> | <b>5</b> |
|                 |          | <b>K5845BLK</b> | <b>5</b> | <b>K5820BLK</b> | <b>5</b> | <b>K5821BLK</b> | <b>5</b> |                 |          |

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B  
wiring schemes.

**MOUNTING BOXES**  
Minimum box depth  
35mm standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B  
wiring schemes.

**MOUNTING BOXES**  
Minimum box depth 35mm  
standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**MOUNTING BOXES**  
Minimum depth 35mm  
BS 6312-2

**MOUNTING BOXES**  
Minimum depth 35mm  
BS 6312-2

50 Ohm crimp connector suitable  
for use with RG58, URM43,  
URM76 and Belden 9907 type  
co-axial cables.

**MOUNTING BOXES**  
Minimum box depth 35mm

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

# Aspect



## Euro Multimedia Modules

SINGLE OUTLET  
(IEC MALE)  
1 MODULE  
25 X 50MM

SINGLE OUTLET  
(IEC FEMALE)  
1 MODULE  
25 X 50MM

SINGLE F-TYPE  
SATELLITE  
SOCKET  
1 MODULE  
25 X 50MM



### FINISHES

|       |          |   |          |   |          |   |
|-------|----------|---|----------|---|----------|---|
| WHITE | K5850WHI | 5 | K5851WHI | 5 | K5855WHI | 5 |
| BLACK | K5850BLK | 5 | K5851BLK | 5 | K5855BLK | 5 |

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer, TV/FM/SAT Triplexer and BT secondary telephone outlets for use within digital TV systems and interactive TV services.  
Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

#### MOUNTING BOXES

Min box depth 47mm

#### DIMENSIONS

ONE MODULE 25 x 50mm

TWO MODULE 50 x 50mm

BS 3041:1997, IEC 169-2:1965, BS EN 50083 & BS 5733:2010 where applicable.

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

## Euro Multimedia Modules

FEMALE HDMI OUTLET  
2 MODULE  
50 X 50MM



**K5807WHI**

**5**

**K5807BLK**

**5**

K5807 Female HDMI Outlet is HDMI 1.1, 1.2, 1.3 and 1.4b compatible, HDCP compliant.

**DATA RATE**

Up to 2.25 Gbps

**SCAN**

Up to 1080p/1920x1200

**INPUT CONNECTOR**

1 x HDMI Female (Type A)

**OUTPUT CONNECTOR**

1 x HDMI Female (Type A)

Supports high resolution input:

PC: VGA, SVGA,

SXVGA (1280x1024) and UXGA

(1600x1200, 1920x1200)

HDTV: 480p, 720p, 1080i and 1080p  
HDMI input cable should be no larger than 20m.

**DIMENSIONS**

50 x 50 x 20mm



These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

**Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.**



## Aspect



## Euro Blank Modules

2 MODULE  
50 X 50MM

1 MODULE  
25 X 50MM

1/2 MODULE  
12.5 X 50MM

AUDIO BINDING  
POST FOR SINGLE  
LOUD SPEAKER  
1 MODULE  
25 X 50MM

RCA TO SCREW  
TERMINATION SET  
1 RED AND 1 BLACK  
1 MODULE  
25 X 50MM

## FINISHES

BRUSHED STAINLESS STEEL

LACQUERED BRUSHED STEEL

BRUSHED CHROME

POLISHED CHROME

SATIN GOLD

PORCELAIN WHITE

LUSTROUS IVORY

LUSTROUS BLACK

POLISHED BRASS

TEXTURED IRON

DESERT BRONZE

ANTIQUE BRASS

TEXTURED COPPER

K180WHI  
K180BLK

10  
10

K188WHI  
K188BLK

10  
10

K186WHI  
K186BLK

10  
10

K5805WHI  
K5805BLK

5  
5

K5806WHI  
K5806BLK

5  
5

BS 5733:2010 where applicable

BS 5733:2010 where applicable

BS 5733:2010 where applicable

DIMENSIONS  
50 x 25 x 28mm

DIMENSIONS  
50 x 25 x 28mm

## LJU6C Datacom Frontplate

1 GANG  
ONE MODULE  
22 X 37MM

1 GANG  
TWO MODULE  
22 X 37MM

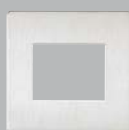
## LJU6C Datacom Modules

RJ11/12  
1 MODULE

RJ45 CAT 6  
1 MODULE

RJ45  
CAT 6  
SCREENED  
1 MODULE

RJ45  
CAT 5e  
1 MODULE



|                  |          |                  |          |
|------------------|----------|------------------|----------|
| <b>K24171BSS</b> | <b>1</b> | <b>K24172BSS</b> | <b>1</b> |
| <b>K24171LBS</b> | <b>1</b> | <b>K24172LBS</b> | <b>1</b> |
| <b>K24171BRC</b> | <b>1</b> | <b>K24172BRC</b> | <b>1</b> |
| <b>K24171POC</b> | <b>1</b> | <b>K24172POC</b> | <b>1</b> |
| <b>K24171SAG</b> | <b>1</b> | <b>K24172SAG</b> | <b>1</b> |
| <b>K24171WHI</b> | <b>1</b> | <b>K24172WHI</b> | <b>1</b> |
| <b>K24171LIV</b> | <b>1</b> | <b>K24172LIV</b> | <b>1</b> |
| <b>K24171LBK</b> | <b>1</b> | <b>K24172LBK</b> | <b>1</b> |
| <b>K24171PBR</b> | <b>1</b> | <b>K24172PBR</b> | <b>1</b> |
| <b>K24171TIR</b> | <b>1</b> | <b>K24172TIR</b> | <b>1</b> |
| <b>K24171DBZ</b> | <b>1</b> | <b>K24172DBZ</b> | <b>1</b> |
| <b>K24171ABS</b> | <b>1</b> | <b>K24172ABS</b> | <b>1</b> |
| <b>K24171TCO</b> | <b>1</b> | <b>K24172TCO</b> | <b>1</b> |

**K5787WHI** **5**

**K5746SAWHI** **5**  
**K5746BLK** **5**

**K5746SWHI** **5**  
**K5746SBLK** **5**

**K5745WHI** **5**  
**K5745BLK** **5**

**MOUNTING BOXES:**  
Suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010  
Refer to appropriate module for minimum box depth.  
**FIXING CENTRES:**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733: 2010 where appropriate  
Note: No grid required, modules just clip into place

**MOUNTING BOXES:**  
Suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010  
Refer to appropriate module for minimum box depth.  
**FIXING CENTRES:**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733: 2010 where appropriate  
Note: No grid required, modules just clip into place

Suitable for both RJ11 and RJ12 jacks.  
RJ11: 4 wire  
RJ12: 6 wire  
**MOUNTING BOXES**  
Minimum box depth 35mm  
FCC68  
EN41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.  
**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.  
**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B wiring schemes.  
**MOUNTING BOXES**  
Minimum box depth 25mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

\* Available with White or Black inserts.

## Aspect

LJU6C Datacom  
Blanks

LJU6C  
1 MODULE  
22 X 37MM

## Blank Plates

1 GANG

2 GANG

## FINISHES

|                         |
|-------------------------|
| BRUSHED STAINLESS STEEL |
| LACQUERED BRUSHED STEEL |
| BRUSHED CHROME          |
| POLISHED CHROME         |
| SATIN GOLD              |
| PORCELAIN WHITE         |
| LUSTROUS IVORY          |
| LUSTROUS BLACK          |
| POLISHED BRASS          |
| TEXTURED IRON           |
| DESERT BRONZE           |
| ANTIQUE BRASS           |
| TEXTURED COPPER         |

K170WHI  
K170BLK

10  
10

|           |   |           |   |
|-----------|---|-----------|---|
| K24330BSS | 1 | K24329BSS | 1 |
| K24330LBS | 1 | K24329LBS | 1 |
| K24330BRC | 1 | K24329BRC | 1 |
| K24330POC | 1 | K24329POC | 1 |
| K24330SAG | 1 | K24329SAG | 1 |
| K24330WHI | 1 | K24329WHI | 1 |
| K24330LIV | 1 | K24329LIV | 1 |
| K24330LBK | 1 | K24329LBK | 1 |
| K24330PBR | 1 | K24329PBR | 1 |
| K24330TIR | 1 | K24329TIR | 1 |
| K24330DBZ | 1 | K24329DBZ | 1 |
| K24330ABS | 1 | K24329ABS | 1 |
| K24330TCO | 1 | K24329TCO | 1 |

MOUNTING BOXES  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS:  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:2010



# CASE STUDY

## ST GEORGE BATTERSEA REACH DEVELOPMENT, LONDON

The new MK Elements range was specified extensively at the St George Battersea Reach development in London. This ongoing residential development from the Berkeley Group, is situated in the bustling vicinity of England's capital and offers a wide range of high end apartments.

The Client, St George favoured the glass effect finish and touch controlled dimmers for their elegant styling, which perfectly complements the superior character of such a prestigious development.





# Insignia

## RANGE INTRODUCTION

Insignia is a range of wiring devices that combine function and style. The design is smooth, clean and the products are very slim – in fact just 1.5mm. Insignia is the choice in modern, contemporary or traditional interiors where style and detail are the desired effect.

With Insignia comes unrivalled safety. Utilising MK's 3-pin operated safety shutter, that prevents misuse and unsafe access to live circuitry, Insignia offers the user the peace of mind and comfort that they have the safest range of wiring devices available installed in their surroundings.

### HOW TO SPECIFY

A metal flatplate flush mounting range of wiring accessories, to be made in the UK. Frontplate to have a maximum 1.5mm profile and subtle 5mm radius rounded corners. Fixing screws to be flathead design, flush fitting & coloured to match the frontplate. Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety. Switches to be large and concave with a minimum 3mm contact gap with a positive 'click' to denote successful operation.

### FEATURES & BENEFITS

#### SLIM PROFILE FRONTPLATES OF ONLY 1.5MM WITH MATCHING FLAT HEAD SCREWS THROUGHOUT

A clean and practical range of products that complement the finest interiors.

#### TOTAL SAFETY

3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position.

#### COMPREHENSIVE RANGE OF SOCKETS, SWITCHES AND MODULAR ANCILLARY PRODUCTS

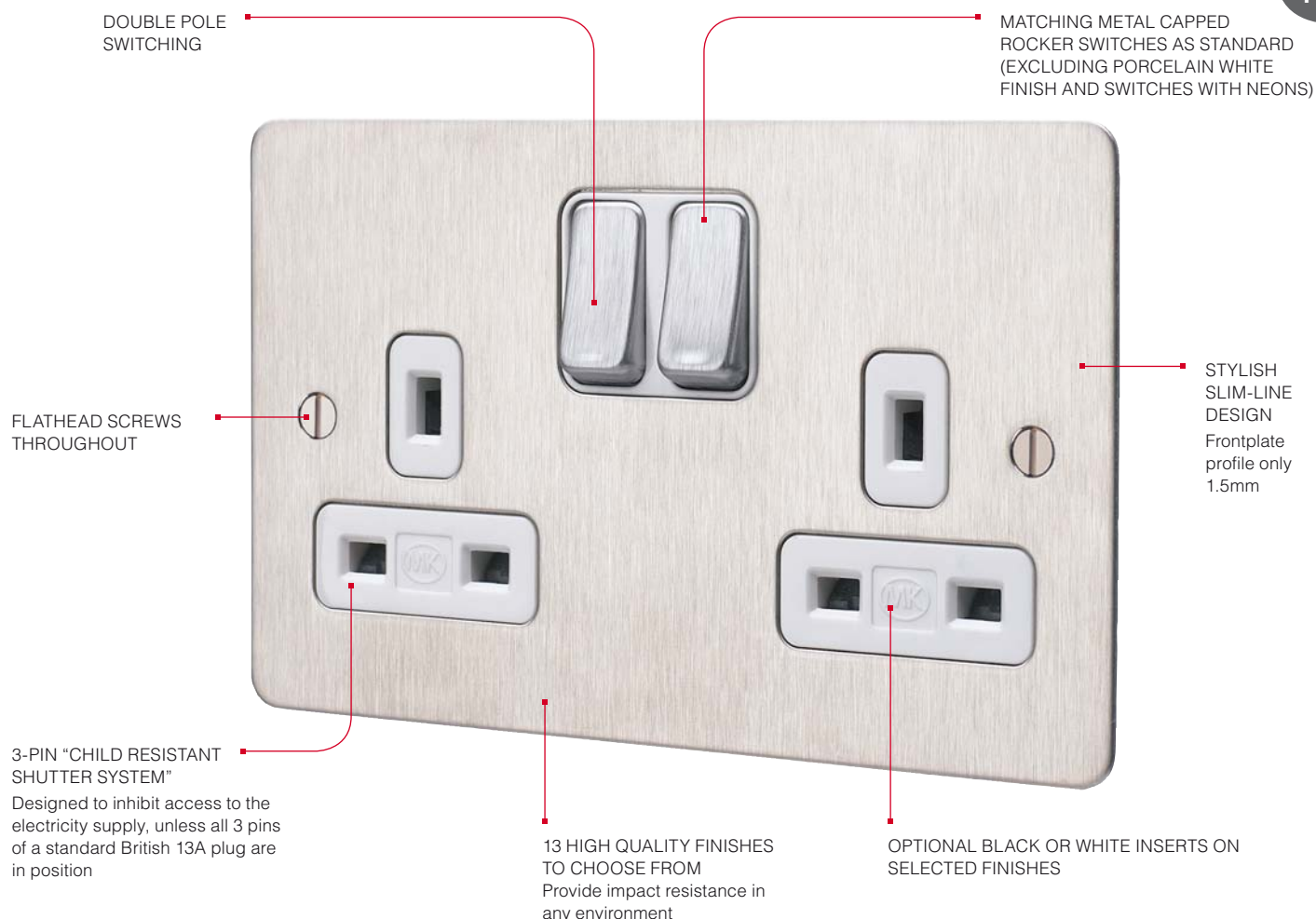
Mean that whatever the application, the Insignia range has a wiring device to suit.

#### 13 STANDARD HIGH QUALITY FINISHES WITH A MADE-TO-ORDER SERVICE

Allows designers the flexibility to provide the finish of their choice.

In addition to the wide choice of standard finishes, a made-to-order service gives designers the ability to match almost any RAL colour required.





Terminal screws are backed out and captive. Terminals are upwards facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy identification.

The built-in lock in the Insignia 13A Key Operated Socket ensures that power cannot be turned on or off without the removeable key, making it ideal for communal areas such as hotel lobbies.

Combination plates provide a neat solution to all power, data, TV and satellite outlet requirements.





## Switchsocket Outlets

1 GANG DP  
DUAL EARTH  
13 AMP

1 GANG DP  
WITH NEON  
DUAL EARTH  
13 AMP

NON STANDARD  
1 GANG DP  
CLEAN EARTH  
13 AMP

2 GANG DP  
WITH 2 X USB  
CHARGING PORTS  
DUAL EARTH  
13 AMP

2 GANG DP  
DUAL EARTH  
13 AMP



| FINISHES                |            |   |            |   |            |   |            |   |            |   |
|-------------------------|------------|---|------------|---|------------|---|------------|---|------------|---|
| BRUSHED STAINLESS STEEL | K14357BSS* | 1 | K14657BSS* | 1 | K14268BSS* | 1 | K14343BSS* | 1 | K14347BSS* | 1 |
| LACQUERED BRUSHED STEEL | K14357LBS* | 1 | K14657LBS* | 1 | K14268LBS* | 1 | K14343LBS* | 1 | K14347LBS* | 1 |
| BRUSHED CHROME          | K14357BRC* | 1 | K14657BRC* | 1 | K14268BRC* | 1 | K14343BRC* | 1 | K14347BRC* | 1 |
| POLISHED CHROME         | K14357POC* | 1 | K14657POC* | 1 | K14268POC* | 1 | K14343POC* | 1 | K14347POC* | 1 |
| SATIN GOLD              | K14357SAG* | 1 | K14657SAG* | 1 | K14268SAG* | 1 | K14343SAG* | 1 | K14347SAG* | 1 |
| PORCELAIN WHITE         | K14357WHIW | 1 | K14657WHIW | 1 | K14268WHIW | 1 | K14343WHIW | 1 | K14347WHIW | 1 |
| LUSTROUS IVORY          | K14357LIVW | 1 | K14657LIVW | 1 | K14268LIVW | 1 | K14343LIVW | 1 | K14347LIVW | 1 |
| LUSTROUS BLACK          | K14357LBKB | 1 | K14657LBKB | 1 | K14268LBKB | 1 | K14343LBKB | 1 | K14347LBKB | 1 |
| POLISHED BRASS          | K14357PBR* | 1 | K14657PBR* | 1 | K14268PBR* | 1 | K14343PBR* | 1 | K14347PBR* | 1 |
| TEXTURED IRON           | K14357TIRB | 1 | K14657TIRB | 1 | K14268TIRB | 1 | K14343TIRB | 1 | K14347TIRB | 1 |
| DESERT BRONZE           | K14357DBZB | 1 | K14657DBZB | 1 | K14268DBZB | 1 | K14343DBZB | 1 | K14347DBZB | 1 |
| ANTIQUE BRASS           | K14357ABSB | 1 | K14657ABSB | 1 | K14268ABSB | 1 | K14343ABSB | 1 | K14347ABSB | 1 |
| TEXTURED COPPER         | K14357TCOB | 1 | K14657TCOB | 1 | K14268TCOB | 1 | K14343TCOB | 1 | K14347TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995 (where relevant)  
These products are provided with facilities for 'clean earth' connections and are suitable for non-standard plugs with 'T' shaped earth pins.

USB charging sockets, each capable of supporting 2A charge (total of 2A)  
Pattress available for use where existing back box is too shallow, see page 34

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

2 GANG DP  
CLEAN EARTH  
13 AMP

2 GANG DP  
WITH NEON  
DUAL EARTH  
13 AMP

NON STANDARD  
2 GANG DP  
CLEAN EARTH  
13 AMP

1 GANG DP  
ROUND PIN  
15 AMP

1 GANG DP  
5 AMP



|            |   |            |   |            |   |            |   |            |   |
|------------|---|------------|---|------------|---|------------|---|------------|---|
| K14345BSS* | 1 | K14647BSS* | 1 | K14246BSS* | 1 | K14383BSS* | 1 | K14382BSS* | 1 |
| K14345LBS* | 1 | K14647LBS* | 1 | K14246LBS* | 1 | K14383LBS* | 1 | K14382LBS* | 1 |
| K14345BRC* | 1 | K14647BRC* | 1 | K14246BRC* | 1 | K14383BRC* | 1 | K14382BRC* | 1 |
| K14345POC* | 1 | K14647POC* | 1 | K14246POC* | 1 | K14383POC* | 1 | K14382POC* | 1 |
| K14345SAG* | 1 | K14647SAG* | 1 | K14246SAG* | 1 | K14383SAG* | 1 | K14382SAG* | 1 |
| K14345WHIW | 1 | K14647WHIW | 1 | K14246WHIW | 1 | K14383WHIW | 1 | K14382WHIW | 1 |
| K14345LIVW | 1 | K14647LIVW | 1 | K14246LIVW | 1 | K14383LIVW | 1 | K14382LIVW | 1 |
| K14345LBKB | 1 | K14647LBKB | 1 | K14246LBKB | 1 | K14383LBKB | 1 | K14382LBKB | 1 |
| K14345PBR* | 1 | K14647PBR* | 1 | K14246PBR* | 1 | K14383PBR* | 1 | K14382PBR* | 1 |
| K14345TIRB | 1 | K14647TIRB | 1 | K14246TIRB | 1 | K14383TIRB | 1 | K14382TIRB | 1 |
| K14345DBZB | 1 | K14647DBZB | 1 | K14246DBZB | 1 | K14383DBZB | 1 | K14382DBZB | 1 |
| K14345ABSB | 1 | K14647ABSB | 1 | K14246ABSB | 1 | K14383ABSB | 1 | K14382ABSB | 1 |
| K14345TCOB | 1 | K14647TCOB | 1 | K14246TCOB | 1 | K14383TCOB | 1 | K14382TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995  
Neon is only available in white or black insulated rocker.

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995 (where relevant)  
These products are provided with facilities for 'clean earth' connections, and are suitable for non-standard plugs with T shaped earth pins. Refer to non-standard plugs page 240.

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

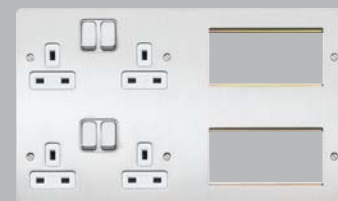
\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

### Multimedia Plates

4 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 4 MODULE  
100 X 50MM  
**13 AMP**

2 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 6 MODULE  
50 X 50MM (X3)  
**13 AMP**

4 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 8 MODULE  
100 X 50MM (X2)  
**13 AMP**



| FINISHES                |            |   |            |   |            |   |
|-------------------------|------------|---|------------|---|------------|---|
| BRUSHED STAINLESS STEEL | K14200BSS* | 1 | K14205BSS* | 1 | K14100BSS* | 1 |
| LACQUERED BRUSHED STEEL | K14200LBS* | 1 | K14205LBS* | 1 | K14100LBS* | 1 |
| BRUSHED CHROME          | K14200BRC* | 1 | K14205BRC* | 1 | K14100BRC* | 1 |
| POLISHED CHROME         | K14200POC* | 1 | K14205POC* | 1 | K14100POC* | 1 |
| SATIN GOLD              | K14200SAG* | 1 | K14205SAG* | 1 | K14100SAG* | 1 |
| PORCELAIN WHITE         | K14200WHIW | 1 | K14205WHIW | 1 | K14100WHIW | 1 |
| LUSTROUS IVORY          | K14200LIVW | 1 | K14205LIVW | 1 | K14100LIVW | 1 |
| LUSTROUS BLACK          | K14200LBKB | 1 | K14205LBKB | 1 | K14100LBKB | 1 |
| POLISHED BRASS          | K14200PBR* | 1 | K14205PBR* | 1 | K14100PBR* | 1 |
| TEXTURED IRON           | K14200TIRB | 1 | K14205TIRB | 1 | K14100TIRB | 1 |
| DESERT BRONZE           | K14200DBZB | 1 | K14205DBZB | 1 | K14100DBZB | 1 |
| ANTIQUE BRASS           | K14200ABSB | 1 | K14205ABSB | 1 | K14100ABSB | 1 |
| TEXTURED COPPER         | K14200TCOB | 1 | K14205TCOB | 1 | K14100TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
K14201  
FLUSH 47mm  
K14202  
DIMENSIONS  
86 x 442.8mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35mm  
K14206  
FLUSH 47mm  
K14207  
DIMENSIONS  
86 x 407.9mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35mm  
K14101  
FLUSH 47mm  
K14102  
DIMENSIONS  
173 x 293.6mm  
BS 1363-2:1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture.  
Refer to BS 7671:2008 for details.

## Multimedia Plates

2 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 2 MODULE  
50 X 50MM (RIGHT SIDE)  
**13 AMP**

2 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 2 MODULE  
50 X 50MM (LEFT SIDE)  
**13 AMP**

2 GANG DP DUAL EARTH  
SWITCHSOCKET,  
EURO 4 MODULE  
50 X 50MM (X2)  
**13 AMP**

EURO 8 MODULE  
100 X 50MM (X2)

EURO 12 MODULE  
150 X 50MM (X2)



|            |   |            |   |            |   |            |   |            |   |
|------------|---|------------|---|------------|---|------------|---|------------|---|
| K14216BSS* | 1 | K14217BSS* | 1 | K14208BSS* | 1 | K14209BSS* | 1 | K14210BSS* | 1 |
| K14216LBS* | 1 | K14217LBS* | 1 | K14208LBS* | 1 | K14209LBS* | 1 | K14210LBS* | 1 |
| K14216BRC* | 1 | K14217BRC* | 1 | K14208BRC* | 1 | K14209BRC* | 1 | K14210BRC* | 1 |
| K14216POC* | 1 | K14217POC* | 1 | K14208POC* | 1 | K14209POC* | 1 | K14210POC* | 1 |
| K14216SAG* | 1 | K14217SAG* | 1 | K14208SAG* | 1 | K14209SAG* | 1 | K14210SAG* | 1 |
| K14216WHIW | 1 | K14217WHIW | 1 | K14208WHIW | 1 | K14209WHIW | 1 | K14210WHIW | 1 |
| K14216LIVW | 1 | K14217LIVW | 1 | K14208LIVW | 1 | K14209LIVW | 1 | K14210LIVW | 1 |
| K14216LBKB | 1 | K14217LBKB | 1 | K14208LBKB | 1 | K14209LBKB | 1 | K14210LBKB | 1 |
| K14216PBR* | 1 | K14217PBR* | 1 | K14208PBR* | 1 | K14209PBR* | 1 | K14210PBR* | 1 |
| K14216TIRB | 1 | K14217TIRB | 1 | K14208TIRB | 1 | K14209TIRB | 1 | K14210TIRB | 1 |
| K14216DBZB | 1 | K14217DBZB | 1 | K14208DBZB | 1 | K14209DBZB | 1 | K14210DBZB | 1 |
| K14216ABSB | 1 | K14217ABSB | 1 | K14208ABSB | 1 | K14209ABSB | 1 | K14210ABSB | 1 |
| K14216TCOB | 1 | K14217TCOB | 1 | K14208TCOB | 1 | K14209TCOB | 1 | K14210TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
867ZIC  
DIMENSIONS  
233.3 x 86mm  
BS 1363-2:1995

MOUNTING BOXES  
867ZIC  
DIMENSIONS  
233.3 x 86mm  
BS 1363-2:1995

MOUNTING BOXES  
868ZIC  
DIMENSIONS  
320.6 x 86mm  
BS 1363-2:1995

MOUNTING BOXES  
858ZIC  
DIMENSIONS  
146.4 x 173.3mm  
BS 5733:2010

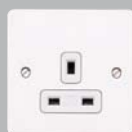
MOUNTING BOXES  
869ZIC  
DIMENSIONS  
206.3 x 173.3mm  
BS 5733:2010

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture.  
Refer to BS 7671:2008 for details.

## Socket Outlets

1 GANG  
DUAL EARTH  
13 AMP



2 GANG  
DUAL EARTH  
13 AMP



1 GANG  
2 AMP



1 GANG  
5 AMP



| FINISHES                |            |   |            |   |             |             |
|-------------------------|------------|---|------------|---|-------------|-------------|
| BRUSHED STAINLESS STEEL | K14780BSS* | 1 | K14781BSS* | 1 | K14380BSS*1 | K14381BSS*1 |
| LACQUERED BRUSHED STEEL | K14780LBS* | 1 | K14781LBS* | 1 | K14380LBS*1 | K14381LBS*1 |
| BRUSHED CHROME          | K14780BRC* | 1 | K14781BRC* | 1 | K14380BRC*1 | K14381BRC*1 |
| POLISHED CHROME         | K14780POC* | 1 | K14781POC* | 1 | K14380POC*1 | K14381POC*1 |
| SATIN GOLD              | K14780SAG* | 1 | K14781SAG* | 1 | K14380SAG*1 | K14381SAG*1 |
| PORCELAIN WHITE         | K14780WHIW | 1 | K14781WHIW | 1 | K14380WHIW1 | K14381WHIW1 |
| LUSTROUS IVORY          | K14780LIVW | 1 | K14781LIVW | 1 | K14380LIVW1 | K14381LIVW1 |
| LUSTROUS BLACK          | K14780LBKB | 1 | K14781LBKB | 1 | K14380LBKB1 | K14381LBKB1 |
| POLISHED BRASS          | K14780PBR* | 1 | K14781PBR* | 1 | K14380PBR*1 | K14381PBR*1 |
| TEXTURED IRON           | K14780TIRB | 1 | K14781TIRB | 1 | K14380TIRB1 | K14381TIRB1 |
| DESERT BRONZE           | K14780DBZB | 1 | K14781DBZB | 1 | K14380DBZB1 | K14381DBZB1 |
| ANTIQUE BRASS           | K14780ABSB | 1 | K14781ABSB | 1 | K14380ABSB1 | K14381ABSB1 |
| TEXTURED COPPER         | K14780TCOB | 1 | K14781TCOB | 1 | K14380TCOB1 | K14381TCOB1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 35mm  
886ZIC  
FLUSH 47mm  
878ZIC (for extra wiring space)  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 25mm  
861ZIC  
FLUSH 35mm  
866ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
Earth pin linear operated shutter  
BS 546:1950

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

## Floor Mounted Euro Frames

1 GANG  
EURO 2 MODULE  
50 X 50MM

2 GANG  
EURO 4 MODULE  
100 X 50MM



|           |   |           |   |
|-----------|---|-----------|---|
| K14790BSS | 1 | K14791BSS | 1 |
| K14790LBS | 1 | K14791LBS | 1 |
| K14790BRC | 1 | K14791BRC | 1 |
| K14790POC | 1 | K14791POC | 1 |
| K14790SAG | 1 | K14791SAG | 1 |
| K14790WHI | 1 | K14791WHI | 1 |
| K14790LIV | 1 | K14791LIV | 1 |
| K14790LBK | 1 | K14791LBK | 1 |
| K14790PBR | 1 | K14791PBR | 1 |
| K14790TIR | 1 | K14791TIR | 1 |
| K14790DBZ | 1 | K14791DBZ | 1 |
| K14790ABS | 1 | K14791ABS | 1 |
| K14790TCO | 1 | K14791TCO | 1 |



### MOUNTING BOXES FLUSH 1 GANG

866ZIC

#### DIMENSIONS

102 x 86mm

#### FIXING CENTRES

60.3mm

Boxes must have a minimum depth of 35mm.

BS 5733:2010

### MOUNTING BOXES FLUSH 2 GANG

886ZIC

#### DIMENSIONS

102 x 146mm

#### FIXING CENTRES

120.6mm

Boxes must have a minimum depth of 35mm.

BS 5733:2010



## Shaver/Toothbrush Supply Units

DUAL VOLTAGE  
OUTPUT 115/230V  
INPUT 220/240V  
50/60HZ



|                         |            |   |           |   |            |   |            |   |
|-------------------------|------------|---|-----------|---|------------|---|------------|---|
| BRUSHED STAINLESS STEEL | K14355BSS* | 1 | K14378BSS | 1 | K14379BSS* | 1 | K14709BSS* | 1 |
| LACQUERED BRUSHED STEEL | K14355LBS* | 1 |           |   |            |   | K14709LBS* | 1 |
| BRUSHED CHROME          | K14355BRC* | 1 |           |   |            |   | K14709BRC* | 1 |
| POLISHED CHROME         | K14355POC* | 1 |           |   |            |   | K14709POC* | 1 |
| SATIN GOLD              | K14355SAG* | 1 |           |   |            |   | K14709SAG* | 1 |
| PORCELAIN WHITE         | K14355WHIW | 1 |           |   |            |   | K14709WHIW | 1 |
| LUSTROUS IVORY          | K14355LIVW | 1 |           |   |            |   | K14709LIVW | 1 |
| LUSTROUS BLACK          | K14355LBKB | 1 |           |   |            |   | K14709LBKB | 1 |
| POLISHED BRASS          | K14355PBR* | 1 |           |   |            |   | K14709PBR* | 1 |
| TEXTURED IRON           | K14355TIRB | 1 |           |   |            |   | K14709TIRB | 1 |
| DESERT BRONZE           | K14355DBZB | 1 |           |   |            |   | K14709DBZB | 1 |
| ANTIQUE BRASS           | K14355ABSB | 1 |           |   |            |   | K14709ABSB | 1 |
| TEXTURED COPPER         | K14355TCOB | 1 |           |   |            |   | K14709TCOB | 1 |

\*Phase out - Contact MK Team for replacement

## Connection Units Switched

DP  
13 AMP

DP  
WITH NEON\*\*  
13 AMP

DP  
WITH FLEX OUTLET  
13 AMP

DP  
WITH NEON\*\*  
& FLEX OUTLET  
13 AMP



|            |   |            |   |            |   |            |   |
|------------|---|------------|---|------------|---|------------|---|
| K14941BSS* | 1 | K14961BSS* | 1 | K14931BSS* | 1 | K14971BSS* | 1 |
| K14941LBS* | 1 | K14961LBS* | 1 | K14931LBS* | 1 | K14971LBS* | 1 |
| K14941BRC* | 1 | K14961BRC* | 1 | K14931BRC* | 1 | K14971BRC* | 1 |
| K14941POC* | 1 | K14961POC* | 1 | K14931POC* | 1 | K14971POC* | 1 |
| K14941SAG* | 1 | K14961SAG* | 1 | K14931SAG* | 1 | K14971SAG* | 1 |
| K14941WHIW | 1 | K14961WHIW | 1 | K14931WHIW | 1 | K14971WHIW | 1 |
| K14941LIVW | 1 | K14961LIVW | 1 | K14931LIVW | 1 | K14971LIVW | 1 |
| K14941LBKB | 1 | K14961LBKB | 1 | K14931LBKB | 1 | K14971LBKB | 1 |
| K14941PBR* | 1 | K14961PBR* | 1 | K14931PBR* | 1 | K14971PBR* | 1 |
| K14941TIRB | 1 | K14961TIRB | 1 | K14931TIRB | 1 | K14971TIRB | 1 |
| K14941DBZB | 1 | K14961DBZB | 1 | K14931DBZB | 1 | K14971DBZB | 1 |
| K14941ABSB | 1 | K14961ABSB | 1 | K14931ABSB | 1 | K14971ABSB | 1 |
| K14941TCOB | 1 | K14961TCOB | 1 | K14931TCOB | 1 | K14971TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
\*\*NOTE  
Neon is only available in white or black insulated rocker.

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995





MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
\*\*NOTE  
Neon is only available in white or black insulated rocker.

Matching metal capped fuse carriers are standard on all Insignia Connection Units (except WHI and Neon).

## Connection Units Unswitched

13 AMP

WITH NEON  
13 AMPWITH FLEX OUTLET  
13 AMPWITH NEON &  
FLEX OUTLET  
13 AMP

| FINISHES                |  |  |  |  |
|-------------------------|---|---|--|---|
| BRUSHED STAINLESS STEEL | K14948BSS* 1  | K14958BSS* 1  | K14989BSS* 1   | K14978BSS* 1  |
| LACQUERED BRUSHED STEEL | K14948LBS* 1  | K14958LBS* 1  | K14989LBS* 1   | K14978LBS* 1  |
| BRUSHED CHROME          | K14948BRC* 1  | K14958BRC* 1  | K14989BRC* 1   | K14978BRC* 1  |
| POLISHED CHROME         | K14948POC* 1  | K14958POC* 1  | K14989POC* 1   | K14978POC* 1  |
| SATIN GOLD              | K14948SAG* 1  | K14958SAG* 1  | K14989SAG* 1   | K14978SAG* 1  |
| PORCELAIN WHITE         | K14948WHIW 1  | K14958WHIW 1  | K14989WHIW 1   | K14978WHIW 1  |
| LUSTROUS IVORY          | K14948LIVW 1  | K14958LIVW 1  | K14989LIVW 1   | K14978LIVW 1  |
| LUSTROUS BLACK          | K14948LBKB 1  | K14958LBKB 1  | K14989LBKB 1   | K14978LBKB 1  |
| POLISHED BRASS          | K14948PBR* 1  | K14958PBR* 1  | K14989PBR* 1   | K14978PBR* 1  |
| TEXTURED IRON           | K14948TIRB 1  | K14958TIRB 1  | K14989TIRB 1   | K14978TIRB 1  |
| DESERT BRONZE           | K14948DBZB 1  | K14958DBZB 1  | K14989DBZB 1   | K14978DBZB 1  |
| ANTIQUE BRASS           | K14948ABSB 1  | K14958ABSB 1  | K14989ABSB 1   | K14978ABSB 1  |
| TEXTURED COPPER         | K14948TCOB 1  | K14958TCOB 1  | K14989TCOB 1   | K14978TCOB 1  |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts.

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
FLUSH 46mm  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

Matching metal capped fuse carriers are standard on all Insignia Connection Units (except WHI and Neon).

## Switches

1 GANG SP  
2 WAY  
20 AMP

2 GANG SP  
2 WAY  
20 AMP

3 GANG SP  
2 WAY  
10 AMP



|            |   |            |   |            |   |
|------------|---|------------|---|------------|---|
| K14371BSS* | 1 | K14372BSS* | 1 | K14373BSS* | 1 |
| K14371LBS* | 1 | K14372LBS* | 1 | K14373LBS* | 1 |
| K14371BRC* | 1 | K14372BRC* | 1 | K14373BRC* | 1 |
| K14371POC* | 1 | K14372POC* | 1 | K14373POC* | 1 |
| K14371SAG* | 1 | K14372SAG* | 1 | K14373SAG* | 1 |
| K14371WHIW | 1 | K14372WHIW | 1 | K14373WHIW | 1 |
| K14371LIVW | 1 | K14372LIVW | 1 | K14373LIVW | 1 |
| K14371LBKB | 1 | K14372LBKB | 1 | K14373LBKB | 1 |
| K14371PBR* | 1 | K14372PBR* | 1 | K14373PBR* | 1 |
| K14371TIRB | 1 | K14372TIRB | 1 | K14373TIRB | 1 |
| K14371DBZB | 1 | K14372DBZB | 1 | K14373DBZB | 1 |
| K14371ABSB | 1 | K14372ABSB | 1 | K14373ABSB | 1 |
| K14371TCOB | 1 | K14372TCOB | 1 | K14373TCOB | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts.

MOUNTING BOXES  
FLUSH  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
861ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

### High Current Switches

1 GANG DP  
WITH NEON  
32 AMP

1 GANG DP  
WITH NEON  
50 AMP

### Cooker Control Unit

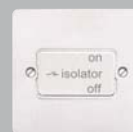
DP SWITCH AND  
13 AMP  
SWITCHSOCKET  
OUTLET WITH NEONS  
45 AMP

### 3 Pole Fan Isolator

10 AMP

### Triple Pole & Neutral Switch

32 AMP



| FINISHES                |                           |                           |                           |                           |                           |
|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| BRUSHED STAINLESS STEEL | K14305BSS* <span>1</span> | K14336BSS* <span>1</span> | K14361BSS* <span>1</span> | K14859BSS* <span>1</span> | K14114BSS* <span>1</span> |
| LACQUERED BRUSHED STEEL | K14305LBS* <span>1</span> |                           | K14361LBS* <span>1</span> | K14859LBS* <span>1</span> | K14114LBS* <span>1</span> |
| BRUSHED CHROME          | K14305BRC* <span>1</span> |                           | K14361BRC* <span>1</span> | K14859BRC* <span>1</span> | K14114BRC* <span>1</span> |
| POLISHED CHROME         | K14305POC* <span>1</span> |                           | K14361POC* <span>1</span> | K14859POC* <span>1</span> | K14114POC* <span>1</span> |
| SATIN GOLD              | K14305SAG* <span>1</span> |                           | K14361SAG* <span>1</span> | K14859SAG* <span>1</span> | K14114SAG* <span>1</span> |
| PORCELAIN WHITE         | K14305WHIW <span>1</span> |                           | K14361WHIW <span>1</span> | K14859WHIW <span>1</span> | K14114WHIW <span>1</span> |
| LUSTROUS IVORY          | K14305LIVW <span>1</span> |                           | K14361LIVW <span>1</span> | K14859LIVW <span>1</span> | K14114LIVW <span>1</span> |
| LUSTROUS BLACK          | K14305LBKB <span>1</span> |                           | K14361LBKB <span>1</span> | K14859LBKB <span>1</span> | K14114LBKB <span>1</span> |
| POLISHED BRASS          | K14305PBR* <span>1</span> |                           | K14361PBR* <span>1</span> | K14859PBR* <span>1</span> | K14114PBR* <span>1</span> |
| TEXTURED IRON           | K14305TIRB <span>1</span> |                           | K14361TIRB <span>1</span> | K14859TIRB <span>1</span> | K14114TIRB <span>1</span> |
| DESERT BRONZE           | K14305DBZB <span>1</span> |                           | K14361DBZB <span>1</span> | K14859DBZB <span>1</span> | K14114DBZB <span>1</span> |
| ANTIQUE BRASS           | K14305ABSB <span>1</span> |                           | K14361ABSB <span>1</span> | K14859ABSB <span>1</span> | K14114ABSB <span>1</span> |
| TEXTURED COPPER         | K14305TCOB <span>1</span> |                           | K14361TCOB <span>1</span> | K14859TCOB <span>1</span> | K14114TCOB <span>1</span> |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH 35mm  
866ZIC  
877ZIC (for extra wiring space)  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 47mm  
878ZIC  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH 47mm  
878ZIC  
45A DP Main Switch and 13A  
Switchsocket outlet (Up to  
10mm<sup>2</sup> conductor).  
Rotary operated shutter.  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 4177:1992  
To allow adequate wiring  
space, mounting box must be  
installed 6mm to 10mm sub  
flush to the wall surface.

MOUNTING BOXES  
FLUSH 46mm  
877ZIC  
DIMENSIONS  
86 x 186mm  
FIXING CENTRES  
60.3mm  
BS EN 60947-3:1999  
To allow adequate wiring  
space, mounting box must be  
installed 6mm to 10mm sub  
flush to the wall surface.

MOUNTING BOXES:  
FLUSH  
5268ALM (Mounting box  
should be mounted 6 to 10mm  
sub-flush to the wall)  
DIMENSIONS  
203 x 140mm  
TERMINAL CAPACITY  
16mm<sup>2</sup> conductors  
BS EN 60947-3:1999

## Intelligent Dimmers

2 WAY SINGLE  
230V A.C. 50HZ  
60W/VA MIN.  
500W/400VA MAX.

2 WAY DOUBLE  
230V A.C. 50HZ  
60W/VA MIN.  
450W/360VA MAX.  
FOR EACH DIMMER

2 WAY SINGLE  
230V A.C. 50HZ  
40W/VA MIN.  
300W/240VA MAX.

2 WAY DOUBLE  
230V A.C. 50HZ  
40W/VA MIN.  
300W/240VA MAX.  
FOR EACH DIMMER



|           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|
| K14301BSS | 1 | K14302BSS | 1 | K14521BSS | 1 | K14522BSS | 1 |
| K14301LBS | 1 | K14302LBS | 1 | K14521LBS | 1 | K14522LBS | 1 |
| K14301BRC | 1 | K14302BRC | 1 | K14521BRC | 1 | K14522BRC | 1 |
| K14301POC | 1 | K14302POC | 1 | K14521POC | 1 | K14522POC | 1 |
| K14301SAG | 1 | K14302SAG | 1 | K14521SAG | 1 | K14522SAG | 1 |
| K14301WHI | 1 | K14302WHI | 1 | K14521WHI | 1 | K14522WHI | 1 |
| K14301LIV | 1 | K14302LIV | 1 | K14521LIV | 1 | K14522LIV | 1 |
| K14301LBK | 1 | K14302LBK | 1 | K14521LBK | 1 | K14522LBK | 1 |
| K14301PBR | 1 | K14302PBR | 1 | K14521PBR | 1 | K14522PBR | 1 |
| K14301TIR | 1 | K14302TIR | 1 | K14521TIR | 1 | K14522TIR | 1 |
| K14301DBZ | 1 | K14302DBZ | 1 | K14521DBZ | 1 | K14522DBZ | 1 |
| K14301ABS | 1 | K14302ABS | 1 | K14521ABS | 1 | K14522ABS | 1 |
| K14301TCO | 1 | K14302TCO | 1 | K14521TCO | 1 | K14522TCO | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES  
FLUSH  
866ZIC – 35mm deep min  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

MOUNTING BOXES  
FLUSH  
886ZIC – 35mm deep min  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm

MOUNTING BOXES  
FLUSH  
866ZIC – 35mm deep min  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

MOUNTING BOXES  
FLUSH  
866ZIC – 35mm deep min  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm

These dimmers employ the latest micro-controller based circuitry to provide electronic soft-start and overload protection. They are suitable for use with good quality electronic or wire-wound transformers. Can also be used with good quality halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

**NOT SUITABLE FOR FLUORESCENT LOADS.**

Conform to latest standards BS EN 60669-2-1.

All intelligent dimmers have a combined push-on/push-off switch and rotary dimmer control, and are suitable for one or two-way switching.



## Toggle Switch Frontplates

SUPPLIED WITH GRIDS

1 MODULE

2 MODULE

3 MODULE

4 MODULE

| FINISHES                |           |   |           |   |                         |
|-------------------------|-----------|---|-----------|---|-------------------------|
| BRUSHED STAINLESS STEEL | K14431BSS | 1 | K14432BSS | 1 | K14433BSS 1 K14434BSS 1 |
| LACQUERED BRUSHED STEEL | K14431LBS | 1 | K14432LBS | 1 | K14433LBS 1 K14434LBS 1 |
| BRUSHED CHROME          | K14431BRC | 1 | K14432BRC | 1 | K14433BRC 1 K14434BRC 1 |
| POLISHED CHROME         | K14431POC | 1 | K14432POC | 1 | K14433POC 1 K14434POC 1 |
| SATIN GOLD              | K14431SAG | 1 | K14432SAG | 1 | K14433SAG 1 K14434SAG 1 |
| PORCELAIN WHITE         | K14431WHI | 1 | K14432WHI | 1 | K14433WHI 1 K14434WHI 1 |
| LUSTROUS IVORY          | K14431LIV | 1 | K14432LIV | 1 | K14433LIV 1 K14434LIV 1 |
| LUSTROUS BLACK          | K14431LBK | 1 | K14432LBK | 1 | K14433LBK 1 K14434LBK 1 |
| POLISHED BRASS          | K14431PBR | 1 | K14432PBR | 1 | K14433PBR 1 K14434PBR 1 |
| TEXTURED IRON           | K14431TIR | 1 | K14432TIR | 1 | K14433TIR 1 K14434TIR 1 |
| DESERT BRONZE           | K14431DBZ | 1 | K14432DBZ | 1 | K14433DBZ 1 K14434DBZ 1 |
| ANTIQUE BRASS           | K14431ABS | 1 | K14432ABS | 1 | K14433ABS 1 K14434ABS 1 |
| TEXTURED COPPER         | K14431TCO | 1 | K14432TCO | 1 | K14433TCO 1 K14434TCO 1 |

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
892ALM  
DIMENSIONS  
86 x 146mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
892ALM  
DIMENSIONS  
86 x 146mm  
BS 5733:2010

## Toggle Switch Modules

SP 1 WAY  
20 AMP

SP 2 WAY  
20 AMP

DP 1 WAY  
20 AMP

INTERMEDIATE  
20 AMP

## Grid Plus Modular Frontplates

SUPPLIED WITH GRIDS

1 MODULE

2 MODULE



|           |   |           |   |           |   |           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|-----------|---|
| K14891BSS | 1 | K14892BSS | 1 | K14896BSS | 1 | K14893BSS | 1 | K14331BSS | 1 | K14332BSS | 1 |
| K14891LBS | 1 | K14892LBS | 1 | K14896LBS | 1 | K14893LBS | 1 | K14331LBS | 1 | K14332LBS | 1 |
| K14891BRC | 1 | K14892BRC | 1 | K14896BRC | 1 | K14893BRC | 1 | K14331BRC | 1 | K14332BRC | 1 |
| K14891POC | 1 | K14892POC | 1 | K14896POC | 1 | K14893POC | 1 | K14331POC | 1 | K14332POC | 1 |
| K14891SAG | 1 | K14892SAG | 1 | K14896SAG | 1 | K14893SAG | 1 | K14331SAG | 1 | K14332SAG | 1 |
| K14891WHI | 1 | K14892WHI | 1 | K14896WHI | 1 | K14893WHI | 1 | K14331WHI | 1 | K14332WHI | 1 |
| K14891LIV | 1 | K14892LIV | 1 | K14896LIV | 1 | K14893LIV | 1 | K14331LIV | 1 | K14332LIV | 1 |
| K14891LBK | 1 | K14892LBK | 1 | K14896LBK | 1 | K14893LBK | 1 | K14331LBK | 1 | K14332LBK | 1 |
| K14891PBR | 1 | K14892PBR | 1 | K14896PBR | 1 | K14893PBR | 1 | K14331PBR | 1 | K14332PBR | 1 |
| K14891TIR | 1 | K14892TIR | 1 | K14896TIR | 1 | K14893TIR | 1 | K14331TIR | 1 | K14332TIR | 1 |
| K14891DBZ | 1 | K14892DBZ | 1 | K14896DBZ | 1 | K14893DBZ | 1 | K14331DBZ | 1 | K14332DBZ | 1 |
| K14891ABS | 1 | K14892ABS | 1 | K14896ABS | 1 | K14893ABS | 1 | K14331ABS | 1 | K14332ABS | 1 |
| K14891TCO | 1 | K14892TCO | 1 | K14896TCO | 1 | K14893TCO | 1 | K14331TCO | 1 | K14332TCO | 1 |

BS EN 60699-1:1999

BS EN 60699-1:1999

BS EN 60699-1:1999

BS EN 60699-1:1999

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
891ALM  
DIMENSIONS  
86 x 86mm  
BS 5733:2010

**Grid Plus**  
**Modular Frontplates**  
 SUPPLIED WITH GRIDS

3 MODULE

4 MODULE

6 MODULE

8 MODULE

9 MODULE

| FINISHES                |  |   |  |   |  |   |  |   |  |   |
|-------------------------|---|---|---|---|--|---|---|---|---|---|
| BRUSHED STAINLESS STEEL | K14333BSS   | 1 | K14334BSS   | 1 | K14346BSS  | 1 | K14348BSS   | 1 | K14349BSS   | 1 |
| LACQUERED BRUSHED STEEL | K14333LBS   | 1 | K14334LBS   | 1 | K14346LBS  | 1 | K14348LBS   | 1 | K14349LBS   | 1 |
| BRUSHED CHROME          | K14333BRC   | 1 | K14334BRC   | 1 | K14346BRC  | 1 | K14348BRC   | 1 | K14349BRC   | 1 |
| POLISHED CHROME         | K14333POC   | 1 | K14334POC   | 1 | K14346POC  | 1 | K14348POC   | 1 | K14349POC   | 1 |
| SATIN GOLD              | K14333SAG   | 1 | K14334SAG   | 1 | K14346SAG  | 1 | K14348SAG   | 1 | K14349SAG   | 1 |
| PORCELAIN WHITE         | K14333WHI   | 1 | K14334WHI   | 1 | K14346WHI  | 1 | K14348WHI   | 1 | K14349WHI   | 1 |
| LUSTROUS IVORY          | K14333LIV   | 1 | K14334LIV   | 1 | K14346LIV  | 1 | K14348LIV   | 1 | K14349LIV   | 1 |
| LUSTROUS BLACK          | K14333LBK   | 1 | K14334LBK   | 1 | K14346LBK  | 1 | K14348LBK   | 1 | K14349LBK   | 1 |
| POLISHED BRASS          | K14333PBR   | 1 | K14334PBR   | 1 | K14346PBR  | 1 | K14348PBR   | 1 | K14349PBR   | 1 |
| TEXTURED IRON           | K14333TIR   | 1 | K14334TIR   | 1 | K14346TIR  | 1 | K14348TIR   | 1 | K14349TIR   | 1 |
| DESERT BRONZE           | K14333DBZ   | 1 | K14334DBZ   | 1 | K14346DBZ  | 1 | K14348DBZ   | 1 | K14349DBZ   | 1 |
| ANTIQUE BRASS           | K14333ABS   | 1 | K14334ABS   | 1 | K14346ABS  | 1 | K14348ABS   | 1 | K14349ABS   | 1 |
| TEXTURED COPPER         | K14333TCO   | 1 | K14334TCO   | 1 | K14346TCO  | 1 | K14348TCO   | 1 | K14349TCO   | 1 |

MOUNTING BOX  
 FLUSH  
 892ALM  
 DIMENSIONS  
 86 x 146mm  
 BS 5733:2010

MOUNTING BOX  
 FLUSH  
 892ALM  
 DIMENSIONS  
 86 x 146mm  
 BS 5733:2010

MOUNTING BOX  
 FLUSH  
 893ALM  
 DIMENSIONS  
 146 x 146mm  
 BS 5733:2010

MOUNTING BOX  
 FLUSH  
 893ALM  
 DIMENSIONS  
 146 x 146mm  
 BS 5733:2010

MOUNTING BOX  
 FLUSH  
 895ALM  
 DIMENSIONS  
 206 x 146mm  
 BS 5733:2010

## Grid Plus Modular Frontplates

SUPPLIED WITH GRIDS

## Grid Plus Spare Mounting Frames

1 MODULE  
MOUNTING  
FRAME

2 MODULE  
MOUNTING  
FRAME

12 MODULE

18 MODULE

24 MODULE

1 MODULE  
ARCHITRAVE



|           |   |           |   |           |   |           |   |        |    |
|-----------|---|-----------|---|-----------|---|-----------|---|--------|----|
| K14352BSS | 1 | K14358BSS | 1 | K14354BSS | 1 | K14401BSS | 1 |        |    |
| K14352LBS | 1 | K14358LBS | 1 | K14354LBS | 1 | K14401LBS | 1 |        |    |
| K14352BRC | 1 | K14358BRC | 1 | K14354BRC | 1 | K14401BRC | 1 |        |    |
| K14352POC | 1 | K14358POC | 1 | K14354POC | 1 | K14401POC | 1 |        |    |
| K14352SAG | 1 | K14358SAG | 1 | K14354SAG | 1 | K14401SAG | 1 |        |    |
| K14352WHI | 1 | K14358WHI | 1 | K14354WHI | 1 | K14401WHI | 1 |        |    |
| K14352LIV | 1 | K14358LIV | 1 | K14354LIV | 1 | K14401LIV | 1 | K14701 | 10 |
| K14352LBK | 1 | K14358LBK | 1 | K14354LBK | 1 | K14401LBK | 1 |        |    |
| K14352PBR | 1 | K14358PBR | 1 | K14354PBR | 1 | K14401PBR | 1 |        |    |
| K14352TIR | 1 | K14358TIR | 1 | K14354TIR | 1 | K14401TIR | 1 |        |    |
| K14352DBZ | 1 | K14358DBZ | 1 | K14354DBZ | 1 | K14401DBZ | 1 |        |    |
| K14352ABS | 1 | K14358ABS | 1 | K14354ABS | 1 | K14401ABS | 1 |        |    |
| K14352TCO | 1 | K14358TCO | 1 | K14354TCO | 1 | K14401TCO | 1 |        |    |

MOUNTING BOX  
FLUSH  
895ALM  
DIMENSIONS  
206 x 146mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
898ALM  
DIMENSIONS  
206 x 206mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
900ALM  
DIMENSIONS  
207 x 267mm  
BS 5733:2010

MOUNTING BOX  
FLUSH  
3891ZIC  
DIMENSIONS  
38.8 x 91.75  
BS 5733:2010

# Insignia



## Grid Plus Spare Mounting Frames

## Switch Modules

3 MODULE  
MOUNTING FRAME

4 MODULE  
MOUNTING FRAME

6 MODULE  
MOUNTING FRAME

1 MODULE  
ARCHITRAVE  
MOUNTING FRAME

BLANK INSERT



### FINISHES

BRUSHED STAINLESS STEEL

LACQUERED BRUSHED STEEL

BRUSHED CHROME

POLISHED CHROME

SATIN GOLD

MK WHITE (PLASTIC ROCKER)

LUSTROUS IVORY

LUSTROUS BLACK

POLISHED BRASS

TEXTURED IRON

DESERT BRONZE

ANTIQUE BRASS

TEXTURED COPPER

K14703

10

K14704

10

K14706

10

K14801

10

K4880BSS\*

1

K4880LBS\*

1

K4880BRC\*

1

K4880POC\*

1

K4880SAG\*

1

K4880WHI

10

K4880LIVW

1

K4880LBKB

1

K4880PBR\*

1

K4880TIRB

1

K4880DBZB

1

K4880ABSB

1

K4880TCOB

1

Will only fit MK Mounting Box  
3891ZIC

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

BS 5733:2010

## Switch Modules 10 Amp

SP 1 WAY  
10 AMP

DP 1 WAY  
10 AMP

SP 2 WAY  
10 AMP

SP 2 WAY  
RETRACTIVE  
10 AMP

SP 2 WAY  
RED  
RETRACTIVE  
10 AMP

SP 2 WAY  
RETRACTIVE  
MARKED BELL  
SYMBOL  
10 AMP



|           |    |           |    |           |    |           |    |           |   |
|-----------|----|-----------|----|-----------|----|-----------|----|-----------|---|
| K4881BSS* | 1  | K4981BSS* | 1  | K4882BSS* | 1  | K4885BSS* | 1  |           |   |
| K4881LBS* | 1  | K4981LBS* | 1  | K4882LBS* | 1  | K4885LBS* | 1  |           |   |
| K4881BRC* | 1  | K4981BRC* | 1  | K4882BRC* | 1  | K4885BRC* | 1  |           |   |
| K4881POC* | 1  | K4981POC* | 1  | K4882POC* | 1  | K4885POC* | 1  |           |   |
| K4881SAG* | 1  | K4981SAG* | 1  | K4882SAG* | 1  | K4885SAG* | 1  |           |   |
| K4881WHI  | 10 | K4981WHI  | 10 | K4882WHI  | 10 | K4885WHI  | 10 |           |   |
| K4881LIVW | 1  | K4981LIVW | 1  | K4882LIVW | 1  | K4885LIVW | 1  |           |   |
| K4881LBKB | 1  | K4981LBKB | 1  | K4882LBKB | 1  | K4885LBKB | 1  |           |   |
| K4881PBR* | 1  | K4981PBR* | 1  | K4882PBR* | 1  | K4885PBR* | 1  |           |   |
| K4881TIRB | 1  | K4981TIRB | 1  | K4882TIRB | 1  | K4885TIRB | 1  |           |   |
| K4881DBZB | 1  | K4981DBZB | 1  | K4882DBZB | 1  | K4885DBZB | 1  |           |   |
| K4881ABSB | 1  | K4981ABSB | 1  | K4882ABSB | 1  | K4885ABSB | 1  |           |   |
| K4881TCOB | 1  | K4981TCOB | 1  | K4882TCOB | 1  | K4885TCOB | 1  |           |   |
|           |    |           |    |           |    | K4885RED  | 1  | K4885BWHI | 1 |
|           |    |           |    |           |    | K4885REDB | 1  | K4885BBLK | 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999






NOTE  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

NOTE  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999



## Switch Modules 20 Amp

DP  
1 WAY  
RED ROCKER  
PUSH TO MAKE  
20 AMP

|                           |  |  |  |  |  |                       |         |
|---------------------------|---|---|---|---|---|-----------------------|---------|
| FINISHES                  |   |   |   |   |   |                       |         |
| BRUSHED STAINLESS STEEL   | K4885PWHI<br>K4885PBLK  | K4900BSS*   | 1   | K4891BSS*   | 1   | K4910BSS*             | 1       |
| LACQUERED BRUSHED STEEL   |   | K4900LBS*   | 1   | K4891LBS*   | 1   | K4910LBS*             | 1       |
| BRUSHED CHROME            |   | K4900BRC*   | 1   | K4891BRC*   | 1   | K4910BRC*             | 1       |
| POLISHED CHROME           |   | K4900POC*   | 1   | K4891POC*   | 1   | K4910POC*             | 1       |
| SATIN GOLD                |   | K4900SAG*   | 1   | K4891SAG*   | 1   | K4910SAG*             | 1       |
| MK WHITE (PLASTIC ROCKER) |   | K4900WHI  | 10  | K4891WHI  | 10  | K4910WHI              | 10      |
| LUSTROUS IVORY            |   | K4900LIVW   | 1   | K4891LIVW   | 1   | K4910LIVW             | 1       |
| LUSTROUS BLACK            |   | K4900LBKB   | 1   | K4891LBKB   | 1   | K4910LBKB             | 1       |
| POLISHED BRASS            |   | K4900PBR*   | 1   | K4891PBR*   | 1   | K4910PBR*             | 1       |
| TEXTURED IRON             |   | K4900TIRB   | 1   | K4891TIRB   | 1   | K4910TIRB             | 1       |
| DESERT BRONZE             |   | K4900DBZB   | 1   | K4891DBZB   | 1   | K4910DBZB             | 1       |
| ANTIQUE BRASS             |   | K4900ABSB   | 1   | K4891ABSB   | 1   | K4910ABSB             | 1       |
| TEXTURED COPPER           |   | K4900TCOB   | 1   | K4891TCOB   | 1   | K4910TCOB             | 1       |
|                           |   |   |   |   |   | K4910RED<br>K4910REDB | 10<br>1 |

Where there is no asterisk, the final suffix W = White Insert, B = Black Insert,  
E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

**NOTE**  
Push switches are not designed  
for fluorescent loads.  
BS EN 60669-1:1999

## Switch Modules 20 Amp

DP 1 WAY  
PUSH TO BREAK  
RETRACTIVE  
20 AMP

DP 1 WAY  
RED ROCKER  
PUSH TO BREAK  
RETRACTIVE  
20 AMP

SP 2 WAY  
20 AMP

SP 2 WAY  
RED ROCKER  
20 AMP

SP 2 WAY  
SWITCH WITH  
INTEGRAL NEON  
LOCATOR  
20 AMP

SP 2 WAY  
AND CENTRE  
OFF  
20 AMP



|  |  |                    |   |   |                    |
|--|--|--------------------|---|---|--------------------|
| <b>K4915WHI</b> 10<br><b>K4915BLK</b> 10 | <b>K4915RED</b> 10<br><b>K4915REDB</b> 1 | <b>K4892BSS*</b> 1 | <b>K4892RED</b> 10<br><b>K4892REDB</b> 10 | <b>K4892LWHI</b> 10<br><b>K4892LBLK</b> 1 | <b>K4899BSS*</b> 1 |
|  |  | <b>K4892LBS*</b> 1 |   |   | <b>K4899LBS*</b> 1 |
|  |  | <b>K4892BRC*</b> 1 |   |   | <b>K4899BRC*</b> 1 |
|  |  | <b>K4892POC*</b> 1 |   |   | <b>K4899POC*</b> 1 |
|  |  | <b>K4892SAG*</b> 1 |   |   | <b>K4899SAG*</b> 1 |
|  |  | <b>K4892WHI</b> 10 |   |   | <b>K4899WHI</b> 10 |
|  |  | <b>K4892LIVW</b> 1 |   |   | <b>K4899LIVW</b> 1 |
|  |  | <b>K4892LBKB</b> 1 |   |   | <b>K4899LBKB</b> 1 |
|  |  | <b>K4892PBR*</b> 1 |   |   | <b>K4899PBR*</b> 1 |
|  |  | <b>K4892TIRB</b> 1 |   |   | <b>K4899TIRB</b> 1 |
|  |  | <b>K4892DBZB</b> 1 |   |   | <b>K4899DBZB</b> 1 |
|  |  | <b>K4892ABSB</b> 1 |   |   | <b>K4899ABSB</b> 1 |
|  |  | <b>K4892TCOB</b> 1 |   |   | <b>K4899TCOB</b> 1 |

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW Lustrous Ivory finish with white inserts

**NOTE**  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999

These switches do NOT have  
to be derated when used with  
fluorescent or inductive loads.  
BS EN 60669-1:1999

These switches do NOT have to be derated when used with  
fluorescent or inductive loads.  
Additional information on printed modules available in Grid Plus  
Section, pages 175.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

## Switch Modules






SP 2 WAY  
AND CENTRE  
OFF, RED ROCKER  
20 AMP

INTERMEDIATE  
20 AMP

INTERMEDIATE  
RED ROCKER  
20 AMP

DP  
1 WAY  
20 AMP

DP  
1 WAY  
WITH NEON  
20 AMP

| FINISHES                  |  |  |  |  |  |
|---------------------------|---|---|---|---|---|
| BRUSHED STAINLESS STEEL   | K4899RED<br>K4899REDB<br>10<br>10   | K4893BSS* 1   | K4893RED<br>K4893REDB<br>10<br>10   | K4896BSS* 1   | K4896NWHI<br>K4896NBLK<br>1<br>1  |
| LACQUERED BRUSHED STEEL   |   | K4893LBS* 1   |   | K4896LBS* 1   |   |
| BRUSHED CHROME            |   | K4893BRC* 1   |   | K4896BRC* 1   |   |
| POLISHED CHROME           |   | K4893POC* 1   |   | K4896POC* 1   |   |
| SATIN GOLD                |   | K4893SAG* 1   |   | K4896SAG* 1   |   |
| MK WHITE (PLASTIC ROCKER) |   | K4893WHI 1  |   | K4896WHI 1  |   |
| LUSTROUS IVORY            |   | K4893LIVW 1   |   | K4896LIVW 1   |   |
| LUSTROUS BLACK            |   | K4893LBKB 1   |   | K4896LBKB 1   |   |
| POLISHED BRASS            |   | K4893PBR* 1   |   | K4896PBR* 1   |   |
| TEXTURED IRON             |   | K4893TIRB 1   |   | K4896TIRB 1   |   |
| DESERT BRONZE             |   | K4893DBZB 1   |   | K4896DBZB 1   |   |
| ANTIQUE BRASS             |   | K4893ABSB 1   |   | K4896ABSB 1   |   |
| TEXTURED COPPER           |   | K4893TCOB 1   |   | K4896TCOB 1   |   |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.  
Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxLIVW  
Lustrous Ivory finish with white inserts

## Switch Modules

DP  
1 WAY  
WITH WINDOW  
20 AMP

DP  
1 WAY  
RED ROCKER  
20 AMP



## Printed Modules with and without Neon



**K4896WWHI 10**  
**K4896WBLK 10**

**K4896RED 10**  
**K4896REDB 10**

### K4896 PRINTED MODULE

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896BRWHI OR K4896BRBLK

|                           |                            |                             |
|---------------------------|----------------------------|-----------------------------|
| BOILER<br>K4896BR         | WASTE DISPOSAL<br>K4896WD  | HOB<br>K4896HB              |
| DISHWASHER<br>K4896DW     | WASHING MACHINE<br>K4896WM | IMMERSION HEATER<br>K4896IH |
| COOKER HOOD<br>K4896CH    | TUMBLE DRYER<br>K4896TD    | PLINTH HEATER<br>K4896PH    |
| FAN<br>K4896FN            | WASHER DRYER<br>K4896WDR   | WORKTOP LIGHTING<br>K4896WL |
| FRIDGE<br>K4896Fg         | MICROWAVE<br>K4896MW       | WINE COOLER<br>K4896WC      |
| FREEZER<br>K4896FZ        | HEATER<br>K4896HR          | WARMING DRAWER<br>K4896WDA  |
| FRIDGE FREEZER<br>K4896FF | OVEN<br>K4896OV            | COFFEE MACHINE<br>K4896CM   |

### K4896N PRINTED MODULE WITH NEON

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896NBRWHI OR K4896NBRBLK

|                            |                             |                              |
|----------------------------|-----------------------------|------------------------------|
| BOILER<br>K4896NBR         | WASTE DISPOSAL<br>K4896NWD  | HOB<br>K4896NHB              |
| DISHWASHER<br>K4896NDW     | WASHING MACHINE<br>K4896NWM | IMMERSION HEATER<br>K4896NIH |
| COOKER HOOD<br>K4896NCH    | TUMBLE DRYER<br>K4896NTD    | PLINTH HEATER<br>K4896NPH    |
| FAN<br>K4896NFN            | WASHER DRYER<br>K4896NWDR   | WORKTOP LIGHTING<br>K4896NWL |
| FRIDGE<br>K4896NFg         | MICROWAVE<br>K4896NMW       | WINE COOLER<br>K4896NWC      |
| FREEZER<br>K4896NFZ        | HEATER<br>K4896NHR          | WARMING DRAWER<br>K4896NWDA  |
| FRIDGE FREEZER<br>K4896NFF | OVEN<br>K4896NOV            | COFFEE MACHINE<br>K4896NCM   |

#### NOTE

K4896NIH (Immersion Heater with Neon) is not available with black rockers.

BS EN 60669-1:1999

BS EN 60669-1:1999

## Key Switch Modules

INTERMEDIATE  
KEY SWITCH  
20 AMP

SP  
KEY SWITCH  
2 WAY  
20 AMP

SP KEY SWITCH  
2 WAY  
EMERGENCY  
LIGHTING  
20 AMP

DP  
KEY SWITCH  
1 WAY  
20 AMP

DP  
EMERGENCY  
LIGHTING  
20 AMP

SP  
KEY SWITCH  
2 WAY  
RETRACTIVE  
20 AMP



### FINISHES

|       |             |             |               |             |               |             |
|-------|-------------|-------------|---------------|-------------|---------------|-------------|
| WHITE | K4894WHI 10 | K4898WHI 10 | K4898ELWHI 10 | K4917WHI 10 | K4917ELWHI 10 | K4918WHI 10 |
| BLACK | K4894BLK 1  | K4898BLK 1  | K4898ELBLK 1  | K4917BLK 1  |               | K4918BLK 10 |

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

## Indicator Modules

200-250V  
NEON



**K4889RED** 10  
**K4889REDB** 1

BS 5733:2010

200-250V  
NEON



**K4889AMB** 10

BS 5733:2010

200-250V  
FLUORESCENT



**K4889GRN** 10

BS 5733:2010

21-36V  
FILAMENT



**K4836RED** 10

BS 5733:2010

21-36V  
FILAMENT



**K4836AMB** 10

BS 5733:2010

21-36V  
FILAMENT



**K4836GRN** 10

BS 5733:2010

Will Operate On Both A.C. And D.C

Not available in other finishes

### Dimmer Switch Modules

1 GANG 40W/  
VA-220W/180VA,  
230VA.C, 50HZ  
2 WAY  
1 MODULE

1 GANG 60W/  
VA-400W/320VA,  
230VA.C, 50HZ  
2 WAY  
2 MODULE

1 GANG  
40-220W/180VA/  
4-70W LED DIMMER  
2 WAY  
1 MODULE

0-10V/1-10V  
FLUORESCENT  
CONTROLLER  
1 MODULE



| FINISHES                |             |   |             |   |             |   |           |   |
|-------------------------|-------------|---|-------------|---|-------------|---|-----------|---|
| BRUSHED STAINLESS STEEL | K4501BSS*LV | 1 | K4500BSS*LV | 1 | K4511BSS*LV | 1 | K4499BSS* | 1 |
| LACQUERED BRUSHED STEEL | K4501LBS*LV | 1 | K4500LBS*LV | 1 | K4511LBS*LV | 1 | K4499LBS* | 1 |
| BRUSHED CHROME          | K4501BRC*LV | 1 | K4500BRC*LV | 1 | K4511BRC*LV | 1 | K4499BRC* | 1 |
| POLISHED CHROME         | K4501POC*LV | 1 | K4500POC*LV | 1 | K4511POC*LV | 1 | K4499POC* | 1 |
| SATIN GOLD              | K4501SAG*LV | 1 | K4500SAG*LV | 1 | K4511SAG*LV | 1 | K4499SAG* | 1 |
| PORCELAIN WHITE         | K4501WHIWL  | 1 | K4500WHIWL  | 1 | K4511WHIWL  | 1 | K4499WHI  | 1 |
| LUSTROUS IVORY          | K4501LIVWL  | 1 | K4500LIVWL  | 1 | K4511LIVWL  | 1 | K4499LIVW | 1 |
| LUSTROUS BLACK          | K4501LBKBL  | 1 | K4500LBKBL  | 1 | K4511LBKBL  | 1 | K4499LBKB | 1 |
| POLISHED BRASS          | K4501PBR*LV | 1 | K4500PBR*LV | 1 | K4511PBR*LV | 1 | K4499PBR* | 1 |
| TEXTURED IRON           | K4501TIRBL  | 1 | K4500TIRBL  | 1 | K4511TIRBL  | 1 | K4499TIRB | 1 |
| DESERT BRONZE           | K4501DBZBL  | 1 | K4500DBZBL  | 1 | K4511DBZBL  | 1 | K4499DBZB | 1 |
| ANTIQUE BRASS           | K4501ABSBL  | 1 | K4500ABSBL  | 1 | K4511ABSBL  | 1 | K4499ABSB | 1 |
| TEXTURED COPPER         | K4501TCOBL  | 1 | K4500TCOBL  | 1 | K4511TCOBL  | 1 | K4499TCOB | 1 |

These dimmers incorporate the latest in micro-controller based circuitry to provide electronic soft-start and overload protection. Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability. K4500 is only suitable for use in 2, 4 and 8 module grids. They are not suitable for fluorescent lamps.

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.

#### NOTE

Refer to technical section for derating factors when more than one unit is used in any one box. Conforms to the latest standard BS EN 60669-2-1.

\* Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW. Where there is no asterisk, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

When ordering K4500, K4501 & K4511, use the suffix 'LV' right at the end, eg. K4501BSSWL



## Accessory Modules

|  |   |                         |                       |                       |
|--|---|-------------------------|-----------------------|-----------------------|
| SINGLE TV<br>CO-AXIAL OUTLET<br>NON-ISOLATED | SINGLE TV<br>CO-AXIAL<br>OUTLET<br>ISOLATED | BUZZER UNIT<br>200-250V | BUZZER UNIT<br>21-36V | CORD OUTLET<br>16 AMP |
|--|---|-------------------------|-----------------------|-----------------------|



K4520WHI  
K4896WBLK

10  
10

K4521WHI  
K4521BLK

10  
10

K4000WHI

10

K4001WHI

10

K4886WHI  
K4886BLK

10  
10

For direct connection to TV or FM aerial co-axial download. NOT to be used in same enclosure as mains exceeding 50V.  
BS 3041:1977  
IEC 169-2:1965  
BS 5733:2010 where applicable.

For direct connection to TV or FM aerial co-axial download. NOT to be used in same enclosure as mains exceeding 50V.  
BS 3041:1977  
IEC 169-2:1965  
BS 5733:2010 where applicable.

200-250V  
BS 5733:2010

Sound output level  
Av 61 db @ 15 feet.  
BS 5733:2010

Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm<sup>2</sup> or 1 x 4mm<sup>2</sup> solid conductors. The load terminals are suitable for one 1.5mm<sup>2</sup> flexible cord.  
A cord grip is also fitted.  
BS 5733:2010

## Accessory Modules

FUSE UNIT  
13 AMP



FUSE UNIT WITH  
TAMPERPROOF  
SCREW  
13 AMP



## Euro Modular Frontplates

EURO  
1 MODULE  
25 X 50MM



EURO  
2 MODULE  
50 X 50MM



EURO  
4 MODULE  
100 X 50MM



## FINISHES

BRUSHED STAINLESS STEEL

LACQUERED BRUSHED STEEL

BRUSHED CHROME

POLISHED CHROME

SATIN GOLD

PORCELAIN WHITE

LUSTROUS IVORY

LUSTROUS BLACK

POLISHED BRASS

TEXTURED IRON

DESERT BRONZE

ANTIQUE BRASS

TEXTURED COPPER

K4890WHI 10  
K4890BLK 10

K4890KOWHI 10  
K4890KOBLK 10

|           |   |           |   |           |   |
|-----------|---|-----------|---|-----------|---|
| K14181BSS | 1 | K14182BSS | 1 | K14184BSS | 1 |
| K14181LBS | 1 | K14182LBS | 1 | K14184LBS | 1 |
| K14181BRC | 1 | K14182BRC | 1 | K14184BRC | 1 |
| K14181POC | 1 | K14182POC | 1 | K14184POC | 1 |
| K14181SAG | 1 | K14182SAG | 1 | K14184SAG | 1 |
| K14181WHI | 1 | K14182WHI | 1 | K14184WHI | 1 |
| K14181LIV | 1 | K14182LIV | 1 | K14184LIV | 1 |
| K14181LBK | 1 | K14182LBK | 1 | K14184LBK | 1 |
| K14181PBR | 1 | K14182PBR | 1 | K14184PBR | 1 |
| K14181TIR | 1 | K14182TIR | 1 | K14184TIR | 1 |
| K14181DBZ | 1 | K14182DBZ | 1 | K14184DBZ | 1 |
| K14181ABS | 1 | K14182ABS | 1 | K14184ABS | 1 |
| K14181TCO | 1 | K14182TCO | 1 | K14184TCO | 1 |

Fuse carrier comes with 13A  
cartridge fuse link to BS 1362.  
BS 5733:2010

Key 3405Z/C supplied  
Fuse carrier comes with 13A  
cartridge fuse link to BS 1362.  
BS 5733:2010

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes  
to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**FIXING CENTRES**  
60.3mm  
BS 5733:2010 where applicable.  
Note: No grid required, modules  
just clip into place.

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes  
to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**FIXING CENTRES**  
60.3mm  
BS 5733:2010 where applicable.  
Note: No grid required, modules  
just clip into place.

**MOUNTING BOXES**  
Suitable for flush boxes to  
BS 4662:2006 and surface boxes  
to BS 5733:2010  
Refer to appropriate module for  
minimum box depth.  
**FIXING CENTRES**  
120.6mm  
BS 5733:2010 where applicable.  
Note: No grid required, modules  
just clip into place.

## Euro Power Modules

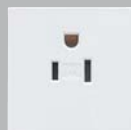
UK  
250V  
2 MODULE  
50 X 50MM  
13 AMP

GERMAN  
2P+E 250V  
SHUTTERED  
2 MODULE (NON UK)  
16 AMP

AMERICAN  
127V SHUTTERED  
2 MODULE  
50 X 50MM (NON UK)  
15 AMP

UK  
250V SHUTTERED  
2 MODULE  
50 X 50MM  
5 AMP

FRENCH/BELGIAN  
2P+E  
250V SHUTTERED  
2 MODULE  
50 X 50MM (NON UK)  
16 AMP



K5830SAWHI 10  
K5830BLK 10

K5831WHI 10  
K5831BLK 10

K5832WHI 10  
K5832BLK 10

K5833WHI 10  
K5833BLK 10

K5834WHI 10  
K5834BLK 10

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space).  
DIMENSIONS  
50 x 50mm  
BS 1363 Part 2:1995

MOUNTING BOX  
46mm  
DIMENSIONS  
50 x 50mm  
IEC 60884-1:2006

MOUNTING BOX  
35mm  
46mm (for extra wiring space)  
DIMENSIONS  
50 x 50mm  
SASO 2204:2003

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space).  
DIMENSIONS  
50 x 50mm  
BS 546:1950

MOUNTING BOX  
46mm  
DIMENSIONS  
50 x 50mm  
NF C61-314

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

### Euro Power Modules

USB CHARGING  
2 MODULE  
50 X 50MM



### Euro Datacom Modules

RJ11/12  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
SCREENED  
1 MODULE  
25 X 50MM



RJ45  
CAT 6  
ANGLED  
1 MODULE  
25 X 50MM



#### FINISHES

|       |                 |          |                   |          |                   |          |                  |          |                 |          |
|-------|-----------------|----------|-------------------|----------|-------------------|----------|------------------|----------|-----------------|----------|
| WHITE | <b>K5837WHI</b> | <b>1</b> | <b>K5887SAWHI</b> | <b>5</b> | <b>K5846SAWHI</b> | <b>5</b> | <b>K5846SWHI</b> | <b>5</b> | <b>K5864WHI</b> | <b>5</b> |
| BLACK | <b>K5837BLK</b> | <b>1</b> | <b>K5887BLK</b>   | <b>5</b> | <b>K5846BLK</b>   | <b>5</b> | <b>K5846SBLK</b> | <b>5</b> |                 |          |

USB charging sockets, each capable of supporting 2A charge (total of 2A)

**K5837 MOUNTING BOX**  
Minimum Box depth 35mm  
46mm for extra wiring space  
IEC 60950-1  
IEC 61000-6-1/3

Suitable for both RJ11 and RJ12 jacks  
RJ11; 4 wire  
RJ12; 6 wire

**MOUNTING BOXES**  
Minimum Box depth 35mm  
FCC68  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

RJ45  
CAT 5e  
ANGLED  
1 MODULE  
25 X 50MM

RJ45  
CAT 5e  
1 MODULE  
25 X 50MM

TELEPHONE  
MASTER  
1 MODULE  
25 X 50MM

TELEPHONE  
SECONDARY  
1 MODULE  
25 X 50MM

BNC 50Ω  
1 MODULE  
25 X 50MM



|                 |          |                 |          |                 |          |                 |          |                 |          |
|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K5844WHI</b> | <b>5</b> | <b>K5845WHI</b> | <b>5</b> | <b>K5820WHI</b> | <b>5</b> | <b>K5821WHI</b> | <b>5</b> | <b>K5801WHI</b> | <b>5</b> |
|                 |          | <b>K5845BLK</b> | <b>5</b> | <b>K5820BLK</b> | <b>5</b> | <b>K5821BLK</b> | <b>5</b> |                 |          |

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B  
wiring schemes.

**MOUNTING BOXES**  
Minimum box depth  
35mm standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B  
wiring schemes.

**MOUNTING BOXES**  
Minimum box depth 35mm  
standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**MOUNTING BOXES**  
Minimum depth 35mm  
BS 6312-2

**MOUNTING BOXES**  
Minimum depth 35mm  
BS 6312-2

50 Ohm crimp connector suitable  
for use with RG58, URM43,  
URM76 and Beldon 9907 type  
co-axial cables.

**MOUNTING BOXES**  
Minimum box depth 35mm

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

## Euro Multimedia Modules

SINGLE OUTLET  
(IEC MALE)  
1 MODULE  
25 X 50MM

SINGLE OUTLET  
(IEC FEMALE)  
1 MODULE  
25 X 50MM

SINGLE F-TYPE  
SATELLITE  
SOCKET  
1 MODULE  
25 X 50MM

## FINISHES

WHITE

K5850WHI

5

K5851WHI

5

K5855WHI

5

BLACK

K5850BLK

5

K5851BLK

5

K5855BLK

5

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer, TV/FM/SAT Triplexer and BT secondary telephone outlets for use within digital TV systems and interactive TV services.  
Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

## MOUNTING BOXES

Minimum Box Depth 47mm

BS 3041:1997, IEC 169-2:1965, BS EN 50083 &amp; BS 5733:2010 where applicable.

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.

## Euro Multimedia Modules

FEMALE HDMI OUTLET  
2 MODULE  
50 X 50MM



AUDIO BINDING  
POST FOR SINGLE  
LOUD SPEAKER  
1 MODULE  
25 X 50MM



RCA TO SCREW  
TERMINATION SET  
1 RED AND 1 BLACK  
1 MODULE  
25 X 50MM



|                 |          |                 |          |                 |          |
|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K5807WHI</b> | <b>5</b> | <b>K5805WHI</b> | <b>5</b> | <b>K5806WHI</b> | <b>5</b> |
| <b>K5807BLK</b> | <b>5</b> | <b>K5805BLK</b> | <b>5</b> | <b>K5806BLK</b> | <b>5</b> |

K5807 Female HDMI Outlet is HDMI 1.1, 1.2, 1.3 and 1.4b compatible, HDCP compliant.

### DATA RATE

Up to 2.25 Gbps

### SCAN

Up to 1080p/1920x1200

### INPUT CONNECTOR

1 x HDMI Female (Type A)

### OUTPUT CONNECTOR

1 x HDMI Female (Type A)

Supports high resolution input:

PC: VGA, SVGA,

SXVGA (1280x1024) and UXGA (1600x1200, 1920x1200)

HDTV: 480p, 720p, 1080i and 1080p

HDMI input cable should be no larger than 20m

### DIMENSIONS

50 x 25 x 28mm

### DIMENSIONS

50 x 25 x 28mm

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Mains operated products and extra low voltage modules must not be installed within the same frontplate.  
Refer to BS 7671:2008 for details.



# Insignia



## Euro Blank Modules

2 MODULE  
50 X 50MM

1 MODULE  
25 X 50MM

1/2 MODULE  
12.5 X 50MM

### FINISHES

BRUSHED STAINLESS STEEL

LACQUERED BRUSHED STEEL

BRUSHED CHROME

POLISHED CHROME

SATIN GOLD

PORCELAIN WHITE

LUSTROUS IVORY

LUSTROUS BLACK

POLISHED BRASS

TEXTURED IRON

DESERT BRONZE

ANTIQUE BRASS

TEXTURED COPPER

K180WHI  
K180BLK

10  
10

K188WHI  
K188BLK

10  
10

K186WHI  
K186BLK

10  
10

BS 5733:2010 where applicable

BS 5733:2010 where applicable

BS 5733:2010 where applicable

## LJU6C Datacom Frontplate

1 GANG  
2 MODULE  
22 X 37MM



## LJU6C Datacom Modules

RJ11/12  
1 MODULE



RJ45 CAT 6  
1 MODULE



RJ45  
CAT 6  
SCREENED  
1 MODULE



RJ45  
CAT 5e  
1 MODULE



|            |   |          |   |                        |        |                        |        |                      |        |
|------------|---|----------|---|------------------------|--------|------------------------|--------|----------------------|--------|
| K14172BSS* | 1 | K5787WHI | 5 | K5746SAWHI<br>K5746BLK | 5<br>5 | K5746SWHI<br>K5746SBLK | 5<br>5 | K5745WHI<br>K5745BLK | 5<br>5 |
| K14172LBS* | 1 |          |   |                        |        |                        |        |                      |        |
| K14172BRC* | 1 |          |   |                        |        |                        |        |                      |        |
| K14172POC* | 1 |          |   |                        |        |                        |        |                      |        |
| K14172SAG* | 1 |          |   |                        |        |                        |        |                      |        |
| K14172WHIW | 1 |          |   |                        |        |                        |        |                      |        |
| K14172LIVW | 1 |          |   |                        |        |                        |        |                      |        |
| K14172LBK  | 1 |          |   |                        |        |                        |        |                      |        |
| K14172PBRB | 1 |          |   |                        |        |                        |        |                      |        |
| K14172TIRB | 1 |          |   |                        |        |                        |        |                      |        |
| K14172DBZB | 1 |          |   |                        |        |                        |        |                      |        |
| K14172ABSB | 1 |          |   |                        |        |                        |        |                      |        |
| K14172TCOB | 1 |          |   |                        |        |                        |        |                      |        |

### MOUNTING BOXES

Suitable for flush boxes to BS 4662:1970 and surface boxes to BS 5733:2010

Refer to appropriate module for minimum box depth.

### FIXING CENTRES

1 gang: 60.3mm

2 gang: 120.6mm

BS 5733:2010 where applicable

### NOTE

No grid required, modules just clip into place

Suitable for both RJ11 and RJ12 jacks.

RJ11: 4 wire

RJ12: 6 wire

### MOUNTING BOXES

Minimum box depth 35mm

FCC68

EN41003

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

### MOUNTING BOXES

Minimum Box Depth 35mm

ISO/IEC 11801

EN 50173

TIA 568

EN 41003

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

### MOUNTING BOXES

Minimum Box Depth 35mm

ISO/IEC 11801

EN 50173

TIA 568

EN 41003

Enhanced Cat 5 performance.

Suitable for both 568A and 568B wiring schemes.

### MOUNTING BOXES

Minimum Box Depth 25mm

ISO/IEC 11801

EN 50173

TIA 568

EN 41003

\* Available with White or Black inserts.

# Insignia



## LJU6C Datacom Blanks

LJU6C  
1 MODULE

## Blank Plates

1 GANG

2 GANG

| FINISHES                |                    |          |             |
|-------------------------|--------------------|----------|-------------|
| BRUSHED STAINLESS STEEL | K170WHI<br>K170BLK | 10<br>10 | K14330BSS 1 |
| LACQUERED BRUSHED STEEL |                    |          | K14330LBS 1 |
| BRUSHED CHROME          |                    |          | K14330BRC 1 |
| POLISHED CHROME         |                    |          | K14330POC 1 |
| SATIN GOLD              |                    |          | K14330SAG 1 |
| PORCELAIN WHITE         |                    |          | K14330WHI 1 |
| LUSTROUS IVORY          |                    |          | K14330LIV 1 |
| LUSTROUS BLACK          |                    |          | K14330LBK 1 |
| POLISHED BRASS          |                    |          | K14330PBR 1 |
| TEXTURED IRON           |                    |          | K14330TIR 1 |
| DESERT BRONZE           |                    |          | K14330DBZ 1 |
| ANTIQUE BRASS           |                    |          | K14330ABS 1 |
| TEXTURED COPPER         |                    |          | K14330TCO 1 |
|                         |                    |          | K14329BSS 1 |
|                         |                    |          | K14329LBS 1 |
|                         |                    |          | K14329BRC 1 |
|                         |                    |          | K14329POC 1 |
|                         |                    |          | K14329SAG 1 |
|                         |                    |          | K14329WHI 1 |
|                         |                    |          | K14329LIV 1 |
|                         |                    |          | K14329LBK 1 |
|                         |                    |          | K14329PBR 1 |
|                         |                    |          | K14329TIR 1 |
|                         |                    |          | K14329DBZ 1 |
|                         |                    |          | K14329ABS 1 |
|                         |                    |          | K14329TCO 1 |

BS 5733:2010 where appropriate

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS:  
86 x 86mm  
FIXING CENTRES  
1 gang: 60.3mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
866ZIC  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
2 gang: 120.6mm  
BS 5733:2010





# ALBANY PLUS™

## RANGE INTRODUCTION

Available in Brushed Stainless Steel, Brushed Chrome, Satin Gold and Polished Chrome finishes, Albany Plus™ brings stylish yet subtle good looks to both contemporary and classical interiors.

Being manufactured from the finest materials, Albany Plus™ wiring devices maintain their high quality appearance for years to come.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Albany Plus™ range. Please see page 19 for details.

### HOW TO SPECIFY

A metal, flush mounting range of wiring devices. Frontplates with a maximum 9mm profile and subtle 7mm radius rounded corners. Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety. Switches to be large and concave with a minimum 3mm contact gap with a positive 'click' to denote successful operation.

## FEATURES & BENEFITS

### AVAILABLE IN BRUSHED STAINLESS STEEL, BRUSHED CHROME, SATIN GOLD AND POLISHED CHROME

Providing a range of products that complement the décor and requirements of any interior.

### ALBANY PLUS™ BRUSHED CHROME AND SATIN GOLD ARE PRE-TREATED WITH A HEAT-CURED POWDER LACQUER FINISH

Brushed Chrome and Satin Gold products are coated with a special heat-cured powder lacquer finish ensuring that the range is durable, tarnish resistant and maintains its stylish and understated appearance for many years.

### TOTAL SAFETY

MK sockets have a 3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply unless all 3 pins of a standard British 13A plug are in position.

### DESIGN SERVICE

Perfect for when only a customised solution will do.

# Albany Plus™



DOUBLE POLE  
SWITCHING

MATCHING  
SCREWS

STYLISH CURVED DESIGN  
Blends unobtrusively into the  
environment

3-PIN "CHILD RESISTANT SHUTTER  
SYSTEM"  
Designed to inhibit access to the  
electricity supply, unless all 3 pins of a  
standard British 13A plug are in position

PRE-TREATED HEAT-CURED POWDER  
LACQUER FINISH (BRC AND SAG)  
Ensures that the range is durable and  
tarnish resistant

Terminal screws are backed out  
and captive. Terminals are upwards  
facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy  
identification.

Polished Chrome finish  
complements modern  
interior design.

Brushed Chrome finish has subtle good looks to suit  
classic interiors.



## Switchsocket Outlets

1 GANG DP  
DUAL EARTH TERMINALS  
13 AMP

2 GANG DP  
13 AMP

2 GANG DP WITH  
RED ROCKERS  
13 AMP

1 GANG DP  
DUAL EARTH TERMINALS  
WITH NEON  
13 AMP



### FINISHES

|                         |          |    |          |   |            |   |          |   |
|-------------------------|----------|----|----------|---|------------|---|----------|---|
| BRUSHED STAINLESS STEEL | K2958BSS | 10 | K2948BSS | 5 | K2948D6BSS | 5 | K2458BSS | 5 |
| BRUSHED CHROME          | K2958BRC | 1  | K2948BRC | 1 | K2948D6BRC | 1 | K2458BRC | 1 |
| SATIN GOLD              | K2958SAG | 1  | K2948SAG | 1 |            |   | K2458SAG | 1 |
| POLISHED CHROME         | K2958PCR | 1  | K2948PCR | 1 |            |   | K2458PCR | 1 |

**MOUNTING BOXES**  
FLUSH 25MM  
1 gang: 861ZIC  
FLUSH 35MM  
(for extra wiring space)  
1 gang: 866ZIC  
**SURFACE WITH KNOCKOUTS**  
1 gang: K899ALM  
**SURFACE WITHOUT KNOCKOUTS**  
1 gang: K829ALM  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 1363-2:1995  
**DOUBLE POLE SWITCHING**  
All switchsockets have double pole switching (neutral makes first, breaks last).  
**HIGH INTEGRITY EARTHING**  
Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008

**MOUNTING BOXES**  
FLUSH 25MM  
2 gang: 862ZIC  
FLUSH 35MM  
(for extra wiring space)  
2 gang: 866ZIC  
**SURFACE WITH KNOCKOUTS**  
2 gang: K897ALM  
**SURFACE WITHOUT KNOCKOUTS**  
2 gang: K830ALM  
**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS 1363-2:1995  
**DOUBLE POLE SWITCHING**  
All switchsockets have double pole switching (neutral makes first, breaks last)

**MOUNTING BOXES**  
FLUSH 25MM  
2 gang: 862ZIC  
FLUSH 35MM  
(for extra wiring space)  
2 gang: 866ZIC  
**SURFACE WITH KNOCKOUTS**  
2 gang: K897ALM  
**SURFACE WITHOUT KNOCKOUTS**  
2 gang: K830ALM  
**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS 1363-2:1995  
**DOUBLE POLE SWITCHING**  
All switchsockets have double pole switching (neutral makes first, breaks last)

**MOUNTING BOXES**  
FLUSH 25MM  
1 gang: 861ZIC  
FLUSH 35MM  
(for extra wiring space)  
1 gang: 866ZIC  
**SURFACE WITH KNOCKOUTS**  
1 gang: K899ALM  
**SURFACE WITHOUT KNOCKOUTS**  
1 gang: K829ALM  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 1363-2:1995  
**DOUBLE POLE SWITCHING**  
All switchsockets have double pole switching (neutral makes first, breaks last).  
**HIGH INTEGRITY EARTHING**  
Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008



# Albany Plus™



## Switchsocket Outlets

2 GANG DP  
WITH NEONS  
13 AMP

2 GANG DP  
WITH 2 X USB  
CHARGING PORTS  
DUAL EARTH  
13 AMP

2 GANG DP WITH  
OUTBOARD ROCKERS  
AND DUAL EARTH  
TERMINALS  
13 AMP

2 GANG DP  
WITH OUTBOARD  
RED ROCKERS AND DUAL  
EARTH TERMINALS  
13 AMP



### FINISHES

|                         |          |   |          |   |          |   |            |   |
|-------------------------|----------|---|----------|---|----------|---|------------|---|
| BRUSHED STAINLESS STEEL | K2448BSS | 5 | K2943BSS | 1 | K2947BSS | 5 | K2947D6BSS | 5 |
| BRUSHED CHROME          | K2448BRC | 1 | K2943BRC | 1 | K2947BRC | 1 | K2947D6BRC | 1 |
| SATIN GOLD              | K2448SAG | 1 | K2943SAG | 1 | K2947SAG | 1 |            |   |
| POLISHED CHROME         | K2448PCR | 1 | K2943PCR | 1 | K2947PCR | 1 |            |   |

#### MOUNTING BOXES

FLUSH 25MM

2 gang: 862ZIC

FLUSH 35MM

(for extra wiring space)

2 gang: 886ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

FIXING CENTRES

120.6mm

BS 1363-2:1995

DOUBLE POLE SWITCHING

All switchsockets have double pole switching (neutral makes first, breaks last)

USB charging sockets, each capable of supporting 2A charge (total of 2A)

#### MOUNTING BOXES

FLUSH 35MM

2 gang: 886ZIC

FLUSH 46MM

(for extra wiring space)

2 gang: 877ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

FIXING CENTRES

120.6mm

BS 5733: 2010

DOUBLE POLE SWITCHING

All switchsockets have double pole switching (neutral makes first, breaks last)

HIGH INTEGRITY EARTHING

Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008

#### MOUNTING BOXES

FLUSH 25MM

2 gang: 862ZIC

FLUSH 35MM

(for extra wiring space)

2 gang: 886ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

FIXING CENTRES

120.6mm

BS 1363-2:1995

DOUBLE POLE SWITCHING

All switchsockets have double pole switching (neutral makes first, breaks last)

HIGH INTEGRITY EARTHING

Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008

#### MOUNTING BOXES

FLUSH 25MM

2 gang: 862ZIC

FLUSH 35MM

(for extra wiring space)

2 gang: 886ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

FIXING CENTRES

120.6mm

BS 1363-2:1995

DOUBLE POLE SWITCHING

All switchsockets have double pole switching (neutral makes first, breaks last)

HIGH INTEGRITY EARTHING

Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008

Patress available for use where existing back box is too shallow, see page 34



2 GANG DP  
WITH OUTBOARD  
ROCKERS AND  
'CLEAN EARTH'  
FACILITY  
**13 AMP**

1 GANG DP NON  
STANDARD WITH  
CLEAN EARTH  
FACILITY  
**13 AMP**

2 GANG DP  
NON STANDARD  
WITH CLEAN  
EARTH  
FACILITY  
**13 AMP**

2 GANG DP  
DUAL EARTH  
FILTERED  
SPIKE AND RFI  
**13 AMP**

REPLACEMENT  
FILTER CASSETTE

1 GANG DP  
ROUND PIN  
**5 AMP**



|                   |          |                 |          |                 |          |                 |          |                 |          |                 |          |
|-------------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K2947CEBSS</b> | <b>5</b> | <b>K1258BSS</b> | <b>5</b> | <b>K1259BSS</b> | <b>5</b> | <b>K2826BSS</b> | <b>1</b> | <b>K1800WHI</b> | <b>5</b> | <b>K2881BSS</b> | <b>5</b> |
| <b>K2947CEBRC</b> | <b>1</b> | <b>K1258BRC</b> | <b>1</b> | <b>K1259BRC</b> | <b>1</b> | <b>K2826BRC</b> | <b>1</b> |                 |          | <b>K2881BRC</b> | <b>1</b> |
|                   |          |                 |          |                 |          |                 |          |                 |          | <b>K2881SAG</b> | <b>1</b> |
|                   |          |                 |          |                 |          |                 |          |                 |          | <b>K2881PCR</b> | <b>1</b> |

**MOUNTING BOXES**  
**FLUSH 25MM**  
2 gang: 862ZIC  
**FLUSH 35MM**  
(for extra wiring space)  
2 gang: 886ZIC  
**SURFACE WITH KNOCKOUTS**  
2 gang: K897ALM  
**SURFACE WITHOUT KNOCKOUTS**  
2 gang: K830ALM

This product is provided with facilities for 'clean earth' connection.  
**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS 1363-2:1995

**MOUNTING BOXES**  
**FLUSH 25MM**  
861ZIC  
**FLUSH 35MM**  
(for extra wiring space)  
866ZIC  
**SURFACE WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT KNOCKOUTS**  
K829ALM

These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin. See page 240.  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 1363-2:1995 where relevant

**MOUNTING BOXES**  
**FLUSH 25MM**  
2 gang: 862ZIC  
**FLUSH 35MM**  
(for extra wiring space)  
2 gang: 886ZIC  
**SURFACE WITH KNOCKOUTS**  
2 gang: K897ALM  
**SURFACE WITHOUT KNOCKOUTS**  
2 gang: K830ALM

This product provides facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin. See page 240.  
**DIMENSIONS**  
86 x 146mm  
**FIXING CENTRES**  
120.6mm  
BS 1363-2:1995 where relevant

**MOUNTING BOX**  
886ZIC  
Provides two way filtering to reduce voltage spikes and radio frequency interference. Protected by thermal cut out. Fitted with two earth terminals to provide a double earth facility when installations require a high integrity protective connection as specified within BS 7671:2008.  
**DIMENSIONS**  
86 x 146 x 39mm  
**FIXING CENTRES**  
120.6mm  
BS 5733:2010

**MOUNTING BOXES**  
**FLUSH 25MM**  
861ZIC  
**FLUSH 35MM**  
(for extra wiring space)  
866ZIC  
**SURFACE WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT KNOCKOUTS**  
K829ALM  
**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
BS 546:1950

# Albany Plus™



## Switchsocket Outlets

1 GANG DP  
ROUND PIN  
15 AMP

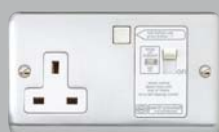


## Switchsocket Outlets RCD Protected

1 GANG DP 30MA  
RATED TRIPPING  
CURRENT ACTIVE  
CONTROL CIRCUIT  
13 AMP



1 GANG DP 30MA  
RATED TRIPPING  
CURRENT PASSIVE  
CONTROL CIRCUIT  
13 AMP



## Socket Outlets

1 GANG  
13 AMP



2 GANG WITH  
DUAL EARTH  
TERMINALS  
13 AMP



### FINISHES

|                         |          |   |          |   |          |   |         |   |         |   |
|-------------------------|----------|---|----------|---|----------|---|---------|---|---------|---|
| BRUSHED STAINLESS STEEL | K2883BSS | 5 | K6301BSS | 1 | K6304BSS | 1 | K732BSS | 5 | K733BSS | 5 |
| BRUSHED CHROME          | K2883BRC | 1 | K6301BRC | 1 | K6304BRC | 1 | K732BRC | 1 | K733BRC | 1 |
| SATIN GOLD              | K2883SAG | 1 | K6301SAG | 1 |          |   |         |   |         |   |
| POLISHED CHROME         | K2883PCR | 5 | K6301PCR | 1 |          |   |         |   |         |   |

MOUNTING BOXES  
FLUSH 25MM  
861ZIC  
FLUSH 35MM  
(for extra wiring space)  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 546:1950

MOUNTING BOXES  
FLUSH  
886ZIC  
Boxes must have a minimum  
depth of 30mm  
SURFACE WITH KNOCKOUTS  
K897ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K830ALM  
It is important to ensure that  
the correct control circuit,  
active or passive, is selected  
for each application.  
Only suitable for supply  
voltage of 240V a.c.  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 7288:1990

MOUNTING BOXES  
FLUSH 35MM  
2 gang: 886ZIC  
FLUSH 46MM  
(for extra wiring space)  
2 gang: 877ZIC  
SURFACE WITH KNOCKOUTS  
2 gang: K897ALM  
SURFACE WITHOUT  
KNOCKOUTS  
2 gang: K830ALM  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
It is important to ensure that  
the correct control circuit,  
active or passive, is selected  
for each application.  
Only suitable for supply  
voltage of 240V a.c.  
BS 7288:1990

MOUNTING BOXES  
FLUSH 25MM  
1 gang: 861ZIC  
FLUSH 35MM  
(for extra wiring space)  
1 gang: 866ZIC  
SURFACE WITH KNOCKOUTS  
1 gang: K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-2:1995

MOUNTING BOXES  
FLUSH 25MM  
2 gang: 862ZIC  
FLUSH 35MM  
(for extra wiring space)  
2 gang: 866ZIC  
SURFACE WITH KNOCKOUTS  
2 gang: K897ALM  
SURFACE WITHOUT  
KNOCKOUTS  
2 gang: K830ALM  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 1363-2:1995  
HIGH INTEGRITY EARTHING  
Fitted with two earth  
terminals to provide a  
double earth facility for use  
when installations require  
a high integrity protective  
connection as specified within  
BS 7671:2008

## Socket Outlets - Medical Locations

1 GANG DP  
SWITCHED  
13 AMP

1 GANG  
UNSWITCHED  
13 AMP

2 GANG DP  
CLEAN EARTH  
WITH OUTBOARD  
ROCKERS  
13 AMP

2 GANG  
CLEAN EARTH  
UNSWITCHED  
13 AMP

## Key Operated Socket Outlet and Switch

1 GANG DP  
DUAL EARTH  
13 AMP

1 GANG DP  
20 AMP



**K2958BLU**

**1**

**K732BLU**

**1**

**K2947CEBLU**

**5**

**K733CEBLU**

**1**

**K2949BSS**

**1**

**K2949BRC**

**1**

**K2158BSS**

**1**

**K2158BRC**

**1**

### MOUNTING BOXES

FLUSH 25MM

1 gang: 861ZIC

FLUSH 35MM

(for extra wiring space)

1 gang: 866ZIC

SURFACE WITH KNOCKOUTS

1 gang: K899ALM

SURFACE WITHOUT KNOCKOUTS

1 gang: K829ALM

DIMENSIONS

86 x 86mm

FIXING CENTRES

60.3mm

BS 1363-2:1995

Product helps support compliance to BS7671 – 710.553.1

### K2947CEBLU, K733CEBLU

These product are provided with facilities for "clean earth" connection.

### MOUNTING BOXES

FLUSH 25MM

2 gang: 862ZIC

FLUSH 35MM

(for extra wiring space)

2 gang: 886ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

FIXING CENTRES

120.6mm

BS 1363-2:1995

Product helps support compliance to BS7671 – 710.553.1

### MOUNTING BOXES

FLUSH 35MM

2 gang: 886ZIC

SURFACE WITH KNOCKOUTS

2 gang: K897ALM

SURFACE WITHOUT

KNOCKOUTS

2 gang: K830ALM

DIMENSIONS

86 x 146mm

BS 1363 Pt2:1995

HIGH INTEGRITY EARTHING

Fitted with two earth

terminals to provide a

double earth facility for use

when installations require

a high integrity protective

connection as specified

within BS 7671:2008

### MOUNTING BOXES

FLUSH 35MM

1 gang: 866ZIC

SURFACE WITH KNOCKOUTS

1 gang: K899ALM

SURFACE WITHOUT

KNOCKOUTS

1 gang: K829ALM

DIMENSIONS

86 x 86mm

BS EN 60669-1:1999

# Albany Plus™



## Floor Mounted Socket Outlets

1 GANG SP  
SWITCH SOCKET  
SPRING LOADED  
HINGED COVER PLATE  
**13 AMP**

1 GANG UNSWITCHED  
SOCKET SPRING  
LOADED HINGED  
COVER PLATE  
**13 AMP**

2 GANG  
UNSWITCHED  
SOCKET SPRING  
LOADED HINGED  
COVER PLATE  
**13 AMP**

## Connection Units Switched

DP WITH FLEX  
OUTLET  
**13 AMP**

DP  
**13 AMP**

| FINISHES                |               |           |               |          |                |          |
|-------------------------|---------------|-----------|---------------|----------|----------------|----------|
| BRUSHED STAINLESS STEEL | <b>740BSS</b> | <b>10</b> | <b>741BSS</b> | <b>5</b> | <b>742BSS</b>  | <b>1</b> |
| BRUSHED CHROME          | <b>740BRC</b> | <b>1</b>  | <b>741BRC</b> | <b>1</b> | <b>742BRC</b>  | <b>1</b> |
| SATIN GOLD              | <b>740SAG</b> | <b>5</b>  | <b>741SAG</b> | <b>1</b> | <b>742SAG</b>  | <b>1</b> |
| POLISHED CHROME         |               |           |               |          | <b>K931PCR</b> | <b>1</b> |
|                         |               |           |               |          | <b>K941PCR</b> | <b>1</b> |

### MOUNTING BOXES FLUSH

1 gang: 866ZIC  
Boxes must have a minimum  
depth of 35mm

Rotary operated shutter.

### DIMENSIONS

102 x 86mm

### FIXING CENTRES

60.3mm

BS 1363-2:1995

### MOUNTING BOXES FLUSH

1 gang: 866ZIC  
Boxes must have a minimum  
depth of 35mm

Rotary operated shutter.

### DIMENSIONS

102 x 86mm

### FIXING CENTRES

60.3mm

BS 1363-2:1995

### MOUNTING BOXES FLUSH

2 gang: 886ZIC  
Boxes must have a minimum  
depth of 35mm

Rotary operated shutter.

### DIMENSIONS

102 x 146mm

### FIXING CENTRES

120.6mm

BS 1363-2:1995

### MOUNTING BOXES FLUSH

866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM

SURFACE WITHOUT  
KNOCKOUTS  
K829ALM

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 1363-4:1995

### MOUNTING BOXES FLUSH

866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM

SURFACE WITHOUT  
KNOCKOUTS  
K829ALM

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS 1363-4:1995

DP WITH  
TAMPERPROOF FUSE  
CARRIER SCREW  
**13 AMP**

DP WITH NEON  
**13 AMP**

DP RED ROCKER  
WITH NEON  
**13 AMP**

DP WITH FLEX  
OUTLET AND NEON  
**13 AMP**

DP RED ROCKER  
WITH FLEX OUTLET  
AND NEON  
**13 AMP**



|                  |          |                |          |                  |          |                |          |                  |          |
|------------------|----------|----------------|----------|------------------|----------|----------------|----------|------------------|----------|
| <b>K941KOBSS</b> | <b>1</b> | <b>K961BSS</b> | <b>1</b> | <b>K961D6BSS</b> | <b>1</b> | <b>K971BSS</b> | <b>5</b> | <b>K971D6BSS</b> | <b>5</b> |
| <b>K941KOBRC</b> | <b>1</b> | <b>K961BRC</b> | <b>1</b> | <b>K961D6BRC</b> | <b>1</b> | <b>K971BRC</b> | <b>1</b> | <b>K971D6BRC</b> | <b>5</b> |
|                  |          | <b>K961SAG</b> | <b>1</b> | <b>K961D6SAG</b> | <b>1</b> | <b>K971SAG</b> | <b>1</b> |                  |          |
|                  |          | <b>K961PCR</b> | <b>1</b> |                  |          | <b>K971PCR</b> | <b>1</b> |                  |          |

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE  
WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995  
Key (3405ZIC) is  
supplied.

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

# Albany Plus™



## Connection Units Unswitched

13 AMP

WITH NEON  
13 AMPWITH FLEX OUTLET AND NEON  
13 AMP

### FINISHES

|                         |         |   |         |   |         |   |
|-------------------------|---------|---|---------|---|---------|---|
| BRUSHED STAINLESS STEEL | K948BSS | 5 | K958BSS | 1 | K978BSS | 1 |
| BRUSHED CHROME          | K948BRC | 1 | K958BRC | 1 | K978BRC | 1 |
| SATIN GOLD              | K948SAG | 1 |         |   | K978SAG | 1 |
| POLISHED CHROME         | K948PCR | 1 |         |   | K978PCR | 1 |

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 1363-4:1995

## DP Switches

20 AMP



WITH NEON  
20 AMP



WITH FLEX OUTLET,  
RED ROCKER  
AND NEON  
20 AMP



WITH FLEX OUTLET  
AND NEON  
20 AMP



## High Current Switches

DP WITH NEON  
32 AMP



DP WITH NEON  
50 AMP



|                 |          |                 |          |                   |          |                 |          |                 |          |                 |          |
|-----------------|----------|-----------------|----------|-------------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K5213BSS</b> | <b>1</b> | <b>K5233BSS</b> | <b>1</b> | <b>K5233D6BSS</b> | <b>1</b> | <b>K5250BSS</b> | <b>1</b> | <b>K5106BSS</b> | <b>1</b> | <b>K5236BSS</b> | <b>1</b> |
| <b>K5213BRC</b> | <b>1</b> | <b>K5233BRC</b> | <b>1</b> | <b>K5233D6BRC</b> | <b>1</b> | <b>K5250BRC</b> | <b>1</b> | <b>K5106BRC</b> | <b>1</b> | <b>K5236BRC</b> | <b>1</b> |
|                 |          | <b>K5233SAG</b> | <b>1</b> |                   |          | <b>K5250SAG</b> | <b>1</b> | <b>K5106SAG</b> | <b>1</b> | <b>K5236SAG</b> | <b>1</b> |
|                 |          | <b>K5233PCR</b> | <b>1</b> |                   |          | <b>K5250PCR</b> | <b>1</b> | <b>K5106PCR</b> | <b>1</b> | <b>K5236PCR</b> | <b>1</b> |

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
866ZIC  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
866ZIC (6mm<sup>2</sup> conductors)  
877ZIC (10mm<sup>2</sup> conductors)  
SURFACE WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS EN 60669-1:1999

MOUNTING BOXES  
FLUSH  
886ZIC (6mm<sup>2</sup> conductors)  
878ZIC (10mm<sup>2</sup> conductors)  
SURFACE WITH KNOCKOUTS  
K897ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K830ALM  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS EN 60669-1:1999

DP Switches are not recommended for switching large banks of PCs



# Albany Plus™



## Cooker Control Unit

DP MAIN SWITCH  
AND 13 AMP  
SWITCHSOCKET  
OUTLET WITH NEONS

45 AMP

## Triple Pole & Neutral Switch

32 AMP

## Shaver/Toothbrush Supply Units

DUAL VOLTAGE  
115/230V OUTPUT  
220/240V INPUT  
50/60HZ

## Flex Outlets (NON UK)

## Plateswitches

SP  
2 WAY  
10 AMP



### FINISHES

| BRUSHED STAINLESS STEEL | K5261BSS | 1 | K5114BSS | 1 | K703BSS | 1 | K2240BSS | 1 | K4671BSS | 5 |
|-------------------------|----------|---|----------|---|---------|---|----------|---|----------|---|
| BRUSHED CHROME          | K5261BRC | 1 | K5114BRC | 1 | K703BRC | 1 | K2240BRC | 1 | K4671BRC | 1 |
| SATIN GOLD              | K5261SAG | 1 | K5114SAG | 1 | K703SAG | 1 |          |   | K4671SAG | 1 |
| POLISHED CHROME         | K5261PCR | 1 | K5114PCR | 1 | K703PCR | 1 |          |   | K4671PCR | 1 |

#### MOUNTING BOXES

##### FLUSH

866ZIC  
(Up to 6mm<sup>2</sup> conductor)  
878ZIC  
(Up to 10mm<sup>2</sup> conductor)  
Rotary operated shutter.

##### DIMENSIONS

86 x 146mm

##### FIXING CENTRES

120.6mm

BS 4177:1992

#### MOUNTING BOX

##### FLUSH

878ZIC

This product is rated at 440 volts with a motor load rating of up to 12kW – 16 HP at 415V 3 phase.

It has a utilisation category of AC22A – switching of mixed resistive and inductive loads including moderate overloads for a continuous duty of 32 amps. Making capacity is 2000 amps peak.

##### TERMINAL CAPACITY

16mm<sup>2</sup> conductors.

##### DIMENSIONS

146 x 86mm

BS EN 60947-3:1992

#### MOUNTING BOXES

##### FLUSH

878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and meets BS EN 61558-2-5:1998 making it safe for use in bathrooms.

Insertion of a shaver/toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

##### DIMENSIONS

146 x 86mm

##### FIXING CENTRES

120.6mm

BS EN 61558-2-5:1998

#### MOUNTING BOXES

##### FLUSH

866ZIC

##### SURFACE WITH KNOCKOUTS

K899ALM

##### SURFACE WITHOUT KNOCKOUTS

K829ALM

##### CABLE DIAMETER

Minimum 4mm

Maximum 14.5mm

##### DIMENSIONS

1 gang: 86 x 86mm

##### FIXING CENTRES

1 gang: 60.3mm

BS 5733:2010

#### MOUNTING BOXES

##### FLUSH

3995ZIC

##### SURFACE WITH KNOCKOUTS

K899ALM

##### SURFACE WITHOUT KNOCKOUTS

K829ALM

These switches do not have to be derated when used with fluorescent or inductive loads.

Switches can be wired as either one-way or two-way.

##### DIMENSIONS

86 x 86mm

##### FIXING CENTRES

60.3mm

BS EN 60669-1:1999

If an intermediate switch is required, a modular (Grid Plus) version is available. Order K3431 grid plate, K3701 grid frame and K4893WHI 20A intermediate switch

## 3 Pole Fan Isolator

2 GANG SP  
2 WAY  
10 AMP

3 GANG SP  
2 WAY  
10 AMP

1 GANG SP  
2 WAY  
WIDE ROCKER  
10 AMP

WITHOUT  
SWITCHLOCK  
10 AMP

SWITCHLOCK  
FOR FAN  
ISOLATOR



|                 |          |                 |          |                 |          |                 |          |              |           |
|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|--------------|-----------|
| <b>K4672BSS</b> | <b>1</b> | <b>K4673BSS</b> | <b>5</b> | <b>K4761BSS</b> | <b>5</b> | <b>K4860BSS</b> | <b>1</b> | <b>K4858</b> | <b>10</b> |
| <b>K4672BRC</b> | <b>1</b> | <b>K4673BRC</b> | <b>1</b> | <b>K4761BRC</b> | <b>1</b> | <b>K4860BRC</b> | <b>1</b> |              |           |
| <b>K4672SAG</b> | <b>1</b> | <b>K4673SAG</b> | <b>1</b> | <b>K4761SAG</b> | <b>1</b> | <b>K4860SAG</b> | <b>1</b> |              |           |
| <b>K4672PCR</b> | <b>1</b> | <b>K4673PCR</b> | <b>1</b> | <b>K4761PCR</b> | <b>1</b> | <b>K4860PCR</b> | <b>1</b> |              |           |

**MOUNTING BOXES**  
**FLUSH**  
3995ZIC  
**SURFACE**  
**WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT**  
**KNOCKOUTS**  
K829ALM

These switches do not have to be derated when used with fluorescent or inductive loads.

Switches can be wired as either one-way or two-way.

**DIMENSIONS**

86 x 86mm

**FIXING CENTRES**

60.3mm

BS EN 60669-1:1999

If an intermediate switch is required, a modular (Grid Plus) version is available. Order K3431 grid plate, K3701 grid frame and K4893WHI 20A intermediate switch

**MOUNTING BOXES**  
**FLUSH**  
3995ZIC  
**SURFACE**  
**WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT**  
**KNOCKOUTS**  
K829ALM

These switches do not have to be derated when used with fluorescent or inductive loads.

Switches can be wired as either one-way or two-way.

**DIMENSIONS**

86 x 86mm

**FIXING CENTRES**

60.3mm

BS EN 60669-1:1999

If an intermediate switch is required, a modular (Grid Plus) version is available. Order K3431 grid plate, K3701 grid frame and K4893WHI 20A intermediate switch

**MOUNTING BOXES**  
**FLUSH**  
3995ZIC  
**SURFACE**  
**WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT**  
**KNOCKOUTS**  
K829ALM

These switches do not have to be derated when used with fluorescent or inductive loads.

Switches can be wired as either one-way or two-way.

**DIMENSIONS**

86 x 86mm

**FIXING CENTRES**

60.3mm

BS EN 60669-1:1999

If an intermediate switch is required, a modular (Grid Plus) version is available. Order K3431 grid plate, K3701 grid frame and K4893WHI 20A intermediate switch

**MOUNTING BOXES**  
**FLUSH**  
3995ZIC  
**SURFACE**  
**WITH KNOCKOUTS**  
K899ALM  
**SURFACE WITHOUT**  
**KNOCKOUTS**  
K829ALM

For local isolation of fans with or without timers for repair or routine maintenance.

**DIMENSIONS**

86 x 86mm

**FIXING CENTRES**

60.3mm

BS EN 60669-2-4

For use with K4860

# Albany Plus™



## Standard Dimmer Switches

2 WAY SINGLE  
230V A.C. 50HZ  
40W MIN -  
250W MAX

2 WAY SINGLE  
230V A.C. 50HZ  
60W MIN -  
500W MAX

2 WAY DOUBLE  
230V A.C. 50HZ  
40W MIN - 250W  
MAX FOR EACH  
DIMMER

2 WAY DOUBLE  
230V A.C. 50HZ  
60W MIN - 450W  
MAX FOR EACH  
DIMMER

2 WAY TRIPLE  
230V A.C. 50HZ  
40W MIN - 250W  
MAX FOR EACH  
DIMMER

|                         |  |  |  |  |  |
|-------------------------|---|---|---|---|---|
| FINISHES                |   |   |   |   |   |
| BRUSHED STAINLESS STEEL | K1534BSS1   | K1551BSS1   | K1532BSS1   | K1552BSS1   | K1533BSS1   |
| BRUSHED CHROME          | K1534BRC1   | K1551BRC1   | K1532BRC1   | K1552BRC1   | K1533BRC1   |
| SATIN GOLD              | K1534SAG1   | K1551SAG1   | K1532SAG1   | K1552SAG1   | K1533SAG1   |
| POLISHED CHROME         | K1534PCR1   | K1551PCR1   | K1532PCR1   | K1552PCR1   | K1533PCR1   |

BS EN 60669-2-1, overload protected and are suitable for use with tungsten filament lamps only.

Two way dimmers use push on/push off switches.

**They are not suitable for use with fluorescent loads, LED or with electronic/wire-wound transformers in low voltage lighting systems.**

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

## Intelligent Dimmer Switches

2 WAY SINGLE  
230V A.C. 50HZ  
40W/VA MIN -  
300W/240VA  
MAX

2 WAY SINGLE  
230V A.C. 50HZ  
60W/VA MIN -  
500W/400VA  
MAX

2 WAY DOUBLE  
230V A.C. 50HZ  
40W/VA MIN -  
300W/240VA  
MAX

2 WAY DOUBLE  
230V A.C. 50HZ  
60W/VA MIN -  
450W/360VA MAX  
FOR EACH DIMMER

## Dimmer Switches

(NON UK)

200-240VA.C.  
50HZ OR 60HZ

1 GANG SINGLE  
ONE WAY  
75-500W 50HZ  
**FLUSH**

1 GANG SINGLE  
TWO WAY 100-  
1000W 50HZ  
**FLUSH**



|                     |                     |                     |                     |                   |                   |
|---------------------|---------------------|---------------------|---------------------|-------------------|-------------------|
| <b>K1536BSSLV</b> 1 | <b>K1551BSSLV</b> 1 | <b>K1532BSSLV</b> 1 | <b>K1552BSSLV</b> 1 | <b>K1541BSS</b> 1 | <b>K1561BSS</b> 1 |
| <b>K1536BRCLV</b> 1 | <b>K1551BRCLV</b> 1 | <b>K1532BRCLV</b> 1 | <b>K1552BRCLV</b> 1 | <b>K1541BRC</b> 1 | <b>K1561BRC</b> 1 |
| <b>K1536SAGLV</b> 1 | <b>K1551SAGLV</b> 1 | <b>K1532SAGLV</b> 1 | <b>K1552SAGLV</b> 1 | <b>K1541SAG</b> 1 | <b>K1561SAG</b> 1 |
| <b>K1536PCRLV</b> 1 | <b>K1551PCRLV</b> 1 | <b>K1532PCRLV</b> 1 | <b>K1552PCRLV</b> 1 | <b>K1541PCR</b> 1 | <b>K1561PCR</b> 1 |

BS EN 60669-2-1, 'state of the art' micro controller based circuitry to provide soft start and overload protection.

The soft start feature helps in greatly prolonging the life of tungsten, or halogen lamps.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases.

Please check with lamp manufacturer to determine suitability.

**Not suitable for use with fluorescent or LED loads.**

# Albany Plus™



## Blank Plates

1 GANG

2 GANG

## TV/FM Coaxial Socket Outlets

NON ISOLATED

ISOLATED

TWIN OUTLET  
WITH TV/FM  
DIPLEXER

### FINISHES

|                         |                 |           |                 |          |                 |          |                 |          |                 |          |
|-------------------------|-----------------|-----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| BRUSHED STAINLESS STEEL | <b>K3330BSS</b> | <b>10</b> | <b>K3329BSS</b> | <b>5</b> | <b>K3580BSS</b> | <b>5</b> | <b>K3581BSS</b> | <b>5</b> | <b>K3582BSS</b> | <b>5</b> |
| BRUSHED CHROME          | <b>K3330BRC</b> | <b>1</b>  | <b>K3329BRC</b> | <b>1</b> | <b>K3580BRC</b> | <b>1</b> | <b>K3581BRC</b> | <b>1</b> | <b>K3582BRC</b> | <b>1</b> |
| SATIN GOLD              | <b>K3330SAG</b> | <b>1</b>  | <b>K3329SAG</b> | <b>1</b> | <b>K3580SAG</b> | <b>1</b> | <b>K3581SAG</b> | <b>1</b> | <b>K3582SAG</b> | <b>1</b> |
| POLISHED CHROME         | <b>K3330PCR</b> | <b>1</b>  | <b>K3329PCR</b> | <b>1</b> | <b>K3580PCR</b> | <b>1</b> | <b>K3581PCR</b> | <b>1</b> | <b>K3582PCR</b> | <b>1</b> |

MOUNTING BOXES  
FLUSH  
1 gang: 866ZIC  
SURFACE  
WITH KNOCKOUTS  
1 gang: K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
DIMENSIONS  
86 x 86mm  
FIXING CENTRES  
60.3mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
2 gang: 886ZIC  
SURFACE  
WITH KNOCKOUTS  
2 gang: K897ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K830ALM  
DIMENSIONS  
86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:2010

MOUNTING BOXES  
FLUSH  
861ZIC  
SURFACE  
WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
K3580  
Single outlet for connection  
to a single TV or FM co-axial  
aerial lead

MOUNTING BOXES  
FLUSH  
861ZIC  
SURFACE  
WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
K3581  
Provides safety isolation rated  
at 2000Va.c. between aerial  
lead and socket. Single outlet  
for connection to a single TV  
or FM co-axial aerial lead

MOUNTING BOXES  
FLUSH  
861ZIC  
SURFACE  
WITH KNOCKOUTS  
K899ALM  
SURFACE WITHOUT  
KNOCKOUTS  
K829ALM  
K3582  
Provides safety isolation rated  
at 2000Va.c. between aerial  
lead and socket. Single outlet  
for connection to a single TV  
or FM co-axial aerial lead. Twin  
outlet with TV/FM

## Satellite Socket Outlets

SINGLE OUTLET  
F TYPE SATELLITE  
SOCKET



|                 |          |
|-----------------|----------|
| <b>K3585BSS</b> | <b>1</b> |
| <b>K3585BRC</b> | <b>1</b> |
| <b>K3585SAG</b> | <b>1</b> |
| <b>K3585PCR</b> | <b>1</b> |

**DIMENSIONS**  
86 x 86mm  
**FIXING CENTRES**  
60.3mm  
IEC 169-2:1965  
BS 5733:2010 where applicable

## Floor Mounted Euro Frames

1 GANG STANDARD



|               |          |
|---------------|----------|
| <b>790BSS</b> | <b>1</b> |
| <b>790BRC</b> | <b>1</b> |
| <b>790SAG</b> | <b>1</b> |

**MOUNTING BOXES**  
**FLUSH**  
1 gang: 866ZIC  
Boxes must have a minimum depth of 35mm  
**DIMENSIONS**  
1 gang: 102 x 86mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
**NOTE**  
Use 'F' type connectors with recessed euro frame products. This ensures full lid closure when the aerial lead is disconnected. Power sockets must only be used with the standard Euro Frame products as the recessed type may NOT allow full plug engagement. BS 5733:2010  
For a complete selection of Euro modules, see pages 44-46.

1 GANG RECESSED



|               |          |
|---------------|----------|
| <b>791BSS</b> | <b>1</b> |
| <b>791BRC</b> | <b>1</b> |
| <b>791SAG</b> | <b>1</b> |

**MOUNTING BOXES**  
**FLUSH**  
1 gang: 866ZIC  
Boxes must have a minimum depth of 35mm  
**DIMENSIONS**  
1 gang: 102 x 86mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
**NOTE**  
Use 'F' type connectors with recessed euro frame products. This ensures full lid closure when the aerial lead is disconnected. Power sockets must only be used with the standard Euro Frame products as the recessed type may NOT allow full plug engagement. BS 5733:2010  
For a complete selection of Euro modules, see pages 44-46.

2 GANG STANDARD



|               |          |
|---------------|----------|
| <b>795BSS</b> | <b>1</b> |
| <b>795BRC</b> | <b>1</b> |
| <b>795SAG</b> | <b>1</b> |

**MOUNTING BOXES**  
**FLUSH**  
2 gang: 886ZIC  
Boxes must have a minimum depth of 35mm  
**DIMENSIONS**  
2 gang: 102 x 146mm  
**FIXING CENTRES**  
2 gang: 120.6mm  
**NOTE**  
Use 'F' type connectors with recessed euro frame products. This ensures full lid closure when the aerial lead is disconnected. Power sockets must only be used with the standard Euro Frame products as the recessed type may NOT allow full plug engagement. BS 5733:2010  
For a complete selection of Euro modules, see pages 44-46.

2 GANG RECESSED



|               |          |
|---------------|----------|
| <b>796BSS</b> | <b>1</b> |
| <b>796BRC</b> | <b>1</b> |
| <b>796SAG</b> | <b>1</b> |

**MOUNTING BOXES**  
**FLUSH**  
2 gang: 886ZIC  
Boxes must have a minimum depth of 35mm  
**DIMENSIONS**  
2 gang: 102 x 146mm  
**FIXING CENTRES**  
2 gang: 120.6mm  
**NOTE**  
Use 'F' type connectors with recessed euro frame products. This ensures full lid closure when the aerial lead is disconnected. Power sockets must only be used with the standard Euro Frame products as the recessed type may NOT allow full plug engagement. BS 5733:2010  
For a complete selection of Euro modules, see pages 44-46.

Fully screened modular  
TV/Satellite outlets are  
available to fit  
Euro frontplates.  
See page 46 for details.

# Albany Plus™



## Euro Modular Frontplates

EURO  
1 MODULE  
25 X 50MM



EURO  
2 MODULE  
50 X 50MM



EURO  
4 MODULE  
100 X 50MM



## LJU6C Datacom Frontplate

1 GANG  
2 MODULE  
22 X 37MM



| FINISHES                |         |   |         |   |         |   |         |   |
|-------------------------|---------|---|---------|---|---------|---|---------|---|
| BRUSHED STAINLESS STEEL | K181BSS | 5 | K182BSS | 5 | K184BSS | 5 | K172BSS | 5 |
| BRUSHED CHROME          | K181BRC | 1 | K182BRC | 1 | K184BRC | 1 | K172BRC | 1 |
| SATIN GOLD              | K181SAG | 1 | K182SAG | 1 | K184SAG | 1 | K172SAG | 1 |
| POLISHED CHROME         | K181PCR | 5 | K182PCR | 5 | K184PCR | 5 | K172PCR | 5 |

### DIMENSIONS

86 x 86mm  
BS 5733:2010

### NOTE

Euro Data Frontplates: no grid required, modules just clip into place.

### DIMENSIONS

86 x 86mm  
BS 5733:2010

### NOTE

Euro Data Frontplates: no grid required, modules just clip into place.

### DIMENSIONS

86 x 146mm  
BS 5733:2010

### NOTE

Euro Data Frontplates: no grid required, modules just clip into place.

### DIMENSIONS

86 x 86mm  
BS 5733:2010

### NOTE

LJU6C Data Frontplates: no grid required, modules just clip into place.

For a complete selection of Euro modules and more information see pages 46-48.



## Euro Power Modules

UK 250V  
2 MODULE  
50 X 50MM  
13 AMP

GERMAN  
2P+E 250V  
SHUTTERED  
2 MODULE  
(NON UK)  
16 AMP

AMERICAN  
127V SHUTTERED  
2 MODULE  
50 X 50MM  
(NON UK)  
15 AMP

UK 250V SHUTTERED  
2 MODULE  
50 X 50MM  
5 AMP

FRENCH/BELGIAN  
2P+E  
250V SHUTTERED  
2 MODULE  
50 X 50MM  
(NON UK)  
16 AMP



**K5830SAWHI**  
**K5830BLK**

10  
10

**K5831WHI**  
**K5831BLK**

10  
10

**K5832WHI**  
**K5832BLK**

10  
10

**K5833WHI**  
**K5833BLK**

10  
10

**K5834WHI**  
**K5834BLK**

10  
10

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space).  
DIMENSIONS  
50 x 50mm  
BS 1363 Part 2:1995

MOUNTING BOX  
46mm  
DIMENSIONS  
50 x 50mm  
IEC 60884-1:2006

MOUNTING BOX  
35mm  
46mm (for extra wiring space)  
DIMENSIONS  
50 x 50mm  
SASO 2204:2003

MOUNTING BOX  
35mm minimum  
46mm (for extra wiring space).  
DIMENSIONS  
50 x 50mm  
BS 546:1950

MOUNTING BOX  
46mm  
DIMENSIONS  
50 x 50mm  
NF C61-314

# Albany Plus™



## Euro Power Modules

USB CHARGING  
2 MODULE  
50 X 50MM



## Grid Plus Modular Frontplates (SUPPLIED WITH GRIDS)

1 MODULE

2 MODULE

3 MODULE



### FINISHES

BRUSHED STAINLESS STEEL

BRUSHED CHROME

SATIN GOLD

POLISHED CHROME

K5837WHI  
K5837BLK

1

1

K3431BSS

10

K3431BRC

1

K3431SAG

1

K3431PCR

1

K3432BSS

10

K3432BRC

1

K3432SAG

1

K3432PCR

1

K3433BSS

5

K3433BRC

1

K3433SAG

1

K3433PCR

1

USB charging sockets, each capable of  
supporting 2A charge (total of 2A)

K5837 MOUNTING BOX  
Minimum Box depth 35mm  
46mm for extra wiring space  
IEC 60950-1  
IEC 61000-6-1/3

DIMENSIONS  
86 x 86mm  
BS 5733:2010

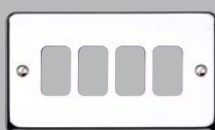
DIMENSIONS  
86 x 86mm  
BS 5733:2010

DIMENSIONS  
86 x 146mm  
BS 5733:2010

Mains operated products and  
extra low voltage modules  
must not be installed within  
the same frontplate.  
Refer to BS 7671:2008 for  
details.

For a complete selection of Grid Plus switch modules see Grid Plus pages 189-207.

## 4 MODULE



## 6 MODULE



## 8 MODULE



|                 |          |                 |          |                 |          |
|-----------------|----------|-----------------|----------|-----------------|----------|
| <b>K3434BSS</b> | <b>5</b> | <b>K3436BSS</b> | <b>1</b> | <b>K3438BSS</b> | <b>1</b> |
| <b>K3434BRC</b> | <b>1</b> | <b>K3436BRC</b> | <b>1</b> | <b>K3438BRC</b> | <b>1</b> |
| <b>K3434SAG</b> | <b>1</b> | <b>K3436SAG</b> | <b>1</b> | <b>K3438SAG</b> | <b>1</b> |
| <b>K3434PCR</b> | <b>1</b> | <b>K3436PCR</b> | <b>1</b> | <b>K3438PCR</b> | <b>1</b> |

DIMENSIONS  
86 x 146mm  
BS 5733:2010

DIMENSIONS  
146 x 146mm  
BS 5733:2010

DIMENSIONS  
146 x 146mm  
BS 5733:2010

For a complete selection of Grid Plus switch modules see Grid Plus pages 189-207.

# Albany Plus™



## Grid Plus Modular Frontplates (SUPPLIED WITH GRIDS)

9 MODULE

12 MODULE

18 MODULE

24 MODULE

### FINISHES

|                         |                 |          |                 |          |                 |          |                 |          |
|-------------------------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|
| BRUSHED STAINLESS STEEL | <b>K3439BSS</b> | <b>1</b> | <b>K3442BSS</b> | <b>1</b> | <b>K3448BSS</b> | <b>1</b> | <b>K3454BSS</b> | <b>1</b> |
| BRUSHED CHROME          | <b>K3439BRC</b> | <b>1</b> | <b>K3442BRC</b> | <b>1</b> | <b>K3448BRC</b> | <b>1</b> | <b>K3454BRC</b> | <b>1</b> |
| SATIN GOLD              | <b>K3439SAG</b> | <b>1</b> | <b>K3442SAG</b> | <b>1</b> | <b>K3448SAG</b> | <b>1</b> | <b>K3454SAG</b> | <b>1</b> |
| POLISHED CHROME         | <b>K3439PCR</b> | <b>1</b> | <b>K3442PCR</b> | <b>1</b> | <b>K3448PCR</b> | <b>1</b> | <b>K3454PCR</b> | <b>1</b> |

DIMENSIONS  
9 module: 206 x 146mm  
BS 5733:2010

DIMENSIONS  
206 x 146mm  
BS 5733:2010

DIMENSIONS  
206 x 206mm  
BS 5733:2010

DIMENSIONS  
206 x 207mm  
BS 5733:2010

For a complete selection of Grid Plus switch modules see Grid Plus pages 189-207.





# GRID PLUS

## RANGE INTRODUCTION

Grid Plus is a modular switching and monitoring system in a choice of attractive finishes to match complementary accessory ranges.

The comprehensive range of modules includes switches, indicators, dimmers, secret key switches, printed switches and buzzer units – making it the ideal system for commercial and public building applications.

Easy to fit and change, Grid Plus modules simply clip into place from the front of the mounting frame.

### HOW TO SPECIFY

A modular switching and monitoring wiring device system. Modules to have a simple 'clip fit' mechanism to hold them to the mounting frame, which do not require specialist tools and are fitted in to place from the front. Accompanying front plates must be able to hold up to 24 modules in a variety of aesthetics and finishes. All products must be made in the UK and provided with a 20 year guarantee.

## FEATURES & BENEFITS

### VAST RANGE

Comprehensive range of frontplates and grid modules from a single manufacturer making the range flexible and suitable for more installations.

### EASE OF INSTALLATION

Grid modules 'clip fit' to the frame without any requirement for special tools. They can be moved, removed or replaced whilst the frame is fitted to the box making installation or replacement speedy and simple.

### DURABILITY

Grid frames are made from pre-galvanised steel to provide extra high corrosion resistance, preventing tarnishing and ensuring the longevity of the product.

### SAFETY

Grid frames earth terminal capacity exceeds current standards for total safety assurance. All products are 100% tested before delivery for confidence of a 'fit and forget' installation. 20 year guarantee (10 years for electronic devices).

# Grid Plus









## Blank Inserts

1 MODULE

## Switch Modules 10 Amp

1 WAY SP  
10 AMP1 WAY DP  
10 AMP2 WAY SP  
10 AMP2 WAY  
RETRACTIVE  
SWITCH SP  
10 AMP2 WAY  
RED  
RETRACTIVE  
SWITCH SP  
10 AMP

| FINISHES |  |  |  |  |  |  |
|----------|---|---|---|--|---|---|
|          |   |   |   |  |   |   |
| WHITE    | K4880WHI 10   | K4881WHI 10   | K4981WHI 10   | K4882WHI 10  | K4885WHI 10   | K4885RED 1  |
| BLACK    | K4880BLK 10   | K4881BLK 10   | K4981BLK 10   | K4882BLK 1   | K4885BLK 10   | K4885REDB 1   |
| GRAPHITE | K4880GRA 10   | K4881GRA 10   |   | K4882GRA 10  |   |   |

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not designed for fluorescent loads.  
BS EN 60669-1:1999

B suffix on the list number denotes black inserts

2 WAY  
RETRACTIVE  
SWITCH  
MARKED WITH  
BELL SYMBOL SP  
**10 AMP**

2 WAY  
RETRACTIVE  
SWITCH MARKED  
'PRESS' SP  
**10 AMP**

2 WAY  
CENTRE OFF  
RETRACTIVE  
SWITCH SP  
**10 AMP**

## Switch Modules 20 Amp

1 WAY SP  
**20 AMP**

1 WAY PUSH TO  
MAKE DP  
**20 AMP**

1 WAY  
RED ROCKER  
PUSH TO MAKE DP  
**20 AMP**



|                  |          |                  |           |                 |           |                 |           |                 |           |                  |           |
|------------------|----------|------------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|------------------|-----------|
| <b>K4885BWHI</b> | <b>1</b> | <b>K4885PWHI</b> | <b>10</b> | <b>K4900WHI</b> | <b>10</b> | <b>K4891WHI</b> | <b>10</b> | <b>K4910WHI</b> | <b>10</b> | <b>K4910RED</b>  | <b>10</b> |
| <b>K4885BBLK</b> | <b>1</b> | <b>K4885PBLK</b> | <b>1</b>  | <b>K4900BLK</b> | <b>10</b> | <b>K4891BLK</b> | <b>10</b> | <b>K4910BLK</b> | <b>10</b> | <b>K4910REDB</b> | <b>1</b>  |
|                  |          |                  |           |                 |           | <b>K4891GRA</b> | <b>10</b> |                 |           |                  |           |

**NOTE**  
Push switches are not  
designed for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

These switches do NOT have  
to be derated when used with  
fluorescent or inductive loads.  
BS EN 60669-1:1999

**NOTE**  
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for fluorescent loads.  
BS EN 60669-1:1999

**NOTE**  
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designed for fluorescent loads.  
BS EN 60669-1:1999

B suffix on the list  
number denotes  
black inserts



# Grid Plus



## Switch Modules 20 Amp

1 WAY  
PUSH TO  
BREAK  
RETRACTIVE DP  
20 AMP







1 WAY  
RED ROCKER  
PUSH TO BREAK  
RETRACTIVE DP  
20 AMP

2 WAY SP  
20 AMP

2 WAY  
RED ROCKER SP  
20 AMP

2 WAY  
SWITCH WITH  
INTEGRAL  
NEON  
LOCATOR SP  
20 AMP

2 WAY  
AND CENTRE  
OFF SP  
20 AMP

| FINISHES |  |  |  |  |  |  |
|----------|---|---|---|--|---|---|
|          |   |   |   |  |   |   |
| WHITE    | K4915WHI 10   | K4915RED 10   | K4892WHI 10   | K4892RED 10  | K4892LWHI 10  | K4899WHI 10   |
| BLACK    | K4915BLK 10   | K4915REDB 1   | K4892BLK 10   | K4892REDB 1  | K4892LBLK 1   | K4899BLK 10   |
| GRAPHITE |   |   |   |  |   |   |

**NOTE**  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

**NOTE**  
Push switches are not  
designed for fluorescent  
loads.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

These switches do NOT  
have to be derated when  
used with fluorescent or  
inductive loads.  
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inductive loads.  
BS EN 60669-1:1999

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have to be derated when  
used with fluorescent or  
inductive loads.  
BS EN 60669-1:1999

B suffix on the list  
number denotes  
black inserts

B suffix on the list  
number denotes  
black inserts

RED ROCKER  
2 WAY AND  
CENTRE OFF SP  
20 AMP

INTERMEDIATE  
20 AMP

INTERMEDIATE  
RED ROCKER  
20 AMP

1 WAY DP  
20 AMP

1 WAY  
NEON DP  
20 AMP

1 WAY  
WITH WINDOW DP  
20 AMP



|                    |                    |                     |                    |                    |                     |
|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|
| <b>K4899RED</b> 10 | <b>K4893WHI</b> 10 | <b>K4893RED</b> 10  | <b>K4896WHI</b> 10 | <b>K4896NWHI</b> 1 | <b>K4896WWHI</b> 10 |
| <b>K4899REDB</b> 1 | <b>K4893BLK</b> 10 | <b>K4893REDB</b> 10 | <b>K4896BLK</b> 10 | <b>K4896NBLK</b> 1 | <b>K4896WBLK</b> 10 |
|                    |                    |                     | <b>K4896GRA</b> 10 | <b>K4896NGRA</b> 1 |                     |

These switches do NOT have to be derated when used with fluorescent or inductive loads. BS EN 60669-1:1999

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B suffix on the list number denotes black inserts

B suffix on the list number denotes black inserts

# Grid Plus



## Switch Modules 20 Amp

1 WAY  
RED ROCKER DP  
20 AMP



## Printed Modules with and without Neon

1 WAY  
BOILER DP  
20 AMP



1 WAY  
BOILER  
NEON DP  
20 AMP



1 WAY  
DISHWASHER DP  
20 AMP



1 WAY  
DISHWASHER  
NEON DP  
20 AMP



### FINISHES

WHITE

K4896RED

10

K4896BRWHI

1

K4896NBRWHI

1

K4896DWWHI

1

K4896NDWWHI

1

BLACK

K4896REDB

1

K4896BRBLK

1

K4896NBRBLK

1

K4896DWBLK

1

K4896NDWBLK

1

These switches do NOT have  
to be derated when used with  
fluorescent or inductive loads.  
BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

1 WAY  
COOKER HOOD DP  
20 AMP

1 WAY  
COOKER HOOD  
NEON DP  
20 AMP

1 WAY  
FAN DP  
20 AMP

1 WAY FAN  
NEON DP  
20 AMP

1 WAY  
FRIDGE DP  
20 AMP



|                     |                      |                     |                      |                     |
|---------------------|----------------------|---------------------|----------------------|---------------------|
| <b>K4896CHWHI</b> 1 | <b>K4896NCHWHI</b> 1 | <b>K4896FNWHI</b> 1 | <b>K4896NFNWHI</b> 1 | <b>K4896FGWHI</b> 1 |
| <b>K4896CHBLK</b> 1 | <b>K4896NCHBLK</b> 1 | <b>K4896FNBLK</b> 1 | <b>K4896NFNBLK</b> 1 | <b>K4896FGBLK</b> 1 |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

# Grid Plus



## Printed Modules with and without Neon






1 WAY  
FRIDGE  
NEON DP  
20 AMP

1 WAY  
FREEZER DP  
20 AMP

1 WAY  
FREEZER  
NEON DP  
20 AMP

1 WAY  
FRIDGE  
FREEZER DP  
20 AMP

1 WAY  
FRIDGE FREEZER  
NEON DP  
20 AMP

| FINISHES     |  |  |  |  |  |
|--------------|---|---|---|---|---|
|              | <b>WHITE</b>  | <b>WHITE</b>  | <b>WHITE</b>  | <b>WHITE</b>  | <b>WHITE</b>  |
|              | <b>K4896NFGWHI</b> 1  | <b>K4896FZWHI</b> 1   | <b>K4896NFZWHI</b> 1  | <b>K4896FFWHI</b> 1   | <b>K4896NFFWHI</b> 1  |
| <b>BLACK</b> | <b>BLACK</b>  | <b>BLACK</b>  | <b>BLACK</b>  | <b>BLACK</b>  | <b>BLACK</b>  |
|              | <b>K4896NFGBLK</b> 1  | <b>K4896FZBLK</b> 1   | <b>K4896NFZBLK</b> 1  | <b>K4896FFBLK</b> 1   | <b>K4896NFFBLK</b> 1  |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

1 WAY  
WASTE  
DISPOSAL DP  
20 AMP

1 WAY  
WASTE DISPOSAL  
NEON DP  
20 AMP

1 WAY  
WASHING  
MACHINE DP  
20 AMP

1 WAY  
WASHING  
MACHINE  
NEON DP  
20 AMP

1 WAY  
TUMBLE  
DRYER DP  
20 AMP

1 WAY  
TUMBLE DRYER  
NEON DP  
20 AMP



|                     |                      |                     |                      |                     |                      |
|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| <b>K4896WDWHI</b> 1 | <b>K4896NWDWHI</b> 1 | <b>K4896WMWHI</b> 1 | <b>K4896NWMWHI</b> 1 | <b>K4896TDWHI</b> 1 | <b>K4896NTDWHI</b> 1 |
| <b>K4896WDBLK</b> 1 | <b>K4896NWDBLK</b> 1 | <b>K4896WMBLK</b> 1 | <b>K4896NWMBLK</b> 1 | <b>K4896TDBLK</b> 1 | <b>K4896NTDBLK</b> 1 |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

# Grid Plus



## Printed Modules with and without Neon

1 WAY  
WASHER DRYER DP  
20 AMP

1 WAY  
WASHER DRYER  
NEON DP  
20 AMP

1 WAY  
MICROWAVE DP  
20 AMP

1 WAY  
MICROWAVE  
NEON DP  
20 AMP

1 WAY  
HEATER DP  
20 AMP

| FINISHES |  |  |  |  |  |
|----------|---|---|---|---|---|
|          | WHITE   | WHITE   | WHITE   | WHITE   | WHITE   |
| WHITE    | K4896WDRWHI 1   | K4896NWDRWHI 1  | K4896MWWHI 1  | K4896NMWWHI 1   | K4896HRWHI 1  |
| BLACK    | K4896WDRBLK 1   | K4896NWDRBLK 1  | K4896MWBLK 1  | K4896NMWBLK 1   | K4896HRBLK 1  |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999



1 WAY  
HEATER  
NEON DP  
20 AMP

1 WAY  
OVEN DP  
20 AMP

1 WAY  
OVEN NEON DP  
20 AMP

1 WAY  
HOB DP  
20 AMP

1 WAY  
HOB NEON DP  
20 AMP

1 WAY  
IMMERSION  
HEATER DP  
20 AMP



|                      |                     |                      |                     |                      |                     |
|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| <b>K4896NHRWHI</b> 1 | <b>K4896OVWHI</b> 1 | <b>K4896NOVWHI</b> 1 | <b>K4896HBWHI</b> 1 | <b>K4896NHBWHI</b> 1 | <b>K4896IHWHI</b> 1 |
| <b>K4896NHRBLK</b> 1 | <b>K4896OVBLK</b> 1 | <b>K4896NOVBLK</b> 1 | <b>K4896HBBLK</b> 1 | <b>K4896NHBLK</b> 1  | <b>K4896IHBLK</b> 1 |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

# Grid Plus



## Printed Modules with and without Neon

1 WAY  
IMMERSION  
HEATER NEON DP  
20 AMP

1 WAY  
PLINTH HEATER DP  
20 AMP

1 WAY  
PLINTH HEATER  
NEON DP  
20 AMP

1 WAY  
WORKTOP  
LIGHTING DP  
20 AMP

1 WAY  
WORKTOP  
LIGHTING  
NEON DP  
20 AMP

| FINISHES |  |  |  |  |  |
|----------|---|---|---|---|---|
|          |   |   |   |   |   |
| WHITE    | <b>K4896NIHWHI</b> 1  | <b>K4896PHWHI</b> 1   | <b>K4896NPHWHI</b> 1  | <b>K4896WLWHI</b> 1   | <b>K4896NWLWHI</b> 1  |
| BLACK    |   | <b>K4896PHBLK</b> 1   |   | <b>K4896WLBLK</b> 1   | <b>K4896NWLBLK</b> 1  |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

1 WAY  
WINE COOLER DP  
20 AMP

1 WAY  
WINE COOLER  
NEON DP  
20 AMP

1 WAY  
WARMING  
DRAWER DP  
20 AMP

1 WAY  
WARMING  
DRAWER NEON DP  
20 AMP

1 WAY  
COFFEE  
MACHINE DP  
20 AMP

1 WAY  
COFFEE MACHINE  
NEON DP  
20 AMP



|                     |                      |                      |                       |                     |                      |
|---------------------|----------------------|----------------------|-----------------------|---------------------|----------------------|
| <b>K4896WCWHI</b> 1 | <b>K4896NWCWHI</b> 1 | <b>K4896WDAWHI</b> 1 | <b>K4896NWDAWHI</b> 1 | <b>K4896CMWHI</b> 1 | <b>K4896NCMWHI</b> 1 |
| <b>K4896WCBLK</b> 1 | <b>K4896NWCBLK</b> 1 | <b>K4896WDABLK</b> 1 | <b>K4896NWDABLK</b> 1 | <b>K4896CMBLK</b> 1 | <b>K4896NCMBLK</b> 1 |

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

BS EN 60669-1:1999

# Grid Plus



## Secret Key Switch Modules






INTERMEDIATE  
SECRET KEY  
SWITCH  
20 AMP

2 WAY  
SECRET KEY  
SWITCH SP  
20 AMP

2 WAY  
SECRET KEY  
SWITCH MARKED  
'EMG LTG TEST' SP  
20 AMP

1 WAY  
SECRET KEY  
SWITCH DP  
20 AMP

EMERGENCY  
LIGHTING DP  
20 AMP

| FINISHES |  |  |  |  |  |
|----------|---|---|---|---|---|
|          | WHITE   | BLACK   | WHITE   | WHITE   | WHITE   |
| WHITE    | K4894WHI 10   | K4898WHI 10   | K4898ELWHI 10   | K4917WHI 10   | K4917ELWHI 10   |
| BLACK    | K4894BLK 1  | K4898BLK 1  | K4898ELBLK 1  | K4917BLK 1  |   |

These switches do NOT have to be derated when used with fluorescent or inductive loads. BS EN 60669-1:1999 Key (3405ZIC) is supplied.

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These switches do NOT have to be derated when used with fluorescent or inductive loads. BS EN 60669-1:1999 Key (3405ZIC) is supplied.

2 WAY  
SECRET KEY  
SWITCH (BIASED  
1 WAY) SP  
**20 AMP**

## Indicator Unit Modules

200-250V  
NEON

200-250V  
NEON

200-250V  
FLUORESCENT

21-36V  
FILAMENT

21-36V  
FILAMENT



|                 |           |                  |           |                 |           |                 |           |                 |           |                 |           |
|-----------------|-----------|------------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
| <b>K4918WHI</b> | <b>10</b> | <b>K4889RED</b>  | <b>10</b> | <b>K4889AMB</b> | <b>10</b> | <b>K4889GRN</b> | <b>10</b> | <b>K4836RED</b> | <b>10</b> | <b>K4836AMB</b> | <b>10</b> |
| <b>K4918BLK</b> | <b>10</b> | <b>K4889REDB</b> | <b>1</b>  |                 |           |                 |           |                 |           |                 |           |

These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999  
Key (3405ZIC) is supplied.

BS 5733:2010

BS 5733:2010

BS 5733:2010

BS 5733:2010

BS 5733:2010

B suffix on the list  
number denotes black  
inserts

Will Operate On Both A.C. And D.C

# Grid Plus



## Indicator Unit Modules

21-36V  
FILAMENT

## Dimmer Switch Modules

TUNGSTEN FILAMENT AND LOW VOLTAGE LIGHTING

40W/VA-220W/  
180VA MAX  
230V A.C., 50HZ  
1 MODULE

60W/VA-400W/  
320VA MAX  
230V A.C., 50HZ  
2 MODULE

0-10V/1-10V  
FLUORESCENT  
CONTROLLER  
1 MODULE

40-220W/180VA/  
4-70W  
LED INTELLIGENT  
DIMMER  
1 MODULE

| FINISHES |   |   |   |   |   |
|----------|---|---|---|---|---|
| WHITE    |  |  |  |  |  |
|          | <b>K4836GRN</b> 10  | <b>K4501WHILV</b> 1   | <b>K4500WHILV</b> 1   | <b>K4499WHI</b> 1   | <b>K4511WHILV</b> 1   |
| BLACK    |   | <b>K4501BLKLV</b> 1   | <b>K4500BLKLV</b> 1   | <b>K4499BLK</b> 1   | <b>K4511BLKLV</b> 1   |

BS 5733:2010

These dimmers employ the latest microcontroller based circuitry to provide electronic soft start and overload protection. Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

K4501WHI/BLK Max. No. of low voltage T/F's – 3

K4500WHI/BLK Max. No. of low voltage T/F's – 5

**Not suitable for fluorescent loads.**

All dimmers have push on – push off, 2 way switches, integral with rotary control.

### NOTE

Refer to technical section for derating.

Conform to BS EN 60669-2-1 and BS EN 55015

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.

K4511WHILV 1 Module 2 Way 40-220W/180VA/4-70W LED Intelligent Dimmer.

K4511BLKLV 1 Module 2 Way 40-220W/180VA/4-70W LED Intelligent Dimmer.

Will Operate On Both  
A.C. And D.C

## Accessory Modules

SINGLE TV  
CO-AXIAL  
OUTLET  
NON-ISOLATED

SINGLE TV  
CO-AXIAL  
OUTLET  
ISOLATED

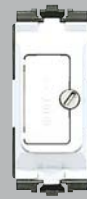
200-250V A.C.  
BUZZER UNIT

21-36V A.C.  
BUZZER UNIT

16A  
CORD  
OUTLET

13A  
FUSE UNIT

13A  
FUSE UNIT WITH  
TAMPERPROOF  
SCREW



**K4520WHI 10**

**K4521WHI 10**

**K4000WHI 10**

**K4001WHI 10**

**K4886WHI 10**

**K4890WHI 10**

**K4890KOWHI 10**

**K4520BLK 10**

**K4521BLK 10**

**K4886BLK 10**

**K4890BLK 10**

**K4890KOBK 10**

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V. BS 3041:1977 IEC 169-2:1965 BS 5733:2010 where applicable.

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V. BS 3041:1977 IEC 169-2:1965 BS 5733:2010 where applicable.

**SOUND OUTPUT LEVEL**  
Av 61 db @ 15 feet.  
BS 5733:2010

**SOUND OUTPUT LEVEL**  
Av 61 db @ 15 feet.  
BS 5733:2010

Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm<sup>2</sup> or 1 x 4mm<sup>2</sup> solid conductors. The load terminals are suitable for one 1.5mm<sup>2</sup> flexible cord. A cord grip is also fitted.  
BS 5733:2010

Fuse carrier comes with 13A cartridge fuse link to BS 1362.  
BS 5733:2010



Fuse carrier comes with 13A cartridge fuse link to BS 1362.  
BS 5733:2010  
Key (3405ZIC) is supplied.















## Grid Plus



## SELECTION CHART

|   | 1              | 2              | 3              | 4              | 6                  |  |
|---|---|---|---|---|---|--|
|   | COVER PLATES  |   |   |   |   |  |
| LOGIC PLUS™   | K3631WHI/GRA 10   | K3632WHI/GRA 10   | K3633WHI/GRA 10   | K3634WHI/GRA 10   | K3636WHI/GRA 1  |  |
| METALCLAD PLUS™   | K3491ALM 10   | K3492ALM 10   | K3493ALM 5  | K3494ALM 5  | K3496ALM 1  |  |
| ALBANY PLUS™<br>SEE ALBANY PLUS PG 167                        | K3431 1   | K3432 1   | K3433 1   | K3434 1   | K3436 1   |  |
| INSIGNIA<br>SEE INSIGNIA PG 130                               | K14331 1  | K14332 1  | K14333 1  | K14334 1  | K14346 1  |  |
| ASPECT<br>SEE ASPECT PG 98                                    | K24331 1  | K24332 1  | K24333 1  | K24334 1  | K24346 1  |  |
|   | BOXES   |   |   |   |   |  |
| LOGIC PLUS<br>FLUSH   | 891ALM 10<br>2 X 20MM KNOCKOUTS   | 891ALM 10<br>2 X 20MM KNOCKOUTS   | 892ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  | 892ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  | 893ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  |  |
|   | 821ALM 10<br>WITHOUT KNOCKOUTS  | 821ALM 10<br>WITHOUT KNOCKOUTS  | 822ALM 5<br>WITHOUT KNOCKOUTS   | 822ALM 5<br>WITHOUT KNOCKOUTS   | 823ALM 5<br>WITHOUT KNOCKOUTS   |  |
| LOGIC PLUS<br>SURFACE METAL                                   | K2213ALM 5<br>5 X 20MM KNOCKOUTS  | K2213ALM 5<br>5 X 20MM KNOCKOUTS  | K2214ALM 5<br>7 X 20MM KNOCKOUTS  | K2214ALM 5<br>7 X 20MM KNOCKOUTS  |   |  |
|   | K2211ALM 5<br>WITHOUT KNOCKOUTS   | K2211ALM 5<br>WITHOUT KNOCKOUTS   | K2212ALM 5<br>WITHOUT KNOCKOUTS   | K2212ALM 5<br>WITHOUT KNOCKOUTS   |   |  |
| LOGIC PLUS<br>SURFACE MOULDED                                 | K2140WHI 10<br>WITHOUT KNOCKOUTS  | K2140WHI 10<br>WITHOUT KNOCKOUTS  | K2142WHI 5<br>WITHOUT KNOCKOUTS   | K2142WHI 5<br>WITHOUT KNOCKOUTS   |   |  |
| LOGIC PLUS<br>SURFACE PVC                                     | K2181WHI 10<br>WITHOUT KNOCKOUTS  | K2181WHI 10<br>WITHOUT KNOCKOUTS  | K2183WHI 5<br>WITHOUT KNOCKOUTS   | K2183WHI 5<br>WITHOUT KNOCKOUTS   |   |  |
| METALCLAD PLUS<br>& ALBANY PLUS<br>SURFACE                    | K8891ALM 10<br>5 X 20MM KNOCKOUTS   | K8891ALM 10<br>5 X 20MM KNOCKOUTS   | K8892ALM 5<br>7 X 20MM KNOCKOUTS  | K8892ALM 5<br>7 X 20MM KNOCKOUTS  | K8893ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  |  |
|   | K8821ALM 10<br>WITHOUT KNOCKOUTS  | K8821ALM 10<br>WITHOUT KNOCKOUTS  | K8822ALM 5<br>WITHOUT KNOCKOUTS   | K8822ALM 5<br>WITHOUT KNOCKOUTS   | K8823ALM 1<br>WITHOUT KNOCKOUTS   |  |
|   | K8901ALM 5<br>DEEP BOX<br>5 X 20MM KNOCKOUTS  | K8901ALM 5<br>DEEP BOX<br>5 X 20MM KNOCKOUTS  | K8902ALM 5<br>DEEP BOX<br>4 X 20MM, 4 X 25MM KNOCKOUTS  | K8902ALM 5<br>DEEP BOX<br>4 X 20MM, 4 X 25MM KNOCKOUTS  |   |  |
| ALBANY PLUS<br>ASPECT & INSIGNIA<br>FLUSH                     | 891ALM 10<br>2 X 20MM KNOCKOUTS   | 891ALM 10<br>2 X 20MM KNOCKOUTS   | 892ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  | 892ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  | 893ALM 5<br>4 X 20MM, 4 X 25MM KNOCKOUTS  |  |
|   | 821ALM 10<br>WITHOUT KNOCKOUTS  | 821ALM 10<br>WITHOUT KNOCKOUTS  | 822ALM 5<br>WITHOUT KNOCKOUTS   | 822ALM 5<br>WITHOUT KNOCKOUTS   | 823ALM 5<br>WITHOUT KNOCKOUTS   |  |
|   | GRIDS   |   |   |   |   |  |
| INSIGNIA & ASPECT<br>COVER PLATES INCLUDE<br>AN INTEGRAL GRID | K3701 10<br> | K3702 10<br> | K3703 10<br> | K3704 10<br> | K3703 X 2 10<br> |  |

| 8                      | 9                      | 12                     | 18                     | 24                     | Architrave            |
|---|---|---|---|---|--|
| <b>K3638WHI/GRA</b> 1   |   | <b>K3639WHI</b> 1   |   |   |  |
| <b>K3498ALM</b> 1   | <b>K3499ALM</b> 1   | <b>K3502ALM</b> 1   | <b>K3508ALM</b> 1   | <b>K3514ALM</b> 1   |  |
| <b>K3438</b> 1  | <b>K3439</b> 1  | <b>K3442</b> 1  | <b>K3448</b> 1  | <b>K3454</b> 1  | <b>K3401</b> 1   |
| <b>K14348</b> 1   | <b>K14349</b> 1   | <b>K14352</b> 1   | <b>K14358</b> 1   | <b>K14354</b> 1   | <b>K14401</b> 1  |
| <b>K24348</b> 1   |   |   |   |   |  |
| <b>893ALM</b> 5<br>4 X 20MM, 4 X 25MM<br>KNOCKOUTS  |   | <b>895ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  |   |   |  |
| <b>823ALM</b> 5<br>WITHOUT KNOCKOUTS  |   | <b>825ALM</b> 1<br>WITHOUT KNOCKOUTS  |   |   |  |
|   |   |   |   |   |  |
|   |   |   |   |   |  |
|   |   |   |   |   |  |
| <b>K8893ALM</b> 5<br>4 X 20MM, 4 X 25MM<br>KNOCKOUTS  | <b>K8895ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  | <b>K8895ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  | <b>K8898ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  | <b>K8900ALM</b> 1<br>6 X 20MM, 6 X 25MM<br>KNOCKOUTS  |  |
| <b>K8823ALM</b> 5<br>WITHOUT KNOCKOUTS  | <b>K8825ALM</b> 1<br>WITHOUT KNOCKOUTS  | <b>K8825ALM</b> 1<br>WITHOUT KNOCKOUTS  | <b>K8826ALM</b> 1<br>WITHOUT KNOCKOUTS  | <b>K8827ALM</b> 1<br>WITHOUT KNOCKOUTS  |  |
|   |   |   |   |   |  |
| <b>893ALM</b> 5<br>4 X 20MM, 4 X 25MM<br>KNOCKOUTS  | <b>895ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  | <b>895ALM</b> 1<br>5 X 20MM, 5 X 25MM<br>KNOCKOUTS  | <b>898ALM</b> 1<br>6X 32MM KNOCKOUTS  | <b>900ALM</b> 1<br>6X 32MM KNOCKOUTS  | <b>3895ZIC</b> 5<br>3 X 20MM KNOCKOUTS<br>(FOR FLUSH MOUNTING<br>ONLY)                                   |
| <b>823ALM</b> 5<br>WITHOUT KNOCKOUTS  | <b>825ALM</b> 1<br>WITHOUT KNOCKOUTS  | <b>825ALM</b> 1<br>WITHOUT KNOCKOUTS  |   |   | <b>3891ZIC</b> 5<br>1 GANG<br>ARCHITRAVE BOXES FOR<br>INSIGNIA   |
|   |   |   |   |   |  |
| <b>K3704 X 2</b> 10  | <b>K3703 X 3</b> 10  | <b>K3704 X 3</b> 10  | <b>K3706 X 3</b> 10  | <b>K3706 X 4</b> 10  | <b>K3708ZIC</b> 10  |



# HIGH POWER DIMMER

## RANGE INTRODUCTION

When an installation requires the specification of a dimmer to control larger lighting loads, the MK Electric High Power Dimmer will meet your requirements, and give you the confidence that you have specified a product which comes with MK's brand standards of quality, reliability, safety and responsibility.

As with all MK products the High Power Dimmer is manufactured to ISO 9002 certification using only the most superior manufacturing techniques and raw materials. Each product undergoes 100% electrical and visual testing to ensure reliability and safety, and is guaranteed for 2 years.

The High Power Dimmer includes a host of different functions, enabling lighting scene control, stairwell lighting and push button dimmer with memory. For applications up to 3000W loads, an installation can be specified to include a Master and up to 2 Slaves.

Dimming can offer energy savings compared to powering a lamp to full brightness.

## FEATURES & BENEFITS

- Up to 1000W dimming output per unit
- Up to 3000W dimming output when utilising Master and Slaves
- Provides rotary control using a 1-10V interface such as the K4499 Fluorescent Controller Module from the MK Electric Grid Plus Range
- Universal, Trailing Edge and Leading Edge Dimmers available
- Automatic load detection on Universal module
- Central on/off function
- Staircase lighting function with or without switch-off warning
- Lighting scene control with two, user adjustable, preset scene levels
- Overload and short circuit protection

## HOW TO SPECIFY

A lighting control solution for dimming loads up to a maximum of 3000W with the ability to control trailing edge and leading edge load types. Where necessary, automatic load detection and lighting scene control with two user adjustable scene levels to be available. Dimming module to have stairwell lighting control with a turn off period between 1 second and 8 minutes with a 50% brightness warning function. Dimming module to be DIN rail mounted and provide overload and short circuit protection.

## OPERATING MODES

| Function   | Description  |
|--|--|
| <b>Push button dimmer with memory</b>                        | Non cyclic dimming with maximum & minimum brightness limit adjustment.<br>Soft start switch on at last dimming level.  |
| <b>Push button dimmer without memory</b>                     | Non cyclic dimming with maximum & minimum brightness limit adjustment.<br>Soft start switch on at maximum level.   |
| <b>Push button cyclic dimmer with memory</b>                 | Cyclic dimming with maximum & minimum brightness limit adjustment.<br>Soft start switch on at last dimming level.  |
| <b>Push button cyclic dimmer without memory</b>              | Cyclic dimming with maximum & minimum brightness limit adjustment.<br>Soft start switch on at maximum level.   |
| <b>Stairwell lighting controller with turn off warning</b>   | Time Delay Switch with 50% brightness turn off warning. Adjustable time-on period between 1sec – 2.3hrs.<br>Adjustable turn-off warning periods between 1sec – 8min. |
| <b>Stairwell lighting controller without turn of warning</b> | Time Delay Switch without turn off warning. Adjustable brightness and time-on period.  |
| <b>Scene Control Dimmer</b>                                  | Two user adjustable preset scene levels.   |
| <b>Rotary Dimmer using 0/1-10V control</b>                   | Rotary control dimming with conventional 0/1-10V controls, (e.g. MK K4499).  |

## PRODUCT SELECTOR

| List Number   | Description                         | 230V Tungsten Filament Lamps | 12V Wirewound Transformers | 12V Electronic Transformers |
|---------------|-------------------------------------|------------------------------|----------------------------|-----------------------------|
| <b>K1400</b>  | 1kW Universal Dimmer – Master/Slave | Yes<br>60-1000W              | Yes<br>50-900VA            | Yes<br>50-900VA             |
| <b>K1401M</b> | 1kW Leading Edge Dimmer – Master    | Yes<br>60-1000W              | Yes<br>50-900VA            | –                           |
| <b>K1401S</b> | 1kW Leading Edge Dimmer – Slave     | Yes<br>60-1000W              | Yes<br>50-900VA            | –                           |
| <b>K1402M</b> | 1kW Trailing Edge Dimmer – Master   | Yes<br>60-1000W              | –                          | Yes<br>50-900VA             |
| <b>K1402S</b> | 1kW Trailing Edge Dimmer – Slave    | Yes<br>60-1000W              | –                          | Yes<br>50-900VA             |

## COMPATIBLE WIRING DEVICES

| List Number           | Description                                    | Product Range |
|-----------------------|--|---------------|
| <b>K4499WHI / BLK</b> | <b>0-10V Fluorescent Controller One Module</b> | Grid Plus     |
| <b>K4900WHI / BLK</b> | <b>10A Retractive Grid Switch</b>              | Grid Plus     |

# High Power Dimmer



## 1kW Din Rail Dimmer Modules

UNIVERSAL  
1kW



K1400

LEADING EDGE  
1kW



K1401M

1kW



K1401S

TRAILING EDGE  
1kW



K1402M

1kW



K1402S

**K1400** 1  
1kW UNIVERSAL  
DIMMER – MASTER/SLAVE

**DIMENSIONS**  
108 x 55 x 60mm  
6 DIN module

**MOUNTING**  
Suitable for mounting onto 35mm  
DIN rail

**TERMINALS**  
**MAINS SUPPLY/SLAVE CONTROL**  
2 x 1.5mm<sup>2</sup> or 1 x 2.5mm<sup>2</sup>  
**T1/2/3 SWITCH CONTROL**  
1 x 1mm<sup>2</sup>

**LOADS**  
Resistive, Incandescent and Mains  
Halogen lamps: 60-1000W  
Low voltage wire-wound  
transformers: 50-900VA  
Low voltage electronic transformers:  
50-900VA

**MAXIMUM CONTROL LINE LENGTH**  
100m  
EN 60669-2-1  
For use with up to 2 x K1400 units  
configured as slaves

**K1401M** 1  
1kW LEADING EDGE  
DIMMER – MASTER

**DIMENSIONS**  
108 x 55 x 60mm  
6 DIN module

**MOUNTING**  
Suitable for mounting onto 35mm  
DIN rail

**TERMINALS**  
**MAINS SUPPLY/SLAVE CONTROL**  
2 x 1.5mm<sup>2</sup> or 1 x 2.5mm<sup>2</sup>  
**T1/2/3 SWITCH CONTROL**  
1 x 1mm<sup>2</sup>

**LOADS**  
Resistive, Incandescent and Mains  
Halogen lamps: 60-1000W  
Low voltage wire-wound  
transformers: 50-900VA

**MAXIMUM CONTROL LINE LENGTH**  
100m  
EN 60669-2-1  
For use with up to 2 x K1401S or  
K1402S slaves

**K1401S** 1  
1kW LEADING EDGE  
DIMMER – SLAVE

**DIMENSIONS**  
108 x 55 x 60mm  
6 DIN module

**MOUNTING**  
Suitable for mounting onto 35mm  
DIN rail

**TERMINALS**  
**MAINS SUPPLY/SLAVE CONTROL**  
2 x 1.5mm<sup>2</sup> or 1 x 2.5mm<sup>2</sup>  
**T1/2/3 SWITCH CONTROL**  
1 x 1mm<sup>2</sup>

**LOADS**  
Resistive, Incandescent and Mains  
Halogen lamps: 60-1000W  
Low voltage wire-wound  
transformers: 50-900VA

**MAXIMUM CONTROL LINE LENGTH**  
100m  
EN 60669-2-1  
For use with K1401M or K1402M  
Master dimmers

**K1402M** 1  
1kW TRAILING EDGE  
DIMMER – MASTER

**DIMENSIONS**  
108 x 55 x 60mm  
6 DIN module

**MOUNTING**  
Suitable for mounting onto 35mm  
DIN rail

**TERMINALS**  
**MAINS SUPPLY/SLAVE CONTROL**  
2 x 1.5mm<sup>2</sup> or 1 x 2.5mm<sup>2</sup>  
**T1/2/3 SWITCH CONTROL**  
1 x 1mm<sup>2</sup>

**LOADS**  
Resistive, Incandescent and Mains  
Halogen lamps: 60-1000W  
Low voltage electronic transformers:  
50-900VA

**MAXIMUM CONTROL LINE LENGTH**  
100m  
EN 60669-2-1  
For use with up to 2 x K1401S or  
K1402S slaves

**K1402S** 1  
1kW TRAILING EDGE  
DIMMER – SLAVE

**DIMENSIONS**  
108 x 55 x 60mm  
6 DIN module

**MOUNTING**  
Suitable for mounting onto 35mm  
DIN rail

**TERMINALS**  
**MAINS SUPPLY/SLAVE CONTROL**  
2 x 1.5mm<sup>2</sup> or 1 x 2.5mm<sup>2</sup>  
**T1/2/3 SWITCH CONTROL**  
1 x 1mm<sup>2</sup>

**LOADS**  
Resistive, Incandescent and Mains  
Halogen lamps: 60-1000W  
Low voltage electronic transformers:  
50-900VA

**MAXIMUM CONTROL LINE LENGTH**  
100m  
EN 60669-2-1  
For use with K1401M or K1402M  
Master dimmers

High Powered Dimmers are Din Rail mounted, suitable for any standard BS EN 50022 35mm Din Rail, and are 6 Din Modules wide.

## Steel Boxes

25MM  
FLUSH



25MM  
FLUSH



35MM  
FLUSH



47MM  
FLUSH



**861ZIC**  
1 GANG  
ONE ADJUSTABLE LUG  
**862ZIC**  
2 GANG  
ONE ADJUSTABLE LUG

10

**K863S6-C**  
3 GANG  
25MM DEEP  
**FOR 3 GANG K2737 LOGIC PLUS™ SWITCHSOCKET**

5

5

**866ZICS6-C**  
1 GANG  
ONE ADJUSTABLE LUG  
**886ZICS6-C**  
2 GANG  
ONE ADJUSTABLE LUG

10

**877ZICS6-C**  
1 GANG  
**878ZICS6-C**  
2 GANG  
ONE ADJUSTABLE LUG

10

5

5

With earth terminal and adjustable lug  
**DIMENSIONS**  
1 gang: 75 x 75mm  
2 gang: 75 x 135mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
**KNOCKOUTS**  
1 gang: 10 x 20mm  
2 gang: 12 x 20mm  
BS 4662:2006

Fitted with two earth terminals.  
Two adjustable lugs.  
**DIMENSIONS**  
203 x 75mm  
**FIXING CENTRE**  
180.9mm  
**KNOCKOUTS**  
3 gang: 14 x 20mm, 6 x 25mm  
BS 4662:2006

**DIMENSIONS**  
1 gang: 75 x 75mm  
2 gang: 75 x 135mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
**KNOCKOUTS:**  
1 gang: 7 x 20mm, 3 x 25mm  
2 gang: 11 x 20mm, 4 x 25mm  
BS 4662:2006  
Thickness - 1.00mm (+/-0.1)

**DIMENSIONS**  
1 gang: 75 x 75mm  
2 gang: 75 x 135mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
**KNOCKOUTS**  
1 gang: 6 x 20mm, 4 x 25mm  
2 gang: 9 x 20mm, 6 x 25mm  
BS 4662:2006

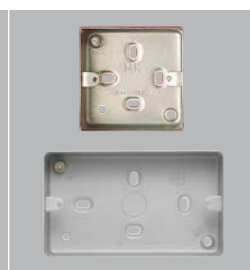
Mounting box accessories see page 216

41MM FOR USE WITH  
LOGIC PLUS™  
SURFACE

41MM  
SQUARE CORNERS  
SURFACE

Flush and surface mounted metal boxes and frames, surface PVC and moulded urea boxes, frames and accessories.

All MK flush metal boxes are manufactured from superior materials and are fitted with earth terminals, an adjustable lug for out of square alignment and include more than an adequate number of knockouts.



**K2211ALM**  
1 GANG  
WITHOUT KNOCKOUTS  
**K2212ALM**  
2 GANG  
WITHOUT KNOCKOUTS

5

**K2213ALM**  
1 GANG  
5 X 20MM KNOCKOUTS  
**K2214ALM**  
2 GANG  
7 X 20MM KNOCKOUTS

5

**2211ALM**  
1 GANG  
WITHOUT KNOCKOUTS  
**2212ALM**  
2 GANG  
WITHOUT KNOCKOUTS

5

**2213ALM**  
1 GANG  
5 X 20MM KNOCKOUTS  
**2214ALM**  
2 GANG  
7 X 20MM KNOCKOUTS

5

5

All boxes are fitted with an earth terminal.  
**DIMENSIONS**  
1 gang: 86 x 86mm  
2 gang: 86 x 146mm  
**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010



# Boxes



## Steel Boxes

35MM / 47MM

FLUSH



### K14101

35MM FOR INSIGNIA  
COMBINATION PLATE K14100

### K14102

47MM FOR INSIGNIA  
COMBINATION PLATE K14100

Fitted with two earth terminals.  
Two adjustable lugs.

#### DIMENSIONS

279.6 x 159.5mm

#### FIXING CENTRES

268.2mm / 87.3mm

#### KNOCKOUTS

35mm 18 x 20mm, 6 x 25mm

47mm 12 x 20mm, 12 x 25mm

BS 5733:2010

1

### K14201

35MM FOR INSIGNIA IN-LINE  
COMBINATION PLATE K14200

1

### K14202

47MM FOR INSIGNIA IN-LINE  
COMBINATION PLATE K14200

Fitted with two earth terminals.  
Two adjustable lugs.

#### DIMENSIONS

430 x 75mm

#### FIXING CENTRES

417.4mm

#### KNOCKOUTS

35mm Middle Box: 6 x 20mm, 2 x 25mm

35mm End Boxes: 15 x 20mm, 5 x 25mm

47mm Middle Box: 4 x 20mm, 4 x 25mm

47mm End Boxes: 10 x 20mm, 10 x 25mm

BS 5733:2010



K14201 / K14202



K14206 / K14207

1

### K14206

35MM FOR INSIGNIA IN-LINE  
COMBINATION PLATE K14205

1

### K14207

47MM FOR INSIGNIA IN-LINE  
COMBINATION PLATE K14205

Fitted with two earth terminals.  
Two adjustable lugs.

#### DIMENSIONS

392 x 75mm

#### FIXING CENTRES

382.5mm

#### KNOCKOUTS

35mm Left 2G Box: 7 x 20mm, 3 x 25mm

35mm Middle Boxes: 4 x 20mm

35mm Right Box: 6 x 20mm

47mm Left 2G Box: 4 x 20mm, 6 x 25mm

47mm Middle Boxes: 2 x 20mm, 1 x 25mm

47mm Right Box: 4 x 20mm, 1 x 25mm

BS 5733:2010

1

1

## Steel Boxes

35MM / 47MM

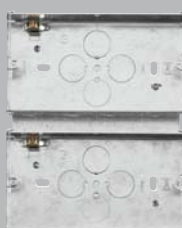
FLUSH

47MM

FLUSH



853ZIC



857ZIC



867ZIC

### 853ZIC

35MM FOR LOGIC PLUS™  
4 GANG COMBINATION PLATE K2740WHI

### 854ZIC

47MM FOR LOGIC PLUS™  
4 GANG COMBINATION PLATE K2740WHI

BS 5733:2010

#### DIMENSIONS

279.6 x 159.5mm

1

### 857ZIC

35MM FOR LOGIC PLUS™  
2 GANG COMBINATION PLATE K2741WHI

1

### 858ZIC

47MM FOR LOGIC PLUS™  
2 GANG COMBINATION PLATE K2741WHI  
AND 4+4 MODULE COMBINATION PLATES  
(INSIGNIA/ASPECT/ELEMENTS)

BS 5733:2010

#### DIMENSIONS

135 x 159.5mm

1

### 867ZIC

47MM BOX FOR  
2+1 COMBINATION PLATE  
(INSIGNIA)

1

BS EN 60670-1:2005

#### DIMENSIONS

220 x 75mm

1

Mounting box accessories see page 216



# Boxes

## Steel Boxes

47MM

FLUSH



### 868ZIC

47MM BOX FOR  
1G+2G+1G COMBINATION PLATE  
(INSIGNIA/ASPECT/ELEMENTS)

BS EN 60670-1:2005  
DIMENSIONS  
305 x 75mm

1



### 869ZIC

47MM BOX FOR  
6+6 MODULE COMBINATION PLATE  
(INSIGNIA/ASPECT/ELEMENTS)

BS EN 60670-1:2005  
DIMENSIONS  
203 x 159.5mm

1

47MM

FLUSH



870ZIC

### 870ZIC

47MM BOX FOR  
2+1 COMBINATION PLATE  
(ASPECT/ELEMENTS)

BS EN 60670-1:2005  
DIMENSIONS  
220x75mm

1

41MM

SURFACE



### 2001ALM

1 GANG  
WITHOUT KNOCKOUTS

### 2002ALM

2 GANG  
WITHOUT KNOCKOUTS

5

5



### 2003ALM

1 GANG  
5 X 20MM KNOCKOUTS

### 2004ALM

2 GANG  
7 X 20MM KNOCKOUTS

5

5

All boxes are fitted with an earth terminal.

#### DIMENSIONS

1 gang: 86 x 86mm  
2 gang: 86 x 146mm

#### FIXING CENTRES

1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

Mounting box accessories see page 216

## Boxes



## Steel Boxes

48MM  
SURFACE**K5400WHI****1**2 GANG  
4 X 20MM KNOCKOUTS  
4X 25MM KNOCKOUTS

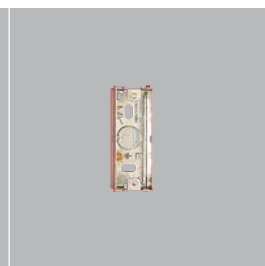
## DIMENSIONS

86 x 146mm  
FIXING CENTRES  
120.6mm  
BS 5733:201055MM  
FLUSH**5120ALM****1**FOR FLUSH  
COOKER CONTROL UNIT  
K5011WHI

Fitted with two earth terminals.

DIMENSIONS  
152 x 140 x 55mmKNOCKOUTS  
5 x 25mm.Two in each of the top & bottom,  
one in the back.  
BS 4177:199265MM  
FLUSH**5268ALM****1**FOR 32 AMP  
TP & N SWITCHES 5114WHI

Fitted with 2 earth terminals

DIMENSIONS  
178 x 114 x 65mmKNOCKOUTS  
5 x 25mm.Two in each of the top and bottom,  
one in the back.  
BS 5733:201040MM  
SURFACE**K829ALM****5**1 GANG  
WITHOUT KNOCKOUTS**K830ALM****5**2 GANG  
WITHOUT KNOCKOUTS**K899ALM****10**1 GANG  
5 X 20MM KNOCKOUTS**K897ALM****5**2 GANG  
8 X 20MM KNOCKOUTSSpares or replacements for the  
surface Metalclad Plus range.  
All boxes are fitted with an earth  
terminal.  
BS 5733:2010ARCHITRAVE  
FLUSH**3921ZIC****10**

1 GANG

## DIMENSIONS

1 gang: 75 x 27 x 27mm  
FIXING CENTRES  
1 gang: 60.3mm  
KNOCKOUTS  
1 gang: 3 x 16mm  
BS 4662:2006Metal Frames  
For Panel  
MountingDUAL  
FLUSH**887ZIC****5**

DUAL BOX

**888ZIC****10**DIVIDING SCREEN  
FOR DUAL BOXDual box 887ZIC will accept any two flush  
accessories with 86mm square plates and  
two M3.5 fixing holes on 60.3mm centres.  
Fitted with 2 earth terminals.DIMENSIONS  
75 x 161 x 35mm

## KNOCKOUTS

2 gang: 10 x 20mm, 4 x 25mm  
BS 4662:2006**K2200****10**

1 GANG

**K2202****5**

2 GANG

FIXING CENTRES  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

## Blank Plates

METALCLAD PLUS™

**K3390ALM****5**FOR 1 GANG  
SURFACE BOXES  
K899 & K829**K3369ALM****5**FOR 2 GANG  
SURFACE BOXES  
K830 & K897

## DIMENSIONS

K3390: 86 x 86mm  
K3369: 86 x 147mm

## FIXING CENTRES

K3390: 60.3mm  
K3369: 120.6mm  
BS 5733:2010

METALCLAD

**3390ALM****10**FOR 1 GANG SURFACE  
BOXES 899 & 829**3370ALM****10**FOR 1 GANG SURFACE  
BOXES 891 & 821**3369ALM****5**FOR 2 GANG SURFACE  
BOXES 892 & 822

## DIMENSIONS

3390: 81 x 81mm  
3370: 76 x 76mm  
3369: 76 x 136mm

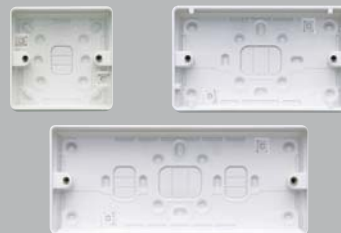
## FIXING CENTRES

1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

# Boxes

## PVC Boxes

19MM  
SURFACE

32MM  
SURFACE

**2120WHI**  
FOR 1, 2 AND 3 GANG  
PLATESWITCHES

10

With earth terminal  
**DIMENSIONS**  
87 x 87mm  
**FIXING CENTRES**  
60.3mm

Knockouts 'Cut-out' provided in top and bottom for 16mm oval PVC conduit. 20mm round 'push-out' type knockout in base for cable entry. Fixing holes are also provided for mounting to wall or over BS 4568-2 small circular boxes.

BS 5733:2010

**2180WHI**  
1 GANG  
**2181WHI**  
1 GANG

10

10

**DIMENSIONS**  
87 x 87mm  
**FIXING CENTRES**  
60.3mm

### KNOCKOUTS

**2180:** One 'push-out' for 20mm oval conduit in top, one 'cut-out' for 20mm or 25mm oval conduit and one 20mm round 'push-out' in the base.

**2181:** One 'push-out' for 20mm round conduit in top and one 20mm round 'push-out' in base.  
BS 5733:2010

**2182WHI**  
2 GANG  
**2183WHI**  
2 GANG

5

5

**DIMENSIONS**  
87 x 148mm  
**FIXING CENTRES**  
120.6mm

### KNOCKOUTS

**2182:** Two 'push-outs' for 20mm oval conduit in top, two 'cut-outs' for 20mm or 25mm oval conduit and one 20mm round 'push-out' in base

**2183:** One 'push-out' for 20mm round conduit in top and one 20mm round 'push-out' in base.  
BS 5733:2010

**K2181WHI**  
FOR 1 GANG LOGIC PLUS™ POWER ACCESSORIES  
**K2183WHI**  
FOR 2 GANG LOGIC PLUS™ POWER ACCESSORIES  
**K2185WHI**  
FOR 3 GANG LOGIC PLUS™ POWER ACCESSORIES

10

5

5

### KNOCKOUTS

**K2181:** One 'cut-out' for 20mm round conduit in top face, one 'cut-out' for 20mm or 25mm oval conduit in lower face and one 20mm round 'push-out' in the base.

**K2183 and K2185:** One 'cut-out' for 20mm round conduit in top face, two 'cut-outs' for 20mm or 25mm oval conduit in lower face and one 20mm round 'push-out' in the base. Both boxes are suitable for fitting over 1 gang and 2 gang BS 4662 flush steel boxes respectively.

### DIMENSIONS

1 gang: 87 x 87mm  
2 gang: 87 x 148mm  
3 gang: 87 x 208mm

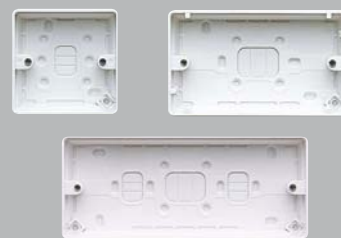
### FIXING CENTRES

1 gang: 60.3mm  
2 gang: 120.6mm  
3 gang: 180.9mm  
BS 4662:2006  
where applicable

## Moulded Boxes

ARCHITRAVE  
SURFACE

16MM  
SURFACE

30MM  
SURFACE


**K2151WHI**  
1 GANG  
ARCHITRAVE BOX  
**K2152WHI**  
2 GANG  
ARCHITRAVE BOX

10

5

Earth terminal fitted in base of boxes.

**DIMENSIONS**  
1 gang: 87 x 33 x 16mm  
2 gang: 148 x 33 x 16mm

**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

**K2160WHI**  
FOR 1, 2 AND 3 GANG LOGIC PLUS™ PLATESWITCHES  
**K2161WHI**  
FOR 4 AND 6 GANG LOGIC PLUS™ PLATESWITCHES

10

5

Earth terminal fitted in base of boxes. Knockouts provided in sides and bases.

**DIMENSIONS**  
1 gang: 87 x 87mm  
2 gang: 87 x 148mm

**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

**K2140WHI**  
FOR 1 GANG LOGIC PLUS™ POWER ACCESSORIES  
**K2142WHI**  
FOR 2 GANG LOGIC PLUS™ POWER ACCESSORIES

10

5

Knockouts in base and sides for cable entry  
K2142 and K2153 are suitable for fitting over 1 gang and 2 gang BS 4662 flush steel boxes respectively

**K2153WHI**  
FOR 3 GANG LOGIC PLUS™ POWER ACCESSORIES

5

**DIMENSIONS**  
1 gang: 87 x 87mm  
2 gang: 87 x 148mm  
3 gang: 87 x 208mm

**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
3 gang: 180.9mm  
BS 5733:2010

## Boxes



### Moulded Boxes

32MM  
SURFACE



**2140WHI**  
FOR 1 GANG  
POWER ACCESSORIES  
SQUARE CORNERS

10

Knockouts are provided in base and sides for cable entry

#### DIMENSIONS

1 gang: 87 x 87mm  
2 gang: 87 x 148mm

#### FIXING CENTRES

1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

44MM  
SURFACE



**2031WHI**  
FOR 1 GANG  
POWER ACCESSORIES  
SQUARE CORNERS

10

Knockouts in base and sides for cable entry.

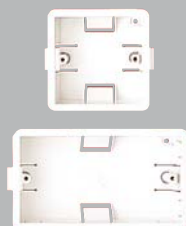
#### DIMENSIONS

87 x 87mm

#### FIXING CENTRES

60.3mm  
BS 5733:2010

DRY LINING  
35MM  
FLUSH



**QFB1WHI**  
1 GANG  
**QFB2WHI**  
2 GANG

20

10

All round flange for a flush fit. One piece moulded lug automatically snaps into place. No rear projections. Clamp device on cable entry. Will accommodate partition thickness between 6mm and 16mm. Earth terminal facility.  
BS 4662:2006



**QFB/IG1**  
1 GANG WITH  
INTUMESCENT GASKET  
**QFB/IG2**  
2 GANG WITH  
INTUMESCENT GASKET

20

10

#### QFB/IG1 & QFB/IG2

Pre-fitted with intumescent gaskets to give fire protection, in accordance with BS 476-2:1987. In a fire situation, a chemical reaction will occur with the intumescent material. The void behind the wiring device will be filled, providing protection against the passage of fire.  
BS 4662:2006

MI CABLE BOXES  
37MM  
SURFACE



**K2131WHI**  
1 GANG  
10 CLAMPS  
**K2132WHI**  
2 GANG  
12 CLAMPS

5

5

Clamps accept 20mm sealing pots.

#### DIMENSIONS

1 gang: 92 x 92mm  
2 gang: 92 x 152mm

#### FIXING CENTRES

1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

DUAL BOX  
38MM  
SURFACE



**K2025WHI**  
FOR MOUNTING  
TWO 1 GANG  
LOGIC PLUS™  
ACCESSORIES

5

This box has two slots in base with 60.3mm and 120.6mm fixing centres for fitting over BS 4226 flush boxes. Knockouts provided for cable entry.  
Includes integral dividing fillet.

**DIMENSIONS**  
86 x 172 mm  
BS 5733:2010

40MM  
SURFACE



**K2031WHI**  
FOR 1 GANG  
LOGIC PLUS™  
POWER ACCESSORIES  
**K2172WHI**  
FOR 2 GANG  
LOGIC PLUS™ 50 AMP  
DP SWITCHES

10

5

Knockouts provided in sides and base.

**K2172:** Earth terminal fitted in base of box.

#### DIMENSIONS

K2031: 87 x 87mm  
K2172: 87 x 148mm

#### FIXING CENTRES

K2031: 60.3mm  
K2172: 120.6mm  
BS 5733:2010

FLANGE BOXES  
45MM  
FLUSH



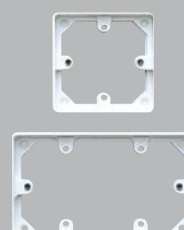
**K2061WHI**  
1 GANG  
**K2062WHI**  
2 GANG

5

5

**DIMENSIONS**  
K2061: 88 x 88mm  
K2062: 88 x 148mm  
**FIXING CENTRES**  
K2061: 60.3mm  
K2062: 120.6mm  
BS 5733:2010

Mounting  
Pattresses  
SURFACE



**K2134WHI**  
1 GANG 20MM DEEP  
FOR LOGIC PLUS™  
ACCESSORIES  
**K2133WHI**  
2 GANG 20MM DEEP  
FOR LOGIC PLUS™  
ACCESSORIES

10

10

**FIXING CENTRES**  
1 gang: 60.3mm  
2 gang: 120.6mm  
BS 5733:2010

## LOGIC PLUS™ ACCESSORIES/BOX COMPATIBILITY CHART

### SURFACE MOUNTING

|                            | DEPTH: (MM) |            |         |            |            |          |           |           |    |
|----------------------------|-------------|------------|---------|------------|------------|----------|-----------|-----------|----|
| MOULDED                    | 16 MOULDED  | 30 MOULDED | 32* PVC | 38 MOULDED | 40 MOULDED | 41 STEEL | 41* STEEL | 48* STEEL | 55 |
| 1 GANG SOCKETS (13A)       |             | K2140      | K2181   | K2025      | K2031      | K2211ALM | K2213ALM  |           |    |
| 2 GANG SOCKETS             |             | K2142      | K2183   |            | K2172      | K2212ALM | K2214ALM  | K5400     |    |
| 3 GANG SOCKETS             |             | K2153      | K2185   |            |            |          |           |           |    |
| RCD SOCKETS                |             |            |         |            | K2172      | K2212ALM | K2214ALM  | K5400     |    |
| FILTERED SOCKETS           |             |            |         |            | K2172      | K2212ALM | K2214ALM  | K5400     |    |
| CONNECTION UNITS           |             | K2140      | K2181   | K2025      | K2031      | K2211ALM | K2213ALM  |           |    |
| 20A DP SWITCHES            |             | K2140      | K2181   | K2025      | K2031      | K2211ALM | K2213ALM  |           |    |
| K5105 32A DP SWITCH        |             | K2140      | K2181   | K2025      | K2031      | K2211ALM | K2213ALM  |           |    |
| K5205, K5215 (CK & SH)     |             |            |         |            | K2172      | K2212ALM | K2214ALM  |           |    |
| K5230                      |             |            |         |            |            |          |           | K5400     |    |
| K5060, K5061               |             |            |         |            | K2212      | K2214ALM |           | K5400     |    |
| K5040, K5041               |             |            |         |            |            |          |           |           |    |
| K5001                      |             |            |         |            |            |          |           |           |    |
| K700                       |             | K2140      | K2181   | K2025      |            | K2211ALM | K2213ALM  |           |    |
| K701                       |             |            |         |            | K2172      |          |           |           |    |
| 1, 2 & 3 GANG SWITCHES     | K2160       | K2140      | K2181   | K2025      | K2031      | K2211ALM | K2213ALM  |           |    |
| 4 & 6 GANG SWITCHES        | K2161       | K2142      | K2183   |            | K2172      | K2212ALM | K2214ALM  | K5400     |    |
| 1 GANG ARCHITRAVE SWITCH   | K2151       |            |         |            |            |          |           |           |    |
| 2 GANG ARCHITRAVE SWITCH   | K2152       |            |         |            |            |          |           |           |    |
| DIMMERS USING PATTRESS     |             |            |         |            |            |          |           |           |    |
| K1501, K1511, K1531, K1532 | K2160       |            |         |            |            |          |           |           |    |
| K1521, K1534, K1533, K1535 | K2160       |            |         |            |            |          |           |           |    |
| DIMMERS NOT USING PATTRESS |             |            |         |            |            |          |           |           |    |
| K1501, K1511, K1531, K1532 |             | K2140      | K2181   | K2025      | K2031      |          |           |           |    |
| K1521, K1534, K1533, K1535 |             | K2140      | K2181   | K2025      |            | K2211ALM | K2213ALM  |           |    |
| DATA/TELECOM PLATES        | K2160       | K2140      | K2181   | K2025      |            | K2211ALM | K2213ALM  |           |    |

### FLUSH MOUNTING

|                            | DEPTH: (MM) |        |         |            |       |            |         |
|----------------------------|-------------|--------|---------|------------|-------|------------|---------|
| (STEEL & DRY LINING)       | 16          | 25*    | 27*     | 35*        | 45    | 47*        | 55      |
| 1 GANG SOCKETS (13A)       |             | 861ZIC |         | QFB/IG1    | K2061 | 877ZICS6-C |         |
| 2 GANG SOCKETS             |             | 862ZIC |         | QFB/IG2    | K2062 | 878ZICS6-C |         |
| 3 GANG SOCKETS             |             | K863   |         |            |       |            |         |
| RCD SOCKETS                |             |        |         | 886ZICS6-C | K2062 | 878ZICS6-C |         |
| FILTERED SOCKETS           |             |        |         | 886ZICS6-C | K2062 | 878ZICS6-C |         |
| CONNECTION UNITS           |             |        |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |
| 20A DP SWITCHES            |             |        |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |
| K5105 32ADP SWITCH         |             |        |         | 866ZICS6-C |       | 877ZICS6-C |         |
| K5205, K5215 (CK & SH)     |             |        |         | 886ZICS6-C | K2062 | 878ZICS6-C |         |
| K5012                      |             |        |         |            |       |            | 5120ALM |
| K5045                      |             |        |         |            | K2061 | 877ZICS6-C |         |
| K5060, K5061               |             |        |         | 886ZICS6-C | K2061 | 878ZICS6-C |         |
| K5011                      |             |        |         |            |       |            | 5120ALM |
| K700                       |             | 861ZIC |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |
| K701                       |             |        |         |            |       | 878ZICS6-C |         |
| 1, 2 & 3 GANG SWITCHES     |             | 861ZIC |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |
| 4 & 6 GANG SWITCHES        |             | 862ZIC |         | 886ZICS6-C | K2062 |            |         |
| 1 GANG ARCHITRAVE SWITCH   |             |        | 3921ZIC |            |       |            |         |
| DIMMERS USING PATTRESS     |             |        |         |            |       |            |         |
| K1501, K1511, K1531, K1532 |             |        |         |            |       |            |         |
| K1521, K1534, K1533, K1535 |             |        |         |            |       | 878ZICS6-C |         |
| DIMMERS NOT USING PATTRESS |             |        |         |            |       |            |         |
| K1501, K1511, K1531, K1532 |             | 861ZIC |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |
| K1521, K1534, K1533, K1535 |             | 861ZIC |         |            | K2062 | 877ZICS6-C |         |
| DATA/TELECOM PLATES        |             | 861ZIC |         | 866ZICS6-C | K2061 | 877ZICS6-C |         |

BOX SUPPLIED WITH ACCESSORY

DEPENDENT UPON MODULES USED

\* WITH CONDUIT ENTRY KNOCKOUTS

NOTE: THE SIZE OF THE CABLE AND NATURE OF INSTALLATION SHOULD BE TAKEN INTO CONSIDERATION WHEN CHOOSING BOX DEPTH.

# Ancillary Products



## Switchsocket Outlets

MINI LOGIC  
SURFACE  
13 AMP



2959WHI



2949WHI

PANEL MOUNTING  
13 AMP



2531WHI



2532WHI

## Socket Outlets

PANEL MOUNTING  
13 AMP



734WHI



735WHI



1232D1

### 2959WHI

1 GANG SP

### 2949WHI

2 GANG SP

These products are supplied with a mounting box.  
Mounting boxes have knockouts for cables.

#### DIMENSIONS

1 gang: 74 x 64 x 46mm

2 gang: 133 x 64 x 46mm

BS 1363-2:1995

10

### 2531WHI

1 GANG SP

SWITCHSOCKET

5

### 2532WHI

2 GANG SP

SWITCHSOCKET

Supplied with M3.5 threaded eyelets and fixing screws.

These products have side entry terminals.

BS 1363-2:1995

5

### 734WHI

1 GANG

CRUCIFORM SOCKET

10

5

### 735WHI

1 GANG

CIRCULAR SOCKET

10

### 1232D1

1 GANG

NON STANDARD

10

Supplied with M3.5 threaded eyelets and fixing screws.  
734 and 735 have side entry terminals.

They are also available with rear entry terminals.

Use suffix D5WHI when ordering.

1232D1 has rear entry terminals and is provided with facilities for 'clean earth' connection and are suitable for non-standard plugs with 'T' shaped earth pin.

734, 735

BS 1363-2:1995

1232D1

BS 1363-2:1995 where relevant.

## Triple Pole & Neutral Switches

METAL FLUSH  
32 AMP



5114WHI

SURFACE



5115WHI

## Energy Saving Switch

FLUSH



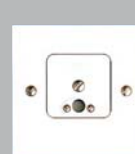
4724WHI



4700WHI

## Clock Connectors

FUSED



995WHI

**5114WHI**  
FLUSH MOUNTED  
WITH NEON

1

**5115WHI**  
SURFACE MOUNTED  
WITH NEON

1

**4724WHI**  
20A DP SWITCH  
WITH KEYTAG

10

**4700WHI**  
SPARE KEYTAG

10

**995WHI**  
FLUSH MOUNTING

10

### MOUNTING BOX FLUSH 5268ALM

These products have a utilisation category of AC22 – rated operational current (Ie), 32A – rated operational voltage (Ue), 440V. They are suitable for switching mixed resistive and inductive loads including moderate overloads.

5114 is also available in Albany Plus finishes (page 178).

All switches may be locked in the 'ON' or 'OFF' position with 1 the use of the MK Padlock K2000.

5116 is available in Metalclad Plus version (page 230).

### TERMINAL CAPACITY

16mm<sup>2</sup> conductors. On surface mounted versions the earth terminal is fitted on base of box.

### DIMENSIONS

5114 203 x 140mm

5115 182 x 118 x 82mm

5116 137 x 76 x 53mm

### KNOCKOUTS

5115 5 x 25mm. Two top and bottom, one in back  
BS EN 60947-3:1999

### MOUNTING BOXES

#### FLUSH

866ZIC

#### SURFACE

2160WHI

The MK Energy Saving Switch provides a simple and effective way of reducing electricity consumption while increasing safety in buildings where appliances may be left on in unoccupied rooms.

By removing the keytag the power is switched off eliminating the need to switch off each individual light or appliance. A neon locator light on the switch unit makes it easy to locate when entering darkened rooms.

### DIMENSIONS

86 x 86mm

### FIXING CENTRES

60.3mm

BS EN 60669-1:1999

Fitted with 2 amp fuse-link to BS 1362. Terminals will accommodate 2.5mm<sup>2</sup> conductors.

### 995WHI

Includes earthing facilities and is suitable for mounting in BS 4662 boxes. The removable fuse carrier is fully recessed and total projection of the plate is only 4.2mm. A knockout on the underside is provided so an M3.5 screw or hook engages with a tapped lug on the box (for hanging a wall clock).

### DIMENSIONS

995WHI 86 x 86mm

### FIXING CENTRES

995WHI 60.3mm

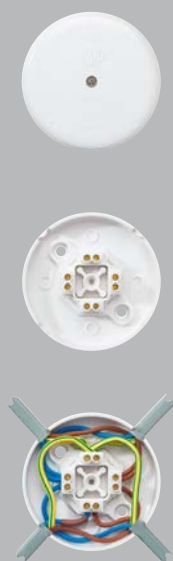
BS 5733:2010



# Ancillary Products



## Junction Boxes



1131WHI



1132WHI



1133WHI

### 1131WHI

4 TERMINAL BLOCKS  
10A

10

**DIMENSIONS**  
**OVERALL DIAMETER**  
 81.5mm  
**DEPTH WITH COVER**  
 22.5mm  
**TERMINAL CAPACITY**  
 1131 6 x 1.5mm<sup>2</sup> conductors  
 1132 4 x 4mm<sup>2</sup> conductors  
 BS EN 60670-22 (where applicable)

### 1132WHI

3 TERMINAL BLOCKS  
30A

10

**DIMENSIONS**  
**OVERALL DIAMETER**  
 81.5mm  
**DEPTH WITH COVER**  
 22.5mm  
**TERMINAL CAPACITY**  
 1131 6 x 1.5mm<sup>2</sup> conductors  
 1132 4 x 4mm<sup>2</sup> conductors  
 BS EN 60670-22 (where applicable)

### 1133WHI

3 TERMINAL BLOCKS  
30A

10

**DIMENSIONS**  
**OVERALL DIAMETER**  
 95mm  
**DEPTH WITH COVER**  
 25mm  
**TERMINAL CAPACITY**  
 Each terminal block accepts  
 up to 4 x 6mm<sup>2</sup> conductors  
 BS EN 60670-22 (where applicable)

## Terminal Blocks

## Service Connector Boxes

## Accessories For Boxes

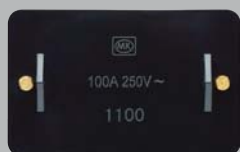
## Neon Lamp Assemblies



913WHI



914WHI



1100BLK



1101BLK



3714



3710



3840ZIC



5144SS000T9



17270SS

### 913WHI

3 WAY

### 914WHI

4 WAY

#### TERMINAL CAPACITY

913

Each terminal accepts up to 3 x 2.5mm<sup>2</sup> (solid conductors) or 3 x 4mm<sup>2</sup> (stranded conductors).

914

Each terminal accepts up to 4 x 1.5mm<sup>2</sup> conductors.

#### FIXING CENTRES

60.3mm for mounting on 'spare' lugs of 4 or 6 lug BS 4662 boxes.

5

### 1100BLK

5 WAY DOUBLE POLE

100A

5

### 1101BLK

5 WAY SINGLE POLE

100A

#### TERMINAL CAPACITY

All 35mm<sup>2</sup>

Where it is necessary to take the outer sheath of a double insulated cable into the box, the cable sizes are restricted to 16mm<sup>2</sup>.

#### DIMENSIONS (OVERALL)

1100BLK 110 x 70 x 60mm

1101BLK 65 x 50 x 38mm

BS 7657:2010

10

### 3714

BRASS EARTH TERMINAL WITH BRACKET

10

### K3716

BRASS EARTH TERMINAL

### 3710

EXTENSION STUD

M3.5

ZINC-PLATED STEEL

OVERALL LENGTH 34MM

### 3840ZIC

CONVERSION BRACKET

COMPLETE WITH EARTH TERMINAL. CONVERTS 25MM DEEP FLUSH SWITCH BOXES WITH 42MM FIXING CENTRES TO ACCOMMODATE PLATESWITCHES WITH 60.3MM FIXING CENTRES

100

### 5144SS000T9

LAMP LEAD AND RESISTOR ASSEMBLY FOR CEILING SWITCH BLOCKS AND 32A DP SWITCHES

100

100

### 17270SS

LAMP LEAD AND RESISTOR ASSEMBLY TAG ENDED NEON FOR USE WITH 45A, 50A SWITCHES AND COOKER CONTROL UNITS

10

### 7179PS

LAMP LEAD AND RESISTOR ASSEMBLY, MALE CONNECTOR FOR SWITCH SOCKETS

1

10

10

# Ancillary Products



## Fuse-Links

BS 646:1958  
250V 50-60 HZ

BS HD 60269-3:2010  
250V 50-60HZ

BS 1362:1973  
250V 50-60HZ



K600



K630



K602



K601



K606



K603



K605



K604



K610



K612



K609



K608



K607

**K600**  
5A RED  
**K630**  
3A BLACK  
**K602**  
2A YELLOW  
**K601**  
1A GREEN

**DIMENSIONS**  
OVERALL LENGTH  
19.1mm +0.8mm -0.4mm  
END-CAP DIAMETER  
5.3mm +0.1mm -0.1mm  
END-CAP LENGTH  
4.0mm +0.8mm -0.8mm

**10 K606**  
32A RED  
**10 K603**  
20A YELLOW  
**10 K605**  
16A BLUE  
**10 K604**  
5A WHITE

**K606**  
OVERALL LENGTH  
29.0mm +0.4mm -0.4mm  
END-CAP DIAMETER  
12.7mm +0.1mm -0.1mm  
END-CAP LENGTH  
8.0mm +0.5mm -0.5mm  
**K604**  
OVERALL LENGTH  
23.0mm +0.0mm -0.8mm  
END-CAP DIAMETER  
6.35mm +0.1mm -0.1mm  
END-CAP LENGTH  
4.8mm +0.5mm -0.5mm  
**K603, K605**  
OVERALL LENGTH  
26.0mm +0.2mm -0.6mm  
END-CAP DIAMETER  
10.32mm +0.1mm -0.1mm  
END CAP LENGTH  
6.4mm +0.5mm -0.5mm

**10 K610**  
13A BROWN\*  
**10 K612**  
3A RED\*  
**10 K609**  
10A BLACK #  
**10 K608**  
5A BLACK#  
**10 K607**  
2A BLACK#

\* These ratings are for use with  
plugs complying with BS 1363,  
fused connections units and similar  
accessories.

# These ratings are for use with  
fused connection units and similar  
accessories.

**DIMENSIONS**  
OVERALL LENGTH  
25.4mm +0.8mm -0.4mm  
END-CAP DIAMETER  
6.3mm +0.2mm -0.5mm  
END-CAP LENGTH  
5.5mm +0.8mm -0.8mm

## Extra Screws

USE WITH  
INSIGNIA/ASPECT™  
FRONTPLATES



|   |  |            |
|---|--|------------|
| <b>10 43066SSABST9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 4352SSTIRT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)    | <b>100</b> |
| <b>10 43066SSNIPT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 4352SSWHIT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)    | <b>100</b> |
| <b>10 43066SSDBZT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 4352SSNIPT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)    | <b>100</b> |
| <b>10 43066SSLBKT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 4352SSPBRT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)    | <b>100</b> |
| <b>10 43066SSLIVT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506ABST9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 43066SSPBRT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506DBZT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 43066SSBRST9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506LBKT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 43066SSWHIT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506BRST9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 43066SSTCOT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506TCOT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 43066SSTIRT9</b><br>SCREW M3.5 22MM<br>(2 SCREWS/PKT) | <b>100 K14S42506TIRT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 4352SSABST9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  | <b>100 K14S42506NIPT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 4352SSDBZT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  | <b>100 K14S42506LIVT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 4352SSLBKT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  | <b>100 K14S42506PBRT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 4352SSLIVT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  | <b>100 K14S42506WHIT9</b><br>SCREW M3.5 47MM<br>(2 SCREWS/PKT) | <b>100</b> |
| <b>10 4352SSBRST9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  |  |            |
| <b>10 4352SSTCOT9</b><br>SCREW M3.5 28MM<br>(2 SCREWS/PKT)  |  |            |

BRS finish for use with SAG  
accessories.

NIP finish for use with BSS, BRC,  
ALM, PCR/POC and Logic Plus™  
accessories.

Tamperproof screws include one key  
per pack.





# METALCLAD PLUS™

## RANGE INTRODUCTION

All MK products are made to stand up to the wear and tear of everyday use, but in some areas you need them to be even tougher. That's why the Metalclad Plus™ range of surface mounted accessories is ideal for factories, workshops, garages and sheds.

Made from heavy gauge steel they're tough and impact resistant and they look good too. There is a wide selection of surface mounted products in the range including switchsockets with outboard rockers and light switches with wide rockers, both very useful when wearing gloves. An RCD protected socket is also available which is essential when operating power tools.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches and in finishes to complement the Metalclad Plus™ range. Please see page 19 for details.

### HOW TO SPECIFY

A metal, surface and flush mounting range of wiring devices. Frontplates to have a maximum 9mm profile and subtle 7mm radius rounded corners. Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation. All sockets to have a 3 pin operated shutter safety mechanism and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety. Switches to have a minimum 3mm contact gap with a positive 'click' to denote successful operation.

## FEATURES & BENEFITS

### TOUGH AND IMPACT RESISTANT

Metalclad Plus™ is ideal for factories, workshops, garages and sheds. White Metalclad Plus™ is ideal for Schools and Sports Halls.

### COMPREHENSIVE RANGE

Suits all your needs where hard wearing performance is required.

### FRONTPLATES HAVE SMOOTHLY CHAMFERED EDGES

Fits flush with the backbox providing a neat finish.

### TOTAL SAFETY

3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13 Amp plug are in position.

All products are Surface mounted (supplied with box) with exception of White and D5 variants. Boxes can be obtained separately if needed. See page 211.



**METALLIC POWDER PAINT**  
Finish is corrosion and scratch resistant

**HIGHLY IMPACT RESISTANT**

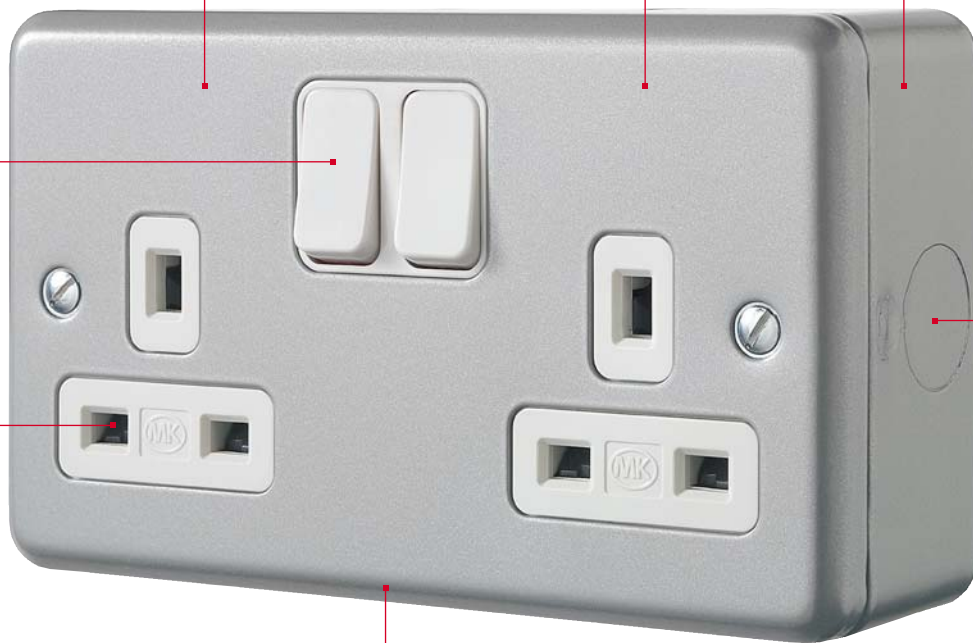
**SPECIFICALLY DESIGNED BACK BOXES**  
Ensure neat and exact fit

**DOUBLE POLE SWITCHING**

**3-PIN "CHILD RESISTANT SHUTTER SYSTEM"**  
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

**STYLISH CURVED DESIGN**

**BOXES AVAILABLE WITH OR WITHOUT KNOCKOUTS**



Terminal screws are backed out and captive terminals are upwards facing to make installation easier.

Funnel entrance to terminals enables positive cable connection.

Outboard rocker sockets are ideal for gloved hands.

Clear terminal markings for easy identification.



# Metalclad Plus™



## Switchsocket Outlets

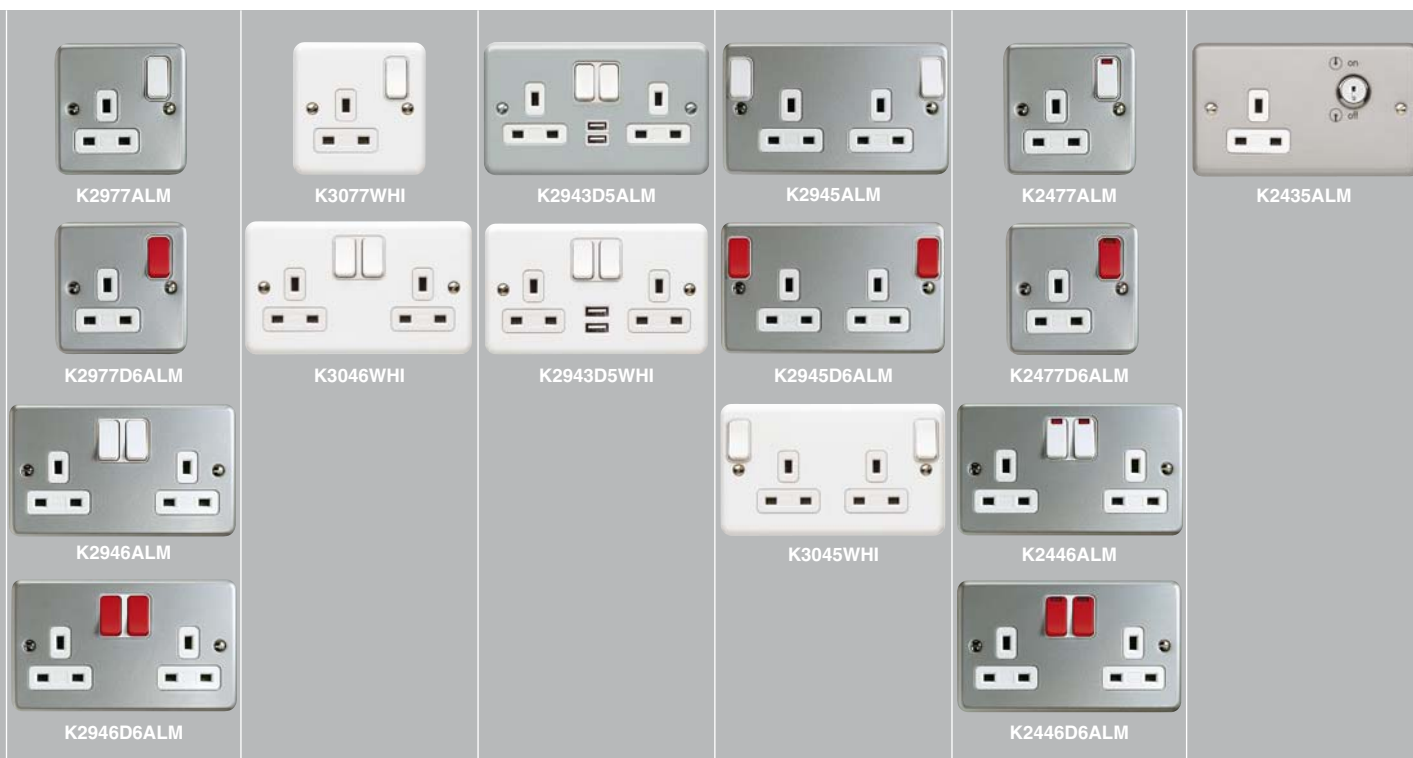
DP  
13 AMP

2 GANG DP  
WITH 2 X USB  
CHARGING PORTS  
DUAL EARTH  
13 AMP

WITH OUTBOARD  
ROCKERS  
13 AMP

WITH NEONS  
13 AMP

1 GANG DP



**K2977ALM** 5  
1 GANG DP WITH  
DUAL EARTH  
TERMINALS  
**K2977D5ALM** 1  
1 GANG DP WITH DUAL  
EARTH TERMINALS  
WITHOUT BOX  
**K2977D6ALM** 1  
1 GANG DP WITH RED  
ROCKER AND DUAL  
EARTH TERMINALS  
**K2946ALM** 5  
2 GANG DP  
**K2946D5ALM** 1  
2 GANG DP  
WITHOUT BOX  
**K2946D6ALM** 1  
2 GANG DP WITH  
RED ROCKERS

**K3077WHI** 10  
1 GANG DP  
WITHOUT BOX  
**K3046WHI** 5  
2 GANG DP  
WITHOUT BOX

**K2943D5ALM** 1  
2 GANG DP WITH DUAL  
EARTH TERMINALS  
WITH INTEGRAL USB  
CHARGING WITHOUT  
BOX  
**K2943D5WHI** 1  
2 GANG DP WITH DUAL  
EARTH TERMINALS  
WITH INTEGRAL USB  
CHARGING WITHOUT  
BOX  
Features 2 USB charging  
sockets, each capable of  
supporting 2A charge  
(total of 2A)  
BS5733: 2010  
MOUNTING BOX  
K897ALM  
K897WHI

**K2945ALM** 5  
2 GANG DP  
WITH OUTBOARD  
ROCKERS AND DUAL  
EARTH TERMINALS  
**K2945D5ALM** 5  
2 GANG DP  
WITH OUTBOARD  
ROCKERS AND DUAL  
EARTH TERMINALS  
WITHOUT BOX  
**K2945D6ALM** 1  
2 GANG DP  
WITH RED OUTBOARD  
ROCKERS AND DUAL  
EARTH TERMINALS  
**K3045WHI** 5  
2 GANG DP  
WITHOUT BOX  
WITH OUTBOARD  
ROCKERS AND DUAL  
EARTH TERMINALS

**K2477ALM** 5  
1 GANG DP  
WITH NEON AND DUAL  
EARTH TERMINALS  
**K2477D6ALM** 1  
1 GANG DP  
WITH NEON,  
RED ROCKER AND DUAL  
EARTH TERMINALS  
**K2446ALM** 5  
2 GANG DP  
WITH NEONS  
**K2446D6ALM** 1  
2 GANG DP  
WITH NEONS  
AND RED ROCKERS

**K2435ALM** 1  
13A DP KEY  
OPERATED SOCKET  
Earth terminal fitted in boxes.  
DIMENSIONS  
86 x 146 x 51mm  
KNOCKOUTS  
8 x 20mm – Three in top two  
in bottom sides and one in  
each end. One in base.  
MOUNTING BOX  
K830ALM\* K897ALM  
(\* without side knockouts)  
All boxes have a base  
knockout.  
BOXES  
BS 5733:2010  
SOCKET  
BS 1363-2:1995

Earth terminal fitted in boxes.

### DIMENSIONS

1 gang 86 x 86 x 51mm  
2 gang 86 x 146 x 51mm

### KNOCKOUTS

1 gang 6 x 20mm – Two in one side and one in  
each of the other three sides. One in base.  
2 gang 8 x 20mm – Three in top two in bottom  
sides and one in each end. One in base.

### SPARE BOXES

1 gang K829ALM\* K899ALM  
2 gang K830ALM\* K897ALM

(\*without side knockouts)

All boxes have a base knockout.

### BOXES

BS 5733:2010

### SOCKET

BS 1363-2:1995

### HIGH INTEGRITY EARTHING

One gang switchsockets, two gang outboard  
switchsockets, two gang integrated USB  
switchsockets and two gang unswitched sockets  
are fitted with two earth terminals to provide a  
double earth facility for use when installations  
require a high integrity protective connection as  
specified within BS 7671:2008

### DOUBLE POLE SWITCHING

All switchsockets have double pole switching  
(neutral makes first, breaks last).

All units are supplied with backboxes (except WHI, D5 products and Blankplates)



## Socket Outlets

RCD PROTECTED  
13 AMP

ROUND PIN

NON STANDARD  
13 AMP

13 AMP

ROUND PIN



K6102ALM



K6302ALM



K6231ALM



K2871ALM



K2873ALM



K1247ALM



K1247D6ALM



K1248ALM



K1248D6ALM



K848ALM



K850ALM



K841ALM



K842ALM



K843ALM

### K6102ALM

1 GANG DP  
10mA ACTIVE CIRCUIT

### K6302ALM

1 GANG DP  
30mA ACTIVE CIRCUIT

### K6305ALM

1 GANG DP  
30mA PASSIVE CIRCUIT

### K6231ALM

2 GANG SP  
30mA ACTIVE CIRCUIT

### K6233ALM

2 GANG SP  
30mA PASSIVE CIRCUIT

It is important to ensure that the correct control circuit, active or passive, is selected for each application. See page 288 for definition.  
Only suitable for supply voltage of 240V a.c.

**DIMENSIONS**  
86 x 147 x 54mm

**KNOCKOUTS**  
8 x 20mm – Three in top side, two in bottom side, one in base and one in each end.

**SPARE BOX**  
K897ALM  
BS 7288:1990

1

1

1

1

1

### K2871ALM

1 GANG  
5A DP

### K2873ALM

1 GANG  
15A DP

### K2873ALM

15A DP  
SHUTTERD

Earth terminal fitted in boxes.

**DIMENSIONS**  
86 x 86 x 51mm

**KNOCKOUTS**  
6 x 20mm – Two in one side and one in each of other three sides.  
One in base.

Spare Boxes with and without knockouts are available.  
All boxes have a base knockout.  
BS 546:1950

1

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### K1247ALM

1 GANG DP WITH  
CLEAN EARTH FACILITY

### K1247D6ALM

1 GANG DP  
WITH RED ROCKER AND  
CLEAN EARTH FACILITY

### K1248ALM

2 GANG DP WITH  
CLEAN EARTH FACILITY

### K1248D6ALM

2 GANG DP  
WITH RED ROCKERS AND  
CLEAN EARTH FACILITY

These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin. Earth terminal fitted in boxes.

#### NOTE

A suitable plug for these non standard sockets is 647WHI, see page 240.

#### DIMENSIONS

1 gang 86 x 86 x 51mm

2 gang 86 x 146 x 51mm

#### KNOCKOUTS

1 gang 6 x 20mm – Two in one side and one in each of other three sides.  
One in base.

2 gang 8 x 20mm – Three in top, two in bottom sides and one in each end.  
One in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout  
BS 1363-2:1995 where relevant

5

1

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1

1

### K848ALM

1 GANG

### K850ALM

2 GANG  
WITH DUAL EARTH  
TERMINALS

K850ALM has two earth terminals providing a double earth facility when installations require a high integrity protective connection as specified within BS 7671:2008..

#### DIMENSIONS

1 gang 86 x 86 x 47mm

2 gang 86 x 146 x 47mm

#### KNOCKOUTS

1 gang 6 x 20mm – Two in one side and one in each of other three sides.  
One in base.

2 gang 8 x 20mm – Three in top, two in bottom sides and one in each end.  
One in base.

Spare Boxes with and without knockouts are available.  
All boxes have a base knockout.  
BS 1363-2:1995

5

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5

5

### K841ALM

1 GANG

2A

### K842ALM

1 GANG

5A

### K842ALM

SHUTTERD

### K843ALM

1 GANG

15A

### K843ALM

SHUTTERD

Earth terminal fitted in box.

**DIMENSIONS**  
86 x 86 x 47mm

#### KNOCKOUTS

6 x 20mm – Two in one side and one in each of other three sides.  
One in base.

Spare Boxes with and without knockouts are available.  
All boxes have a base knockout.  
BS 546:1950

5

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# Metalclad Plus™



## Features and Benefits



When servicing or repairing appliances fuse carriers on connection units can be padlocked for additional safety



A secret key-operated switch helps prevent unauthorised usage



An optional tamperproof screw on the fuse carrier is particularly useful for appliances in public areas



In-line terminals means that cables can be cut to the same length. White printing gives instant terminal identification



A simple but effective cord grip securely holds the cable in connection units



Backboxes come with or without side knockouts. All boxes have a central knockout in the base for added on-site flexibility

## Socket Outlets

127V  
(NON UK)  
15 AMP



**K2271ALM**  
1 GANG  
SHUTTERED  
(NON UK)

**K2272ALM**  
2 GANG  
SHUTTERED  
(NON UK)

Earth terminal fitted in box.

### DIMENSIONS

1 gang 86 x 86 x 47mm

2 gang 86 x 146 x 47mm

### KNOCKOUTS

1 gang 6 x 20mm.

Two in one side and one in each of other three sides. One in base

2 gang 8 x 20mm.

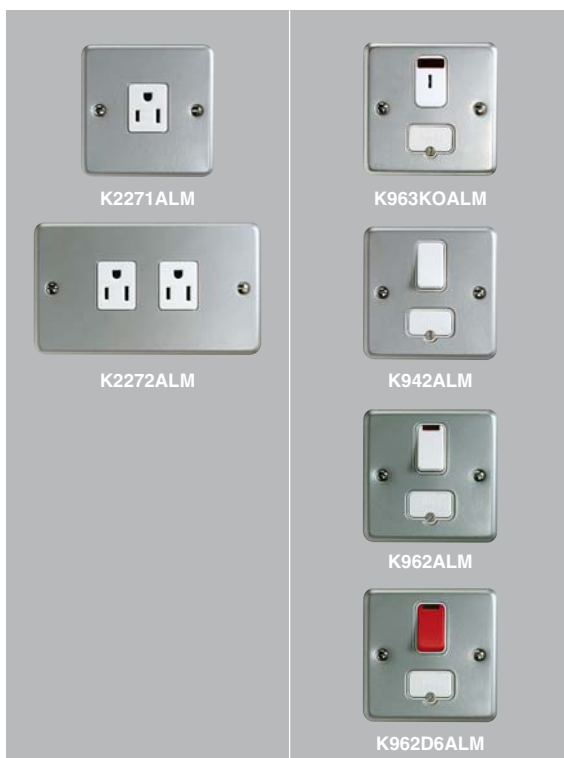
Three in top, two in bottom sides and one in each end. One in base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.  
SASO 2204:2003

## Connection Units

SWITCHED  
FUSED  
13 AMP



**5 K963KOALM**  
DP WITH SECRET KEY  
OPERATED SWITCH,  
NEON AND TAMPERPROOF  
FUSE CARRIER SCREW\*

**5 K942ALM**  
DP SWITCHED  
**K942D5ALM**  
DP SWITCHED WITHOUT  
BOX

**K962ALM**  
DP SWITCHED WITH NEON

**K962D6ALM**  
DP SWITCHED WITH  
NEON AND RED ROCKER

Earth terminal fitted in base of the box.

### DIMENSIONS

86 x 86 x 47mm

### KNOCKOUTS

6 x 20mm.

Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.  
BS 1363-4:1995

\* Secret Key – 3405ZIC found on page 223.

**1 K3042WHI**  
DP SWITCHED  
WITHOUT BOX  
**K3062WHI**  
DP SWITCHED  
WITH NEON  
WITHOUT BOX

10

10

5

1

5

1

All units are supplied with backboxes (except WHI, D5 products and Blankplates)

## Switches

UNSWITCHED  
FUSED  
13 AMP

10 AMP



K932ALM



K972ALM



K972D6ALM



K3072WHI



K954ALM



K983ALM



K989ALM



K986ALM



K3054WHI



K3086WHI



K3591ALM



K3592ALM



K3593ALM



K5252ALM



K3091WHI



K3092WHI

**K932ALM**  
DP SWITCHED  
WITH FLEX OUTLET  
**K972ALM**  
DP SWITCHED  
WITH FLEX OUTLET  
AND NEON  
**K972D6ALM**  
DP SWITCHED  
WITH FLEX OUTLET,  
NEON AND RED ROCKER  
**K3072WHI**  
DP SWITCHED  
WITH FLEX OUTLET  
AND NEON  
WITHOUT BOX

**5** **K954ALM**  
UNSWITCHED  
**5** **K983ALM**  
UNSWITCHED WITH NEON  
**5** **K989ALM**  
UNSWITCHED  
WITH FLEX OUTLET  
**1** **K986ALM**  
UNSWITCHED  
WITH FLEX OUTLET AND NEON  
**10** **DIMENSIONS**  
86 x 86 x 47mm  
**KNOCKOUTS**  
6 x 20mm.  
Two in one side and one in each  
of other three sides, one in base.  
Spare Boxes with and without  
knockouts are available.  
All boxes have a base knockout.  
BS 1363-4:1995

**5** **K3054WHI**  
UNSWITCHED  
WITHOUT BOX  
**5** **K3086WHI**  
UNSWITCHED WITH  
FLEX OUTLET AND NEON  
WITHOUT BOX  
**5** **MOUNTING BOX**  
1 gang K829ALM\* K899ALM  
(\*without side knockouts)  
All boxes have a base knockout

**10** **K3591ALM**  
1 GANG SP  
TWO WAY  
**10** **K3592ALM**  
2 GANG SP  
TWO WAY  
**K3593ALM**  
3 GANG SP  
TWO WAY  
**K5252ALM**  
20AX DP KEY  
OPERATED SWITCH

**DIMENSIONS**  
**Key Operated:** 86 x 86 x 51mm  
**Switch:** 86 x 86 x 47mm  
**SPARE BOXES**  
1 gang K829ALM\* K899ALM  
(\*without side knockouts)  
All boxes have a base knockout.  
BS 5733:2010  
**SOCKET**  
BS 1363-2:1995  
**SWITCH**  
BS EN 60669-1:1999  
These switches do NOT have to be  
derated when used with fluorescent or  
inductive loads.  
An earth terminal is fitted in each box.  
**KNOCKOUTS**  
6 x 20mm  
Two in one side and one in each  
of other three sides, one in base.  
BS EN 60669-1:1999

**5** **K3091WHI**  
1 GANG SP  
TWO WAY  
WITHOUT BOX  
**5** **K3092WHI**  
2 GANG SP  
TWO WAY  
WITHOUT BOX  
**5** **MOUNTING BOX**  
1 gang K829ALM\* K899ALM  
(\*without side knockouts)  
All boxes have a base knockout

# Metalclad Plus™



## Switches

WIDE ROCKERS  
10 AMP



K3781ALM



K3782ALM

## DP Switches

20 AMP



K5212ALM



K5232ALM



K3012WHI

32 AMP AND  
50 AMP



K5240ALM



K5230ALM

## Triple Pole

32 AMP AND  
10 AMP



K5116ALM



K2857ALM



K4858

## Euro Data Frontplates



K181ALM



K182ALM



K184ALM

**K3781ALM**  
1 GANG SP  
TWO WAY  
WITH WIDE ROCKER  
**K3782ALM**  
2 GANG SP  
TWO WAY  
WITH WIDE ROCKERS

5

These switches do NOT have to be derated when used with fluorescent or inductive loads.

An earth terminal is fitted in each box.

### DIMENSIONS

86 x 86 x 47mm

### KNOCKOUTS

6 x 20mm.  
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.  
BS EN 60669-1:1999

**K5212ALM**  
DP SWITCH  
**K5232ALM**  
DP SWITCH  
WITH NEON  
**K5242ALM**  
DP SWITCH  
WITH FLEX OUTLET  
AND NEON  
**K3012WHI**  
DP SWITCH  
WITHOUT BOX

5

5

1

5

10

Earth terminal fitted in base of box.

### DIMENSIONS

86 x 86 x 47mm

### KNOCKOUTS

6 x 20mm.

Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.  
BS EN 60669-1:1999

DP Switches are not recommended for switching large banks of PCs.

**K5240ALM**  
32A DP SWITCH  
WITH NEON  
**K5230ALM**  
50A DP SWITCH  
WITH NEON

5

1

5

Earth terminal fitted in base of box.

### DIMENSIONS

**K5240** 86 x 86 x 65mm

**K5230** 147 x 86 x 65mm

### KNOCKOUTS

**K5240** 6 x 20mm. Two in one side and one in each of other three sides, one in base.

**K5230** 4 x 20mm, 4 x 25mm

### SPARE BOX

**K5240** K8901ALM

**K5230** K8902ALM

All boxes have a base knockout.

BS EN 60669-1:1999

1

1

**K5116ALM**  
32A THREE POLE AND  
N SWITCH WITH NEON AND  
EARTH TERMINAL

1

**K2857ALM**  
10A THREE POLE FAN  
ISOLATOR WITH SWITCHLOCK  
AND PADLOCK

1

**K2859ALM**  
10A THREE POLE FAN  
ISOLATOR WITHOUT SWITCHLOCK

1

**K4858**  
SWITCHLOCK  
FOR FAN ISOLATOR

10

### K5116

440V max. AC22, 12kW (16HP) &  
415V, 3 phase 32A continuous duty.

Making capacity is 2000A peak.

Lockable 'ON' or 'OFF' with MK  
padlock no K2000.

### K2857

For local isolation of fans with or  
without timers for repair or routine.

### DIMENSIONS

**K5116** 147 x 86 x 65mm

**K2857** 86 x 86 x 47mm

### KNOCKOUTS

**K5116** 4 x 20mm<sup>2</sup>, 4 x 25mm<sup>2</sup>

**K2857** 6 x 20mm<sup>2</sup>

### SPARE BOXES

**K5116** K8902ALM

**K2857** K899ALM, K829ALM

BS EN 60947-3:1999

BS EN 60669-2-4 (K2857)

**K181ALM**  
1 GANG EURO FRONTPLATE  
ONE MODULE  
APERTURE SIZE 25 X 50MM

5

**K182ALM**  
1 GANG EURO FRONTPLATE  
TWO MODULE  
APERTURE SIZE 50 X 50MM

5

**K184ALM**  
2 GANG EURO FRONTPLATE  
FOUR MODULE  
APERTURE SIZE 100 X 50MM

1

### MOUNTING BOXES

Mounting Box is not supplied with  
frontplate.

Suitable for flush boxes to  
BS 4662:2006 and surface boxes to  
BS 5733:2010 Refer to appropriate  
module for minimum box depth.

### FIXING CENTRES

1 gang 60.3mm

2 gang 120.6mm

### STANDARDS

BS 5733:2010 where appropriate

### NOTE

No grid required, modules just clip  
into place.

All units are supplied with backboxes (except WHI, D5 products and Blankplates)

All units are supplied with backboxes  
(except WHI, D5 products and Blankplates)

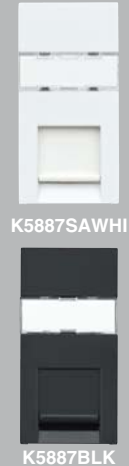
## Euro Power Modules

## Euro Datacom Modules

RJ11/12

RJ45 CAT 6

RJ45 CAT 5e



**K3182WHI** 1  
1 GANG EURO FRONTPLATE  
TWO MODULE  
APERTURE SIZE 50 X 50MM

**K3184WHI** 1  
2 GANG EURO FRONTPLATE  
FOUR MODULE  
APERTURE SIZE 100 X 50MM

**MOUNTING BOXES**  
Mounting Box is not supplied with frontplate.  
Suitable for flush boxes to BS 4662:2006 and surface boxes to BS 5733:2010 Refer to appropriate module for minimum box depth.

**FIXING CENTRES**  
1 gang 60.3mm  
2 gang 120.6mm

**STANDARDS**  
BS 5733:2010 where applicable

**NOTE**  
No grid required, modules just clip into place.

**K5830SAWHI** 10  
**K5830BLK** 10  
UK 1 GANG  
EURO 2 MODULE  
13A 250V SHUTTERED

**K5831WHI** 10  
**K5831BLK** 10  
GERMAN 2P+E  
16A 250V SHUTTERED  
EURO 2 MODULE (NON UK)

**K5832WHI** 10  
**K5832BLK** 10  
AMERICAN 2P+E  
15A 127V SHUTTERED  
EURO 2 MODULE (NON UK)

**K5830**  
MOUNTING BOX  
35mm  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
BS 1363-2:1995

**K5831**  
MOUNTING BOX  
46mm

**DIMENSIONS**  
50 x 50mm  
IEC 60884-1:2006

**K5832**  
MOUNTING BOX:  
35mm  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
SASO 2204:2003

**K5833WHI** 10  
**K5833BLK** 10  
UK 1 GANG EURO 2 MODULE  
5A 250V SHUTTERED

**K5834WHI** 10  
**K5834BLK** 10  
FRENCH/BELGIAN 2P+E  
16A 250V SHUTTERED  
EURO 2 MODULE (NON UK)

**K5837WHI** 1  
**K5837BLK** 1  
USB CHARGING MODULE  
EURO 2 MODULE

**K5833**  
MOUNTING BOX  
35mm  
46mm (for extra wiring space)

**DIMENSIONS**  
50 x 50mm  
BS 546:1950

**K5834**  
MOUNTING BOX  
46mm

**DIMENSIONS**  
50 x 50mm  
NF C61-314

**K5837**  
MOUNTING BOX  
35mm  
46mm (for extra wiring space)

**K5887SAWHI** 5  
**K5887BLK** 5  
RJ11/12  
ONE MODULE 25 X 50MM

Suitable for both RJ11 and RJ12 jacks

RJ11 4 wire  
RJ12 6 wire

**MOUNTING BOXES**  
Minimum box depth 25mm  
FCC68  
EN 41003

**K5846SAWHI** 5  
**K5846BLK** 5  
RJ45 CAT 6  
ONE MODULE 25 X 50MM

**K5846SWHI** 5  
**K5846sBLK** 5  
RJ45 CAT 6 SCREENED  
ONE MODULE 25 X 50MM

**K5864WHI** 5  
RJ45 CAT 6 ANGLED  
ONE MODULE 25 X 50MM

Cat 6 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum Box Depth 35mm  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K5844WHI** 5  
RJ45 CAT 5e ANGLED  
ONE MODULE 25 X 50MM

**K5845WHI** 5  
**K5845BLK** 5  
RJ45 CAT 5e  
ONE MODULE 25 X 50MM

Enhanced Cat 5 performance.  
Suitable for both 568A and 568B wiring schemes.

**MOUNTING BOXES**  
Minimum box depth 25mm standard  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671:2008 for details.

**DIMENSIONS**  
50 x 50mm  
Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max). Allows charging of portable devices via USB 2.0 type A plug.  
IEC 60950-1  
IEC 61000-6-1/3

For the full range of euro modules see Logic Plus pages 44-46

# Metalclad Plus™



## Euro Datacom Modules

### TELEPHONE



K5820WHI



K5821WHI



K5821BLK

**K5820WHI**  
**K5820BLK**  
 TELEPHONE MASTER  
 ONE MODULE 25 X 50MM

**K5821WHI**  
**K5821BLK**  
 TELEPHONE SECONDARY  
 ONE MODULE 25 X 50MM

**MOUNTING BOXES**  
 Minimum depth 25mm  
 BS 6312-2

### BNC

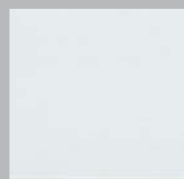


K5801WHI

**5** **K5801WHI**  
**5** BNC 50Ω  
 ONE MODULE 25 X 50MM

**5** 50 Ohm crimp connector suitable for use with  
**5** RG58, URM43, URM76 and Belden 9907 type  
 co-axial cables.  
**MOUNTING BOXES**  
 Minimum box depth 25mm

### BLANKS



K180WHI



K188WHI



K188BLK



K186WHI



K186BLK

**5** **K180WHI**  
 TWO MODULE  
 BLANK 50 X 50MM

**K188WHI**  
**K188BLK**  
 ONE MODULE  
 BLANK 25 X 50MM

**K186WHI**  
**K186BLK**  
 HALF MODULE  
 BLANK 12.5 X 50MM

BS 5733:2010 where applicable

## LJU6C Data Frontplates

### FRONTPLATES



K172ALM

**10** **K172ALM**  
**10** 1 GANG TWIN  
**10** LJU6C FRONTPLATE  
**10** TWO MODULE  
 APERTURE SIZE  
 22 X 37MM

**10** **MOUNTING BOXES**  
 Suitable for flush boxes to  
 BS 4662:2006 and surface boxes to  
 BS 5733:2010  
 Refer to appropriate module for minimum box  
 depth.

**10** **FIXING CENTRES**  
**10** 1 gang 60.3mm  
 BS 5733:2010 where appropriate

**NOTE**  
 No grid required, modules just clip into place

For the full range of euro modules see Logic Plus pages 44-46



## LJU6C Datacom Modules

## Boxes

### RJ11/12



K5787WHI

### RJ45 CAT 6



K5746SAWHI



K5746BLK



K5746SWHI



K5746SBLK

### RJ45 CAT 5e



K5745WHI



K5745BLK

### BLANKS



K170WHI



K170BLK

### BOXES



K8891ALM



K8821ALM



K8892ALM



K8822ALM

#### K5787WHI

RJ11/12  
ONE MODULE

Suitable for both RJ11 and RJ12 jacks.

RJ11

4 wire

RJ12

6 wire

**MOUNTING BOXES**

Minimum box depth 25mm

FCC68

EN41003

5

#### K5746SAWHI

K5746BLK

RJ45 CAT 6

ONE MODULE

K5746SWHI

K5746SBLK

RJ45 CAT 6

SCREENED

ONE MODULE

Cat 6 performance.

Suitable for both 568A and 568B

wiring schemes.

**MOUNTING BOXES**

Minimum Box Depth 35mm

ISO/IEC 11801

EN 50173

TIA 568

EN 41003

5

#### K5745WHI

K5745BLK

RJ45 CAT 5e

ONE MODULE

Enhanced Cat 5 performance.

Suitable for both 568A and 568B

wiring schemes.

**MOUNTING BOXES**

Minimum box depth 25mm

ISO/IEC 11801

EN 50173

TIA 568

EN 41003

5

#### K170WHI

K170BLK

ONE MODULE BLANK

BS 5733:2010 where appropriate

5

10

#### K8891ALM

1 GANG 38MM BOX  
6 X 20MM KNOCKOUTS

K8821ALM

1 GANG 38MM BOX  
WITHOUT KNOCKOUTS

K8901ALM

1 GANG 46MM DEEP BOX  
6 X 20MM KNOCKOUTS

K8892ALM

2 GANG 38MM BOX  
8 X 20MM KNOCKOUTS

K8822ALM

2 GANG 38MM BOX  
WITHOUT KNOCKOUTS

K8902ALM

2 GANG 46MM DEEP BOX  
4 X 20MM AND 4 X 25MM

KNOCKOUTS

All boxes have a base knockout and

feature self-levelling platforms to ensure

that the mounting frame is always

positioned correctly without the need for

adjustment.

BS 5733: 2010

where applicable

10

10

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5

5

5



# Metalclad Plus™



## Boxes

## Blank Plates

## Grid Plus Frontplates



K829ALM



K830ALM



K899ALM



K899WHI



K897ALM



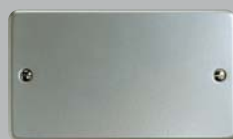
K897WHI



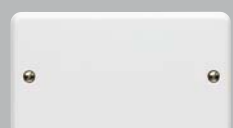
K3390ALM



K3390WHI



K3369ALM



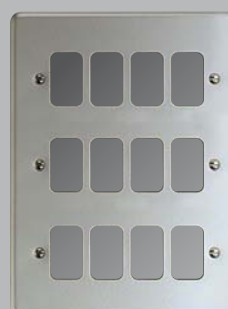
K3369WHI



K3492ALM



K3494ALM



K3502ALM



K3491WHI



K3492WHI



K3493WHI



K3494WHI

### K829ALM

1 GANG  
WITHOUT KNOCKOUTS

5

### K830ALM

2 GANG  
WITHOUT KNOCKOUTS

5

### K899ALM

1 GANG  
6 X 20MM KNOCKOUTS

10

### K899WHI

1 GANG  
6 X 20MM KNOCKOUTS

10

All boxes are fitted with a brass earth terminal and a base knockout.

#### DIMENSIONS

1 gang 86 x 86 x 38mm

2 gang 86 x 147 x 38mm

These boxes are not suitable for mounting Grid Plus modules or modular data/telecom modules.

BS 5733:2010

### K897ALM

### K897WHI

2 GANG  
8 X 20MM KNOCKOUTS

5

5

### K3390ALM

### K3390WHI

1 GANG

5

5

### K3369ALM

### K3369WHI

2 GANG

5

5

#### DIMENSIONS

K3390 86 x 86mm

K3369 86 x 147mm

FIXING CENTRES

K3390 60.3mm

K3369 120.6mm

BS 5733:2010

Blank plates supplied without backboxes.

### K3491ALM

1 MODULE

10

### K3492ALM

2 MODULE

10

### K3493ALM

3 MODULE

5

### K3494ALM

4 MODULE

5

### K3496ALM

6 MODULE

1

### K3498ALM

8 MODULE

1

### K3499ALM

9 MODULE

1

### K3502ALM

12 MODULE

1

### K3508ALM

18 MODULE

1

### K3514ALM

24 MODULE

1

#### DIMENSIONS

1 & 2 module 86 x 86mm

3 & 4 module 86 x 146mm

6 & 8 module 146 x 146mm

9 & 12 module 146 x 206mm

18 module 206 x 206mm

24 module 206 x 266mm

BS 5733:2010

See Grid Plus page 189 for a complete selection of switching modules.

### K3491WHI

1 MODULE

10

### K3492WHI

2 MODULE

10

### K3493WHI

3 MODULE

5

### K3494WHI

4 MODULE

5



# DURAPLUG®

## RANGE INTRODUCTION

The Duraplug® range of heavy duty products has become a virtual byword for durability, strength and reliability.

Duraplug® offers a wide range of products including a complete range of safety extension leads featuring rubber covered plugs, extension leads, trailing sockets, lead connectors and cable couplers. All Duraplug® products are made from top quality, high impact resistant materials such as ABS/polycarbonate and rubber.

## FEATURES & BENEFITS

- Produced with top quality, high impact resistant materials such as ABS/polycarbonate and rubber
- Sockets have visible red nylon shutters
- Lead connectors have retaining lugs to prevent accidental disconnection
- All internal parts of trailing sockets are retained in the base for ease of wiring

# Duraplug®



## Heavy Duty Extension Leads

4 WAY  
13 AMP

13 AMP

13 AMP



EXL135WHI EXL135BLK



EXL136WHI EXL136BLK



EXL137WHI EXL137BLK

**EXL135WHI**  
**EXL135BLK**  
13A WITH FUSE, NEON AND  
2 METRE CABLE

1  
1

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.  
The sockets are manufactured in high impact ABS/Polycarbonate.  
Fitted with a fuse carrier and 13A fuse to BS 1362  
BS 1363/A-2:1995  
BS EN 50525-2-11 – Cable

**EXL136WHI**  
**EXL136BLK**  
13A WITH SWITCH, NEON AND  
2 METRE CABLE

1  
1

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.  
The sockets are manufactured in high impact ABS/Polycarbonate.  
BS 1363/A-2:1995  
BS EN 50525-2-11 – Cable

**EXL137WHI**  
**EXL137BLK**  
13A WITH FUSE, SWITCH, NEON AND  
2 METRE CABLE

1  
1

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.  
The sockets are manufactured in high impact ABS/Polycarbonate.  
BS 1363/A-2:1995  
BS EN 50525-2-11 – Cable

## Heavy Duty Portable Socket

4 WAY  
FILTERED  
13 AMP



744WHI

4 WAY  
13 AMP



FC4134WHI



FC4134BLK

13 AMP



FC4135WHI



FC4135BLK

13 AMP



FC4136WHI



FC4136BLK

### 744WHI 1 13A WITH SWITCH, NEON AND FUSE

Fitted with a fuse carrier and 13A fuse to BS 1362. Manufactured in high impact ABS/Polycarbonate. Can also be wall mounted.

Fitted with a fuse carrier and 13A fuse to BS 1362

**DIMENSIONS**  
317 x 68 x 31mm

**SPECIFICATION**  
Max. Power 3.14kW  
Response time (Varistor) better than 20ns  
BS 1363/A-2:1995

### FC4134WHI 1 FC4134BLK 1 13A WITH FUSE AND NEON

Manufactured in high impact ABS/Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

**DIMENSIONS**  
317 x 68 x 31mm  
BS 1363/A-2:1995

### FC4135WHI 1 FC4135BLK 1 13A WITH SWITCH AND NEON

Manufactured in high impact ABS/Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

**DIMENSIONS**  
317 x 68 x 31mm  
BS 1363/A-2:1995

### FC4136WHI 1 FC4136BLK 1 13A WITH SWITCH, FUSE AND NEON

Manufactured in high impact ABS/Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

**DIMENSIONS**  
317 x 68 x 31mm  
BS 1363/A-2:1995

# Duraplug®



## Heavy Duty Trailing Sockets

13 AMP



FC133WHI



FC133ORG



FC133BLK



FCT133WHI



FCT133BLK



FC153BLK

**FC133WHI** 10  
**FC133BLK** 10  
**FC133ORG** 10  
 13A SINGLE OUTLET

Manufactured from tough Polypropylene with rubber cover. All internal component parts are retained in the base for ease of wiring.

### DIMENSIONS

79 x 62 x 29mm  
 BS 1363/A-2:1995

**FCT133WHI** 10  
**FCT133BLK** 10  
**FCT133ORG** 10  
 13A TWIN OUTLET

**FC153BLK** 10  
 15A SINGLE OUTLET  
 ROUND PIN

### FCT133

Manufactured from tough Polypropylene with rubber cover. All internal component parts are retained in the base for ease of wiring.  
 BS 1363/A-2:1995

### FC153

Rubber cover.  
 BS 546:1950

### DIMENSIONS

**FCT133** 80 x 125 x 29mm  
**FC153** 67 x 53 x 33mm

## Lead Connectors

TWO & THREE PIN  
10 AMP

LCP102BLK



LCP103BLK

**LCP102BLK** 10  
**LCP102ORG** 10  
 TWO PIN 10A PLUG  
 AND SOCKET

**LCP103WHI** 10  
**LCP103BLK** 10  
 THREE PIN 10A PLUG  
 AND SOCKET

This range of connectors provides a safe and easy method of extending power cables and electrical tools and appliances. With rubber cover and polypropylene inserts with integral cable grips. Retaining lugs prevent accidental disconnection. Two pin versions are only for use with double insulated Class 2 appliances. Three pin versions must be used with earthed appliances.

### DIMENSIONS

40 x 25 x 80mm  
 BS 5733: 2010

Comply with IP44 Ingress Protection rating to BS EN 60529:1992

SPARES  
10 AMP

LCP102PBLK



LCP102SBLK

**LCP102PBLK** 10  
**LCP102PORG** 10  
 10A PLUG TWO PIN

**LCP102SBLK** 10  
**LCP102SORG** 10  
 10A SOCKET TWO PIN

### BS 5733:2010

Comply with IP44 Ingress Protection rating to BS EN 60529:1992

## Rubber Plugs

## Cable Couplers



LCP103SBLK



LCP103PBLK



LCP103PWHI



PF133WHI



PF133ORG



P153BLK



CCP53BLK



CCP153BLK



CCP133PBLK



CCP133PWHI

**LCP103PWHI** 10  
**LCP103PBLK** 10  
10A PLUG THREE PIN  
**LCP103SWHI** 10  
**LCP103SBLK** 10  
10A SOCKET THREE PIN

BS 5733:2010  
Comply with IP44 Ingress Protection rating  
to BS EN 60529:1992

**P53BLK** 10  
5A ROUND PIN  
**PF133WHI** 10  
**PF133ORG** 10  
**PF133BLK** 10  
FITTED WITH 13A FUSE  
**P153BLK** 10  
15A ROUND PIN

**PF133**  
With rubber cover.  
Available with alternative fuse ratings to special  
order only.  
Approved by ASTA Licence no.470  
BS 1363/A-1:1995

**P53BLK**  
Manufactured in rubber

**P153BLK**  
With rubber cover and ABS/Polycarbonate base.  
BS 546:1950

**CCP53BLK** 1  
5A PLUG & SOCKET  
**CCP153BLK** 1  
15A PLUG & SOCKET  
**CCP133PBLK** 1  
SPARE 13A PLUG

These splashproof couplers are a rugged means  
of connecting cables in industrial and commercial  
environments. Fitted with heavy duty cable clamps,  
tapered cable entry and fuse (13A version only).

**DIMENSIONS**  
Diameter x Length  
**CCP53** 60 x 173mm  
**CCP133** 65 x 182mm  
**CCP153** 68 x 180mm  
BS 5733:2010 (BS 1363 Pin centres for 13A versions)  
BS 5733:2010 (BS 546 Pin centres for 5A and 15A  
versions)



# Plugs and Adaptors



Established range of plugs and adaptors. The established names of Safetyplug™ and Toughplug™ strengthen MK's reputation for high quality products with the accent on safety and quality.

## Safetyplugs

## Toughplugs

### NON STANDARD



|   |     |
|---|-----|
| <b>646WHI</b>                             | 10  |
| <b>646CHA</b>                             | 10  |
| FITTED WITH 13A FUSE                      |     |
| <b>64603WHI</b>                           | 10  |
| FITTED WITH 3A FUSE                       |     |
| <b>645NIP</b>                             | 100 |
| SECRET SCREW FOR SAFETYPLUG AND TOUGHPLUG |     |
| <b>644ZIC</b>                             | 10  |
| KEY FOR SECRET SCREW                      |     |

See page 222 for spare fuse links.  
BS 1363-1:1995

|                      |    |
|----------------------|----|
| <b>647WHI</b>        | 10 |
| <b>647CHA</b>        | 10 |
| FITTED WITH 13A FUSE |    |

See page 222 for spare fuse links.  
T shaped earth pin for use with MK non-standard 13A sockets only.  
BS 1363-1:1995 (where relevant)

|                            |    |
|----------------------------|----|
| <b>655WHI</b>              | 10 |
| FITTED WITH 13A FUSE       |    |
| <b>65503WHI</b>            | 10 |
| FITTED WITH 3A FUSE        |    |
| <b>655BLK</b>              | 10 |
| <b>655ORG</b>              | 10 |
| <b>655RED</b>              | 10 |
| FITTED WITH 13A FUSE       |    |
| <b>655D8WHI</b>            | 10 |
| <b>655D8RED</b>            | 10 |
| MARKED 'HOSPITAL PROPERTY' |    |
| FITTED WITH 13A FUSE       |    |

See page 222 for spare fuse links.  
BS 1363/A-1:1995



## Round Pin Plugs

## Plug Adaptors



505WHI



515WHI



641WHI



690WHI



692WHI



696WHI



698PPK

|                         |    |
|-------------------------|----|
| <b>502WHI</b>           | 10 |
| 2A                      |    |
| <b>505WHI</b>           | 10 |
| 5A                      |    |
| <b>515WHI</b>           | 10 |
| 15A RESILIENT COVER     |    |
| <b>641WHI</b>           | 10 |
| 5A FUSED                |    |
| <b>643WHI</b>           | 10 |
| 15A FITTED WITH 5A FUSE |    |

See page 222 for spare fuse links to BS 646.  
BS 546:1950

|  |   |
|--|---|
| <b>690WHI</b>  | 5 |
| 13A WITH 1 X 13A AND 1 COMBINED 16A UNIVERSAL AND GERMAN TYPE 2P+E SOCKET OUTLET |   |
| FUSED 13A  |   |

BS 1363-3:1995 (where relevant)

|                                      |    |
|--------------------------------------|----|
| <b>692WHI*</b>                       | 5  |
| 13A WITH 3 X 13A SOCKET OUTLETS      |    |
| FUSED 13A                            |    |
| <b>696WHI*</b>                       | 5  |
| 13A WITH 2 X 13A SOCKET OUTLETS      |    |
| UNFUSED                              |    |
| <b>698PPK*</b>                       | 10 |
| 13A WITH 1 X 1A SHAVES SOCKET OUTLET |    |
| FUSED 1A                             |    |

BS 1363-3:1995 (where relevant)

\*Not Open to sale in GSO Countries



# MASTERSEAL PLUS™

## RANGE INTRODUCTION

Masterseal Plus™ has been specifically developed for use in both outdoor and indoor environments, and where wiring devices and accessories would be at risk from penetration by dust or water.

With a rating of IP66\*, Masterseal Plus™ offers total protection against dust, and is protected against high pressure jets of water from any direction. Masterseal Plus™ sockets can seal around virtually any standard 13A plug – including moulded on plugs – allowing safe connection for any appliance.

An improved catch eases the opening and closing of the lid, whilst ensuring the integrity of the seal. The gasket is fixed to the mounting frame of the product, enabling rapid installation, and removing the risk of error when placing a floating gasket.

The Masterseal Plus™ range extends to over 90 product variations as the enclosures house selected products from the Logic Plus™ portfolio – thus offering all the benefits of the Logic Plus™ range within the Masterseal Plus™ enclosures.

## FEATURES & BENEFITS

### IP66\*

Masterseal Plus™ offers total dust ingress protection, and is protected against high-pressure water jets from any direction, when in use.

### ROBUST CONSTRUCTION AND TEMPERATURE TOLERANT

Masterseal Plus™ will not discolour, crack or fade in UV light (unlike many other plastics), and will maintain operation in extremes of heat and cold.

### IMPACT PROTECTION

Masterseal Plus™ enclosures are made from polycarbonate, one of the toughest thermoplastics available – incidentally also used in products such as motorcycle helmets.

### WIDEST RANGE

The Masterseal Plus™ range extends to over 90 product variants. The enclosures house products from the Logic Plus™ range, all enclosures and switches are available in Grey, White and Black.

### 20 YEAR GUARANTEE

Masterseal Plus™ is guaranteed for an industry-leading 20 years. (10 years for electronic products)



\*Grid Plus enclosures are IP56

## Masterseal Plus™

## ULTIMATE PROTECTION



MK Electric has always been at the forefront of technical innovation, not least in the IP environment.

Masterseal Plus™ has been tested to levels well in excess of British Standards. Masterseal Plus™ safeguards users in the harshest of environments, employing a gel seal for improved protection.

With a superb rating of IP66, Masterseal Plus™ is dust-tight to any ingress, and water-tight against high-pressure water jets from any direction.

## HOW TO SPECIFY

A range of water and dust tight enclosures, rated at IP66 when in use, manufactured from UV stable thermoplastic material and utilising a gel gasket seal and easy to open catch mechanism.

To enable quick and easy installation the seal will be fixed to the mounting frame of the unit.

Containing a urea moulded anti-bacterial range of wiring accessories, designed with soft curves and chamfered top edges that offer a slim unobtrusive appearance.

Cable connections must be upward facing with easy to identify white markings on a dark background, grouped in a straight line with captive terminal screws for ease of installation.

All standard BS sockets to have a 3 pin operated "child Resistant" shutter system and double pole switching, with the contacts designed such that the neutral makes before and breaks after the live pole for improved safety.

# Masterseal Plus™



## IP66

Protection against any particles of dust and powerful water jets

REAR DRILL HOLES  
For easier installation

FIXED GASKET  
SPEEDS  
INSTALLATION  
and removes risk  
of error when  
placing a floating  
gasket

MANUFACTURED FROM  
POLYCARBONATE  
For impact protection

IMPROVED CATCH  
Eases opening and closing

AVAILABLE IN  
GREY, WHITE  
AND BLACK

HAS ALL THE  
FEATURES AND  
BENEFITS OF THE  
LOGIC PLUS™  
RANGE

SEALED IN USE WITH VIRTUALLY  
ANY STANDARD 13A PLUG  
including moulded on plugs

GEL SEAL  
Durable water and dust tight seal  
for improved protection



## Masterseal Plus™

To view the video visit the  
**MK Electric by Honeywell**  
**YouTube channel**



You  
Tube





## Switchsocket Outlets, Timer Socket Outlets, and Key Operated Socket Outlets

13 AMP  
IP66

RCD PROTECTED  
13 AMP  
IP66

## Socket Outlets

13 AMP  
IP66

16 AMP  
IP66  
(NON UK)



K56486GRY



K56482BLK



K56488GRY



K56485GRY



K56485WHI



K56487GRY



K56301GRY



K56231BLK



K56233WHI



K56480GRY



K56481WHI



K56481BLK



K56483GRY



K56483WHI



K56483BLK

**K56486GRY** 1  
**K56486WHI** 1  
**K56486BLK** 1  
13A DP  
1 GANG SWITCHED  
**K56482GRY** 1  
**K56482WHI** 1  
**K56482BLK** 1  
13A DP  
2 GANG SWITCHED  
**K56488GRY** 1  
**K56488WHI** 1  
**K56488BLK** 1  
13A DP SWITCHED  
2 GANG  
NEON  
CLEAR COVER

Fixing holes are for No.8 woodscrews (not supplied).

**K56486** has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

2 gang backbox has 5 cable entries, 2 on top and 1 centrally on other 3 sides. Supplied with earth terminals in backbox.

### DIMENSIONS

**1 gang** 157 x 110 x 89mm

**2 gang** 157 x 175 x 89mm

BS 1363-2:1995

IP66 BS EN 60529:1992

**K56485GRY** 1  
**K56485WHI** 1  
**K56485BLK** 1  
13A SP  
1 GANG  
WITH ELECTRONIC  
TIMER MODULE  
**K56487GRY** 1  
**K56487WHI** 1  
**K56487BLK** 1  
13A 1 GANG DP  
KEY OPERATED SOCKET

Timer Module meets the requirements of IEC 60730-1 and IEC 60730-2-7 Standards

**K56301GRY** 1  
**K56301WHI** 1  
**K56301BLK** 1  
1 GANG DP  
30mA RATED TRIPPING  
CURRENT ACTIVE  
CONTROL CIRCUIT  
**K56231GRY** 1  
**K56231WHI** 1  
**K56231BLK** 1  
2 GANG SP  
30mA RATED TRIPPING  
CURRENT ACTIVE  
CONTROL CIRCUIT  
**K56233GRY** 1  
**K56233WHI** 1  
**K56233BLK** 1  
2 GANG SP  
30mA RATED TRIPPING  
CURRENT PASSIVE  
CONTROL CIRCUIT

RCD protected sockets are pulsating d.c. and a.c. fault current sensitive. Fixing holes are for No.8 woodscrews (not supplied).

Supplied with an earth terminal in the back box. The Sentriesocket has 5 entries. Suitable for supply voltage of 240V a.c.

Standard Shutters.

### DIMENSIONS

157 x 175 x 89mm

BS 7288:1990

IP66 BS EN 60529:1992

**K56480GRY** 1  
**K56480WHI** 1  
**K56480BLK** 1  
13A 1 GANG  
UNSWITCHED  
**K56481GRY** 1  
**K56481WHI** 1  
**K56481BLK** 1  
13A 2 GANG  
UNSWITCHED

Fixing holes are for No.8 woodscrews (not supplied).

**K56480** has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

BS 1363-2:1995

IP66 BS EN 60529:1992

**K56481** Backbox has 5 cable entries, 2 on top and 1 centrally on other 3 sides. Supplied with earth terminals in backbox.

### DIMENSIONS

**1 gang** 157 x 110 x 89mm

**2 gang** 157 x 175 x 89mm

BS 1363-2:1995

IP66 BS EN 60529:1992

**K56483GRY** 1  
**K56483WHI** 1  
**K56483BLK** 1  
16A  
1 GANG  
2P+E  
UNSWITCHED  
(NON UK)

Fixing holes are for No.8 woodscrews (not supplied).

**K56483** is for use with plugs having right angled cable exit.

### DIMENSIONS

157 x 110 x 89mm

IEC 60884-1:2006

IP66 BS EN 60529:1992

Masterseal Plus™ enclosures are manufactured from polycarbonate. This provides an extremely high level of impact resistance. However some chemicals and synthetic oils can harm polycarbonate. Refer to chemical resistance table on page 413.

# Masterseal Plus™



## Key Operated Switches

20 AMP  
IP66



K56425GRY



K56425WHI



K56425BLK

## Connection Units

13 AMP  
IP66



K56410WHI



K56410BLK



K56410GRY

## Switches

10 AMP  
IP66



K56400GRY



K56401WHI



K56402BLK

10 AMP  
IP66



K56406GRY



K56407BLK



K56408WHI

20 AMP  
IP66



K56409GRY



K56409WHI



K56409BLK

## Grid Plus Enclosures

IP56



K56414GRY



K56414WHI



K56414BLK

**K56425GRY**  
**K56425WHI**  
**K56425BLK**

20A  
1 GANG  
DP KEY OPERATED  
SWITCH

Fixing holes are for No.8 woodscrews (not supplied).  
K56425 Backbox has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

### DIMENSIONS

160 x 117 x 89mm  
BS EN 60669-1:1999  
IP66 BS EN 60529:1992

**K56410GRY**  
**K56410WHI**  
**K56410BLK**

13A DP  
1 GANG  
SWITCHED, FUSED

Fitted with a 13A fuse link to BS 1362.  
Fixing holes are for No.8 woodscrews (not supplied).  
Backbox has 4 x 20mm entries, 1 on each edge, and is supplied with an earth terminal in the backbox.

### DIMENSIONS

160 x 117 x 89mm  
BS 1363-4:1995  
IP66 BS EN 60529:1992

**K56400GRY**  
**K56400WHI**  
**K56400BLK**

10A 1 GANG  
SP ONE-WAY

**K56401GRY**  
**K56401WHI**

10A 1 GANG  
SP TWO-WAY

**K56402GRY**  
**K56402WHI**

10A 2 GANG  
SP ONE-WAY

**K56402BLK**

10A 2 GANG  
SP ONE-WAY

**K56406GRY**  
**K56406WHI**  
**K56406BLK**

10A 1 GANG  
DP ONE-WAY

**K56407GRY**  
**K56407WHI**

10A 1 GANG  
SP TWO-WAY

**K56407BLK**

10A 1 GANG  
SP TWO-WAY

**K56408GRY**  
**K56408WHI**

10A 1 GANG  
SP TWO-WAY

**K56408BLK**

10A 1 GANG  
SP TWO-WAY

PUSH TO MAKE OR  
PUSH TO BREAK

'PRESS'

**K56409GRY**  
**K56409WHI**  
**K56409BLK**

20A 1 GANG  
DP ONE-WAY  
'PRESS'

Fixing holes are for No.8 woodscrews (not supplied).  
Each switch is fitted with a neon which can be wired as a locator.

The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.

### DIMENSIONS

95 x 95 x 57mm  
BS EN 60669-1:1999  
IP66 to BS EN 60529:1992

**K56414GRY**  
**K56414WHI**  
**K56414BLK**

MODULAR GRID PLUS  
ENCLOSURE SUPPLIED  
WITH 1 AND 2 GANG  
INSERTS\*

Fixing holes are for No.8 woodscrews (not supplied).  
Backbox has 4 x 20mm entries, 1 on top, bottom and each side. Supplied with an earth terminal and a loop terminal in the backbox.

### DIMENSIONS

95 x 95 x 80mm  
BS EN 60669-1:1999  
IP56 to BS EN 60529:1992

Fixing holes are for No.8 woodscrews (not supplied).  
Each switch is fitted with a neon which can be wired as a locator.  
The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.  
These switches (except push switches) do NOT have to be derated when used with fluorescent or inductive loads.

### DIMENSIONS

95 x 95 x 57mm  
BS EN 60669-1:1999  
IP66 to BS EN 60529:1992

\* NOTE: Installers may select any switch or neon modules, excluding dimmers, from Grid Plus range and configure product to suit installation requirements.

## Switch Enclosures

IP66



K56420GRY



K56421WHI



K56422BLK



K56422GRY

## Switch Modules

10 AMP



56881BLK



56882BLK

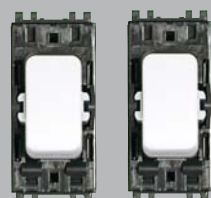


56883BLK

20 AMP



56891BLK



56892BLK 56893BLK



56896BLK

## Neon Modules



56889RED

## Data/Telecom Enclosures Euro Format

IP66



K56423GRY



K56423WHI



K56423BLK

## Euro Data Modules

TELECOM



K5820WHI



K5820BLK



K5821WHI



K5821BLK

**K56420GRY** 1  
**K56420WHI** 1  
**K56420BLK** 1  
1 GANG FOR USE WITH ANY ONE SWITCH MODULE  
**K56421GRY** 1  
**K56421WHI** 1  
**K56421BLK** 1  
1 GANG WITH NEON FOR USE WITH ANY SWITCH AND ANY NEON MODULE  
**K56422GRY** 1  
**K56422WHI** 1  
**K56422BLK** 1  
2 GANG FOR USE WITH ANY TWO SWITCH MODULES

Fixing holes are for No.8 woodscrews (not supplied). Each enclosure is fitted with a neon which should be wired as a locator. The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.

**NOTE**  
These enclosures are for use with the Masterseal Plus™ switch and neon modules.  
**DIMENSIONS**  
95 x 95 x 57mm  
IP66 to BS EN 60529:1992

**56881BLK** 10  
10A SP ONE-WAY  
**56882BLK** 10  
10A SP TWO-WAY  
**56883BLK** 10  
10A DP ONE-WAY  
  
For use only with Masterseal Plus™ switch enclosures.  
These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

**56891BLK** 10  
20A SP ONE-WAY  
**56892BLK** 10  
20A SP TWO-WAY  
**56893BLK** 10  
20A INTERMEDIATE  
**56896BLK** 10  
20A DP ONE-WAY  
  
For use only with Masterseal Plus™ switch enclosures.  
These switches do NOT have to be derated when used with fluorescent or inductive loads.  
BS EN 60669-1:1999

**56889RED** 10  
200-250V NEON RED  
BS 5733: 2010

**K56423GRY** 1  
**K56423WHI** 1  
**K56423BLK** 1  
1 GANG DATA ENCLOSURE FOR 2 MODULE EURO OUTLET  
  
2 data modules can be accommodated providing care is used to ensure that the cables are correctly routed through the outlet.  
Fixing holes are for No.8 woodscrews (not supplied). Backbox has 4 x 20mm entries, 1 on each edge. Supplied with an earth terminal and a loop terminal in the backbox.  
**DIMENSIONS**  
160 x 117 x 89mm  
IP66 to BS EN 60529:1992

**K5820WHI** 5  
**K5820BLK** 5  
TELEPHONE MASTER ONE MODULE  
**K5821WHI** 5  
**K5821BLK** 5  
TELEPHONE SECONDARY ONE MODULE  
  
**DIMENSIONS**  
25 x 50mm  
BS 6312-2

See Logic Plus page 44-46 for a full range of Euro modules



# Masterseal Plus™



## Euro Data Modules

DATA



K5844WHI



K5887SAWHI K5887BLK

**K5844WHI** 5  
RJ45 CAT 5e  
ANGLED UNSCREENED  
ONE MODULE  
**K5887SAWHI** 5  
**K5887BLK** 5  
RJ11/12  
ONE MODULE

**K5844**  
Enhanced Cat 5e performance.  
Suitable for both 568A and  
568B wiring schemes.  
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

**K5887**  
Suitable for both RJ11 and  
RJ12 jacks  
**RJ11** 4 wire  
**RJ12** 6 wire  
FCC68  
EN 41003  
**DIMENSIONS**  
25 x 50mm

See Logic Plus  
page 44-46 for a  
full range of  
Euro modules

## Junction Boxes

30 AMP  
IP66

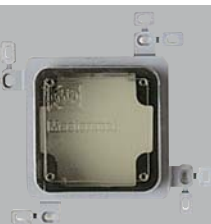
K56506GRY

K56506WHI  
(COVER ON)K56506WHI  
(COVER OFF)

**K56506GRY** 1  
**K56506WHI** 1  
**K56506BLK** 1  
JUNCTION BOX  
WITH FOUR  
4-WAY TERMINALS

Fixing holes are for No. 8  
woodscrews (not supplied).  
The enclosure has 4 entries, 1  
on top, bottom and both sides.  
**TERMINAL CAPACITY**  
Each terminal block accepts  
four 2.5mm<sup>2</sup> cables.  
**DIMENSIONS**  
95 x 95 x 65mm  
BS 6220:1983  
IP66 to BS EN 60529

## Flush Mounting Frames



K56500GRY



56500WHI



K56501GRY

**K56500GRY** 1  
**K56500WHI** 1  
1 GANG  
PLASTER/TILE FLUSH  
MOUNTING FRAME WITH  
PROTECTIVE COVER  
FOR USE WITH  
160 X 117MM PRODUCTS  
**56500GRY** 1  
**56500WHI** 1  
1 GANG  
PLASTER/TILE FLUSH  
MOUNTING FRAME WITH  
PROTECTIVE COVER  
FOR USE WITH  
95 X 95MM SWITCHES  
**K56501GRY** 1  
**K56501WHI** 1  
2 GANG  
PLASTER/TILE FLUSH  
MOUNTING FRAME WITH  
PROTECTIVE COVER

The Flush adaptors for plaster  
and tile can be used with finish  
depths up to 20mm, by using  
the spacers provided. Allows  
flush mounted Masterseal  
Plus™ products to maintain  
their IP rating.  
Can be used with side entry or  
back entry enclosures.  
**DIMENSIONS**  
**56500** 115 x 115 x 34mm  
**K56500** 135 x 135 x 34mm  
**K56501** 135 x 195 x 34mm

## Flush Mounting Bezels



K56502GRY



56502WHI



K56503GRY

**K56502GRY** 1  
**K56502WHI** 1  
1 GANG  
FLUSH MOUNTING  
BEZEL FOR USE WITH  
160 X 117MM PRODUCTS  
**56502GRY** 1  
**56502WHI** 1  
1 GANG  
FLUSH MOUNTING  
BEZEL FOR USE WITH  
95 X 95MM SWITCHES  
**K56503GRY** 1  
**K56503WHI** 1  
2 GANG  
FLUSH MOUNTING BEZEL

The Flush adaptors for brick  
and cavity walls should be  
used on vertical surfaces  
where no additional finishing,  
such as plastering is required.  
Allows flush mounted  
Masterseal Plus™ products to  
maintain their IP rating.  
Can only be used with back  
entry enclosures.  
Supplied with 4 self tapping  
screws to fix enclosure to  
mounting bezel.  
Clip-on surround hides  
mounting screws.  
**DIMENSIONS**  
**56502** 145 x 145 x 41mm  
**K56502** 165 x 165 x 41mm  
**K56503** 165 x 245 x 41mm

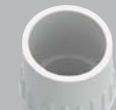
## Conduit Entries



56460WHI



56461WHI



56462WHI



56463WHI



56464WHI

**56460GRY** 5  
**56460WHI** 5  
ENTRY BLANK  
**56461BLK** 5  
**56461WHI** 5  
PVC CABLE ENTRY  
TO PROVIDE DIRECT  
ENTRY OF POWER CABLE  
TO THE UNIT VIA THE  
BOTTOM BOX ENTRY  
**56462BLK** 5  
**56462WHI** 5  
20MM PLAIN CONDUIT  
ENTRY PUSH FIT  
ADAPTOR BETWEEN  
BACK BOX AND 20MM  
PLAIN CONDUIT  
**56463BLK** 5  
**56463WHI** 5  
20MM THREADED  
CONDUIT ENTRY PUSH  
FIT ADAPTOR BETWEEN  
BACK BOX AND 20MM  
THREADED CONDUIT  
**56464BLK** 5  
**56464WHI** 5  
BOX COUPLER  
FOR GANGING ONE  
MASTERSEAL PLUS™  
BOX NEXT TO ANOTHER

## Accessories



MK9933



56890GRN

**MK9933** 1  
M20 EARTH LEAD  
ADAPTOR FOR EARTHING  
METAL CONDUIT  
**56890GRN** 5  
REPLACEMENT  
NEON LOCATOR

Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches, only available from MK Electric

## 1 and 2 Channel Transmitter For Echo™

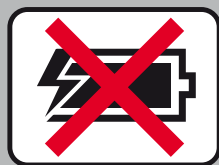
IP66

## Enclosure

IP66



WIRELESS



BATTERYLESS



SELF-POWERED



K55400GRY



K55000GRY



K55406WHI



K55406BLK

### WIRELESS

No wires offers the benefits of almost instant switch installation and total location flexibility, resulting in reduced costs and disruption as well as improved speed and ease of installation – invaluable for areas needing to rearrange space periodically, e.g. commercial offices, or those where the channelling of walls isn't permissible or feasible, such as historic buildings or glass partition walls.

### BATTERYLESS

No batteries means low maintenance and low running costs. No need to buy, fit, replace or dispose of batteries, eliminating nuisance and waste for a more sustainable option.

### SELF-POWERED

The new Echo™ range works by harvesting tiny amounts of ambient energy which power a switch (Transmitter) to send an RF signal to the Switch Receiver which is connected to the lighting circuit – operating lighting at ranges of up to 30 metres within typical buildings.

**K55400GRY**  
**K55400WHI**  
**K55400BLK**  
1 CHANNEL  
TRANSMITTER  
FOR ECHO™

1  
1  
1

**K55000GRY**  
**K55000WHI**  
**K55000BLK**

1  
1  
1

**K55406GRY**  
**K55406WHI**  
**K55406BLK**  
2 CHANNEL  
TRANSMITTER  
FOR ECHO™

1  
1  
1

See page 29 for a full range of Echo™ receivers and accessories

#### No wires

- Instant switch installation
- Location/relocation flexibility
- Simplifies office 'churn' – less disruption

#### No batteries

- Low maintenance
- Low running costs
- Less waste, a more sustainable option
- No nuisance factor

#### Flexibility

- No wires, no constraints
- Suitable for all wall types, including where channelling isn't feasible
- Ideal for commercial, residential and historic buildings

**Quality reliability and safety come as standard**  
**10 year guarantee**



# MK MASTERSEAL COMPACT™

## RANGE INTRODUCTION

The new and innovative Masterseal™ Compact range of switches and sockets from MK, has been specifically designed for use in either outdoor or indoor environments and in areas heavily exposed to dust and splashing water.

Sealed to IP66 and tested by MK well in excess of British Standard, it will protect you and your electrical supply in the unfriendliest of environments.

In addition to its ease of installation, the range is aesthetically pleasing with a modern, slim and curved design, allowing the switches and sockets to blend easily with their surroundings.

The launch of 13 new products of Translucent Lid into Masterseal Compact Range

Masterseal™ Compact's 1 gang switched socket outlet, SP switches and DP switches are now available in Translucent Lid, allowing visibility of the neon when the socket is being switched on. This range is recommended to be installed where users required a clear visual indication that switches are 'ON' without opening the cover lid, such as in the garden to support lawn mowers and hedge trimmers. The Translucent Lid offers an alternative to the standard product, which allow to check on the switch or socket without opening the Lid thus enhancing work site safety.

## FEATURES & BENEFITS

### WATERPROOF AND DUSTPROOF

Offers protection from strong jets of water from any direction, and protection from dust, sawdust and small particles

### DURABLE MATERIAL

The use of high quality plastic prevents discoloration, cracking or fading in UV light

### TEMPERATURE TOLERANT

Reliable in operation during extremes of heat or cold

### ROBUST CONSTRUCTION

A robust range of products made with polycarbonate, one of the toughest thermoplastics available in the world.

- Available in White and Grey
- Service back box available
- Compatible with certain accessories from the UK Masterseal™ range

# MK Masterseal Compact™



WATER PROOF CONNECTION  
TO SAFEGUARD HOME AND FAMILY



DUST PROOF CONNECTION TO  
SAFEGUARD WORK AREAS.



MASTERSEAL™ COMPACT'S UNIQUE  
DESIGN MEANS SOCKET OUTLETS RETAIN  
THEIR IP66 RATING WHEN IN USE.

# MK Masterseal Compact™



## Socket Outlets

13 AMP & 15 AMP  
IP66

15 AMP  
IP66

## Switches

10 AX  
IP66

10 AX  
IP66



86486 WHI



86480 WHI



86893 GRY



86401 GRY



86402 GRY



86486 TC GRY



86772 GRY



86893 TC WHI



86401 TC WHI



86402 TC WHI

**86486 GRY**  
**86486 WHI**  
13AMP 1 GANG SP  
SWITCHED

**86480 GRY**  
**86480 WHI**  
13AMP 1 GANG  
UNSWITCHED

**86893 GRY**  
**86893 WHI**  
15AMP 1 GANG  
SWITCHED

**86401 GRY**  
**86401 WHI**  
10AX 1 GANG  
2 WAY SP SWITCH

**86402 GRY**  
**86402 WHI**  
10AX 2 GANG  
2 WAY SP SWITCH

**86486 TC GRY**  
**86486 TC WHI**  
13AMP 1 GANG SP  
SWITCHED WITH  
TRANSLUCENT LID

**86772 GRY**  
**86772 WHI**  
15AMP 1 GANG  
UNSWITCHED

**86893 TC GRY**  
**86893 TC WHI**  
15AMP 1 GANG  
SWITCHED WITH  
TRANSLUCENT LID

**86401 TC GRY**  
**86401 TC WHI**  
10AX 1 GANG  
2 WAY SP SWITCH WITH  
TRANSLUCENT LID

**86402 TC GRY**  
**86402 TC WHI**  
10AX 2 GANG  
2 WAY SP SWITCH  
WITH  
TRANSLUCENT LID

## SERVICE MODULE RANGE (WITHOUT BACK BOX)

**SM86486 GRY**  
**SM86486 WHI**  
13AMP 1 GANG SP  
SWITCHED

**SM86480 GRY**  
**SM86480 WHI**  
13AMP 1 GANG  
SWITCHED

**SM86893 GRY**  
**SM86893 WHI**  
15AMP 1 GANG  
SWITCHED

**SM86401 GRY**  
**SM86401 WHI**  
10AX 1 GANG  
2 WAY SP SWITCH

**SM86402 GRY**  
**SM86402 WHI**  
10AX 2 GANG  
2 WAY SP SWITCH

**SM86486 TC GRY**  
**SM86486 TC WHI**  
13AMP 1 GANG SP  
SWITCHED WITH  
TRANSLUCENT LID

**SM86772 GRY**  
**SM86772 WHI**  
15AMP 1 GANG  
UNSWITCHED

**SM86893 TC GRY**  
**SM86893 TC WHI**  
15AMP 1 GANG  
SWITCHED WITH  
TRANSLUCENT LID

**SM86401 TC GRY**  
**SM86401 TC WHI**  
10AX 1 GANG  
2 WAY SP SWITCH WITH  
TRANSLUCENT LID

**SM86402 TC GRY**  
**SM86402 TC WHI**  
10AX 2 GANG  
2 WAY SP SWITCH  
WITH  
TRANSLUCENT LID





# MK Masterseal Compact™

WIRING DEVICES  
INGRESS PROTECTED

## Switches

10 AX  
IP66

10 AMP

## Connection Unit

13 AMP  
IP66

## Switch Modular

20 AMP  
IP66



86403 WHI



86403 TC GRY



86407B GRY



86407B TC GRY



86407P WHI



86407P TC GRY



86072 WHI



86072 TC GRY



86423 GRY



86423 TC WHI

**86403 GRY**  
**86403 WHI**  
10AX 3 GANG  
2 WAY SP SWITCH

**86403 TC GRY**  
**86403 TC WHI**  
10AX 3 GANG  
2 WAY SP SWITCH WITH  
TRANSLUCENT LID

**86407B GRY**  
**86407B WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'BELL'

**86407B TC GRY**  
**86407B TC WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'BELL' WITH  
TRANSLUCENT LID

**86407P GRY**  
**86407P WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'PRESS'

**86407P TC GRY**  
**86407P TC WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'PRESS' WITH  
TRANSLUCENT LID

**86072 GRY**  
**86072 WHI**  
13AMP SWITCHED FUSED  
CONNECTION UNIT WITH  
FRONT FLEX OUTLET

**86072 TC GRY**  
**86072 TC WHI**  
13AMP SWITCHED FUSED  
CONNECTION UNIT WITH  
FRONT FLEX OUTLET WITH  
TRANSLUCENT LID

**86423 GRY**  
**86423 WHI**  
1 GANG 20AX  
DP SWITCH WITH NEON

**86423 TC GRY**  
**86423 TC WHI**  
1 GANG 20AX  
DP SWITCH WITH NEON AND  
TRANSLUCENT LID

## SERVICE MODULE RANGE (WITHOUT BACK BOX)

**SM86403 GRY**  
**SM86403 WHI**  
10AX 3 GANG  
2 WAY SP SWITCH

**SM86403 TC GRY**  
**SM86403 TC WHI**  
10AX 3 GANG  
2 WAY SP SWITCH WITH  
TRANSLUCENT LID

**SM86407B GRY**  
**SM86407B WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'BELL'

**SM86407B TC GRY**  
**SM86407B TC WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'BELL' WITH  
TRANSLUCENT LID

**SM86407P GRY**  
**SM86407P WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'PRESS'

**SM86407P TC GRY**  
**SM86407P TC WHI**  
10AMP 1 GANG  
1 WAY SP PUSH SWITCH  
MARKED 'PRESS' WITH  
TRANSLUCENT LID

**SM86072 GRY**  
**SM86072 WHI**  
13AMP SWITCHED FUSED  
CONNECTION UNIT WITH  
FRONT FLEX OUTLET

**SM86072 TC GRY**  
**SM86072 TC WHI**  
13AMP SWITCHED FUSED  
CONNECTION UNIT WITH  
FRONT FLEX OUTLET WITH  
TRANSLUCENT LID

**SM86423 GRY**  
**SM86423 WHI**  
1 GANG 20AX  
DP SWITCH WITH NEON

**SM86423 TC GRY**  
**SM86423 TC WHI**  
1 GANG 20AX  
DP SWITCH WITH NEON AND  
TRANSLUCENT LID

# MK Masterseal Compact™



## Voice Outlet



86431 GRY



86503 GRY



86432 GRY



86504 GRY



86817 GRY



86431 TC WHI



86503 TC WHI



86432 TC WHI



86504 TC GRY



86817 TC WHI

**86431 GRY\***  
**86431 WHI\***  
 20AX 1 GANG 2 WAY  
 SP SWITCH

**86503 GRY\***  
**86503 WHI\***  
 20AX 1 GANG 1 WAY  
 DP SWITCH

**86432 GRY\***  
**86432 WHI\***  
 20AX 2 GANG 2 WAY SP  
 SWITCH

**86504 GRY\***  
**86504 WHI\***  
 20AX 2 GANG 1 WAY DP  
 SWITCH

**86817 GRY**  
**86817 WHI**  
 1 GANG RJ11 4 WIRE  
 TELEPHONE SOCKET

**86431 TC GRY\***  
**86431 TC WHI\***  
 20AX 1 GANG 2 WAY  
 SP SWITCH WITH  
 TRANSLUCENT LID

**86503 TC GRY\***  
**86503 TC WHI\***  
 20AX 1 GANG 1 WAY  
 DP SWITCH WITH  
 TRANSLUCENT LID

**86432 TC GRY\***  
**86432 TC WHI\***  
 20AX 2 GANG 2 WAY  
 SP SWITCH WITH  
 TRANSLUCENT LID

**86504 TC GRY\***  
**86504 TC WHI\***  
 20AX 2 GANG 1 WAY  
 DP SWITCH WITH  
 TRANSLUCENT LID

**86817 TC GRY**  
**86817 TC WHI**  
 1 GANG RJ11 4 WIRE  
 TELEPHONE SOCKET

## SERVICE MODULE RANGE (WITHOUT BACK BOX)

**SM86431 GRY\***  
**SM 86431 WHI\***  
 20AX 1 GANG 2 WAY  
 SP SWITCH

**SM86503 GRY\***  
**SM86503 WHI\***  
 20AX 1 GANG 1 WAY  
 DP SWITCH

**SM86432 GRY\***  
**SM86432 WHI\***  
 20AX 2 GANG 2 WAY SP  
 SWITCH

**SM86504 GRY\***  
**SM86504 WHI\***  
 20AX 2 GANG 1 WAY DP  
 SWITCH

**SM86817 GRY**  
**SM86817 WHI**  
 1 GANG RJ11 4 WIRE  
 TELEPHONE SOCKET

**SM86431 TC GRY\***  
**SM86431 TC WHI\***  
 20AX 1 GANG 2 WAY  
 SP SWITCH WITH  
 TRANSLUCENT LID

**SM86503 TC GRY\***  
**SM86503 TC WHI\***  
 20AX 1 GANG 1 WAY  
 DP SWITCH WITH  
 TRANSLUCENT LID

**SM86432 TC GRY\***  
**SM86432 TC WHI\***  
 20AX 2 GANG 2 WAY  
 SP SWITCH WITH  
 TRANSLUCENT LID

**SM86504 TC GRY\***  
**SM86504 TC WHI\***  
 20AX 2 GANG 1 WAY  
 DP SWITCH WITH  
 TRANSLUCENT LID

**SM86817 TC GRY**  
**SM86817 TC WHI**  
 1 GANG RJ11 4 WIRE  
 TELEPHONE SOCKET



## Data & Voice Outlets

## Accessories

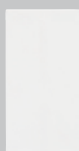


86450 WHI



86451 WHI

A complete product of  
86450 WHI & SX5453 WHI



SX5452 WHI



SX5453 WHI



SX5454 WHI



SX5455 WHI



86504 GRY



86504 WHI



56462 WHI



56463 WHI



56464 WHI



56460 WHI



56461 WHI



9933

**86450 GRY**  
**86450 WHI**  
1 GANG EURO PLATE  
1 MODULE

**86451 GRY**  
**86451 WHI**  
1 GANG EURO PLATE  
2 MODULES

**SX5452 WHI**  
1 MODULE BLANK PLATE  
(FOR USE WITH  
86450 WHI/  
86451 WHI)

**SX5453 WHI**  
1 MODULE ADAPTOR  
(FOR USE WITH  
86450 WHI/  
86451 WHI)

**SX5454 WHI**  
RJ45 CAT 5E JACK

**SX5455 WHI**  
RJ11 JACK

**MB 86504 GRY**  
**MB 86504 WHI**  
1 GANG BACK BOX

**56462 BLK**  
**56462 WHI**  
20MM PLAIN CONDUIT  
ENTRY

**56463 BLK**  
**56463 WHI**  
20MM THREADED  
CONDUIT ENTRY

**56464 GRY**  
**56464 WHI**  
20MM BOX COUPLER

**56460 GRY**  
**56460 WHI**  
CONDUIT ENTRIES-BLANK

**56461 BLK**  
**56461 WHI**  
CONDUIT ENTRIES-DIRECT  
ENTRY

**9933**  
M20 EARTH LEAD  
ADAPTOR

## SERVICE MODULE RANGE (WITHOUT BACK BOX)

**SM86450 GRY**  
**SM86450 WHI**  
1 GANG EURO PLATE  
1 MODULE

**SM86451 GRY**  
**SM86451 WHI**  
1 GANG EURO PLATE  
2 MODULES



# GUARDIAN WEATHERSHIELD™

## RANGE INTRODUCTION

---

This attractive unique MK Guardian Weathershield & Surface box are designed for use in either outdoors or indoors. Especially in areas heavily exposed to dust and splashing water such as balcony, garden, workshop, industry, farm, near swimming pool etc, where supply of electricity is essential in wet environments.

### FEATURES & BENEFITS

#### IP55

MK Guardian Weathershield offers some dust ingress protection, plus protection against low pressure water jets from any direction. Tested to comply with BS60670 & BSEN 60529 / IEC 60529.

#### CLEAR LID

MK Splashguard is available in clear lid, allowing visible indications of power.

Built in padlock facility to prevent tampering.

Made with highly durable & uv stabilized material to ensure safety & reliability.

# Guardian Weathershield™

## Cover

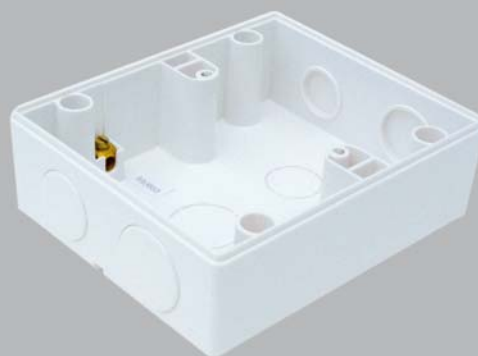
GUARDIAN WEATHERSHIELD  
IP55



**GWS1**

## Surface Box

SURFACE BOX  
IP55



**GWS1B**  
MK GUARDIAN  
WEATHERSHIELD  
SURFACE BOX



# COMMANDO SAFETYSWITCH

## RANGE INTRODUCTION

---

Commando Safetyswitches are manufactured from Polybutylene Terephthalate (PBT) for maximum impact resistance.

The range offers a selection of IP54 and IP65 ratings to cover a variety of indoor and outdoor needs. The units are lockable for added safety and accept auxiliary contacts to increase further the range of applications.

A range of Triple Pole and Neutral switches are also available, manufactured from Polycarbonate (PC).

## FEATURES & BENEFITS

### IMPACT RESISTANT

PBT and PC enclosures provide remarkable impact resistance

### WATER RESISTANT

IP66 ratings mean Commando Safetyswitch and Triple Pole and Neutral switches are suitable for outdoor and indoor use

### ADDED SAFETY

Commando Safetyswitches have mechanically interlocked lids meaning the cover is impossible to remove when the switch is in the 'ON' position



# Commando Safetyswitch

## Triple Pole And Neutral Switches

4 POLE  
IP66



M4413



M4414

2 POLE  
IP66

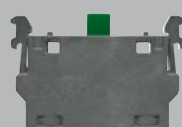


M4417

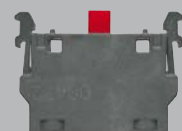


M4418

## Auxiliary Contacts



6818



6819

## Accessories



MK9933

**M4413 AC22/AC 23** 1  
4 POLE  
UTILISATION CATEGORY  
AC23A RATED OPERATIONAL:  
CURRENT (Ie) 32A  
VOLTAGE (Ue) 240/415V 50/60 HZ  
POWER 11 KW

**M4414 AC22/AC 23** 1  
4 POLE  
UTILISATION CATEGORY AC23A  
RATED OPERATIONAL:  
CURRENT (Ie) 20A  
VOLTAGE (Ue) 240/415V 50/60 HZ  
POWER 7.5 KW

TERMINAL CAPACITY  
16mm<sup>2</sup> (Rigid stranded cable)  
CONDUIT ENTRY  
2 x 25mm cable entry top and bottom.  
Supplied with 2 x 25mm conduit adaptors.  
4 x 20mm, 2 x 25mm knockouts for rear  
cable entry.  
BS EN 60947-3:2009

**M4417 AC22/AC 23** 1  
2 POLE  
UTILISATION CATEGORY  
AC23A RATED OPERATIONAL:  
CURRENT (Ie) 32A  
VOLTAGE (Ue) 240V 50/60 HZ  
POWER 5.5 KW

**M4418 AC22/AC 23** 1  
2 POLE  
UTILISATION CATEGORY  
AC23A RATED OPERATIONAL:  
CURRENT (Ie) 20A  
VOLTAGE (Ue) 240V 50/60 HZ  
POWER 3.75 KW

**6818** 10  
10A (Ith) SINGLE POLE  
NORMALLY OPEN,  
6A OPERATIONAL  
CURRENT (Ie)  
AC15 @ 230V

**6819** 10  
10A (Ith) SINGLE POLE  
NORMALLY CLOSED, 6A  
OPERATIONAL  
CURRENT (Ie)  
AC15 @ 230V

**MK9933** 1  
EARTH LEAD ADAPTOR  
M20 X 1.5 / M20 X 1.5 THREAD  
SIZE FOR 16A & 25A  
SAFETYSWITCHES

M4413, M4414, M4417, M4418 ENCLOSURES ARE POLYCARBONATE  
Polycarbonate enclosures provide extremely high levels of impact resistance. Some chemicals and synthetic oils can harm polycarbonate. Call technical hotline for further information.



# COMMANDO

## RANGE INTRODUCTION

Commando offers a comprehensive range of industrial plugs, connectors, socket outlets, appliance inlets, Combi and Modular-Combi units.

The Commando range is designed to meet all relevant European and British Standards, whilst offering remarkable impact strength and an excellent choice of ingress protection ratings. Outstanding temperature performance and good resistance to chemicals make it ideal for the most arduous applications. Contact pins and sleeves are of solid brass with stainless steel springs to keep contacts free of dirt and to ensure constant contact pressure.

### HOW TO SPECIFY

A range of industrial "Commando" industrial plugs, connectors, sockets and switches designed to provide IP44 & IP67 ingress protection. Products to have outstanding temperature performance and resistance to chemicals to ensure operation in arduous applications. All sockets to have self cleaning contacts and nickel plated pins to provide resistance to humidity and wear. Cable entry must be secured via a cable clamp that applies pressure to the cable for the lifetime of the product. Products must have prolonged earth pole connections to ensure that earth terminals are last to disconnect. Terminals to be clearly identified and have terminal screws backed out to provide fast and easy installation.

### FEATURES & BENEFITS

#### RELIABILITY

Features like the calibrated contact sleeves with stainless steel springs, brass screws in brass contacts, and the double earthing screws – all mean that this plug or socket will perform better and longer in difficult conditions.

#### ERGONOMIC DESIGN

All edges and corners are rounded to remove sharp edges. Cable protection is improved. New design offers a better and more comfortable grip for connection / disconnection.

#### CABLE GLAND

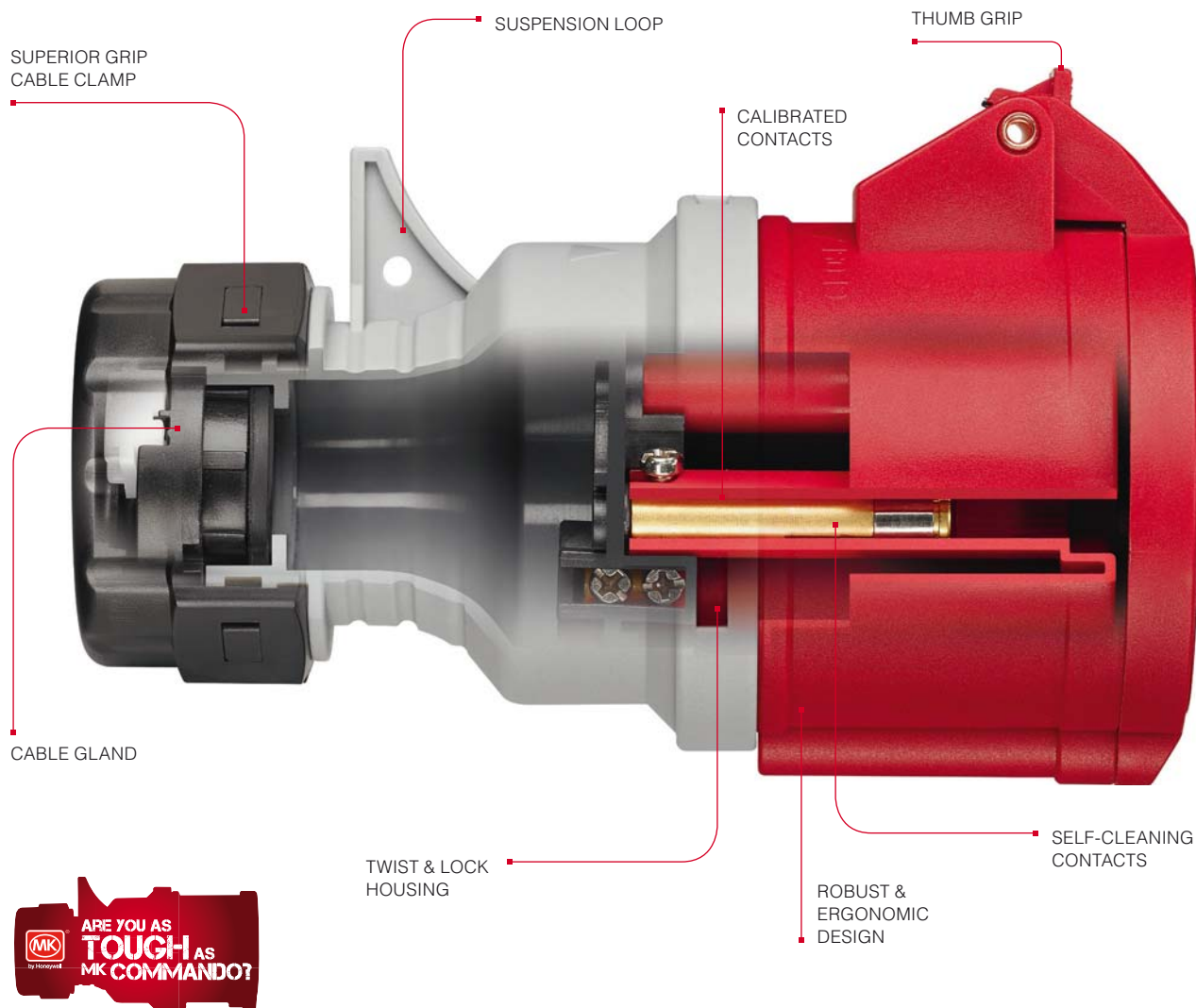
Every product across the range has a new cable clamp with an improved locking mechanism that will apply pressure to the cable for the lifetime of the product.

#### EASY WIRING

All screws are backed out and retained. Twin contact earth screws.

#### OUTSTANDING TEMPERATURE PERFORMANCE

Successful operation guaranteed between -25°C and 55°C.



## HIGH QUALITY MATERIALS

The Commando range offers remarkable impact strength.

Outstanding temperature performance and good resistance to chemicals make it ideal for the arduous applications.

## CONNECTION SEAL

Prevent accidental disconnection or theft of equipment.

## TIGHT AND SECURE

The cable gland has an improved locking mechanism that will apply pressure to the cable for the lifetime of the product.

## PROLONGED EARTH CONNECTION

The earth connection is specifically designed, so that in the unlikely event of failure of the cable gland and the wires detach from the terminals the earth terminal will be the last to disconnect.

For extra protection the earth terminal is provided with 2 connection screws.

## SUSPENSION LOOP

Products can be suspended above the floor, helping to keep the workspace in order.

## QUICK AND EASY TO USE

Clear markings and terminal identification.

Clear instructions for cable strip length, tightening torque and opening of the product.



# Commando



**IP44  
SPLASHPROOF  
100-130V  
50-60 HZ**

## Plugs

## Connectors

## Socket Outlets

ANGLED  
SURFACE

STRAIGHT  
PANEL MOUNTING

SURFACE – LOOP IN

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |  |
|------|----------------------------|-------|---|---|---|---|---|
| 16   | 2P+E                       | 4     | <b>K9000YEL</b>   | <b>K9100YEL</b>   | <b>K9200YEL</b>   | <b>K9400YEL</b>   | <b>K13300YEL</b>  |
| 32   | 2P+E                       | 4     | <b>K9032YEL</b>   | <b>K9132YEL</b>   | <b>K9232YEL</b>   | <b>K9432YEL</b>   |   |

Fitted with cable entry seal.  
BS EN 60309

Fitted with cable entry seal.  
BS EN 60309

**16A**  
Top conduit (M20) or rear  
cable entry, complete with  
blanking plug.  
**32A**  
Top conduit (M25) or rear  
cable entry, complete with  
blanking plug.  
BS EN 60309

All flanges have the same  
fixing centres and outside  
dimensions to assist panel  
builders.  
BS EN 60309

Suitable for top entry 1 x M20  
and 1 x M25 or bottom entry  
1 x M20 and 1 x M25  
BS EN 60309

**IP67  
WATERTIGHT  
100-130V  
50-60 HZ**

## Plugs

## Socket Outlets

ANGLED  
SURFACE

PANEL MOUNTING

SURFACE – LOOP IN

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |
|------|----------------------------|-------|---|---|--|---|
| 16   | 2P+E                       | 4     | <b>K9023YEL</b>   | <b>K9193YEL</b>   | <b>K9802YEL</b>  | <b>K13323YEL</b>  |
| 32   | 2P+E                       | 4     | <b>K9053YEL</b>   | <b>K9761YEL</b>   |  |   |

Suitable for flexible cable only.  
BS EN 60309

**16A** Top conduit (M20) or rear cable  
entry, complete with blanking plug.  
**32A** Top conduit (M25) or rear cable  
entry, complete with blanking plug  
BS EN 60309

All flanges have the same fixing  
centres and outside dimensions to  
assist panel builders  
BS EN 60309

Suitable for top entry 1 x M20 and 1  
x M25 or bottom entry  
1 x M20 and 1 x M25  
BS EN 60309

## Switchsocket Outlets

ANGLED  
INTERLOCKED  
SURFACE

| Amps | Pin. Configuration | Earth |                  |
|------|--------------------|-------|------------------|
| 16   | 2P+E               | 4     | <b>K73600YEL</b> |
| 32   | 2P+E               | 4     |                  |

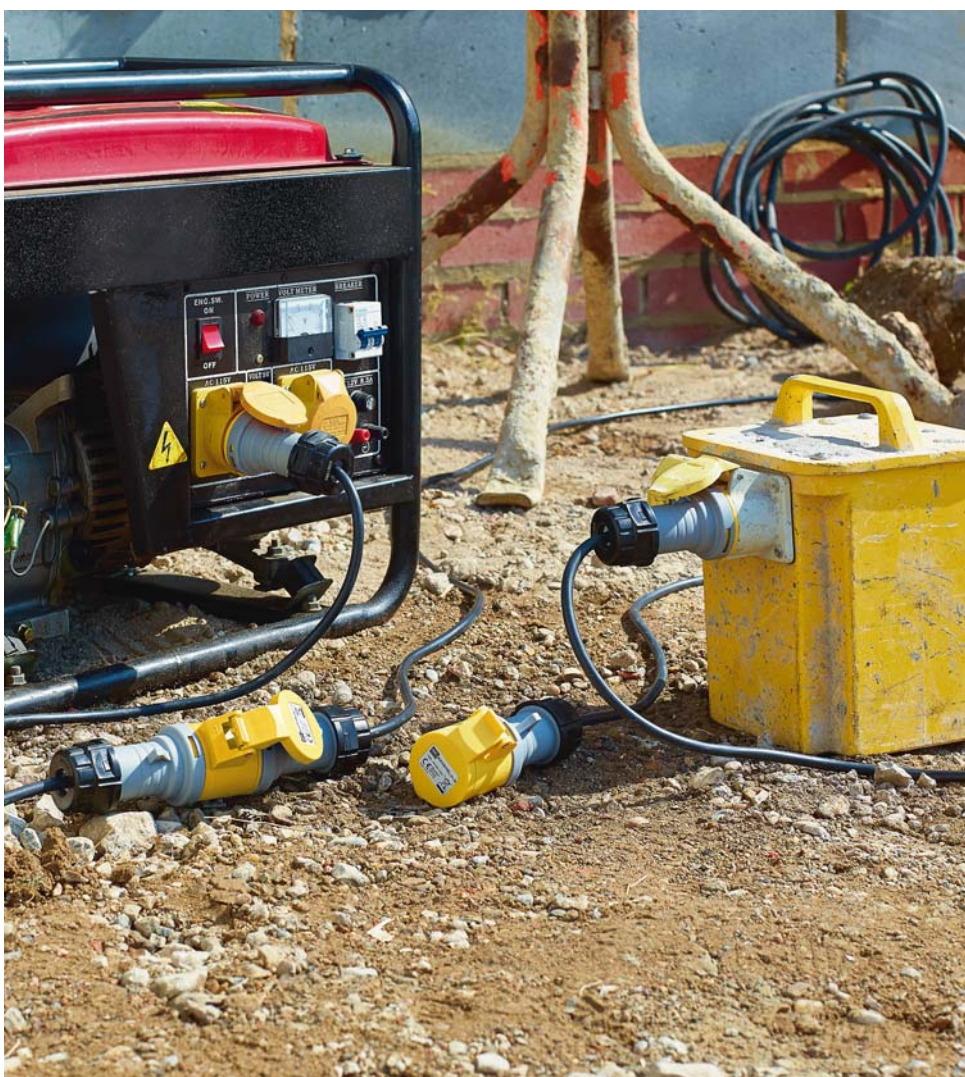
Switch can be locked in open or closed position.  
Suitable for top entry 1 x M20 and 1 x M25 or bottom entry 1 x M20 and 1 x M25  
BS EN 60309

## Switchsocket Outlets

ANGLED  
INTERLOCKED  
SURFACE

| Amps | Pin. Configuration | Earth |                  |
|------|--------------------|-------|------------------|
| 16   | 2P+E               | 4     | <b>K73623YEL</b> |
| 32   | 2P+E               | 4     |                  |

Switch can be locked in open or closed position.  
Suitable for top entry 1 x M20 and 1 x M25 or bottom entry 1 x M20 and 1 x M25  
BS EN 60309



# Commando



**IP44  
SPLASHPROOF  
200 - 250V  
50 - 60 HZ**

## Plugs

## Connectors

## Socket Outlets

ANGLED  
SURFACE

SURFACE-LOOP IN

STRAIGHT  
PANEL MOUNTING

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |  |
|------|----------------------------|-------|---|---|---|---|---|
| 16   | 2P+E                       | 6     | <b>K9001BLU</b>   | <b>K9101BLU</b>   | <b>K9201BLU</b>   | <b>K13301BLU</b>  | <b>K9401BLU</b>   |
| 16   | 3P+E                       | 9     | <b>K9006BLU</b>   | <b>K9106BLU</b>   | <b>K9206BLU</b>   |   |   |
| 16   | 3P+N+E                     | 9     | <b>K9014BLU</b>   | <b>K9114BLU</b>   | <b>K9214BLU</b>   |   |   |
| 32   | 2P+E                       | 6     | <b>K9033BLU</b>   | <b>K9133BLU</b>   | <b>K9233BLU</b>   | <b>K13333BLU</b>  | <b>K9433BLU</b>   |
| 32   | 3P+E                       | 9     | <b>K9036BLU</b>   | <b>K9136BLU</b>   | <b>K9236BLU</b>   |   |   |
| 32   | 3P+N+E                     | 9     | <b>K9044BLU</b>   | <b>K9143BLU</b>   | <b>K9240BLU</b>   |   |   |
| 63   | 2P+E                       | 6     | <b>K9063BLU</b>   | <b>K9172BLU</b>   | <b>K9274BLU</b>   |   | <b>K9472BLU</b>   |

16A/32A  
Fitted with cable entry gland.  
63A  
Fitted with cable entry gland  
BS EN 60309

16A/32A  
Fitted with cable entry gland.  
63A  
Fitted with cable entry gland  
BS EN 60309

16A Top conduit (M20) or rear  
cable entry, complete with  
blanking plug.  
32A Top conduit (M25) or rear  
cable entry, complete with  
blanking plug.  
63A Top conduit (M32) or rear  
cable entry, complete with  
blanking plug  
BS EN 60309

Suitable for top entry 1 x M20  
and 1 x M25 or bottom entry  
1 x M20 and 1 x M25  
BS EN 60309

16/32A  
All flanges have the same  
fixing centres and outside  
dimensions to assist panel  
builders  
BS EN 60309

**IP67  
SPLASHPROOF  
200 - 250V  
50 - 60 HZ**





## Plugs

## Connectors

## Socket Outlets

ANGLED  
SURFACE

SURFACE - LOOP IN

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |
|------|----------------------------|-------|---|---|---|---|
| 16   | 2P+E                       | 6     | <b>K9024BLU</b>   | <b>K9124BLU</b>   | <b>K9194BLU</b>   | <b>K13324BLU</b>  |
| 16   | 3P+E                       | 6     |   |   |   |   |
| 32   | 2P+E                       | 6     | <b>K9054BLU</b>   | <b>K9156BLU</b>   | <b>K9762BLU</b>   | <b>K13354BLU</b>  |
| 32   | 3P+E                       | 6     |   |   |   |   |
| 63   | 2P+E                       | 6     | <b>K9298BLU</b>   | <b>K9856BLU</b>   |   |   |

Suitable for flexible cable only  
63A. With external clamp  
BS EN 60309

Suitable for flexible cable only  
63A. With external clamp  
BS EN 60309

Suitable for top entry 2 x M25  
or bottom entry 2 x M20.  
Will accept FL13 flange at top  
BS EN 60309

Suitable for top entry 1 x M20  
and 1 x M25 or bottom entry  
1 x M20 and 1 x M25  
BS EN 60309

## Switchsocket Outlets

## Appliance Inlets

ANGLED  
PANEL MOUNTING

ANGLED  
INTERLOCKED  
SURFACE

ANGLED  
SURFACE

| Amps | Pin. Configuration | Earth |  |  |  |
|------|--------------------|-------|---|---|--|
| 16   | 2P+E               | 6     | <b>K9771BLU</b>   | <b>K73601BLU</b>  | <b>K9701BLU</b>  |
| 16   | 3P+E               | 9     |   |   |  |
| 16   | 3P+N+E             | 9     |   |   |  |
| 32   | 2P+E               | 6     |   | <b>K73633BLU</b>  | <b>K9733BLU</b>  |
| 32   | 3P+E               | 9     |   |   |  |
| 32   | 3P+N+E             | 9     |   |   |  |
| 63   | 2P+E               | 6     |   |   |  |


**16/32A**  
new range has different fixing centres to old range.  
Old range is available for limited period. See technical section for details  
BS EN 60309

Switch can be locked in open or closed position.  
Suitable for top entry 2 x M32 or 2 x M40 or bottom entry 2 x M32 or 2 x M40  
BS EN 60309

**16A** Top conduit (M20) or rear cable entry, complete with blanking plug.  
**32A** Top conduit (M25) or rear cable entry, complete with blanking plug  
BS EN 60309

## Switchsocket Outlets

ANGLED  
INTERLOCKED  
SURFACE

| Amps | Pin. Configuration | Earth |  |
|------|--------------------|-------|---|
| 16   | 2P+E               | 6     | <b>K73624BLU</b>  |
| 16   | 3P+E               | 9     |   |
| 32   | 2P+E               | 6     | <b>K73654BLU</b>  |
| 32   | 3P+E               | 9     |   |
| 63   | 2P+E               | 6     |   |

Switch can be locked in open or closed position.  
Suitable for top entry 1 x M20 and 1 x M25 or bottom entry 1 x M20 and 1 x M25  
BS EN 6030

# Commando



**IP44  
SPLASHPROOF  
380 - 415V  
50 - 60 HZ**





## Plugs

## Connectors

## Socket Outlets

ANGLED  
SURFACE

STRAIGHT  
PANEL MOUNTING

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |
|------|----------------------------|-------|---|---|--|---|
| 16   | 3P+E                       | 6     | <b>K9007RED</b>   | <b>K9107RED</b>   | <b>K9207RED</b>  |   |
| 16   | 3P+N+E                     | 6     | <b>K9015RED</b>   | <b>K9115RED</b>   | <b>K9215RED</b>  | <b>K13315RED</b>  |
| 32   | 3P+E                       | 6     | <b>K9037RED</b>   | <b>K9137RED</b>   | <b>K9237RED</b>  |   |
| 32   | 3P+N+E                     | 6     | <b>K9045RED</b>   | <b>K9144RED</b>   | <b>K9241RED</b>  | <b>K9445RED</b>   |
| 63   | 3P+E                       | 6     | <b>K9066RED</b>   |   |  |   |
| 63   | 3P+N+E                     | 6     | <b>K9071RED</b>   | <b>K9170RED</b>   | <b>K9269RED</b>  | <b>K9470RED</b>   |

16A/32A  
Fitted with cable entry gland.  
**63A**  
Fitted with cable entry gland.  
Thread size M48  
BS EN 60309

16A/32A  
Fitted with cable entry gland.  
**63A**  
Fitted with cable entry gland.  
Thread size M48  
BS EN 60309

**16A** Top conduit (M20) or rear cable entry, complete with blanking plug.  
**32A** Top conduit (M25) or rear cable entry, complete with blanking plug.  
**63A** Top conduit (M32) or rear cable entry, complete with blanking plug.  
BS EN 60309

16/32A  
All flanges have the same fixing centres and outside dimensions to assist panel builders  
BS EN 60309

**IP67  
WATERTIGHT  
380 - 415V  
50 - 60 HZ**

## Plugs





## Connectors

## Socket Outlets

## Switchsocket Outlets

ANGLED  
SURFACE

ANGLED INTERLOCKED  
SURFACE

| Amps | Pin.<br>Config-<br>uration | Earth |  |  |  |  |
|------|----------------------------|-------|---|---|--|---|
| 16   | 3P+E                       | 6     | <b>K9025RED</b>   |   |  |   |
| 16   | 3P+N+E                     | 6     | <b>K9026RED</b>   | <b>K9126RED</b>   | <b>K9764RED</b>  | <b>K73626RED</b>  |
| 32   | 3P+E                       | 6     |   |   | <b>K9765RED</b>  | <b>K13655RED</b>  |
| 32   | 3P+N+E                     | 6     | <b>K9056RED</b>   | <b>K9158RED</b>   | <b>K9766RED</b>  | <b>K73656RED</b>  |
| 63   | 3P+E                       | 6     |   | <b>K9842RED</b>   |  |   |
| 63   | 3P+N+E                     | 6     | <b>K9292RED</b>   | <b>K9852RED</b>   |  | <b>K73658RED</b>  |

Suitable for flexible cable only.  
BS EN 60309

Suitable for flexible cable only.  
BS EN 60309

2 x 29/37mm knockouts  
(top), 1 x Ø29 and 1 x Ø23  
knockout (bottom).  
Will accept FL13 flanges top  
and bottom  
BS EN 60309

Switch can be locked in open or closed position.  
Suitable for top entry 2 x M32 or  
2 x M40 or bottom entry 2 x M32 or  
2 x M40  
BS EN 60309



## Switchsocket Outlets

ANGLED  
INTERLOCKED  
SURFACE

| Amps | Pin. Configuration | Earth |                  |
|------|--------------------|-------|------------------|
| 16   | 3P+E               | 6     |                  |
| 16   | 3P+N+E             | 6     | <b>K73615RED</b> |
| 32   | 3P+E               | 6     |                  |
| 32   | 3P+N+E             | 6     | <b>K73641RED</b> |
| 63   | 3P+E               | 6     |                  |
| 63   | 3P+N+E             | 6     | <b>K73643RED</b> |

Switch can be locked in open or closed position.  
Suitable for top entry 2 x M32 or 2 x M40 or bottom entry 2 x M32 or 2 x M40  
BS EN 60309



# Commando

## Protective Covers For Inlets



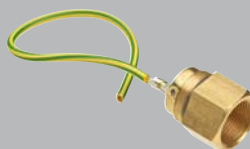
9960BLK

**9960BLK**  
FOR 2P+E, 16A  
NO 125A OFFERING  
**9967BLK**  
FOR ALL 63A (IP44)

## Earth Lead Adaptors and Blanking Plugs



MK9933



MK9934

- |          |   |          |
|----------|---|----------|
| <b>1</b> | <b>MK9933</b><br>M20 X 1.5/ M20 X 1.5 THREAD SIZE<br>USED ON ALL 16A SOCKET OUTLETS<br>AND APPLIANCE INLETS (EXCEPT<br>INTERLOCKED). ALSO USED ON<br>16A AND 25A SAFETYSWITCHES | <b>1</b> |
| <b>1</b> | <b>MK9934</b><br>M25 X 1.5/ M25 X 1.5 THREAD SIZE<br>USED ON ALL 32A SOCKET OUTLETS AND<br>APPLIANCE INLETS (EXCEPT INTERLOCKED)  | <b>5</b> |
|          | <b>9936</b><br>PG21/ M25 X 1.5 THREAD SIZE<br>USED ON 16A & 32A INTERLOCKED<br>SWITCHSOCKET OUTLETS   | <b>5</b> |
|          | <b>MK9937</b><br>M32 X 1.5/ M32 X 1.5 THREAD SIZE<br>USED ON ALL 63A SOCKET OUTLETS AND<br>APPLIANCE INLETS   | <b>5</b> |

MK9937 must not be used on installations that are rated above 63A.





# Commando



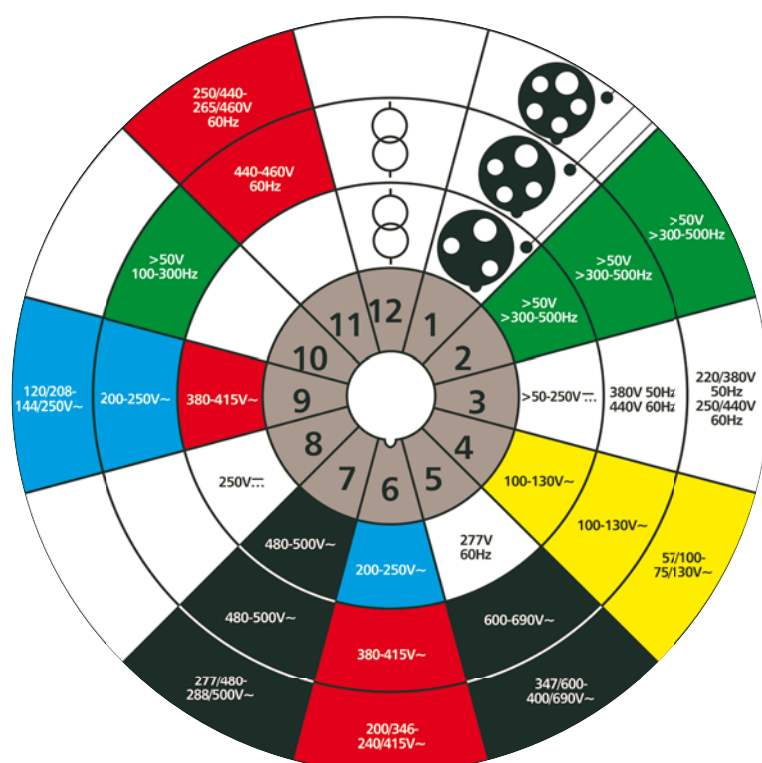
By referring to the chart below, it can be seen that there can be no interchangeability of products as the earth socket tube is placed in a different 'clock' position according to the voltage and frequency. This clock position is determined by looking into a socket-outlet from the front with the key-way at the bottom.

Unless otherwise stated all frequencies are 50-60Hz.

## RATING CODE

The rating code which is found on the rating label of each accessory gives details of rated current, rated (operating) voltage (or range of voltages), rated frequency (if not 50/60Hz) and a symbol to indicate the position of the earth contact.

(i) For all products (except extra low voltage) the position given is that of the earth pin when a socket-outlet/connector is viewed from the front with the key-way at the bottom. When viewing a plug/ appliance inlet from the front with the key at the bottom, the position of the earth pin is reversed, i.e., a 10 o'clock will appear at 2 o'clock and other positions are relative.





# COMMANDO COMBI™

## RANGE INTRODUCTION

Commando Combi units offer RCD protection in hazardous environments.

Enclosed in PC and ABS boxes, these units offer protection against high impact and are available in IP44 (Splashproof) making Commando Combination units some of the safest products available.

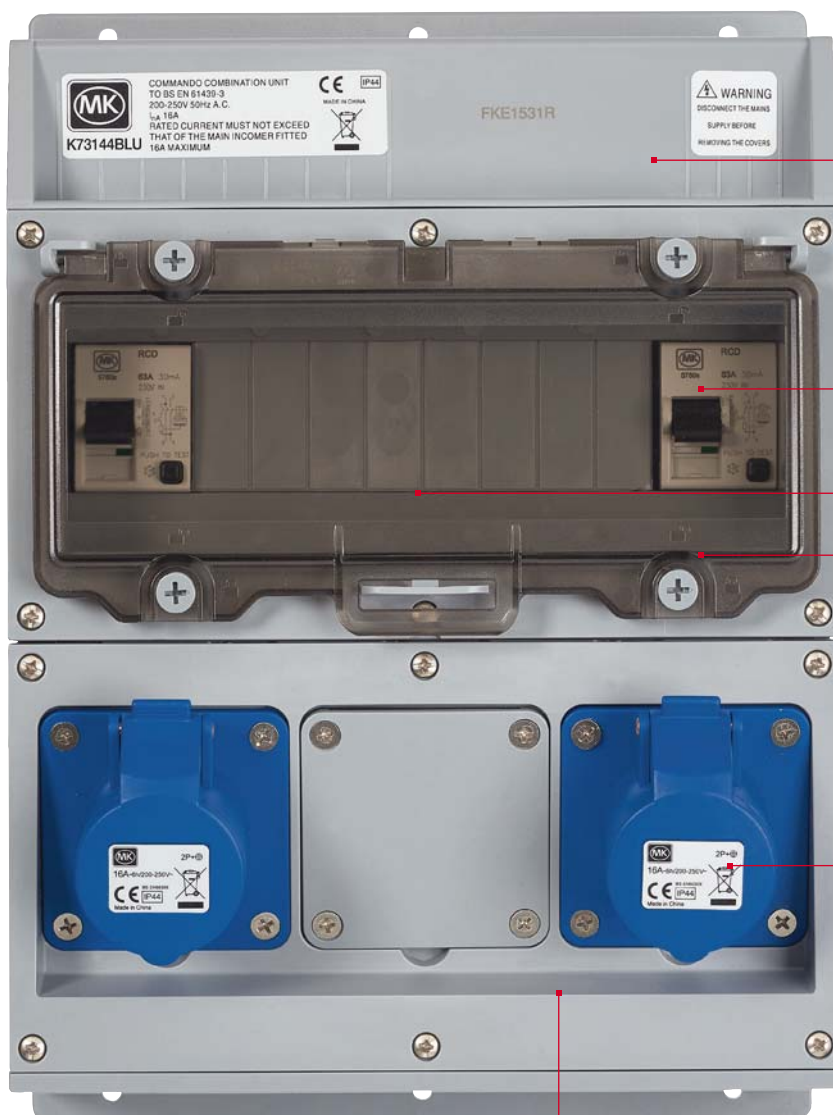
### FEATURES & BENEFITS

- High Impact Protection to IK08
- Available in IP44 (Splashproof) IP67
- Pre-designed, factory built option

### HOW TO SPECIFY

An industrial range of IP44 ingress protected "Commando" combination units designed to provide RCD protection in hazardous environments. Options must be available for a maximum of three Commando sockets. Products must have outstanding temperature performance and resistance to chemicals to ensure operation in arduous applications. All sockets to have self-cleaning contacts and nickel plated pins to provide resistance to humidity and wear. Terminals to be clearly identified and have terminal screws backed out to provide ease of installation.

# Commando Combi™



TOUGH AND IMPACT  
RESISTANT TO IK08

OPTIONAL RCD  
PROTECTION

LOCKABLE LID

GOOD CHEMICAL  
RESISTANCE

IP44 PRE-CONFIGURED SOCKET  
OUTLETS

CUSTOM DESIGNED, FACTORY BUILT  
OPTION AVAILABLE  
CONTACT MK SALES TEAM

Socket outlet selection includes 16A, 32A  
and 63A angled socket outlets across all  
relevant voltages.



IP44 and IP67  
waterproof socket and  
switchsocket outlets.



# Commando Combi™



**IP44  
SPLASHPROOF  
100 - 130V  
50 - 60 HZ**

## Socket Outlets

SINGLE  
PRE-WIRED WITH  
30mA RCD

ANGLED  
TWIN  
SURFACE  
**PRE-WIRED**

Pin.  
Config-  
uration Earth



| Amps | Pin.<br>Config-<br>uration | Earth |
|------|----------------------------|-------|
| 16   | 2P+E                       | 4     |
| 32   | 2P+E                       | 4     |

**K73413YEL**

**K73143YEL**

Suitable for top entry  
2 x 25mm

Suitable for top entry  
2 x ø25 / 2 x ø38  
bottom entry 3 x 47.5mm

**IP44  
SPLASHPROOF  
200 - 250V  
50 - 60 HZ**

## Socket Outlets

SINGLE  
PRE-WIRED WITH  
30mA RCD

ANGLED  
TWIN  
SURFACE  
**PRE-WIRED**

## Switchsocket Outlet

INTERLOCKED  
PRE-WIRED WITH  
30mA RCD

Pin.  
Config-  
uration Earth



| Amps | Pin.<br>Config-<br>uration | Earth |
|------|----------------------------|-------|
| 16   | 2P+E                       | 6     |
| 63   | 2P+E                       |       |

**K73414BLU**

**K73174BLU**

**K73310BLU**

Suitable for top entry  
2 x 25mm

Suitable for top entry  
2 x Ø25 / 2 x Ø38  
Bottom entry 3 x 47.5mm

Suitable for top entry  
2 x 25mm

**IP44  
SPLASHPROOF  
380 - 415V  
50 - 60 HZ**

## Socket Outlets

SINGLE  
PRE-WIRED WITH  
30mA RCD

Pin.  
Config-  
uration Earth



| Amps | Pin.<br>Config-<br>uration | Earth |
|------|----------------------------|-------|
| 16   | 3P+E                       | 6     |
| 16   | 3P+N+E                     | 6     |
| 32   | 3P+E                       | 6     |
| 32   | 3P+N+E                     | 6     |
| 63   | 3P+N+E                     | 6     |

**K73435RED**

16/32A Suitable for top entry  
2 x 25mm



**IP67  
WATERTIGHT  
100 - 130V  
50 - 60 HZ**

**Socket Outlet**  
SINGLE  
PRE-WIRED WITH  
30mA RCD



| Amps | Pin. Config-uration | Earth |
|------|---------------------|-------|
| 16   | 2P+E                | 4     |
| 32   | 2P+E                | 4     |

**K73718YEL**

Suitable for top entry  
2 x ø25

**IP67  
WATERTIGHT  
200 - 250V  
50 - 60 HZ**

**Socket Outlet**  
SINGLE  
PRE-WIRED  
WITH  
30mA RCD



| Amps | Pin. Config-uration | Earth |
|------|---------------------|-------|
| 16   | 2P+E                | 6     |
| 32   | 2P+E                | 6     |

**K73714BLU**

Suitable for top entry  
2 x ø25

**IP67  
SPLASHPROOF  
380 - 415V  
50 - 60 HZ**

**Socket Outlet**  
SINGLE  
PRE-WIRED WITH  
30mA RCD



| Amps | Pin. Config-uration | Earth |
|------|---------------------|-------|
| 16   | 3P+E                | 6     |
| 16   | 3P+N+E              | 6     |
| 32   | 3P+E                | 6     |
| 32   | 3P+N+E              | 6     |

**K13716RED**

**K73735RED**

Suitable for top entry  
2 x ø25





# CASE STUDY

## BROADMOOR HOSPITAL – BESPOKE PRODUCTS

The redevelopment of Broadmoor Hospital required bespoke wiring device plates that would not only be resilient, but maintain the highest levels of safety at all times.

The complexities of this application meant that only a specialist solution would suffice and the MK Design Service were able to provide an offering that met their requirements whilst still delivering unrivalled quality from a UK manufacturer.







# SENTRY

## RANGE INTRODUCTION

The Sentry range of Consumer Units from MK Electric has been stylishly designed to blend in with its environment. The curved lines and slim-line appearance mean it won't look out of place when installed in hallways, lounges or kitchens of new properties.

The expanded range includes a 21-module unit for larger installations and also a 4-module unit to cater for small one-off installations and extensions to existing ones.

The MK Electric Design Service offers a pre-assembly service for custom built boards with all devices fitted, busbars cut and fitted with devices, live and neutral cables terminated.

### SUPPORTS 17TH EDITION AMENDMENT 3 COMPLIANCE

Full range of products to support compliance with the 17th Edition Amendment 3 of the Wiring Regulations, including Full Metal non-combustible enclosures for Consumer Units.

### MK ELECTRIC DESIGN SERVICE FOR PRE-ASSEMBLED CONSUMER UNITS

Save time and money by specifying project requirements through the MK Electric Design Service. Pre-assembled custom built boards, with all devices pre-fitted with busbars and cables are available to suit any installation.

### FLOATING BUSBAR SYSTEM

Gives maximum installation flexibility.

### BROAD SELECTION OF PRE-ASSEMBLED SPLIT LOAD UNITS AVAILABLE

Suits a variety of applications and saves installation time.

### HOW TO SPECIFY

A metal range of consumer unit and accessories (Switch's MCB's, RCD's & RCBO's) designed to comply to the 17th Edition Amendment 3 of the wiring regulations (BS 7671:2008). Consumer unit doors must be top hinged to ensure the door is closed when the unit is not in use. The base, lid & door of the consumer unit must be earthed to provide safe operation at all times. A floating busbar system to be employed to ensure maximum installation flexibility and acceptance of control devices. All consumer units must have a curved door to prevent dust collection and offer a unobtrusive appearance that blends into the environment. Backed out captive screws, removable DIN rails and sufficient wiring space are required to ensure ease of installation and maintenance.



## MK Sentry Consumer Unit Features and Benefits



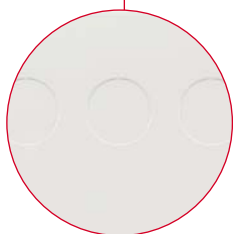
### NEW: Manufactured from Zintec Steel

Corrosion resistant material which ensures full compliance with 17th Edition Amendment 3



### NEW: Top Hinged Door

Prevents door being left open after use leading to a possible fire risk



### NEW: Multiple extra large knock outs

Aides and eases installation



### NEW: MK White Colour

Modernised aesthetics for visible installations.

Design service available for bespoke requests



### Curved Stylish Design

Blends into the environment

### NEW: Continual Earthing

Only need to earth once via the base

### Broad Selection Available

Suits a variety of applications



## Backed out and captive combi-head screws

Allows simple and speedy installation



## Fixing holes

Tripod fixing to cope with uneven surfaces



## Easily removable Din Rail

Simplifying and easing first fix

## Colour coded earth and neutral terminal locked

At top of unit for ease of wiring



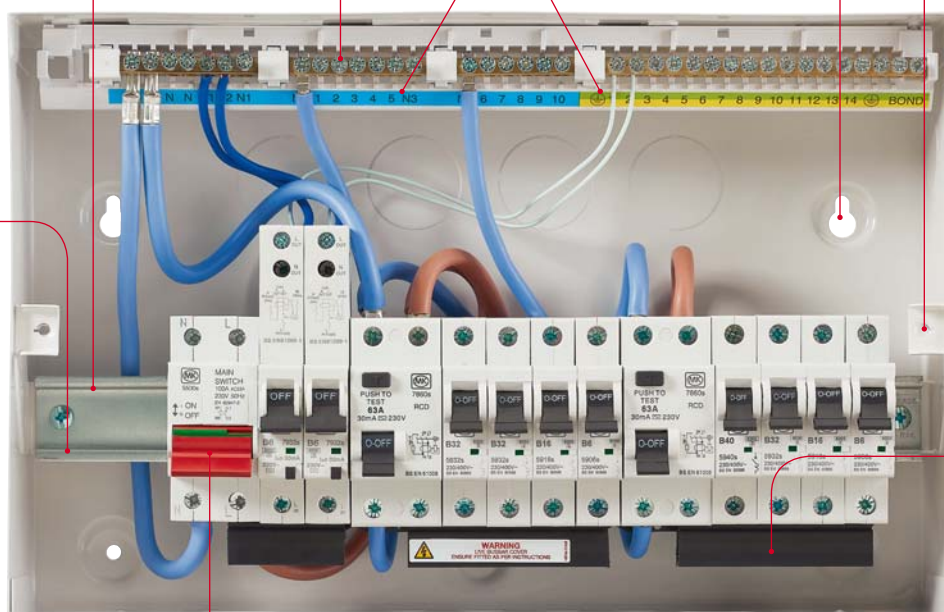
## NEW: 10mm Increased Height

Additional wiring space



## NEW: Supporting Din Rail "T" Bar

Additional support to prevent bowing and twisting which has been raised for improved cable routing



## Floating busbar system

For maximum installation flexibility including acceptance of control modules

## CONSUMER UNIT SELECTION GUIDE

|               |  |
|---------------|--|
| <b>STEP 1</b> | Determine the type of consumer unit configuration required. e.g Split Load, Standard or combination of split load / single RCD or dual RCD. For each Switch Disconnector or RCD to be used allow 2 modular ways.             |
| <b>STEP 2</b> | Determine the number of outgoing circuits required. e.g Cooker, Lighting, Ring Main etc. For each circuit to be protected by an MCB or RCBO allow 1 modular way.   |
| <b>STEP 3</b> | Determine what control products are required. e.g Bell Transformer, Time Delay Switch, contactors, timeswitches etc.   |
| <b>STEP 4</b> | Determine the number of 'spare' modular ways required for future upgrades. For each 'spare' modular way select 1 Sentry blank module – 5544s or K5545sMAG (cover mounted blanks supplied with consumer units. See page 286). |
| <b>STEP 5</b> | Now add together the total number of modular ways required.  |
| <b>STEP 6</b> | Select from our range of Insulated, Metal, Flush or stacked consumer units (using standard consumer units plus stacking kits). Choose the type and size most appropriate for your requirements.                              |



## Offset Incomer

Provides additional wiring space making mains input connections easier

## The MK Electric Design Service

THE MK ELECTRIC DESIGN SERVICE IS PERFECT FOR WHEN ONLY A CUSTOMISED SOLUTION CAN MEET YOUR REQUIREMENTS, OR WHEN FULLY ASSEMBLED CONSUMER UNITS CAN BE PROVIDED FOR YOUR PROJECT TO SAVE YOU INSTALLATION TIME.

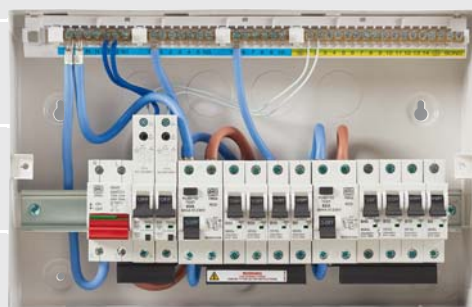
Our dedicated team can help you to build the best configurations for your project, and then assemble the boards ready for installation. Using standard and non-standard Sentry components we can build and supply fully assembled units to an agreed design. For example, have your split load boards supplied with all the devices pre-fitted with busbars and cables to suit the installation. This service is ideal for housing developers, or any project application\*.

\*Minimum order quantity of 20 of the same design

- Dedicated team on hand to build configuration to meet your needs
- Service is available for all MK Consumer Units
- Faster installation time on site
- Fast turnaround – 1 working day response time to initial enquiry

To find out more visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk) and follow the links to the **Design Service**.

|               |   |
|---------------|---|
| <b>STEP 1</b> | Call the MK Electric Technical Services Team on 01268 563720 or email <a href="mailto:mk.technical@honeywell.com">mk.technical@honeywell.com</a>                      |
| <b>STEP 2</b> | Discuss the details of your project and circuit protection requirements with a member of the MK Technical Services Team or complete the online enquiry and click send |
| <b>STEP 3</b> | Within one working day you will have a response to your initial enquiry   |
| <b>STEP 4</b> | Confirm the configurations and quantities   |
| <b>STEP 5</b> | Receive the quote for your order  |
| <b>STEP 6</b> | Place your order with your wholesaler   |
| <b>STEP 7</b> | Your order will be delivered to the wholesaler of your choice. All boards will be fully assembled and ready for installation  |



## Consumer Units

METAL  
ENCLOSURE ONLY  
SURFACE

METAL  
ENCLOSURE + SWITCH  
DISCONNECTOR  
SURFACE



K5604sMET



K5608sMET



K5612sMET



K5616sMET



K5621sMET



K5704sMET



K5708sMET



K5712sMET



K5716sMET



K5721sMET

**K5604sMET** 1  
4 WAY ENCLOSURE  
ACCEPTS 4 ONE MODULE PRODUCTS  
(1 INTEGRAL NEUTRAL BAR)

**K5608sMET** 1  
8 WAY ENCLOSURE  
ACCEPTS 8 ONE MODULE PRODUCTS  
(1 INTEGRAL NEUTRAL BAR)

**K5612sMET** 1  
12 WAY ENCLOSURE  
ACCEPTS 8 ONE MODULE PRODUCTS  
(2 INTEGRAL NEUTRAL BARS FITTED  
WITH LINKS)

**K5616sMET** 1  
16 WAY ENCLOSURE  
ACCEPTS 16 ONE MODULE PRODUCTS  
(3 INTEGRAL NEUTRAL BARS FITTED  
WITH LINKS)

**K5621sMET** 1  
21 WAY ENCLOSURE  
ACCEPTS 21 ONE MODULE PRODUCTS  
(3 INTEGRAL NEUTRAL BARS FITTED  
WITH LINKS)

**K5704sMET** 1  
4 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
ACCEPTS A FURTHER 2 ONE MODULE  
PRODUCTS

**K5708sMET** 1  
8 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
ACCEPTS A FURTHER 6 ONE MODULE  
PRODUCTS

**K5712sMET** 1  
12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
ACCEPTS A FURTHER 10 ONE MODULE  
PRODUCTS

**K5716sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
ACCEPTS A FURTHER 14 ONE MODULE  
PRODUCTS

**K5721sMET** 1  
21 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
ACCEPTS A FURTHER 19 ONE MODULE  
PRODUCTS

All units are white coloured.  
All units feature a robust galvanized metal base,  
lid & door.  
The DIN rail embodies a useful alignment and  
fixing mechanism that allows quick installation.  
Cable entry points are located on top, bottom,  
side and rear surfaces.

| DIMENSIONS: | Width | Height | Depth   |
|-------------|-------|--------|---------|
| 4 WAY       | 144   | x 244  | x 116mm |
| 8 WAY       | 238   | x 244  | x 116mm |
| 12 WAY      | 310   | x 244  | x 116mm |
| 16 WAY      | 382   | x 244  | x 116mm |
| 21 WAY      | 472   | x 244  | x 116mm |

**MAIN INCOMER RATING:**  
4 way enclosures: 63A  
8, 12, 16 & 21 way enclosures: 100A  
Degree of protection to BS EN 60529 to IP2XC.  
Precautions must be taken to maintain the IP  
rating, e.g. Use of cable glands and knockouts.  
BS EN 61439-3

All units are pre-fitted with a switch disconnecter

| DIMENSIONS: | Width | Height | Depth   |
|-------------|-------|--------|---------|
| 4 WAY       | 144   | x 244  | x 116mm |
| 8 WAY       | 238   | x 244  | x 116mm |
| 12 WAY      | 310   | x 244  | x 116mm |
| 16 WAY      | 382   | x 244  | x 116mm |
| 21 WAY      | 472   | x 244  | x 116mm |

**MAIN INCOMER RATING:**  
4 way enclosures: 63A  
8, 12, 16 & 21 way enclosures: 100A  
Degree of protection to BS EN 60529 to IP2XC.  
Precautions must be taken to maintain the IP  
rating, e.g. Use of cable glands and knockouts.  
BS EN 61439-3

**FACTORY BUILT SERVICE:** MK can save you time and money by pre-assembling consumer  
units with your required Sentry components

Cover mounted blanks are supplied with ALL consumer units  
(2 off x 1 for 4, 8 and 12 way enclosures and 2 off x 2 for 16 and 21 way enclosures)

# Sentry



## Consumer Units

SPLIT-LOAD  
SINGLE RCD ARRANGEMENTS  
METAL  
SURFACE

SPLIT-LOAD  
DUAL RCD ARRANGEMENTS  
METAL  
SURFACE



K5682sMET



K5662sMET



K5666sMET



K5687sMET

**K5682sMET** 1  
12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
63A 30mA RCD  
ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS

**K5689sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
63A 30mA RCD  
ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS

**K5662sMET** 1  
12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
80A 30mA RCD  
ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS

**K5685sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
80A 30mA RCD  
ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS

**K5684sMET** 1  
21 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
80A 30mA RCD  
ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS

**K5666sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 63A 30mA RCD'S  
ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS

**K5688sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 80A 30mA RCD'S  
ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS

**K5686sMET** 1  
16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
1 X 63A & 1 X 80A 30mA RCD'S  
ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS

**K5683sMET** 1  
21 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 63A 30mA RCD'S  
ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS

**K5687sMET** 1  
21 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 80A 30mA RCD'S  
ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS

**K5681sMET** 1  
21 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
1 X 63A & 1 X 80A 30mA RCD'S  
ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS

All units are white coloured.

All units are pre-fitted with a switch disconnector and RCD together with all the necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded. MK recommends the use of RCBO's for non RCD protected circuits to comply with the 17th Edition Amendment 3 Wiring Regulations.

| DIMENSIONS: | Width | Height | Depth |
|-------------|-------|--------|-------|
| 4 WAY       | 144 x | 244 x  | 116mm |
| 8 WAY       | 238 x | 244 x  | 116mm |
| 12 WAY      | 310 x | 244 x  | 116mm |
| 16 WAY      | 382 x | 244 x  | 116mm |
| 21 WAY      | 472 x | 244 x  | 116mm |

#### MAIN INCOMER RATING:

4 way enclosures: 63A

8, 12, 16 & 21 way enclosures: 100A

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. Use of cable glands and knockouts.

BS EN 61439-3

All units are white coloured.

All units are pre-fitted with a switch disconnector and RCD together with all the necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded. MK recommends the use of RCBO's for non RCD protected circuits to comply with the 17th Edition Amendment 3 Wiring Regulations.

| DIMENSIONS: | Width | Height | Depth |
|-------------|-------|--------|-------|
| 4 WAY       | 144 x | 244 x  | 116mm |
| 8 WAY       | 238 x | 244 x  | 116mm |
| 12 WAY      | 310 x | 244 x  | 116mm |
| 16 WAY      | 382 x | 244 x  | 116mm |
| 21 WAY      | 472 x | 244 x  | 116mm |

#### MAIN INCOMER RATING:

4 way enclosures: 63A

8, 12, 16 & 21 way enclosures: 100A

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. Use of cable glands and knockouts.

BS EN 61439-3

## FULLY POPULATED ARRANGEMENTS METAL SURFACE



K6550sMET



K7663sMET



K7664sMET



K7673sMET



K7665sMET



K7666sMET



K6551sMET



K6552sMET



K7678sMET



### K6550sMET

4 WAY ENCLOSURE  
63A 30mA RCD  
2 X MCB'S (1 X 6A & 1 X 16A)

1

### K7663sMET

12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
63A 30mA RCD  
6 X MCB'S (2 X 6A, 2 X 16A & 2 X 32A)  
2 X RCBO'S (1 X 6A & 1 X 40A)

1

### K7664sMET

12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 63A 30mA RCD'S  
6 X MCB'S (2 X 6A, 1 X 16A, 2 X 32A & 1 X 40A)

1

### K7673sMET

12 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
6 X RCBO'S (2 X 6A, 1 X 16A, 2 X 32A & 1 X 40A)  
ACCEPTS A FURTHER 4 ONE MODULE PRODUCTS

1

### K7665sMET

16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 63A 30mA RCD'S  
8 X MCB'S (2 X 6A, 2 X 16A, 3 X 32A & 1 X 40A)  
ACCEPTS A FURTHER 2 ONE MODULE PRODUCTS

1

### K7666sMET

16 WAY ENCLOSURE  
100A SWITCH DISCONNECTOR  
2 X 63A 30mA RCD'S  
10 X MCB'S (3 X 6A, 2 X 16A, 4 X 32A & 1 X 40A)

1

### K6551sMET

4 WAY ENCLOSURE  
63A 30mA RCD  
1 X MCB (1 X 50A)

1

### K6552sMET

8 WAY ENCLOSURE  
63A 30mA RCD  
6 X MCB'S  
(3 X 6A, 1 X 16A & 2 X 20A)

1

### K7678sMET

21 WAY ENCLOSURE  
1 X 63A & 1 X 80A 30mA RCD'S  
12 X MCB'S  
(3 X 6A, 2 X 16A, 2 X 20A,  
4 X 32A & 1 X 40A)  
ACCEPTS A FURTHER 3 ONE MODULE PRODUCTS

1

All units are white coloured.

All units are pre-fitted with a switch disconnect and RCD together with all the necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded.

MK recommends the use of RCBO's for non RCD protected circuits to comply with the 17th Edition Amendment 3 Wiring Regulations.

| DIMENSIONS: | Width | Height | Depth |
|-------------|-------|--------|-------|
| 4 WAY       | 144 x | 244 x  | 116mm |
| 8 WAY       | 238 x | 244 x  | 116mm |
| 12 WAY      | 310 x | 244 x  | 116mm |
| 16 WAY      | 382 x | 244 x  | 116mm |
| 21 WAY      | 472 x | 244 x  | 116mm |

### MAIN INCOMER RATING:

4 way enclosures: 63A

8, 12, 16 & 21 way enclosures: 100A

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. Use of cable glands and knockouts.

BS EN 61439-3



## Consumer Units

INSULATED  
SURFACE

K5604sMAG



K5608sMAG



K5612sMAG



K5616sMAG



K5621sMAG

**K5604SMAG**

4 WAY ENCLOSURE  
ACCEPTS 4 ONE MODULE PRODUCTS  
(1 INTEGRAL NEUTRAL BAR)

**K5608SMAG**

8 WAY ENCLOSURE  
ACCEPTS 8 ONE MODULE PRODUCTS  
(1 INTEGRAL NEUTRAL BAR)

All units are magnolia coloured.

All units feature a robust base together with an all over front cover and moulded lid in an impact resistant, flame retardant thermoplastic. Cable entry points are located on top, bottom, side and rear surfaces.

| DIMENSIONS: | Width | Height | Depth |
|-------------|-------|--------|-------|
| K5604sMAG   | 140 x | 230 x  | 110mm |
| K5608sMAG   | 234 x | 230 x  | 110mm |
| K5612sMAG   | 306 x | 230 x  | 110mm |
| K5616sMAG   | 378 x | 230 x  | 110mm |
| K5621sMAG   | 468 x | 230 x  | 110mm |

**MAIN INCOMER MAXIMUM RATING**

K5604sMAG and K5604sMAG: 63A

All other consumer units: 100A

- 1 **K5612SMAG**  
12 WAY ENCLOSURE  
ACCEPTS 12 ONE MODULE PRODUCTS  
(2 INTEGRAL NEUTRAL BARS  
FITTED WITH LINK)

- 1 **K5616SMAG**  
16 WAY ENCLOSURE  
ACCEPTS 16 ONE MODULE PRODUCTS  
(3 INTEGRAL NEUTRAL BARS  
FITTED WITH LINK)

- K5621SMAG**  
21 WAY ENCLOSURE  
ACCEPTS 21 ONE MODULE PRODUCTS  
(4 INTEGRAL NEUTRAL BARS  
FITTED WITH LINKS)

**K5687SMAG17ED**

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. use of cable glands and knockouts.

BS EN 60439-3:1999

Switch  
Disconnectors  
Double Pole

TWO MODULE



5500s



5560s

- 1 **5500s**  
100A 230V
- 1 **5560s**  
63A 230V

- 1 Suitable for installation in Sentry Consumer Units and two or four module enclosures. Accepts direct to busbar or cable-in / cable-out connection.

**CATEGORY OF DUTY:**

AC22A for switching of resistive and inductive loads.

Positive contact status indication in accordance with 17th Edition IEE

Wiring Regulations  
(537.2.2.2 and 537.3.2.2)

**DIMENSIONS:**

81 x 36 x 76mm

**CABLE CAPACITY:**

50mm<sup>2</sup>

- 1 BS EN 60947-3:1999

FACTORY BUILT SERVICE: MK can save you time and money by pre-assembling consumer units with your required Sentry components



## MCBs Single Pole

TYPE B  
ONE MODULE



5903s

5906s



5910s

5916s

### 5903s

3A 230V

### 5906s

6A 230V

### 5910s

10A 230V

### 5916s

16A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

#### DIMENSIONS:

83 x 18 x 74mm

#### CABLE CAPACITY:

35mm<sup>2</sup>

Short-circuit breaking capacity: 6kA

BS EN 60898:2003

10

### 5920s

20A 230V

### 5925s

25A 230V

### 5932s

32A 230V

### 5940s

40A 230V

### 5945s

45A 230V

### 5950s

50A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

#### DIMENSIONS:

83 x 18 x 74mm

#### CABLE CAPACITY:

35mm<sup>2</sup>

#### SHORT-CIRCUIT BREAKING CAPACITY:

6kA

BS EN 60898:2003

10

10

10

10

10

10

10

## MCB Single Pole

TYPE C  
ONE MODULE



8703s

8706s



8710s

8716s



8720s

8732s



8740s

8750s

10

10

10

10

10

10

10

### 8703s

3A 230V

### 8706s

6A 230V

### 8710s

10A 230V

### 8716s

16A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

#### DIMENSIONS:

83 x 18 x 74mm

#### CABLE CAPACITY:

35mm<sup>2</sup>

#### SHORT-CIRCUIT BREAKING CAPACITY:

6kA

BS EN 60898:2003

10

10

10

10

10

10

10

### 8720s

20A 230V

### 8725s

25A 230V

### 8732s

32A 230V

### 8740s

40A 230V

### 8750s

50A 230V

### 8763s

63A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

#### DIMENSIONS:

83 x 18 x 74mm

#### CABLE CAPACITY:

35mm<sup>2</sup>

#### SHORT-CIRCUIT BREAKING CAPACITY:

6kA

BS EN 60898:2003

10

10

10

10

10

10

10

# Sentry



## RCBOs With Solid Neutral Single Pole

TYPE B  
ONE MODULE



7932s 7933s



7936s 7937s



7934s 7935s



7938s 7939s

TYPE C  
ONE MODULE



8932s 8933s 8934s



8935s 8936s

## Residential 6kA RCD Double Pole Type AC

16 AMP  
TWO MODULE



7816s

**7932s**  
6A 230V  
30mA  
TRIPPING CURRENT

1

**7933s**  
10A 230V  
30mA  
TRIPPING CURRENT

1

**7934s**  
16A 230V  
30mA  
TRIPPING CURRENT

1

Suitable for installation in Sentry Consumer Units.  
Positive contact status indication in accordance  
with 17th Edition IEE Wiring Regulations  
(537.2.2.2 and 537.3.2.2)

**DIMENSIONS:**  
119 x 18 x 73mm

**CABLE CAPACITY:**

Live 25mm<sup>2</sup>

Neutral 25mm<sup>2</sup>

**SHORT CIRCUIT BREAKING CAPACITY:**

6kA

BS EN 61009-1

BS IEC 61009-2-2

**7935s**  
20A 230V  
30mA TRIPPING CURRENT

1

**7936s**  
32A 230V  
30mA TRIPPING CURRENT

1

**7937s**  
40A 230V  
30mA TRIPPING CURRENT

1

**7938s**  
45A 230V  
30mA TRIPPING CURRENT

1

**7939s**  
50A 230V  
30mA TRIPPING CURRENT

1

**8932s**  
6A 230V  
30mA  
TRIPPING CURRENT

1

**8933s**  
10A 230V  
30mA  
TRIPPING CURRENT

1

**8934s**  
16A 230V  
30mA  
TRIPPING CURRENT

1

**8935s**  
20A 230V  
30mA  
TRIPPING CURRENT

1

**8936s**  
32A 230V  
30mA  
TRIPPING CURRENT

1

**7816s**  
16A 230V  
30mA TRIPPING CURRENT

1

32 AMP  
TWO MODULE



7832s

**7832s**  
32A 230V  
30mA TRIPPING CURRENT

40 AMP  
TWO MODULE



7840s

**7840s**  
40A 230V  
30mA TRIPPING CURRENT

63 AMP  
TWO MODULE



7860s



7660s

**7860s**  
63A 230V  
30mA TRIPPING CURRENT  
**7560s**  
63A 230V  
100mA  
TRIPPING CURRENT  
**7660s**  
63A 230V  
300mA TRIPPING CURRENT

80 AMP  
TWO MODULE



7880s



7680s

**7880s**  
80A 230V  
30mA TRIPPING CURRENT  
**7580s**  
80A 230V  
100mA TRIPPING CURRENT  
**7680s**  
80A 230V  
300mA TRIPPING CURRENT

## Industrial 10kA RCDs Double Pole Type AC

16 AMP  
TWO MODULE

32 AMP  
TWO MODULE

40 AMP  
TWO MODULE

63 AMP  
TWO MODULE

80 AMP  
TWO MODULE

100 AMP  
TWO MODULE



6016s



6032s



5740s



5760s



6080s



6600s



6316s



6730s



5860s



5880s



7800s

**6016s**  
16A 110V  
10mA TRIPPING  
CURRENT

1

**6416s**  
16A 110V  
30mA TRIPPING  
CURRENT

1

**6316s**  
16A 230V  
10mA TRIPPING  
CURRENT

1

**5716s**  
16A 230V  
30mA TRIPPING  
CURRENT

1

**6032s**  
32A 110V  
30mA TRIPPING  
CURRENT

1

**6730s**  
32A 230V  
30mA TRIPPING  
CURRENT

1

**5740s**  
40A 230V  
30mA TRIPPING  
CURRENT

1

**5760s**  
63A 230V  
30mA TRIPPING  
CURRENT

1

**6160s**  
63A 230V  
100mA TRIPPING  
CURRENT

1

**5860s**  
63A 230V  
300mA TRIPPING  
CURRENT

1

**6080s**  
80A 110V  
30mA TRIPPING  
CURRENT

1

**5780s**  
80A 230V  
30mA TRIPPING  
CURRENT

1

**6180s**  
80A 230V  
100mA TRIPPING  
CURRENT

1

**5880s**  
80A 230V  
300mA TRIPPING  
CURRENT

1

**7700s**  
100A 230V  
30mA TRIPPING  
CURRENT

1

**6600s**  
100A 230V  
100mA TRIPPING  
CURRENT

1

**7800s**  
100A 230V  
300mA TRIPPING  
CURRENT

1

Suitable for installation in  
Sentry Consumer Units and  
two or four module enclosures.  
Positive contact status  
indication in accordance  
with 17th Edition IET Wiring  
Regulations (537.2.2.2 and  
537.3.2.2)  
**DIMENSIONS:**  
85 x 36 x 75mm  
**CABLE CAPACITY:**  
50mm<sup>2</sup>  
BS EN 61008:1995

## Industrial 10kA RCDs Pulsating d.c. Fault Current Sensitive Double Pole Type A

TWO MODULE



6216s

5640s



6630s

**6216s**  
16A 230V  
10mA TRIPPING CURRENT

**6630s**  
32A 230V  
30mA TRIPPING CURRENT

**5640s**  
40A 230V  
30mA TRIPPING CURRENT

**5660s**  
63A 230V  
30mA TRIPPING CURRENT

Suitable for installation in Sentry Consumer Units and two or four module enclosures.  
Positive contact status indication in accordance with 17th Edition IET Wiring Regulations (537.2.2.2 and 537.3.2.2)

**DIMENSIONS:**  
85 x 36 x 75mm

**CABLE CAPACITY:**  
50mm<sup>2</sup>

BS EN 61008:1995

## Industrial 10kA RCDs Time Delayed Double Pole

TWO MODULE



6980s



6400s

**6980s**  
80A 230V  
100mA TRIPPING CURRENT  
TIME DELAYED

**6400s**  
100A 230V  
100mA TRIPPING CURRENT  
TIME DELAYED

Suitable for installation in Sentry Consumer Units and Four Module enclosures. When used as a mains incomer these units will provide discrimination with downstream instantaneously operating 10mA or 30mA RCD's. For example, they can be used as main incomers on split load consumer units where it is not desirable, because of the possibility of unwanted tripping, to place all of the circuits on an instantaneous 30mA RCD, but where earth leakage protection is still required for these circuits or where compliance is required to the indirect contact protection requirements of the IET Wiring Regulations.

**DIMS:** 81 x 36 x 76mm

**CABLE CAPACITY:** 50mm<sup>2</sup>

BS EN 61008:1995

NOT TO BE USED FOR PERSONAL PROTECTION AGAINST ELECTRIC SHOCK

## Industrial 10kA RCDs Four Pole Type AC

25 AMP  
FOUR MODULE


6425s

**6425s**  
25A 230/400V  
30mA TRIPPING CURRENT

Suitable for installation in Sentry four module enclosures and Commando Combi.  
Positive contact status indication in accordance with 17th Edition IET Wiring Regulations (537.2.2.2 and 537.3.2.2)

**DIMENSIONS:**  
85 x 72 x 75mm

**CABLE CAPACITY:**  
50mm<sup>2</sup>

BS EN 61008:1995

40 AMP  
FOUR MODULE


6440s



6240s

**6440s**  
40A 230/400V  
30mA TRIPPING CURRENT

**6240s**  
40A 230/400V  
100mA TRIPPING CURRENT

### FACTORY BUILT SERVICE

MK can save you time and money by pre-assembling consumer units with your required Sentry components

## Industrial 10kA RCDs Four Pole Type AC

63 AMP

FOUR MODULE

## Industrial 10kA RCD Pulsating d.c. Fault Current Sensitive, Four Pole Type A

FOUR MODULE

## Contactors

ONE MODULE

TWO MODULE

THREE MODULE



6463s



6640s



6363s

**6463s**  
63A 230/400V  
30mA TRIPPING CURRENT

1

**6363s**  
63A 230/400V  
100mA TRIPPING CURRENT

1

**6263s**  
63A 230/400V  
300mA TRIPPING CURRENT

1

**6640s**  
40A 230/400V  
30mA TRIPPING CURRENT

1

Suitable for installation in Sentry two or four module enclosures.  
Positive contact status indication in accordance with 17th Edition IET Wiring Regulations (537.2.2.2 and 537.3.2.2)

**DIMENSIONS:**  
85 x 72 x 75mm  
**CABLE CAPACITY:**  
50mm<sup>2</sup>  
BS EN 61008:1995



6220s



6720s

**6220s**  
20A  
DOUBLE POLE

1

**6720s**  
20A  
DOUBLE POLE  
WITH MANUAL OVERRIDE

1

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Automatically switches higher loads than possible with a time switch eg; off peak tariffs.

A manual override enables the temporary setting of the contactor in either the on or off position in addition to normal automatic operation.

When a contactor is mounted alongside an MCB of greater than 10 amp current rating or two contactors are mounted alongside an MCB or side by side, it is necessary to insert a blank module between them (list no.5544s).



7240s



7263s

**6420s**  
20A  
FOUR POLE

1

**7240s**  
40A  
DOUBLE POLE

1

**7263s**  
63A  
DOUBLE POLE

1



7440s



7463s

**7440s**  
40A  
FOUR POLE

1

**7463s**  
63A  
FOUR POLE

1

### CONTACTOR RATINGS:

| List no                                 | 6220s<br>6420s<br>6720s  | 7240s<br>7440s                | 7263s<br>7463s           |
|---|--------------------------|-------------------------------|--------------------------|
| <b>RATED CURRENT Ith</b>                | 20A                      | 40A                           | 63A                      |
| <b>HEATING</b>                          |                          |                               |                          |
| Single phase 230V                       | 5.4kW                    | 8.6kW                         | 13.6kW                   |
| Three phase 400V                        | 16kW                     | 26kW                          | 41kW                     |
| <b>MOTORS</b>                           |                          |                               |                          |
| Single phase 230V                       | 1.1kW                    | 2.2kW                         | 4kW                      |
| Three phase 400V                        | 4kW                      | 7.5kW                         | 11kW                     |
| <b>LIGHTING</b>                         |                          |                               |                          |
| Incandescent and Halogen lamps:         | 2,800W                   | 7,000W                        | 10,000W                  |
| Fluorescent Lamps: (Electronic Ballast) | 2,000W                   | 4,200W                        | 6,300W                   |
| <b>VOLTAGE RATING (coil)</b>            | 230V 50Hz                | 230V 50Hz                     | 230V 50Hz                |
| <b>CABLE CAPACITY</b>                   | 6mm <sup>2</sup> rigid   | 25mm <sup>2</sup> rigid       | 25mm <sup>2</sup> rigid  |
| BS EN 61095                             |                          |                               |                          |
| <b>DIMENSIONS:</b>                      | 6220S:<br>84 x 18 x 66mm | 6420S:<br>84 x 36 x 66mm      | 6720S:<br>84 x 18 x 66mm |
|   | 7240S:<br>84 x 36 x 66mm | 7263S:<br>84 x 36 x 66mm      | 7440S:<br>84 x 54 x 66mm |
|   | 7463S:<br>84 x 54 x 66mm | (including half module blank) |                          |

## Bell Transformer

TWO MODULE



5711s

## Time Switches

SYNCHRONOUS  
THREE MODULE


5707s

QUARTZ  
STABILISED  
THREE MODULE


5824s

SYNCHRONOUS  
ONE MODULE


5833s

DIGITAL  
ONE CHANNEL  
TWO MODULE


5731s

DIGITAL  
ONE CHANNEL  
ONE MODULE


5733s

DIGITAL  
TWO CHANNEL  
TWO MODULE


5732s

**5711s** 1  
RATING 1A AT 8V  
PRIMARY  
220 – 240V A.C.50Hz

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

**NOTE:**  
When installed in a consumer unit, ensure that output cables inside the enclosures are suitable for a 230V environment, either by sleeving the bell wire to BS 2848 or using 230V cable.  
Complete with terminal covers. Also suitable for surface mounting.  
**DIMENSIONS:**  
88 x 36 x 67mm  
**CABLE CAPACITY:**  
1 x 2.5mm<sup>2</sup>  
EN 61558-2-8

**5707s** 1  
7 DAY DIAL  
MIN SETTING  
3 HOURS

**5724s** 1  
24 HOUR DIAL  
MIN SETTING  
30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units or four module enclosures.  
**VOLTAGE RATING:**  
220-240Va.c. 50Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 4A  
Tungsten lamps 6A (1350W)  
Fluorescent lamps 1350W  
**DIMENSIONS:**  
85 x 54 x 68mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>

**5824s** 1  
24 HOUR DIAL  
MIN SETTING  
30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures.  
Power reserve 150 hours  
**VOLTAGE RATING:**  
220-240Va.c. 50-60Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 4A  
Tungsten lamps 6A (1350W)  
Fluorescent lamps 1350W  
**DIMENSIONS:**  
85 x 54 x 68mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>  
EN 60730-2-7:1993

**5833s** 1  
24 HOUR DIAL  
MIN SETTING  
30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures  
**VOLTAGE RATING:**  
240V 50Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 4A  
Tungsten lamps 6A (1350W)  
Fluorescent lamps 1350W  
**DIMENSIONS:**  
90 x 18 x 68mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>  
EN 60730-2-7:1993

**5731s** 1  
24 HOUR/7 DAY  
DISPLAY  
MIN SETTING  
1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment.  
Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment.  
Power reserve of 3 years.  
Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures.  
**VOLTAGE RATING:**  
240V 50/60Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 2.5A  
Tungsten lamps 5A (1000W)  
Fluorescent lamps 1000W  
**DIMENSIONS:**  
85 x 36 x 68mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>  
EN 60730-2-7:1993

**5733s** 1  
24 HOUR DIAL  
MIN SETTING  
1 MINUTE

Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment, holiday programme and random generator are standard facilities.  
Power reserve of 150 hours.  
Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures  
**VOLTAGE RATING:**  
240V 50/60Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 2.5A  
Tungsten lamps 5A (1000W)  
Fluorescent lamps 1000W  
**DIMENSIONS:**  
90 x 18 x 74mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>  
EN 60730-2-7:1993

**5732s** 1  
24 HOUR/7 DAY  
DISPLAY  
MIN SETTING  
1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment.  
Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment.  
Power reserve of 3 years.  
Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures.  
**VOLTAGE RATING:**  
240V 50/60Hz  
**CURRENT RATING:**  
Resistive load 16A  
Inductive load 2.5A  
Tungsten lamps 5A (1000W)  
Fluorescent lamps 1000W  
**DIMENSIONS:**  
85 x 36 x 68mm  
**CABLE CAPACITY:**  
2 x 2.5mm<sup>2</sup> or 4 x 1.5mm<sup>2</sup>  
EN 60730-2-7:1993



## Time Delay Switches

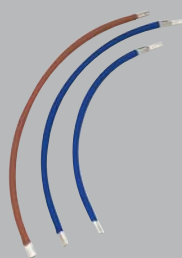
## Consumer Unit Cable Kits

## Accessories

### ONE MODULE



5650s



K5563s



K5565s



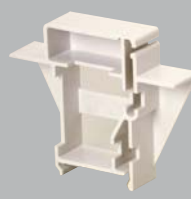
5562s



K8041s



K5593s



5544s



K5545sMAG



K5511s



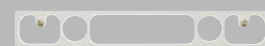
KAX26s



K5597s



K5599s



K6061SMET



K6060SMET

### 5650s DELAY RANGE 1 - 7 MINUTES (APPROX)

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Offers time delay control for complete circuits of either tungsten or fluorescent lighting with any number of standard push switches. It can also be used to control fans in bathrooms without a window. Delay setting can be over-ridden by setting to 'Perm-on' mode, or by fitting a remote overriding switch. Switch has a switching capacity of 16A Resistive loads (upf) Fluorescent lamps uncompensated Series compensated 1300W Parallel compensated 480W CFLS 100W Max. Maximum of 9 units can be connected Incandescent lamps 2000W Neon glow lamp load (locating lamp for Push Switch) 50mA max

**VOLTAGE RATING:**  
230V 50Hz

**DIMENSIONS:**  
84 x 18 x 70mm

**CABLE CAPACITY:**  
1 x 4mm<sup>2</sup> or 2 x 1.5mm<sup>2</sup>

1

### K5563s SPLIT-LOAD KIT CONSISTS OF 3 CABLES (2 NEUTRAL AND 1 LIVE) FOR USE WHEN ASSEMBLING A SPLIT LOAD ARRANGEMENT

5

### K5565s MULTI-INCOMER KIT CONSISTS OF A BLUE FLEXIBLE CABLE WITH PRE-FITTED TERMINAL FOR THE NEUTRAL RETURN FROM SWITCH OR RCD TO SECOND OR THIRD NEUTRAL BAR

5

### K5568s 17TH EDITION CABLE KIT FOR SWITCH AND TWIN RCD ARRANGEMENT

5

### K5567s A&D CABLE KIT FOR SWITCH PLUS TRIPLE RCD ARRANGEMENT

5

**K5563S**  
For use when assembling split-load arrangement.

**K5565S**  
For use when assembling a consumer unit in a multi-incomer arrangement with separate supply to each incomer. These kits must be used to ensure compliance with BS EN 60439-3

### 5562s EXTENSION TERMINAL FOR USE WHEN ASSEMBLING A CONSUMER UNIT AS A DISTRIBUTION BOARD. ENABLES DIRECT CONNECTION OF CABLES TO THE NEUTRAL BAR. CONSISTS OF A 25MM2 CAPACITY TERMINAL WITH CLAMP SCREW

1

### K8041s LOCKING DEVICE FOR USE WHEN LOCKING A SENTRY MCB, RCBO, RCD OR SWITCH DISCONNECTOR IN EITHER THE ON OR OFF POSITION

10

### K5593s BARREL LOCK AND KEY KIT SUITABLE FOR SECURING 'K' SERIES SENTRY CONSUMER UNIT LIDS. ONLY SUITABLE FOR HYBRID AND INSULATED CONSUMER UNITS

1

### 5544s MCB BLANK – GREY DESIGNED TO FILL UNUSED MODULES IN SENTRY CONSUMER UNITS AND SMALL ENCLOSURES. DIN-RAIL MOUNTED

5

### K5545sMAG COVER MOUNTED BLANK FOR FILLING SPACES IN THE 'K' SERIES SENTRY CONSUMER UNIT COVER, WHERE THERE ARE UNUSED MODULES

10

### K5511s BUSBAR 11 MODULE

1

### K5590s BUSBAR 20 MODULE

1

### KAX26s BUSBAR COVER SUITABLE FOR INSULATING THE BUSBARS K5511S AND K5590S 20 MODULE. ONLY SUITABLE FOR HYBRID AND INSULATED CONSUMER UNITS

10

### K5597s CONSUMER UNIT LABELS ADDITIONAL PRINTED AND BLANK LABELS, FOR IDENTIFYING DEVICES AND CIRCUITS ON DUAL & TRIPLE RCD BOARDS

5

### K5599s CONSUMER UNIT LABELS ADDITIONAL PRINTED AND BLANK LABELS, FOR IDENTIFYING DEVICES AND CIRCUITS ON SINGLE RCD BOARDS

5

### K5804sD1MAG K5808sD1MAG K5812sD1MAG K5816sD1MAG K5821sD1MAG REPLACEMENT PLASTIC FRONT COVERS

**K6060SMET**  
16 WAY METAL CONSUMER  
UNIT SURFACE MOUNTING KIT

**K6061SMET**  
12 WAY METAL CONSUMER  
UNIT STACKING KIT

**K6062SMET**  
16 WAY METAL CONSUMER  
UNIT STACKING KIT

1

1

1



# PRODUCT APPLICATION

## ASPECT DOUBLE SOCKET – BESPOKE FINISH

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.







# PRODUCT APPLICATION

## INSIGNIA SINGLE DIMMER IN GOLD PLATED BESPOKE FINISH

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Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.

To find out more visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk)



# SENTRY SOCKET®

## RANGE INTRODUCTION

Sentrysocket provides a high level of protection against electrocution and is available in 4 MK wiring device ranges to suit most applications.

### FEATURES & BENEFITS

#### ACTIVE CONTROL CIRCUIT

This version of Sentrysocket incorporates a 'RE-SET' mechanism and is mains failure sensitive ie. it will function under all normal conditions expected of an RCD but it will also trip in the event of a power cut or a dramatic reduction in mains voltage. This makes it ideal for use where hazardous situations could occur due to equipment such as rotating machinery and heat developing apparatus becoming suddenly energised after a power cut.

#### PASSIVE CONTROL CIRCUIT

This version of Sentrysocket incorporates a 'STAY-SET' mechanism and is mains failure proof ie. it will function under all normal conditions expected of an RCD but will not trip in the event of a power cut. This makes it suitable for freezers or use in inaccessible or unmanned locations.

ALL SENTRY SOCKETS ARE PULSATING D.C. AND A.C. FAULT CURRENT SENSITIVE PRODUCTS

# Sentrysocket®



## RCD Protected Switchsocket Outlets

13 AMP

LOGIC PLUS  
FLUSHALBANY PLUS  
FLUSHMETALCLAD PLUS  
SURFACEMASTERSEAL PLUS  
IP66  
SURFACE

K6300WHI



K6303WHI



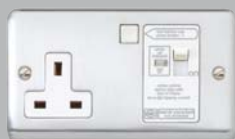
K6231WHI



K6233WHI



K6301BRC



K6304BSS



K6302ALM



K6305ALM



K6231ALM



K6233ALM



K56301GRY



K56231BLK



K56231WHI

**K6300WHI**1 GANG DP, 30mA RATED,  
TRIPPING CURRENT,  
ACTIVE CONTROL CIRCUIT

1

**K6303WHI**1 GANG DP, 30mA RATED,  
TRIPPING CURRENT, PASSIVE  
CONTROL CIRCUIT

1

**K6231WHI**2 GANG SP, 30mA RATED,  
TRIPPING CURRENT,  
ACTIVE CONTROL CIRCUIT

1

**K6233WHI**2 GANG SP, 30mA RATED,  
TRIPPING CURRENT,  
PASSIVE CONTROL CIRCUIT

1

**MOUNTING BOXES**Flush: 886ZIC – 35mm deep  
Boxes must have a minimum depth  
of 30mm**SURFACE**K2140WHI, 30mm deep, products have  
up to 15mm thick frontplates**DIMENSIONS**

86 x 146mm

**FIXING CENTRES**

120.6mm

BS 7288:1990

**K6301BSS****K6301BRC****K6301PCR****K6301SAG**1 GANG DP  
30mA RATED TRIPPING  
CURRENT  
ACTIVE CONTROL CIRCUIT

1

**K6304BRC****K6304BSS**1 GANG DP  
30mA RATED TRIPPING  
CURRENT  
PASSIVE CONTROL CIRCUIT

1

1

**MOUNTING BOXES**Flush: 886ZIC – 35mm deep  
Boxes must have a minimum depth  
of 30mm**SURFACE**with knockouts: K897ALM  
without knockouts: K830ALM**DIMENSIONS**

86 x 146mm

**FIXING CENTRES**

120.6mm

BS 7288:1990

**K6302ALM**1 GANG DP  
30mA RATED TRIPPING  
CURRENT  
ACTIVE CONTROL CIRCUIT

1

**K6305ALM**1 GANG DP  
30mA RATED TRIPPING  
CURRENT  
PASSIVE CONTROL CIRCUIT

1

**DIMENSIONS**

86 x 147 x 54mm

**KNOCKOUTS**

8 x 20mm

Three in top side, two in bottom side,  
one in each end and one in base**SPARE BOX**

K897ALM

BS 7288:1990

**K6231ALM**2 GANG SP  
30mA RATED TRIPPING  
CURRENT  
ACTIVE CONTROL CIRCUIT

1

**K6233ALM**2 GANG SP  
30mA RATED TRIPPING  
CURRENT  
PASSIVE CONTROL CIRCUIT

1

**DIMENSIONS**

86 x 147 x 54mm

**KNOCKOUTS**

8 x 20mm

Three in top side, two in bottom side,  
one in each end and one in base**SPARE BOX**

K897ALM

BS 7288:1990

**K56301GRY****K56301WHI****K56301BLK**1 GANG DP  
30mA RATED TRIPPING  
CURRENT ACTIVE CONTROL  
CIRCUIT

1

1

1

**K56231GRY****K56231WHI****K56231BLK**2 GANG SP  
30mA RATED TRIPPING  
CURRENT ACTIVE CONTROL  
CIRCUIT

1

1

1

**K56233GRY****K56233WHI****K56233BLK**2 GANG SP  
30mA RATED TRIPPING  
CURRENT  
PASSIVE CONTROL CIRCUIT

1

1

1

Fixing holes are for No.8 woodscrews  
(not supplied).Supplied with an earth terminal in  
the back box. The Sentrysocket has  
5 entries. Suitable for supply voltage  
of 240V a.c.

Standard Shutters

**DIMENSIONS**

157 x 175 x 89mm

BS 7288:1990

IP66 BS EN 60529:1992

**ALL SENTRYSOCKETS ARE PULSATING D.C. AND A.C. FAULT CURRENT SENSITIVE PRODUCTS:**It is important to ensure that the correct control circuit, active or passive, is selected for each application.  
Suitable for supply voltage of 240V a.c. 50/60Hz



# Made

# GREAT

# In Britain



## Optimal USB Charging from MK

MK Electric's USB Integrated Sockets are designed to provide optimal charging efficiency through Dynamic Device Recognition; the ability to detect charging nuances in the device and its appetite for power. For the ultimate user experience, different devices from multiple manufacturers can be charged simultaneously.

USB outlets provide a total of 2A combined charging, even when only one outlet is engaged, and vertically stacked ports ensure free access when socket outlets are in use.

MK's USB Integrated Sockets come with quality, safety and reliability as standard.



by Honeywell

| Range  | Technical Data |
|--|----------------|
| <b>Wireless</b>  |                |
| <b>Echo</b><br>Wireless, batteryless, self-powered technology  | 297-300        |
| <b>White</b>   |                |
| <b>Logic Plus</b><br>Widest selection of wiring devices in one range                                     | 301-344        |
| <b>Ceiling Accessories</b><br>Lampholders, pendant sets and ceiling switches                             | 346-348        |
| <b>Decorative</b>  |                |
| <b>Decorative Introduction</b>   |                |
| <b>Elements</b><br>Revolutionary range of stylish wiring devices with touch control switches and dimmers | 351-379        |
| <b>Aspect</b><br>Range of slimline, flawless profile devices   | 301-344        |
| <b>Insignia</b><br>Function and style with very slim profile frontplate                                  | 301-344        |
| <b>Albany Plus</b><br>Satin Gold and Brushed Chrome devices  | 301-344        |
| <b>Modular</b>   |                |
| <b>Grid Plus</b><br>Modular switching and monitoring system  | 380-386        |
| <b>Lighting Controls</b>   |                |
| <b>Link</b><br>Plug-in connection and distribution system for lighting                                   | 349-350        |
| <b>Sensors</b><br>A range of energy saving and lighting management products                              | 345            |
| <b>High Power Dimmer</b><br>Range of dimmers to control large lighting loads                             | 388-390        |



| Range   | Technical Data |
|---|----------------|
| <b>Boxes and Ancillary Products</b>   |                |
| <b>Boxes</b><br>Wide selection of surface and flush mounted, metal and PVC boxes                | 391            |
| <b>Ancillary Products</b><br>A selection of miscellaneous wiring devices                        | NA             |
| <b>Surface</b>  |                |
| <b>Metalclad Plus</b><br>Tough, impact resistant surface mounted devices                        | 301-344        |
| <b>Portable Power</b>   |                |
| <b>Duraplug</b><br>Durable, strong and reliable accessories                                     | 392-394        |
| <b>Plugs and Adaptors</b><br>High quality plugs and adaptors                                    | 395            |
| <b>Ingress Protected</b>  |                |
| <b>Masterseal Plus</b><br>Comprehensive range of IP66 weatherproof devices                      | 396-407        |
| <b>Masterseal Compact</b>   | 408-409        |
| <b>Commando Safety Switch</b>   | NA             |
| <b>Commando Plugs and Sockets</b><br>Comprehensive selection of industrial plugs and connectors | 410-421        |
| <b>Commando Combination Units</b><br>RCD protection with high impact PBT units                  | 422-427        |
| <b>Circuit Protection</b>   |                |
| <b>Sentry</b><br>Consumer units and a wide variety of modular protection and control products   | 429-458        |
| <b>Sentrysocket</b><br>RCD protected switchsockets with active and passive control circuits     | 460-461        |



# CASE STUDY

## THE MONARCH, DUBAI

With its distinctive blue glass skin, Monarch Dubai and The Monarch Office Tower are a striking landmark on the Dubai skyline. Inside the twin towers the interiors of the hotel with its 236 luxury rooms and suites, and the 37 storey building of office space with each floor at approximately 12,000 square feet, are no less impressive.

MK's Insignia range, manufactured in a unique dark brass finish, was an essential component in creating the overall look of sumptuous quality. Given a material sample by the project's interior design team, MK was able to quickly produce a finished example that achieved the levels of elegance and sophistication required for this prestigious development.

Impressed by the speedy response and the factory-ready sample the interiors team gave the go-ahead to specify the customised product range throughout.

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.



# MK Echo™ Technical

## Transmitters

### Standards and approvals

BS EN 60669-1, BS EN 60669-2-1,  
ETSI EN301 489-1 & -3, ETSI EN61000-6-2,  
ETSI EN300 220-3

#### TECHNICAL SPECIFICATION

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to + 40°C

##### OPERATING FREQUENCY

868.3 MHz

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 meters

### Dimensions

Transmitters: 86mm x 86mm

Fixing centres: 60.3mm

### Mounting Transmitters

- + All Transmitters can be mounted to any 1-gang back box.
- + All can be mounted directly to the wall surface – screws supplied.
- All can be mounted to back boxes – screws supplied.
- Logic Plus™ and Aspect type Transmitters can also be mounted using supplied adhesive pads.



### Description

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric.

Wireless – allows for instant switch installation and location flexibility, reducing disruption and cost, as there is no need to run switching cables.

Self-Powered – Innovative patented technology to ‘harvest’ energy means zero maintenance as there are no batteries to change.

Ultimate Flexibility – Each receiver can be controlled by up to 32 switches/transmitters.

### Features

- + Wireless and Batteryless – using RF technology with ranges up to 30m indoors
- + Available in all MK wiring device aesthetics
- + Quick and easy to install with no need for cabling from the switch to the lighting circuit
- + Robust Metalclad Plus™ and Masterseal Plus™ available
- + 400w and 10AX receiver/repeaters available to cover most installation needs
- + Switch Receivers are capable of switching all lighting types
- + Each receiver can be controlled by up to 32 switches/transmitters

For a full range of corresponding products,  
see pages 21-31 in the product selector.

# MK Echo™ Technical



## Switch Receivers and Repeater

### Standards and approvals

BS EN 60669-1, BS EN 60669-2-1,  
ETSI EN301 489-1 & -3, ETSI EN61000-6-2,  
ETSI EN300 220-3



K5420R

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### K5420R (WHEN USED AS A RECEIVER)

##### VOLTAGE RATING

250V a.c. 50Hz

##### CURRENT RATINGS

10AX – No de-rating when used on standard  
magnetic ballast fluorescent loads.

##### TERMINALS

Terminal screw size: M3  
Rated terminal screw torque: 0.5 Nm

##### TERMINAL CAPACITY

4 x 1mm<sup>2</sup>  
3 x 1.5mm<sup>2</sup>  
2 x 2.5mm<sup>2</sup>

##### PHYSICAL

##### OPERATING TEMPERATURE

-5°C to + 40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 meters

### K5420R

The 10AX Receiver/Repeater can function both as a 1 level repeater and as a 10AX Switch Receiver.

### Dimensions

#### 10AX Switch Receiver/Repeater – K5420R

Length: 175.5mm

Width: 50.3mm

Height: 33.25mm

## Transmitters, Receivers and Accessories

### Echo™ Installer Guide

#### 1. INTRODUCTION

The MK Echo™ range of products are different from all other products in MK's Wiring Devices portfolio in so far as the "switches" are RF transmitters which communicate with Switch Receivers. It is the Switch Receivers that actually switch the mains power.

Echo™ Transmitters send an RF signal at 868.3 MHz. The unique feature of these products is that the signal transmission is made without the need for mains power, or batteries.

Compared to installing hard-wired systems, wireless systems are much simpler and provide the flexibility to relocate or add to a system.

A symbol is visible on all Switch Receivers to indicate the position of the antenna. Although not always possible, the best reception will always be achieved if the front face of the Transmitter is directly facing the surface of the Switch Receiver on which the antenna symbol is shown.

#### 2. PRINCIPLES OF RADIO SIGNALS IN BUILDINGS

Echo™ Transmitters send wireless transmissions to the Echo™ Switch Receivers. The receiver checks the incoming signal for accuracy and uses the data to control outputs. Radio signals are electromagnetic waves; hence the signal becomes weaker the further it travels.

Please note that RF signals also decrease in strength when they pass through certain materials between the transmitted signal and the receiver.

While radio waves can penetrate a wall, they are dampened more than on a direct line-of-sight path. A few examples of different types of wall and the realistic typical reduction in signal strength that can be seen are:

| MATERIAL   | ATTENUATION |
|--|-------------|
| Wood, plaster, uncoated glass, with no metal content | 0 – 10%     |
| Brick, pressed board                                 | 5 – 35%     |
| Ferro-concrete                                       | 10 – 90%    |
| Metal, aluminium lining                              | 90 – 100%   |

In practice, this means that the material used in a building must be taken into consideration during any assessment for radio coverage.

Here are some typical guideline figures when using Logic Plus style Transmitters with plastic frontplates:

|                                  |  |
|----------------------------------|--|
| Line-of-sight connections:       | typically 30m range in corridors, or up to 100m in halls |
| Plasterboard walls / dry wood:   | typically 30m range, through 5 walls                     |
| Brick walls / aerated concrete:  | typically 20m range, through 3 walls                     |
| Ferro-concrete walls / ceilings: | typically 10m range, through 1 ceiling                   |

All other Transmitters in the range that have metal frontplates, do of course cause a reduction in the signal strength and therefore the transmission distance. Generally, the line of site distance in a hall is reduced from 100m described above for Logic Plus™, down to 30m.

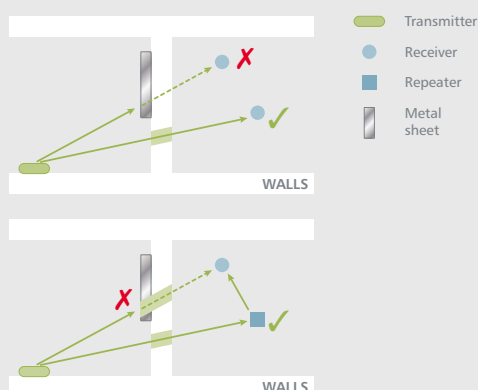
#### 3. SCREENING

Objects made of metal, such as wall reinforcements, the metal foil often used in certain forms of insulation, or metallised heat protected glass, reflect electromagnetic waves and thus create what is known as a radio shadow and thereby a reduction in transmission distance.

The main factors decreasing coverage include:

- + A Transmitter mounted on metal surfaces (typically 30% loss of range).
- + Transmitters with metal frontplates (typically 60% loss of range).
- + Hollow lightweight walls filled with insulating wool on metal foil.
- + Inserted ceilings with panels made of metal or carbon fibre.
- + Lead glass or glass with metallised coating, steel furniture.

Please note: Fire-safety walls, elevator shafts, staircases and supply areas should be considered as screening.



Simple example of a possible screening problem.

Depending on the material used to build the walls and assuming the distance between the transmitters and receivers are within specification, the illustrations above show a typical screening problem.

For the best range performance a minimum distance of 10mm to 20mm should be allowed from the whole length of the antenna to any conductive objects, which effectively means the area surrounding the Switch Receiver module.

Avoid screening by repositioning the Transmitter and / or Switch Receiver away from the screening objects (radio shadow), or if this is not possible, by using a Repeater.

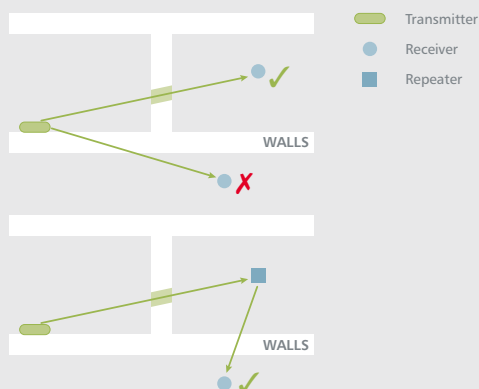


# MK Echo™ Technical



## 4. PENETRATION ANGLE

The angle at which the transmitted signal hits the wall is very important. The effective wall thickness – and with it the signal attenuation – varies according to this angle. Signals should be transmitted as directly as possible through the wall. Wall niches should be avoided.

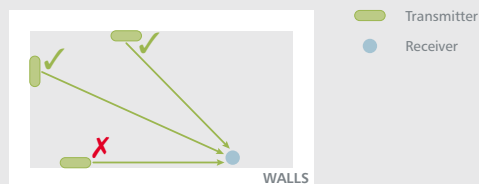


Avoid an unfavourable penetration angle by repositioning the Transmitter and / or Receiver, or by using a Repeater.

Do not position a Switch Receiver behind a Transmitter. In this position the signal strength is greatly reduced, even if there is no wall in-between.

## 5. ANTENNA INSTALLATION

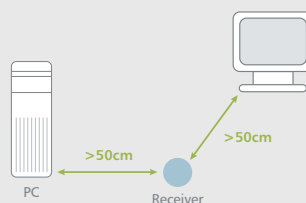
Switch Receivers should not be installed on the same wall as the Transmitter. When positioned near a wall, the radio waves are likely to be subject to interfering dispersions or reflections.



In a similar manner to the comment in the previous section, positioning transmitters and receivers along the same wall will mean the signal strength is greatly reduced.

## 6. DISTANCE BETWEEN SWITCH RECEIVERS AND A SOURCE OF INTERFERENCE

The distance between Switch Receivers and other transmitters (e.g. GSM / DECT / wireless LAN) or high-frequency sources of interference (computers, audio and video equipment) should be at least 500mm. However, Echo™ Transmitters can be installed next to any other high-frequency transmitter without a problem.



## 7. USE OF REPEATERS

In the case of poor reception, it may be helpful to use the repeater functionality built into switch receivers or a dedicated Repeater.

The 10AX Switch Receiver/Repeater (K5420R) is also a repeater when not programmed with any switches. The various possibilities of use are shown by the illustrations in sections 3. SCREENING and 4. PENETRATION ANGLE.

A Repeater has similar requirements in being positioned as a Switch Receiver, i.e. it too has an antenna and needs to receive the signal from the Transmitter and be within range of the Switch Receiver with which it is intended to communicate.

While planning, it may be worth considering retrofitting the system with a Repeater.



## Installation general information

Socket outlets, switches and other MK wiring accessories can be wall or bench mounted. Do not use a trailing lead for sockets and connection units or mount any devices where they may be subject to excessive moisture or dampness.

### Cable management

Socket outlets, switches and other MK wiring accessories can be mounted in a variety of MK trunking systems.

## 13A Socket Outlets

### Standards and approvals

13A socket outlets comply with  
BS 1363 Part 2:1995.

Replacement fuses to the 3 gang switchsocket outlets (Logic Plus only) comply with  
BS 1362:1973.



### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the MK range of wiring devices. The 2 gang sockets with outboard rockers (available in Logic Plus and Albany Plus) are of particular value for use by the infirm and partially sighted whilst the same feature in Metalclad Plus is ideal for use with gloved hands.

Non-standard clean earth sockets are for use on installations where restricted access is required and will only accept a 647WHI 13A non-standard plug with T-shaped earth pin. The sockets have two independent earth terminals so that they can also be used for 'clean earth' installations. The K2746CE and K2947CE also have two independent earth terminals for 'clean earth' installations.

A variety of sockets (see Technical Specification) are fitted with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within the latest edition of BS 7671 which should be referred to for guidance.

The products can be quickly installed as replacement for existing 13A sockets or in a new installation.

### Fuse carriers

(Logic Plus 3 gang switchsocket only)

The fuse carrier is opened by a fast-acting, screwdriver-operated, worm-drive screw for ease of replacement.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13A

(3 Gang Switchsocket 13A total)

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (standard)

(Dual earth terminals on list Nos. K781, K2657, K2737, K2746, K2757, all standard Edge and Aspect sockets, K733, K2958, K2458, K2947, K2947D6, K850, K2977, K2477, K3045, K3077, K2945, K2945D6 and K5357)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

For a full range of corresponding products,  
see pages 32-188 in the product selector.

# Wiring Devices Technical



## 13A Socket Outlets

### Installation

#### 1 gang switchsocket – view from rear

Top-facing, angled, backed-out terminals make wiring easier and quicker.



### FEATURES

- Moulded 'on' indicator flash on plastic switches will not rub off – totally safe
- Matching Metal rocker Switches (Edge™ and Aspect only)
- Optional neon indicators in the switch rockers with 175° visibility in the horizontal and vertical planes
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Choice of inboard or outboard positioned rockers
- Additional electrical safety from DP Switch, neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Only one size of screwdriver required for installation
- Selection of products incorporating dual earth terminals for high integrity earthing
- Backed out and captive terminal screws
- 'Clean earth' sockets available
- Non-standard 'clean earth' sockets available

# Wiring Devices Technical

## – Logic Plus™

### 2 Gang Switchsocket Outlet with Integrated Dual USB Charging Capability

#### Standards and approvals

Logic Plus™ 13A socket outlets and 2A USB charging outlets comply with BS 5733 and IEC 61558-2-16.

EMC Compatibility:

IEC 61000-6-1

IEC 61000-6-3

Products are CE marked and meet the requirements of the Low Voltage, EMC, RoHS and WEEE directives.



#### TECHNICAL SPECIFICATION

##### 13A SOCKET OUTLETS

##### ELECTRICAL

##### VOLTAGE RATING

220-240V

##### CURRENT RATING

13A

Combined total 2A drawn from USB outlets

##### STANDBY POWER

150mW

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Logic Plus™ range. Dual USB charging outlets offer end users easy access to power for charging a variety of devices such as smart phones, tablets and cameras.

#### FEATURES

- Moulded 'on' indicator flash on switches will not rub off – totally safe
- 3 pin operated safety shutter on 13A socket outlets
- USB 2.0 and 3.0 compatible
- Can charge a device at up to a full 2A
- If only one device is connected to a USB outlet the total output current of 2A is available from either outlet
- If two devices are connected to USB outlets the the total rated current of 2A is divided between the two outlets
- Differing manufacturers devices can be charged simultaneously via the two USB outlets
- If the total charging current exceeds the rated level of 2A then the device will enter a current limiting safety mode
- Electronically protected against an overload or short circuit on either USB outlet
- USB outlets are designed to provide optimum charging compatibility across a wide range of devices
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws
- Dual earthed

#### Installation

Logic Plus™ socket outlets can be wall or bench mounted.

Do not mount or use as a trailing socket or where they may be subject to excessive moisture or damp.

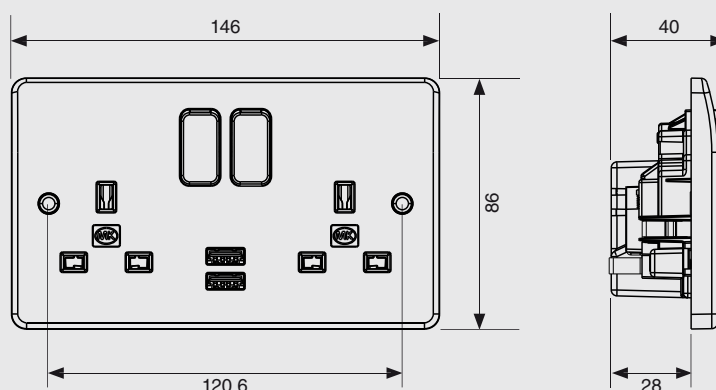
#### Cable management

Logic Plus™ socket outlets can be mounted in a variety of MK trunking systems.

#### BOX TYPES WITHOUT PATRESS

| GANG   | FLUSH      | SURFACE INSULATED | SURFACE METAL          |
|--------|------------|-------------------|------------------------|
|        | DEPTH 35MM | DEPTH 40MM        | DEPTH 41MM             |
| 2 GANG | 886 ZIC    | K2172 WHI         | K2212 ALM<br>K2214 ALM |

#### Dimensions (mm)



# Wiring Devices Technical

## – Aspect



### 2 Gang Switchsocket Outlet with Integrated Dual USB Charging Capability

#### Standards and approvals

Aspect 13A socket outlets and 2A USB charging outlets comply with BS 5733 and IEC 61558-2-16.

EMC Compatibility:

IEC 61000-6-1

IEC 61000-6-3

Products are CE marked and meet the requirements of the Low Voltage, EMC, RoHS and WEEE directives.



#### TECHNICAL SPECIFICATION

##### 13A SOCKET OUTLETS

##### ELECTRICAL

##### VOLTAGE RATING

220-240V

##### CURRENT RATING

13A

Combined total 2A drawn from USB outlets

##### STANDBY POWER

150mW

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Aspect range. Dual USB charging outlets offer end users easy access to power for charging a variety of devices such as smart phones, tablets and cameras.

#### FEATURES

- Slim screwless frontplate design
- Matching metal rocker switches
- 3 pin operated safety shutter on 13A socket outlets
- USB 2.0 and 3.0 compatible
- Can charge a device at up to a full 2A
- If only one device is connected to a USB outlet the total output current of 2A is available from either outlet
- If two devices are connected to USB outlets the the total rated current of 2A is divided between the two outlets
- Differing manufacturers devices can be charged simultaneously via the two USB outlets
- If the total charging current exceeds the rated level of 2A then the device will enter a current limiting safety mode
- Electronically protected against an overload or short circuit on either USB outlet
- USB outlets are designed to provide optimum charging compatibility across a wide range of devices
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws
- Dual earthed

#### Installation

Aspect socket outlets can be wall or bench mounted.

Do not mount or use as a trailing socket or where they may be subject to excessive moisture or damp.

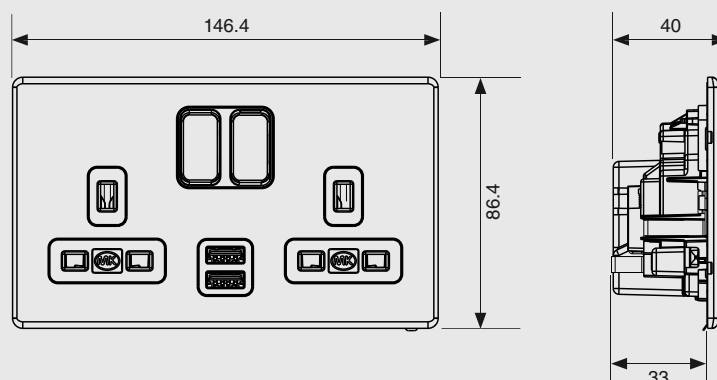
#### Cable management

Aspect socket outlets can be mounted in a variety of MK trunking systems.

#### BOX TYPES WITHOUT PATRESS

| GANG   | FLUSH      |
|--------|------------|
| 2 GANG | DEPTH 47MM |
|        | 878 ZIC    |

#### Dimensions (mm)



# Wiring Devices Technical

## – Insignia

### 2 Gang Switchsocket Outlet with Integrated Dual USB Charging Capability

#### Standards and approvals

Insignia 13A socket outlets and 2A USB charging outlets comply with BS 5733 and IEC 61558-2-16.

EMC Compatibility:

IEC 61000-6-1

IEC 61000-6-3

Products are CE marked and meet the requirements of the Low Voltage, EMC, RoHS and WEEE directives.



#### TECHNICAL SPECIFICATION

##### 13A SOCKET OUTLETS

##### ELECTRICAL

##### VOLTAGE RATING

220-240V

##### CURRENT RATING

13A

Combined total 2A drawn from USB outlets

##### STANDBY POWER

150mW

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Insignia range. Dual USB charging outlets offer end users easy access to power for charging a variety of devices such as smart phones, tablets and cameras.

#### FEATURES

- Matching metal rocker switches
- 3 pin operated safety shutter on 13A socket outlets
- USB 2.0 and 3.0 compatible
- Can charge a device at up to a full 2A
- If only one device is connected to a USB outlet the total output current of 2A is available from either outlet
- If two devices are connected to USB outlets the the total rated current of 2A is divided between the two outlets
- Differing manufacturers devices can be charged simultaneously via the two USB outlets
- If the total charging current exceeds the rated level of 2A then the device will enter a current limiting safety mode
- Electronically protected against an overload or short circuit on either USB outlet
- USB Outlets are designed to provide optimum charging compatibility across a wide range of devices
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws
- Dual earthed

#### Installation

Insignia socket outlets can be wall or bench mounted.

Do not mount or use as a trailing socket or where they may be subject to excessive moisture or damp.

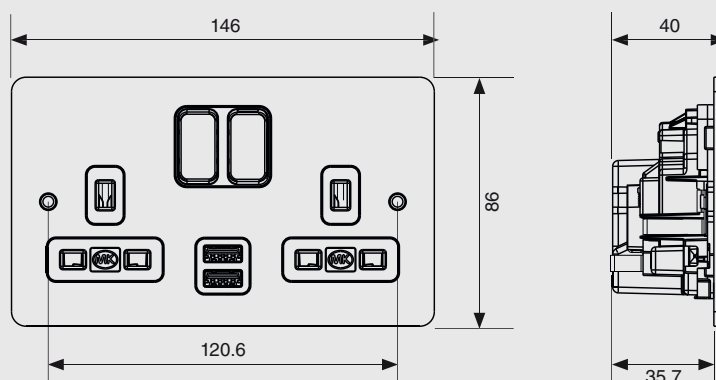
#### Cable management

Insignia socket outlets can be mounted in a variety of MK trunking systems.

#### BOX TYPES WITHOUT PATRESS

| GANG   | FLUSH      |
|--------|------------|
| 2 GANG | DEPTH 47MM |
|        | 878 ZIC    |

#### Dimensions (mm)



# Wiring Devices Technical

## – Albany Plus™

### 2 Gang Switchsocket Outlet with Integrated Dual USB Charging Capability

#### Standards and approvals

Albany Plus™ 13A socket outlets and 2A USB charging outlets comply with BS 5733 and IEC 61558-2-16.

EMC Compatibility:

IEC 61000-6-1

IEC 61000-6-3

Products are CE marked and meet the requirements of the Low Voltage, EMC, RoHS and WEEE directives.



#### TECHNICAL SPECIFICATION

##### 13A SOCKET OUTLETS

##### ELECTRICAL

##### VOLTAGE RATING

220-240V

##### CURRENT RATING

13A

Combined total 2A drawn from USB outlets

##### STANDBY POWER

150mW

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Albany Plus™ range. Dual USB charging outlets offer end users easy access to power for charging a variety of devices such as smart phones, tablets and cameras.

#### FEATURES

- Moulded 'on' indicator flash on switches will not rub off – totally safe
- 3 pin operated safety shutter on 13A socket outlets
- USB 2.0 and 3.0 compatible
- Can charge a device at up to a full 2A
- If only one device is connected to a USB outlet the total output current of 2A is available from either outlet
- If two devices are connected to USB outlets the the total rated current of 2A is divided between the two outlets
- Differing manufacturers devices can be charged simultaneously via the two USB outlets
- If the total charging current exceeds the rated level of 2A then the device will enter a current limiting safety mode
- Electronically protected against an overload or short circuit on either USB outlet
- USB outlets are designed to provide optimum charging compatibility across a wide range of devices
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws
- Dual earthed

#### Installation

Albany Plus™ socket outlets can be wall or bench mounted.

Do not mount or use as a trailing socket or where they may be subject to excessive moisture or damp.

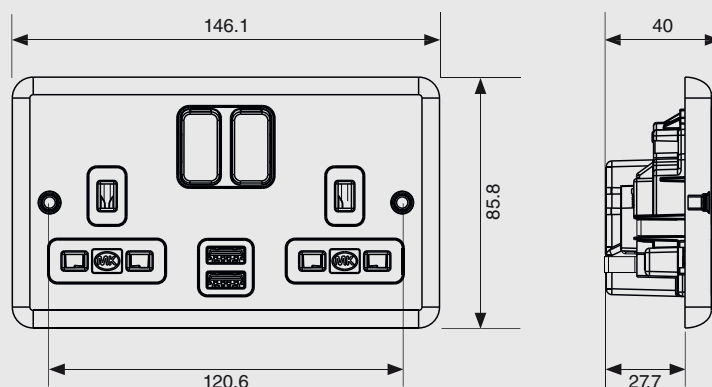
#### Cable management

Albany Plus™ socket outlets can be mounted in a variety of MK trunking systems.

#### BOX TYPES WITHOUT PATRESS

| GANG   | FLUSH      | SURFACE INSULATED | SURFACE METAL       |
|--------|------------|-------------------|---------------------|
|        | DEPTH 35MM | DEPTH 40MM        | DEPTH 41MM          |
| 2 GANG | 886 ZIC    | K2172 WHI         | K2212ALM / K2214ALM |

#### Dimensions (mm)





# Wiring Devices Technical

## – Metalclad Plus™

### 2 Gang Switchsocket Outlet with Integrated Dual USB Charging Capability

#### Standards and approvals

Metalclad Plus™ 13A socket outlets and 2A USB charging outlets comply with BS 5733 and IEC 61558-2-16.

EMC Compatibility:

IEC 61000-6-1

IEC 61000-6-3

Products are CE marked and meet the requirements of the Low Voltage, EMC, RoHS and WEEE directives.



#### TECHNICAL SPECIFICATION

##### 13A SOCKET OUTLETS

##### ELECTRICAL

##### VOLTAGE RATING

220-240V

##### CURRENT RATING

13A

Combined total 2A drawn from USB outlets

##### STANDBY POWER

150mW

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Metalclad Plus™ range. Dual USB charging outlets offer end users easy access to power for charging a variety of devices such as smart phones, tablets and cameras.

#### FEATURES

- Moulded 'on' indicator flash on switches will not rub off – totally safe
- 3 pin operated safety shutter on 13A socket outlets
- USB 2.0 and 3.0 compatible
- Can charge a device at up to a full 2A
- If only one device is connected to a USB outlet the total output current of 2A is available from either outlet
- If two devices are connected to USB outlets the the total rated current of 2A is divided between the two outlets
- Differing manufacturers devices can be charged simultaneously via the two USB outlets
- If the total charging current exceeds the rated level of 2A then the device will enter a current limiting safety mode
- Electronically protected against an overload or short circuit on either USB outlet
- USB outlets are designed to provide optimum charging compatibility across a wide range of devices
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws
- Metallic powder paint finish is corrosion and scratch resistant
- Dual earthed
- High impact resistance

#### Installation

Metalclad Plus™ socket outlets can be wall or bench mounted.

Do not mount or use as a trailing socket or where they may be subject to excessive moisture or damp.

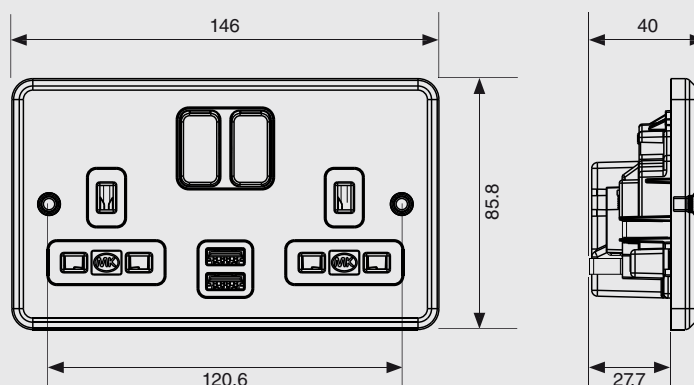
#### Cable management

Metalclad Plus™ socket outlets can be mounted in a variety of MK trunking systems.

#### BOX TYPES WITHOUT PATRESS

| GANG   | FLUSH      | SURFACE   |
|--------|------------|---|
| 2 GANG | DEPTH 35MM | DEPTH 38MM  |
|        | 886 ZIC    | K830 ALM (without knockouts)<br>K897 ALM and K897 WHI (with 8 x 20mm knockouts) |

#### Dimensions (mm)



## Sentrysocket

### Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:

Low Voltage Directive

Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD DP Single Sockets comply with the requirements of the following standards:

BS 7288:1990

BS EN 50082-1:1998

Sentrysocket RCD SP Double Sockets also comply with the requirements of BS EN 61543:1996.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### RATED VOLTAGE

240V a.c. 50/60Hz

###### CURRENT RATING

13A resistive

Rated tripping current 10mA/30mA

###### TERMINAL CAPACITY

3 x 4mm<sup>2</sup> for 1 gang

2 x 4mm<sup>2</sup> for 2 gang

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

###### IP RATING

IP2XD

IP66 (K56301/K56231/K56233)

###### MAX. INSTALLATION ALTITUDE

2000 metres

Sentrysockets are not suitable for connection across two lines of a 127V line to Neutral Voltage System

### Cable management

Logic Plus™, Albany Plus™ and Metalclad Plus™ Sentrysockets can be mounted in a variety of MK trunking systems.

### Installation

#### Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.



### Description

Sentrysocket provides a high level of protection against electrocution and gives further protection when used with appliances vulnerable to insulation damage, particularly when they are in damp environments or outdoors. The Sentrysocket units are not suitable for mounting in damp environments or outdoors.

Sentrysocket, incorporating an RCD, is part of a complete range of fixed and portable wiring devices and circuit protection devices suitable for use in domestic, commercial and light industrial applications.

#### Active control circuits

Incorporate a 'Re-set' mechanism and are mains failure sensitive, i.e. they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

#### Passive control circuits

Incorporate a 'Stay-set' mechanism and is mains failure proof, i.e. it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

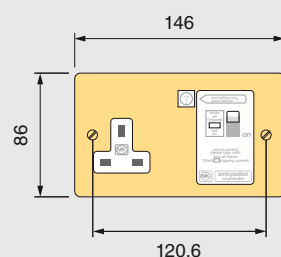
#### FEATURES

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Flexible and versatile in use
- Single Sockets have double pole switching, double sockets are single pole switching
- Masterseal Plus products are ideal for use with equipment subject to wet weather or high humidity
- Part of a complete range of MK circuit protection devices
- They are a.c. and pulsating d.c. sensitive for residual current
- Double Socket products have an enhanced RF Immunity performance

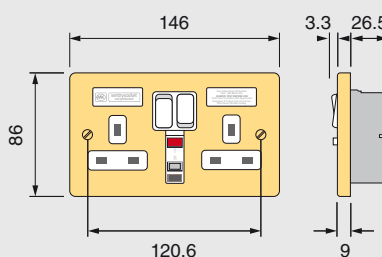
Sentrysockets products can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

### Dimensions (mm)

#### Single socket



#### Double socket



## Sentrysocket

### Installation

#### Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

### Socket Testing

#### Single Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly:

1. Ensure that no appliance is connected to the Sentrysocket.  
**Switch Sentrysocket on:** The switch should remain closed and the red flag will appear in the window. If the switch fails to remain closed, check that the Supply L and N connections are not reversed or the Supply N connection is not open circuit. If the Sentrysocket is correctly connected and still trips after being switched on, the Sentrysocket is faulty and should not be used.
2. If the Sentrysocket stays on, **press the test button:** The switch will open and the white flag will appear in the window. If the Sentrysocket does not trip and there is mains voltage present at the socket outlet, Sentrysocket is faulty and should not be used.
3. **Switch Sentrysocket on:** Connect an RCD tester and ensure that the Sentrysocket trips within the specified time:  
**≤ 200 ms AT RATED TRIP CURRENT**  
**≤ 40 ms AT 5 x RATED TRIP CURRENT**  
  
If the Sentrysocket does not trip within the specified times then the product is faulty and should not be used (If more than one RCD is in series then there is no guarantee as to which device will trip first).
4. **Reset all tripped RCD's including the Sentrysocket.**
5. **Switch off the mains supply switch disconnecter.** On mains failure, a Sentrysocket with Active Control Circuit will trip, whilst a Sentrysocket with Passive Control Circuit will not trip. If the Active Control device does not trip, it is faulty and should not be used – see note below. If no faults have been found then installation testing has been completed successfully.

Note: If a fault is identified at any stage of installation testing procedure do not use Sentrysocket, and contact your local electrician, or your local MK stockist.

#### Double Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly follow the steps 1 to 4 below:

1. Ensure that no appliance is connected to the Sentrysocket.
2. **Reset** – Press the button marked R (for Reset) – the contact status indicator should show red, indicating that the socket outlets are now live (if the switches are in the ON positions).
3. **Test** – Press the TEST button marked T (for Test), the product should trip with the contact status indicator showing black. In this state the socket outlets are disconnected from the supply.
4. **Reset** – Press the button marked R again, the contact status indicator should show red.
5. Connect an RCD Tester to either socket outlet and ensure that the Sentrysocket trips with the specified times below:  
**≤ 200 ms AT RATED TRIP CURRENT**  
**≤ 40 ms AT 5 x RATED TRIP CURRENT**
6. Reset the Sentrysocket as in step 2 above.
7. Switch off the Mains Supply Switch Disconnecter.
8. A Sentrysocket with Active Control Circuit should trip while a Sentrysocket with Passive Control Circuit should not trip.

If all the operations in steps 2 to 8 above give correct results, the Sentrysocket RCD socket outlet is safe to use.

**If the procedures in steps 2 to 8 above are not completed correctly, do not use the Sentrysocket product and seek professional advice or contact the MK.**

## Filtered Switchsocket Outlets (Logic Plus and Albany Plus)

### Standards and approvals

Filtered socket outlets comply with BS 5733:2010.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### CURRENT RATING

13A maximum total for 2 sockets

###### VOLTAGE RATING

250V a.c.

###### EARTH LEAKAGE

0.5 mA

###### SUPPRESSION

150 kHz – 30 MHz (transients)

###### MAXIMUM ENERGY ABSORPTION

140 Joules L – N

140 Joules L – E

###### TERMINAL CAPACITY

2 x 6mm<sup>2</sup>

3 x 4mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

3 x 1.5mm<sup>2</sup>

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

###### THERMAL OVERLOAD

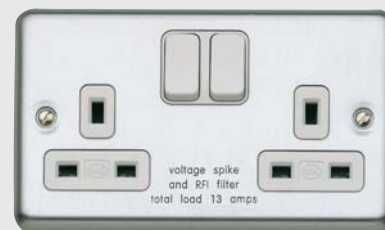
The K1826 and K2826 filter socket incorporates a thermal overload device in the RFI filter section. Overload current causes temperature rise, resulting in automatic 'trip out'. The overload device will re-set as the temperature falls.

###### IP RATING

IP2XD

###### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

A range of sockets in the Logic Plus and Albany Plus styles, designed to combat interference to or data losses on sensitive electrical products and systems due to mains borne voltage spikes and RFI.

Such systems include:

- Computer or microprocessor based equipment
- Telecommunications systems
- Electronic measurement equipment
- Cash registers
- Audio visual and hi-fi equipment

These products can be quickly installed as replacements for existing twin 13A sockets or in a new installation.

Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within the latest edition of BS 7671.

#### Filter cassettes

Filter cassettes are supplied with sockets and have an LED which shows green under normal conditions but will turn red or extinguish when a replacement cassette (K1800WHI) is required. An alarm will also beep at 5 second intervals to indicate replacement necessity. It can be de-activated if required.

#### FEATURES

- Moulded 'on' indicator flash on switches will not rub off – totally safe
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Reduces risk of damage to equipment and down time
- Reduces risk of data loss
- 2 way filtering – into appliance and back into mains supply
- Additional electrical safety from DP Switch, neutral 'make first', 'break last' feature
- Double pole switches
- Dual earth terminals for high integrity earthing
- Clearly visible LED on filter cassette, changes from green to red when replacement required
- Simple replacement of cassettes
- 10 year guarantee (except filter cassette)
- 3mm minimum switch contact gap
- Backed out and captive terminal screws

## Filtered Switchsocket Outlets

### Product features

Ensure that the connecting pins protruding from the bottom of the replacement Filter Cassette are not damaged or bent before installation. If in doubt, contact MK Technical Sales Service Department on +44 (0)1268 563720.

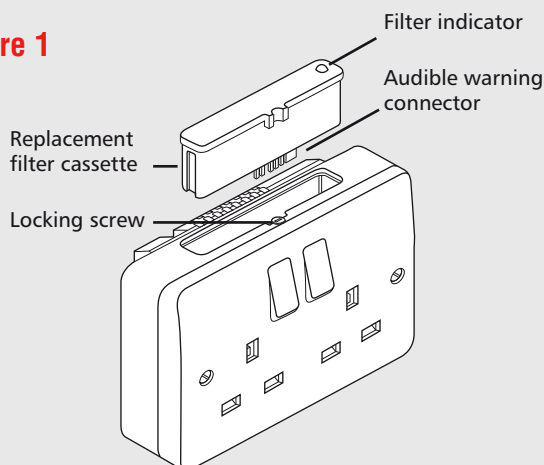
The MK Filtered Switchsocket, in common with many other filters uses Voltage Dependant Resistors for spike suppression purposes. The performance of these devices will eventually degrade with use to a level where they will no longer provide adequate protection.

When this occurs the spike filter performance of the MK Filtered Switchsocket outlet can be restored by replacing the filter cassette.

When the filter cassette needs replacing, the green indicator on the Replacement Filer Cassette will glow red or go out, an audible beep every five seconds may also be heard.

Note: As with all filters, these Filter Sockets will reduce the magnitude of RFI and spikes and consequently their ability to interfere with connected equipment. They will not completely remove the interference from the supply.

**Figure 1**



### Installation

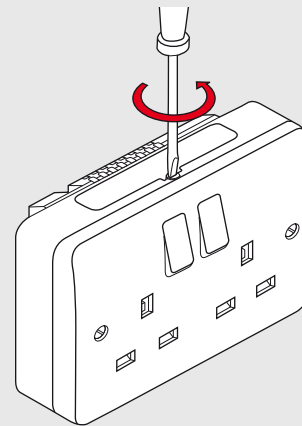
#### Replaceable Spike Filter Cassette

**Note:** To ensure a safe installation;

- this product should be installed by a competent person.
  - it is important that all connections are made as instructed.
1. The filter cassette can be removed and replaced without switching off the mains or removing any plugs from the filter socket.
  2. Remove the filter cassette by turning the jacking screw anti-clockwise to partially eject it (see Figure 2), and then gently pulling the cassette upwards, (see Figure 2a).
  3. **Only fit the MK Replacement Filter Cassette (K1800WHI).**

Unpack the new filter cassette and check that the pins along the bottom edge are not bent or broken. If these pins are damaged, do not fit the replacement cassette. The audible sound indicating that the filter cassette needs replacing, is optional. It may be prevented by removing the small connector on the two end pins, (see Figure 2b), before fitting it into the socket.

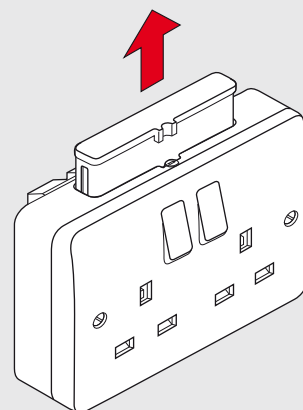
**Figure 2**



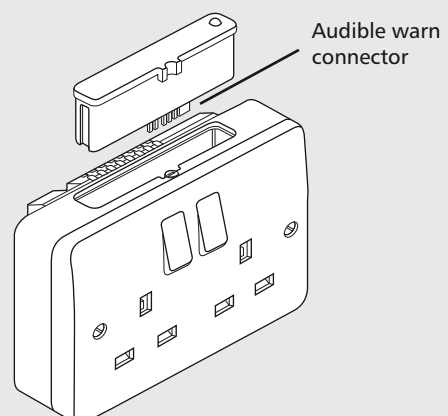
4. Fit the new filter cassette by carefully sliding it into the aperture and gently pushing it down while turning the screw clockwise until the filter cassette is flush with the surface. Do not turn the screw any further as this will cause distortion of the plastic mouldings.

Product and packaging can safely be disposed of via standard refuse facilities at the end of its useful life.

**Figure 2a**



**Figure 2b**



## Round Pin Socket Outlets

### Standards and approvals

Round pin socket outlets comply with BS 546:1950.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### TERMINAL CAPACITIES

##### 2A sockets:

7 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

2 x 2.5mm<sup>2</sup>

1 x 4mm<sup>2</sup>

##### 5A sockets:

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### 15A sockets:

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

A range of round pin socket outlets designed for ease of installation and having all the advantages and design features of the MK range of wiring devices.

These products can be quickly installed as replacements for existing socket outlets or in new installations.

#### FEATURES

- Top access terminals make wiring easier and quicker
- Integral ON indicator on plastic switches will not rub off – totally safe
- Switch contact gap, 3mm minimum
- Double pole switching
- Terminal screws backed out
- Additional electrical safety from neutral “make first”, “break last” feature on switched sockets
- Switch contacts with silver contact points on both surfaces for good continuity
- 5A and 15A sockets contain a 3 pin operated safety shutter.
- Printed terminal markings on grey rear mouldings for clearer identification



## Non UK Socket Outlets

### Standards and approvals

15A American sockets comply with  
SASO 2004:2003

16A 2P+E German sockets comply with  
IEC 60884-1:2006

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### 15A AMERICAN

**VOLTAGE RATING**  
127V a.c.

**CURRENT RATING**  
15A

**TERMINAL CAPACITY**  
Live, neutral & earth  
3 x 2.5mm<sup>2</sup>  
2 x 4mm<sup>2</sup>  
1 x 6mm<sup>2</sup> (stranded)

**MAX. INSTALLATION ALTITUDE**  
2000 metres

##### 16A 2P+E GERMAN SOCKET

**VOLTAGE RATING**  
250V a.c.

**CURRENT RATING**  
16A

**TERMINAL CAPACITY**  
Live, neutral & earth  
4 x 1.5mm<sup>2</sup>  
2 x 2.5mm<sup>2</sup>  
1 x 4mm<sup>2</sup>

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
-5°C to +40°C

**IP RATING**  
IP2XD

**MAX. INSTALLATION ALTITUDE**  
2000 metres

### 15A AMERICAN (Logic Plus\*)



#### BOX TYPES

| GANG   | FLUSH  | FLUSH<br>(FOR EXTRA WIRING SPACE) | SURFACE  |
|--------|--------|-----------------------------------|----------|
| 1 GANG | 861ZIC | 866ZIC                            | K2140WHI |
| 2 GANG | 862ZIC | 886ZIC                            | K2142WHI |

### 16A 2P+E GERMAN (Logic Plus\*)



#### BOX TYPES

| GANG   | FLUSH  | SURFACE  |
|--------|--------|----------|
| 1 GANG | 861ZIC | K2140WHI |
| 2 GANG | 862ZIC | K2142WHI |

Note: 16A 2P+E German Outlet: These products are NOT suitable for 25mm deep boxes.

\*15A American Sockets and 16A 2P+E German Sockets are also available in a modular format for MK decorative wiring device ranges.

## Three Pole Fan Isolators

### Standards and approvals

Comply with BS EN 60669-2-4:2005

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### VOLTAGE RATING

250V a.c.

###### CURRENT RATING

10A

###### RATED CONDITIONAL SHORT

CIRCUIT CURRENT (Inc)

3000A

###### TERMINAL CAPACITY

4 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

###### CONTACT GAP

4mm switch contact gap

###### RECOMMENDED SCPD

GE Power Controls TIA32M40 32A IEC269-2-1 Fuse-link

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

###### IP RATING

IP4X

###### MAX. INSTALLATION ALTITUDE

2000 metres

### Features

- Switchlock list no. K4858 is available to allow the isolator to be locked in the disconnected position to facilitate fan maintenance



### Description

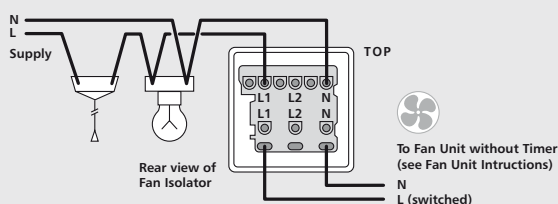
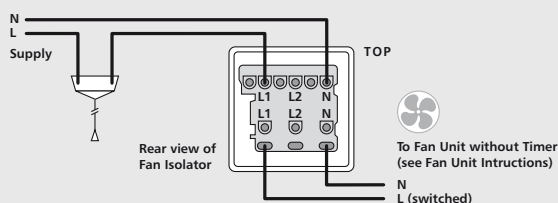
The MK Three Pole Fan Isolator provides a safe and simple method of isolating mechanical fan units and is particularly useful in bathrooms, toilets, storerooms and basements where there is little or no natural light.

For example, timer controlled fans are often linked into the lighting circuit for energy saving and convenience. In such an installation there is often a need for the lighting circuit to remain live to provide light whilst the fan unit is externally isolated so that routine maintenance and repairs can be carried out in complete safety.

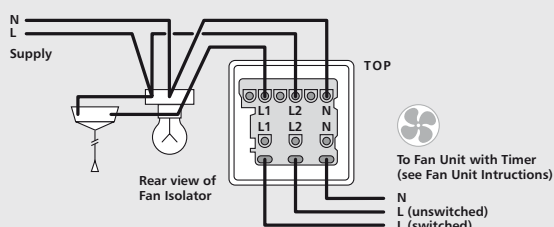
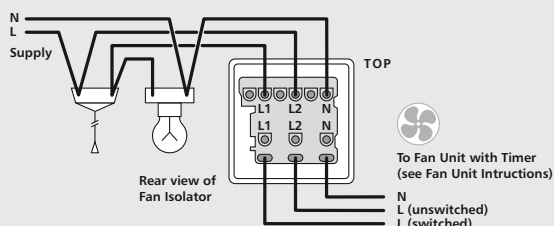
The fan isolator can be used as a double pole or triple pole isolator. In addition it includes a clear on/off indicator and the frontplate features a fan isolator symbol for easy circuit identification.

### Wiring diagrams

#### Two pole switching for fan units without timers



#### Three pole switching for fan units incorporating timers



# Wiring Devices Technical

## – Logic Plus™

### Shaver Socket Outlets

#### Standards and approvals

Shaver socket outlets comply with BS 4573:1970 and IEC 60884-1:2006.

Plug pin apertures, and engagement face dimensions comply with BS 4573:1970.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### VOLTAGE RATING

200-250V a.c. Input

###### MAXIMUM LOAD

200 mA (internal thermister trip current)

###### TERMINAL CAPACITIES

Each terminal will accommodate

1 x 4mm<sup>2</sup>, or 2 x 2.5mm<sup>2</sup>, 3 x 1.5 solid conductors

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

###### IP RATING

IP2XD

###### MAX. INSTALLATION ALTITUDE

2000 metres



#### Description

Designed for ease of installation and having many of the advantageous features of the Logic Plus™ range.

The shaver socket outlet accommodates the following plugs:

British 5mm dia pins on 16.6mm pitch (230V socket) to BS 4573:1970.

European 4mm dia pins on 17 to 19mm pitch (230V socket) to IEC 83:1975 Standard C5.

Australian 6.5 x 1.6 flat blades each set at 30° to the vertical on a nominal pitch of 13.7mm (230V socket).

AS C112:1964.

The fuse carrier is captive and opened by a fast acting, screwdriver operated worm drive screw for ease of replacement.

#### FEATURES

- Top access terminals make wiring quicker and easier
- Only one size of screwdriver required for installation
- Terminal screws supplied 'backed out' and held captive within the terminal moulding
- White printed terminal markings on grey rear mouldings for clearer identification
- Front plate fixing screws retained on rear case moulding

#### Installation

This shaver socket **must not** be used in bathrooms and washrooms. Non-isolated, fused, shaver socket outlets must never be installed in any location subject to splashes, condensation or damp conditions.

For installation in any other room where a wash basin or shower cubicle is installed then refer to the current IET wiring regulations.

## Shaver/Toothbrush Supply Units

### Standards and approvals

Shaver/Toothbrush supply units comply with BS 61558-2-5:1998

Accommodates plugs as follows:

- British 5mm dia pins on 16.6mm pitch (230V socket) to BS 4573:1970.
- European 4mm dia pins on 17 to 19mm pitch (230V socket) to BS EN 50075
- Australian 6.5 x 1.6 flat blades each set at 30° to the vertical on a nominal pitch of 13.7mm (230V socket) AS/NZS 3112:2000
- American 6.6 x 1.6 flat horizontal blades on 12.7mm pitch (115V socket) to UL498 / NEMA WD6.



### Description

Designed for ease of installation and having many of the advantageous design features of the MK range of wiring devices.

May be used in bathrooms and washrooms – must only be installed in accordance with the latest edition of BS 7671.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

**K701:** 230V a.c. Input (will operate at 220-250V a.c.)

**K706:** 127V a.c. Input (will operate at 110-130V a.c.)  
230V or 115V nominal outputs

##### CURRENT RATING

**K701:** 200mA max.

(internal thermister trip current)

**K706:** 400mA max.

(internal thermister trip current)

##### MAXIMUM LOAD

20VA

No load voltage < 275V

##### TERMINAL CAPACITIES

Each terminal will accommodate 1 x 4mm<sup>2</sup> or  
2 x 2.5mm<sup>2</sup> solid conductors

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP41 (In Zone 2 if fixed where direct spray from  
showers is unlikely)

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### FEATURES

- Top access terminal screws make wiring quicker and easier
- Automatic primary supply switching on insertion of plug
- Choice of 230V or 115V output socket positions
- Safety interlocked shutters to prevent insertion of two plugs simultaneously
- Only one size of screwdriver required for installation
- Front plate fixing screws retained on rear case moulding
- Integral over current device to protect transformer
- Suitable for use with electric toothbrush chargers

### Installation

Shaver/Toothbrush supply unit should be wall mounted.

# Wiring Devices Technical

## 13A Connection Units, 20A Switches and Flex Outlets

### Standards and approvals

All Connection Units comply with BS 1363-4:1995.

All 20A DP Switches comply with BS EN 60669-1:1999.

Flex Outlet complies with BS EN 60670-22:2006.

Fuses comply with BS 1362:1973.



### Description

A range of 13A fused connection units and 20A DP switches designed for the connection of refrigerators, water heaters, central heating boilers and other fixed appliances.

The ranges are designed for ease of installation and have the advantageous design features of the MK range of wiring devices.

#### Neon indicators

Products are available with Neon indicators included in the rockers of the switched connection units. In the case of unswitched units, they are positioned centrally and uppermost on the face plate. Neon indicators are integrally wired into the product and do not require separate connection when installing. The design gives 175° visibility in the horizontal and vertical planes.

#### Fuse carriers

These are captive and are opened by a fast acting, screwdriver operated worm drive for ease of replacement. A tamper-proof version is also available.

Fuse carriers can be locked open using a padlock, List No. K2000.

#### Flex outlets

Bottom outlet types are supplied with blanking plug allowing use where the bottom outlet is not required.

The products are equipped with very strong, push-fit nylon cord grips making installation safe, quick and easy.

#### Flex outlet plate

An unfused flex outlet with cord grip and 3 pairs of terminals.

### Installation

#### Wiring

Products must be installed in accordance with current IET Regulations.

#### Changing Fuses

1. Unscrew the fuse carrier screw to partially eject the carrier.
2. Carefully lever the carrier out further to remove the fuse.  
Note: The carrier does not come fully out.
3. Always replace with a BS 1362 type fuse (as used in 13A plugs) of the correct rating.
4. Consistent fuse blowing could mean a faulty appliance. If in doubt, consult a qualified electrician.
5. Push carrier back until engaging with jacking screw. Screw the carrier down until flush with surface of the plate. Do not over tighten the screw.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

Connection Units: 13A

DP switches: 20A

Flex outlets: 20A

##### TERMINAL CAPACITY

##### Supply terminal:

2 x 6mm<sup>2</sup> stranded

2 x 4mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

##### Load terminals:

2 x 6mm<sup>2</sup> stranded

2 x 4mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

##### CORD GRIP CAPACITY

##### Connection units:

min: 2 core, 0.5mm

max: 3 core, 1.5mm

##### 20A DP switches & flex outlet plate:

min: 3 core, 1.5mm

max: 3 core, 2.5mm

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

With flex outlet: IP2XD

Without flex outlet: IP4X

##### MAX. INSTALLATION ALTITUDE

2000 metres

# Wiring Devices Technical

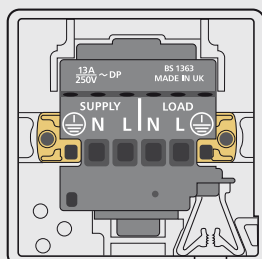


## 13A Connection Units, 20A Switches and Flex Outlets

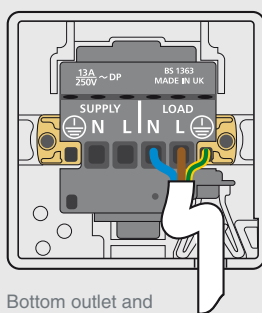
### FEATURES

- Optional indicators in the switch rockers with 175° visibility in the horizontal and vertical planes
- Worm-drive operated fuse carriers for additional security (tamper-proof version available)
- Fuse carrier lockable in open position
- All supply and load cables can be cut and stripped to the same length
- Integrally wired Neon indicators save installation time
- Push-fit cord grips, for safer, quicker installation
- Angled, top mounted terminal screws simplify wiring
- Moulded 'on' indicator flash on switches cannot rub off – totally safe
- Captive fuse carrier
- Additional electrical safety from DP Switch, neutral 'make first', 'break last' feature
- Secure cable and flexible cord connection
- All terminal and fixing screws operated by one-size (4mm) screwdriver
- Backed out and captive terminal screws

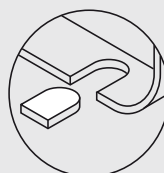
Note: These switches are not recommended for switching large banks of PCs



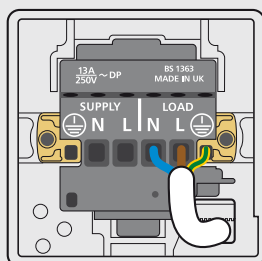
Supply and load cable cords cut and stripped to same length



Blanking plug for bottom outlet



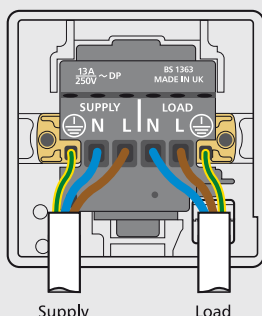
Bottom outlet and cord grip



Front outlet cord grip



Lockable fuse carrier



Supply and non flexible load cables



K1090WHI Flex Outlet



## 20A Key Operated Fire Alarm Isolator Switch - Phase out

### TECHNICAL SPECIFICATION

#### ELECTRICAL

**VOLTAGE RATING**  
250V a.c.

**CURRENT RATING**  
20A

**TERMINAL CAPACITIES**  
Live, Neutral & Earth  
3 x 2.5mm<sup>2</sup>  
3 x 4mm<sup>2</sup>  
2 x 6mm<sup>2</sup>

#### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
-5°C to +40°C

**IP RATING**  
IP2XD

**MAX. INSTALLATION ALTITUDE**  
2000 metres



### Description

The isolators comply with BS 60669-2-4:2005

The Isolator is intended for use with building alarm systems that are required to comply with BS 5839 Part 1.

### FEATURES

- The built in lock ensures power cannot be provided without the key being operated, making it safe to carry out maintenance to fire alarms
- Printed terminal markings on grey rear of the switch moulding for clearer identification
- Double Pole switching
- Only one size of screwdriver required for installation

Note: The lock fitted to these isolators is universal for all MK 20A Isolators in the range i.e. a common key profile.

However, the keys are different to those used on all other MK Key Operated Switched Products, for added security.

## High Current Switches and Cooker Control Units

### Standards and approvals

All DP switches in the range comply with BS EN 60669-1:1999.

All Cooker Control Units in the range comply with BS 4177:1992.

Cooker Connection Unit comply with BS EN 60670-22:2006

### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

32A Switch

45A Cooker Control Unit

45A Cooker Connection Unit

50A Switch (Resistive Load)

#### SWITCH

3mm contact gap

Double pole operation –

except socket switch on Cooker Control Units

#### TERMINAL CAPACITY 50A SWITCHES

Cooker Control Units, and Cooker Connection Units:

4 x 4mm<sup>2</sup>

3 x 6mm<sup>2</sup>

1 x 10mm<sup>2</sup>

1 x 16mm<sup>2</sup>

#### TERMINAL CAPACITY, 32A SWITCH

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

#### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

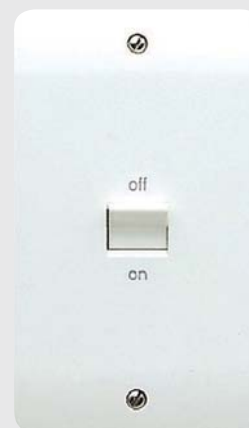
Cooker Control Units

##### IP4X

32A Switch, 50A Switch, Cooker Connection Unit

##### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

A range of switches and cooker control units suitable for the switching of all domestic, commercial and industrial appliances where higher current ratings are required, i.e. cookers, heaters, units etc. Metal units are particularly suitable for refurbishment projects.

#### FEATURES

- Positive switch action
- Positive double pole switching
- Toggle action switches
- Metal front plates available
- Replaceable neon indicators
- Wide product choice

Note: These switches are not recommended for switching large banks of PCs

## Plateswitches

### Standards and approvals

All MK plateswitches comply with BS EN 60669-1:1999.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### VOLTAGE RATING

250V a.c.

###### CURRENT RATING

10A – no derating when used on fluorescent or inductive loads

20A – no derating when used on fluorescent or inductive loads

Push / Retractive switch types are not intended for fluorescent loads.

###### TERMINAL CAPACITY

4 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

###### CONTACT GAP

3mm switch contact gap

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

###### IP RATING

IP2XD

###### MAX. INSTALLATION ALTITUDE

2000 metres

Operational testing (all plateswitches): tested to 100,000 operations for mechanical life tested to 40,000 operations at 10A rating tested to 10,000 operations at 20A rating.



### Description

MK plateswitches are designed to blend in with the decor, whilst complementing a wide range of other MK wiring devices. They are designed for easy installation in plasterdepth boxes and are suitable for controlling lighting circuits in domestic, commercial and industrial applications.

#### Neon locator

A textured, polycarbonate moulding allowing the glow of the neon to be seen at almost any angle. Designed to complement the Logic Plus 1, 2, or 3 gang plateswitches.

It is easy to install in existing locations. For 3 gang applications using a 25mm deep box simplifies wiring.

#### FEATURES

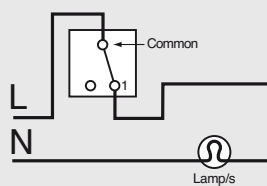
- Two way switches can be wired as one or two way
- Matching Grid switches available in 10 or 20A ratings
- 3mm switch contact gap
- Positive switch action
- Top access, backed out and captive terminal screws
- Neon locator available making switch easy to find in darkened rooms (Logic Plus™ only)



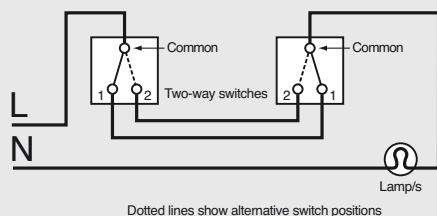
## Plateswitches

### Wiring diagrams

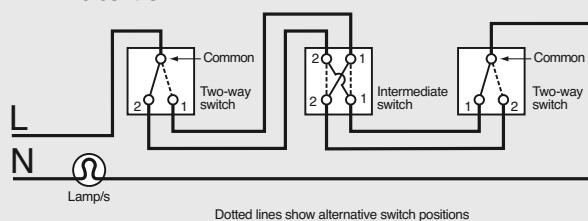
#### One-way switching



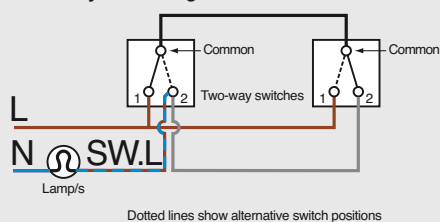
#### Two-way switching – 2 wire control



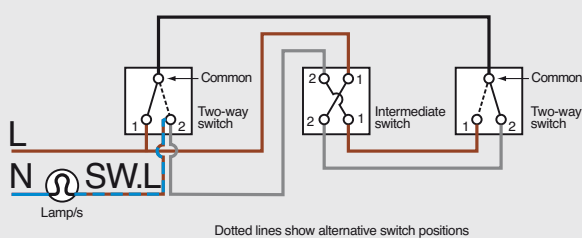
#### Two-way switching plus intermediate switching – 2 wire control



#### Two-way switching – 3 wire control



#### Two-way switching plus intermediate switching – 3 wire control



N.B. Terminal positions may alter. The above diagrams are to show wiring layout.

## Dimmer Switches

### Standards and approvals

All CE marked Logic Plus™ dimmer switches comply with the EC Low Voltage

Directive: 73/23/EEC, Electromagnetic Compatibility Directive 89/336/EEC

They also comply with BS EN 60669-2-1 and IEC 60669-2-1 (LED Intelligent Dimmer only)

\*Non-UK dimmer switches see note below

### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### MAINS SUPPLY VOLTAGE

230V a.c. (Nominal)

220V a.c. (Nominal, Non-UK)

220V a.c. to 240V a.c. (For LED Intelligent Dimmer)

##### MAINS SUPPLY VOLTAGE RANGE

216V a.c. to 253V a.c.

200V a.c. to 250V a.c.

198V a.c. to 264V a.c. (For LED Intelligent Dimmer)

##### MAINS SUPPLY FREQUENCY

50Hz ±3Hz

60Hz ±3Hz

#### TYPE OF LOADS

##### STANDARD DIMMERS

Fused GLS Tungsten Filament lamps only to BS EN 60064:1996 and BS EN 60432-1:2000, rated at 230/240V

##### INTELLIGENT DIMMERS AND LED INTELLIGENT DIMMERS:

Fused GLS Tungsten Filament lamps to BS EN 60064:1996 and BS EN 60432-1,2 rated at 230/240V. Dimmable wire wound or electronic Low Voltage Transformers of good quality. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Note: Transformer must be suitable for dimming using phase delay (leading edge) and NOT only phase cut (trailing edge) type of dimmers.

**Warning:** These dimmer switches are not suitable for use with Fluorescent Lamps or Energy Saving Lamps.

#### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

0°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

**MK dimmer switches can fall into one of four categories**

- 1) Standard Dimmer Switches
- 2) Intelligent Dimmer Switches
- 3) Non-UK Dimmer Switches
- 4) LED Intelligent Dimmer Switches

#### Standard Dimmer Switches

Dimmer Switches belonging to this category employ simpler electronic circuitry and the CE marked products make use of thermal switches to conform to the very stringent requirements of the Standard BS EN 60669-2-1, for overload protection. They are only suitable for use with normal tungsten filament lamps, conforming to BS EN 60064:1996 and BS EN 60432-1 Standards and do not have any added features, e.g. soft start, ability to control dimmable transformers for low voltage, etc.

Standard Dimmer Switches are not suitable for use with transformers for Low Voltage Lighting or Fluorescent Loads, including Energy Saving Lamps.

#### Intelligent and LED Intelligent Dimmer Switches

Dimmer Switches belonging to this category, employ the latest, state of the art, micro-controller based electronic circuitry and use current sensing to compute the load conditions. These products show progressive reaction to overload conditions, depending on the extent of overload as shown in the table below. List numbers belonging to this category are identified by the suffix letters LV, e.g. K1501 WHI LV. All MK Intelligent Dimmer Switches employ one pole change over switches to facilitate two way switching.

MK Intelligent and LED Intelligent Dimmer Switches are not suitable for use with Fluorescent Loads, including Energy Saving Lamps.

#### \*Non-UK Dimmer Switches

Dimmer switches belonging to this category only conform to the relevant parts of BS EN 60669-2-1. Loads suitable for use with standard dimmer switches above are also suitable for use with this category of dimmer switch.

Only one Dimmer Switch can be used in a two-way switching circuit.

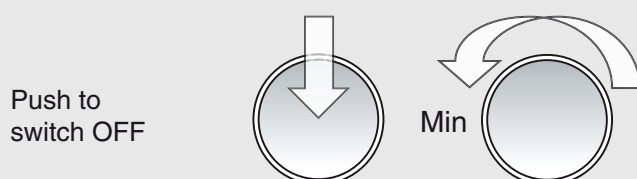
## Minimum Brightness Adjustment for LED Intelligent Dimmers

The light output of some LED lamps may appear to be too dim or invisible when the dimmer knob is at the minimum dim level. Follow the steps below to adjust the minimum brightness level. This feature is primarily for adjusting the minimum brightness level of the LED lamp although it can be used for other load types.

For a double gang dimmer, the light level of each gang has to be adjusted separately.

### Step 1 – Access To Programming Mode

1. Push the dimmer knob so that it is in OFF state.
2. Set the dimmer knob to minimum level.



3. Turn on the dimmer and immediately rotate the knob 3 times in full rotary span within 5 seconds.



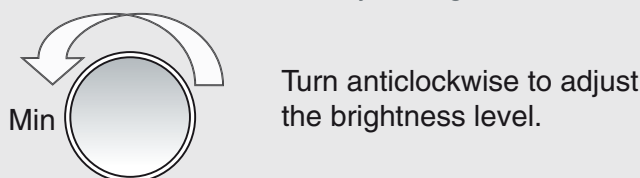
NOTE: Wait for 3 seconds, the lamp will then dim to minimum before automatically brightening to about 30% level. Turning/pushing the dimmer knob before the end of automatic brightening will end access to programming mode

4. Dimmer enters programming mode.

### Step 2 – Adjust Brightness Level and Exit Programming Mode

5. Rotate the dimmer knob anticlockwise to adjust the lamp to the desired brightness level.

NOTE: Some LED lamps may not work properly if the brightness level is set too low thus it is recommended to keep the brightness level of the lamp at a visible level. The dimmer will exit programming mode automatically without saving the new setting if there is no dimmer knob movement for 15 seconds. The dimmer will restore its factory default light level.



6. Confirm the new setting and exit programming mode by turning OFF the dimmer.



### Step 3 – Success indication (Programming Complete)

7. The next time the dimmer is turned on the lamp will automatically brighten to the maximum level before dimming to the brightness level corresponds to the knob level.



## Dimmer Switches

### FEATURES

#### Intelligent and LED Intelligent Dimmer Switches

incorporate the following advanced features

- Suitable for dimming Low Voltage Halogen lamps via good quality, fully dimmable electronic or wire-wound transformers. In addition, LED Intelligent dimmer switches are suitable for dimmable LED bulbs for incandescent replacement.
- Can be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability
- Load current sensing:  
These dimmers continuously monitor the load current to help protect against overheating in wire wound transformers and to prevent overloading of the dimmer for long term reliability

- Soft Start, which gradually increases the light output from the load over 1 to 3 seconds after switch on. The Soft Start feature is also particularly beneficial when used to dim Mains Voltage Tungsten Halogen lamps which inherently have a very high inrush current at switch on

#### Standard Dimmer Switches

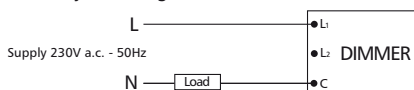
- Suitable only for use with fused GLS Tungsten Filament lamps to BS EN 60064 and BS EN 60432-1
- One way dimmer switches incorporate manual soft start
- Incorporate thermal switches for protection against overload

### LOAD TYPES AND LOADINGS

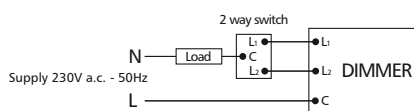
| DIMMER SERIES                   | DIMMER SIZE (1 GANG) | RATING                        |  |           | MAX NO. OF TRANSFORMERS AND LEDS (TOTAL RATING MUST NOT EXCEED MAX.VA RATING OF DIMMER) |               |
|---------------------------------|----------------------|-------------------------------|--|-----------|---|---------------|
|                                 |                      | GLS AND MAINS VOLTAGE HALOGEN | ELECTRONIC OR WIRE WOUND LV TRANSFORMERS | LED       | TRANSFORMERS  | LEDS          |
| INTELLIGENT DIMMER SWITCHES     | single dimmer        | 40-300W                       | 40-240W/VA                               | –         | 4   | –             |
|                                 | double dimmer        | 2 x 40-300W                   | 2 x 40-240W/VA                           | –         | 4 per dimmer  | –             |
|                                 | single dimmer        | 60-500W                       | 60-400W/VA                               | –         | 5   | –             |
| STANDARD DIMMER SWITCHES        | single dimmer        | 40-250W                       | –  | –         | –   | –             |
|                                 | double dimmer        | 2 x 40-250W                   | –  | –         | –   | –             |
|                                 | single dimmer        | 65-450W                       | –  | –         | –   | –             |
| LED INTELLIGENT DIMMER SWITCHES | single dimmer        | 40-300W                       | 40-240W/VA                               | 4-70W     | 4   | 10            |
|                                 | double dimmer        | 2 x 40-300W                   | 2 x 40-240W/VA                           | 2 x 4-70W | 4 per dimmer  | 10 per dimmer |

Do not connect more than the maximum number of transformers stated for each dimmer.

#### One-way switching



#### Two-way switching (only one dimmer can be used)



Wires must be connected to the correct dimmer terminals.  
DO NOT connect earth to dimmer.

### OVERLOAD MANAGEMENT

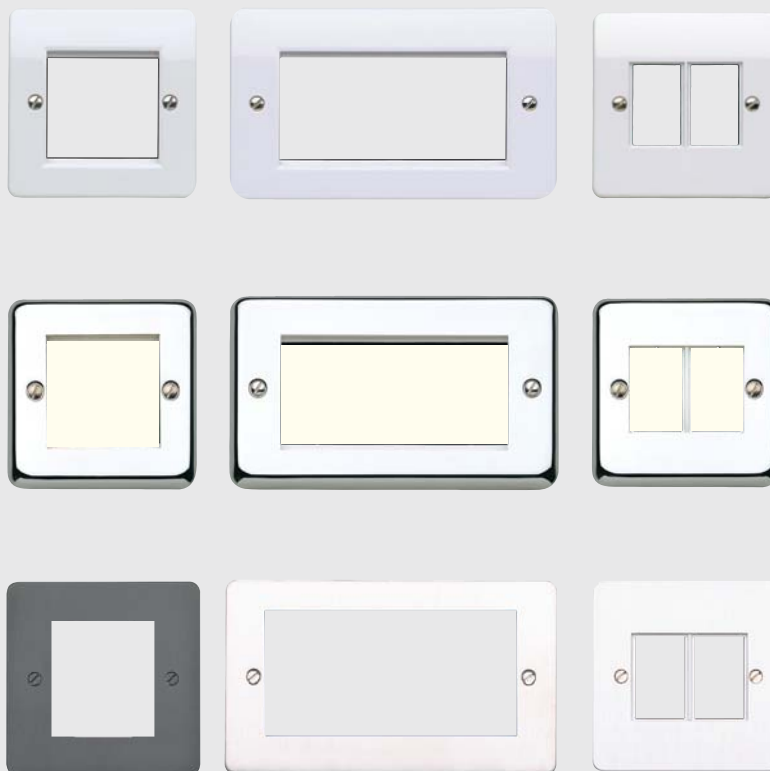
| 60-500W CIRCUIT                  | 40-300W CIRCUIT                  | LED INTELLIGENT DIMMER           |
|----------------------------------|----------------------------------|----------------------------------|
| 60-500W nominal                  | 40-300W nominal                  | 40-300W nominal                  |
| 60-625W function without dimming | 40-375W function without dimming | 40-375W function without dimming |
| > 625-750W dim to 68V±8V r.m.s.  | > 375-500W dim to 68V±8V r.m.s.  | > 375-600W dim to minimum level  |
| > 750W switch off                | > 500W switch off                | > 600W switch off                |

Please note the dimmer may be substituted for any Two-Way switches.

## Euro and LJU6C Data Frontplates

### Standards and approvals

BS 5733:2010



### Description

Frontplates used for mounting snapfit modules.

#### FEATURES

- 1G, 2G and 3G Euro frontplates
- 1G LJU6C Frontplate
- Accept industry standard (Euro) and LJU6C snapfit modules
- 1G Euro frontplate accepts 2 Euro modules, (50 x 50mm aperture)
- 2G Euro frontplate accepts 4 Euro modules, (100 x 50mm aperture)
- 3G Euro frontplate accepts 6 Euro Modules, (150x50mm aperture)
- 1G LJU6C frontplate accepts two LJU6C modules (27 x 37mm aperture)
- 1/2 , 1 and 2 module Euro Blanks available
- 1 module LJU6C Blank available

## Power Modules

### Standards and approvals

K5830: BS 1363 Part 2:1995

K5831: IEC 60884-1:2006

K5832: SASO 2204:2003

K5833: BS 546:1950

K5834: French National Standard NF C 61-314

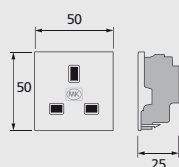
### Description

A range of euro modules designed to provide a variety of power options.

| TECHNICAL SPECIFICATION  |   |   |   |  |  |   |
|--|---|---|---|--|--|---|
| 13A UK   | 5A UK   | 16A GERMAN  | 16A FRENCH/BELGIAN  | 15A AMERICAN   | 2A USB CHARGING MODULE   |   |
| <b>ELECTRICAL</b><br><b>VOLTAGE RATING</b><br>250V a.c.<br><b>CURRENT RATING</b><br>13A<br><b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>2 x 6mm <sup>2</sup> (stranded)<br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C<br><b>IP RATING</b><br>IP2XD<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>ELECTRICAL</b><br><b>VOLTAGE RATING</b><br>250V a.c.<br><b>CURRENT RATING</b><br>5A<br><b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>2 x 6mm <sup>2</sup> (stranded)<br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C<br><b>IP RATING</b><br>IP2XD<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>ELECTRICAL</b><br><b>VOLTAGE RATING</b><br>250V a.c.<br><b>CURRENT RATING</b><br>16A<br><b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>4 x 1.5mm <sup>2</sup><br>2 x 2.5mm <sup>2</sup><br>1 x 4mm <sup>2</sup><br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C<br><b>IP RATING</b><br>IP2XD<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>ELECTRICAL</b><br><b>VOLTAGE RATING</b><br>250V a.c.<br><b>CURRENT RATING</b><br>16A<br><b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>1 x 6mm <sup>2</sup><br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C<br><b>IP RATING</b><br>IP2XD<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>ELECTRICAL</b><br><b>VOLTAGE RATING</b><br>127V a.c.<br><b>CURRENT RATING</b><br>15A<br><b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>1 x 6mm <sup>2</sup> (stranded)<br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C<br><b>IP RATING</b><br>IP2XD<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>ELECTRICAL</b><br><b>INPUT</b><br><b>VOLTAGE RATING</b><br>220-240V a.c.<br><b>FREQUENCY</b><br>50-60Hz<br><b>TERMINAL CAPACITY</b><br>Live & neutral<br>3 x 2.5mm <sup>2</sup><br><b>PHYSICAL</b><br><b>AMBIENT OPERATING TEMPERATURE</b><br>0°C to +40°C<br><b>IP RATING</b><br>IP3xC<br><b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres | <b>OUTPUT</b><br><b>VOLTAGE RATING</b><br>2 x 5V d.c.<br><b>MAX CURRENT</b><br>Combined total of 2A<br><b>CHARGING SOCKETS</b><br>USB 2.0 Type A, USB 3.0 |

### Dimensions (mm)

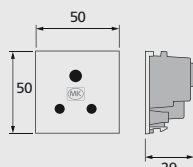
#### 13A UK



#### K5830

| BOX TYPES          |
|--------------------|
| MINIMUM            |
| 35MM               |
| EXTRA WIRING SPACE |
| 46MM               |

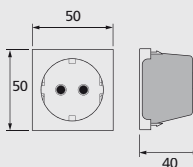
#### 5A UK



#### K5833

| BOX TYPES          |
|--------------------|
| MINIMUM            |
| 35MM               |
| EXTRA WIRING SPACE |
| 46MM               |

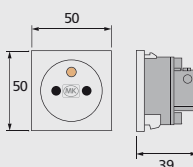
#### 16A German



#### K5831

| BOX TYPES |
|-----------|
| MINIMUM   |
| 46MM      |

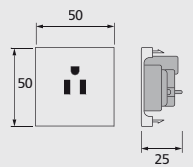
#### 16A French/Belgian



#### K5834

| BOX TYPES |
|-----------|
| MINIMUM   |
| 46MM      |

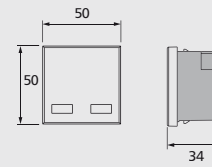
#### 15A American



#### K5832

| BOX TYPES          |
|--------------------|
| MINIMUM            |
| 35MM               |
| EXTRA WIRING SPACE |
| 46MM               |

#### 2A USB Charging Module



#### K5837

| MK EURO FRONT PLATE THICKNESS | BOX TYPES |
|-------------------------------|-----------|
| > 7mm                         | Min 35mm  |
| < 7mm                         | Min 46mm  |

# Wiring Devices Technical



## RJ45 Data Outlets

### Standards and approvals

ISO/IEC 11801

EN 50173

TIA 568

EN 41003



### Installation

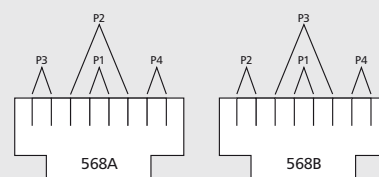
- Maximum cable length 90m.
- Cable bend radii, 40mm during installation, 20mm after installation.
- Maximum pull force 8.7kg.
- Do not over tighten cable ties.
- Do not unwind the twists in the wire pairs by more than 13mm max.

### Description

Suitable for use in all LJU6C and Euro frontplates, available in the Logic Plus range, Cat 5e and Cat 6 modules suitable for use in structured cabling distribution systems.

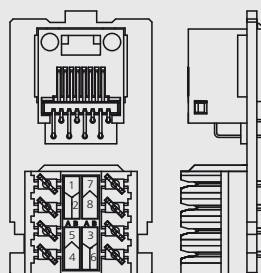
### Installation details and wiring diagram illustrations

| TIA WIRING SCHEME COLOUR CODES |                |                |
|--------------------------------|----------------|----------------|
| PIN NO.                        | 568A           | 568B           |
| 1                              | WHITE / green  | WHITE / orange |
| 2                              | GREEN / white  | ORANGE / white |
| 3                              | WHITE / orange | WHITE / green  |
| 4                              | BLUE / white   | BLUE / white   |
| 5                              | WHITE / blue   | WHITE / blue   |
| 6                              | ORANGE / white | GREEN / white  |
| 7                              | WHITE / brown  | WHITE / brown  |
| 8                              | BROWN / white  | BROWN / white  |

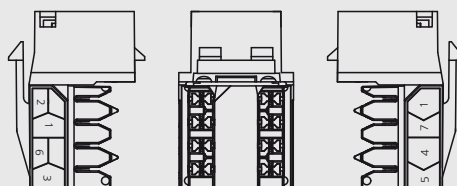


Pair 1 – BLUE/white & WHITE/blue  
 Pair 2 – ORANGE/white & WHITE/orange  
 Pair 3 – GREEN/white & WHITE/green  
 Pair 4 – BROWN/white & WHITE/brown

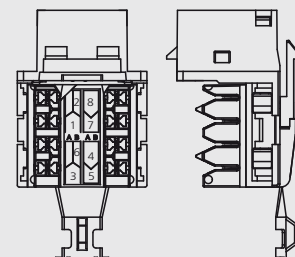
### Euro and LJU6C modules are to be wired as follows



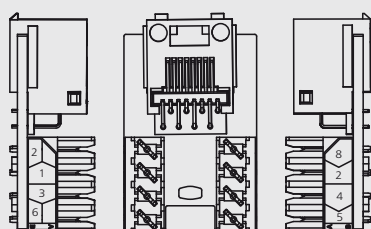
RJ45 Cat.5e Euro K5845



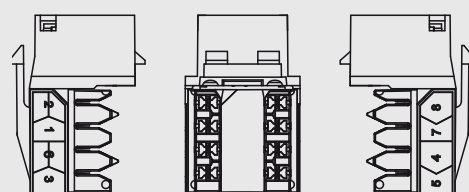
RJ45 Cat.5e Euro - Angled K5844



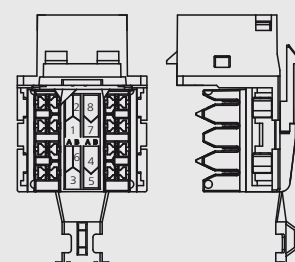
RJ45 Cat.6 Screened  
K5746S - LJU6C, K5846S - Euro



RJ45 Cat.5e LJU6C K5745



RJ45 Cat.6 Euro - Angled K5746 - LJU6C  
K5846 - Euro, K5864 - Euro Angled



RJ45 Cat.5e Screened  
K5845S - Euro

## Telephone, RJ11/12, BNC Data and Blank Modules

### Standards and approvals

Telephone sockets K5820 and K5821 comply with the following:

BS 6312: 2.2

Data sockets K5801, BS 5733: 2010 (where applicable).

K5887 complies with FCC68 and EN 41003.



### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### CABLE TYPES

Telephone: CW1311, CW1293, CW1308, CW1316

##### NO. OF CABLES PER TERMINATION

Telephone: 2

RJ11/12: 1

#### BNC

50 Ohms impedance cable – RG58, RG141, URM43 Belden 9907

#### FREQUENCY RANGE

BNC connector: 0 to 4GHz

#### IMPEDANCE

BNC Connector: 50. nominal

#### TERMINATION TYPE

Telephone module – IDC

BNC module – Crimped connection

#### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD – K5820, K5821, K5801 and K5787.

IP4X – K180, K188, K186 and K170

##### MAX. INSTALLATION ALTITUDE

2000 metres

### Description

A range of telephone, data and blank modules to fit Euro and LJ6UC front plates. BNC Euro modules with a 50Ohm crimp connector suitable for use with RG58, URM43, URM76 and Belden 9907 type co-axial cables are also available.

### Installation (Telephone socket modules)

#### Product performance, systems compatibility

Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

#### Installation tools required IDC Connectors (telephone & RJ45 outlets)

MK insertion tool List No. 400NAT.

Wire pull-out force: 10.5 Newtons when installed correctly.

#### Wiring regulation restrictions

Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

### FEATURES

- Meet all relevant BS and cabling standards
- Interchangeable modules clip into frontplates
- Front fixing facilitates easy exchange of modules
- Part of a complete range of products for telephone and data processing requirements

#### Telephone sockets

- Quick, simple and reliable IDC connectors
- Can be specified for all applications

#### Data sockets

- Latest specification for high performance systems
- Wide range of data connectors available

For information on TV Satellite and FM Modules see pages 471-473

# Wiring Devices Technical

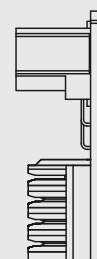
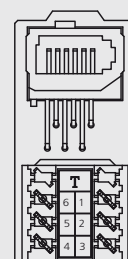
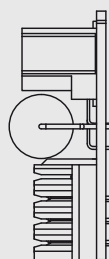
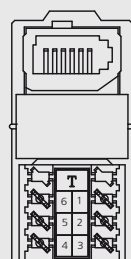


## Telephone, RJ11/12, BNC Data and Blank Modules

### Telephone Wiring Scheme

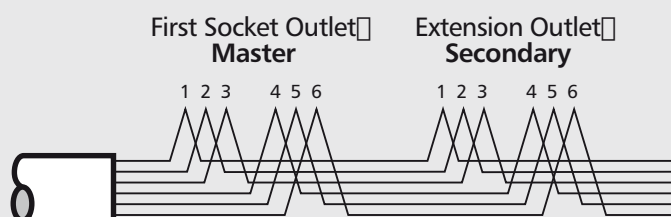
- 1 GREEN / white
- 2 BLUE / white
- 3 ORANGE / white
- 4 WHITE / orange
- 5 WHITE / blue
- 6 WHITE / green

Note: Main wire colour is shown in capitals



K5820

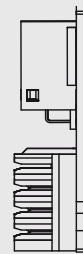
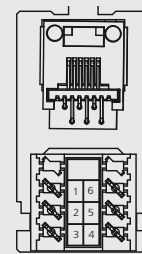
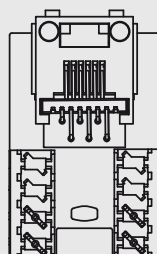
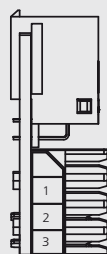
K5821



### RJ11/12 Wiring Scheme

| PIN NO. | STRIPPED COLOUR WIRE | SOLID COLOUR WIRE |
|---------|----------------------|-------------------|
| 1       | WHITE / green        | WHITE             |
| 2       | WHITE / orange       | BLACK             |
| 3       | BLUE / white         | RED               |
| 4       | WHITE / blue         | GREEN             |
| 5       | ORANGE / white       | YELLOW            |
| 6       | GREEN / white        | BLUE              |

Note: Main wire colour is shown in capitals



K5787

K5887



## Telephone, TV/FM and Satellite Socket Outlets

### Standards and approvals

Telephone and TV sockets comply with the following:

#### Telephone sockets K422 and K427

BS 6312: 2.2, BS 5733:2010 (where applicable).

K4817: BS 5733:2010 (where applicable) and FCC68.

#### TV sockets

BS 3041 Part 2:1977 / IEC 169-2:1977,  
BS 5733:2010 (where applicable) and IEC65,  
clauses 10.1, 10.3.

#### Satellite TV sockets

BS 5733:2010 (where applicable).



### Description

A part of the very wide range of products to meet the latest technical requirements and the standards applicable to modern technology in the installation of telephone and television equipment. The master and secondary telephone sockets K422 and K427 comply with relevant approvals for direct and indirect connections between a termination point of a public telecommunications system and any piece of approved telecommunications apparatus. For applications requiring twin or dual telephone outlets, refer to the Modular Data section, pages 46-48.

Telephone and TV sockets fit into plaster depth boxes (except for RJ11).

The F-type Satellite Socket may be used for connection of CATV, MATV and satellite TV installations.

### TECHNICAL SPECIFICATION

#### ELECTRICAL

TELEPHONE SOCKETS, CABLE SPECIFICATION  
CW1311, CW1293, CW1308, CW1316

NO. OF CABLES PER TERMINATION  
2

#### RE-USABILITY

>9 reterminations (should not be reterminated with smaller diameter wire)

#### TV SOCKETS

Cable specification: CT100 or equivalent Any standard

#### LOW-LOSS TV CO-AXIAL CABLE:

Outside 4-8mm diameter, inner conductor 0.5-2mm diameter

#### INSERTION LOSS

Insertion loss data available on request

#### 'F' TYPE SATELLITE SOCKET (K3525), CABLE SPECIFICATION

Co-axial cable: inner core diameter – 0.5-1.2mm

#### RJ11 (K4817), CABLE SPECIFICATION

Capable of taking 0.08 to 0.65mm<sup>2</sup> solid or stranded cable

#### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

### FEATURES

- Single screw termination on TV outlets
- Protected, fully enclosed PCBs
- Meet all relevant BS requirements
- Quick, simple and reliable terminal connection
- IDC connectors on telephone outlets
- Part of a complete range of products for telephone, television and data processing requirements
- Angled connector on TV outlets
- Sockets fit in plaster depth boxes (except K4817)

## Telephone, TV/FM and Satellite Socket Outlets

### Installation (Telephone sockets)

#### Product performance, systems compatibility

Master Sockets: for use as the first socket outlet on a direct exchange or PABX line. They contain surge protector (for line protection against electrical surges) and ringing capacitor.

#### Secondary Sockets

For use as extension sockets when connected on the same line as a Master Socket.

#### Installation tools required

MK IDC insertion tool List No. 400NAT (not supplied with product).

### Wiring regulation restrictions

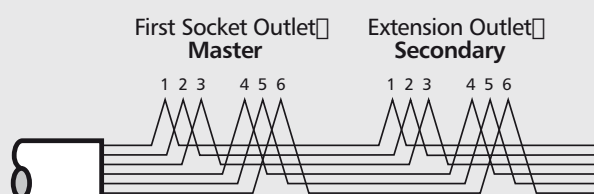
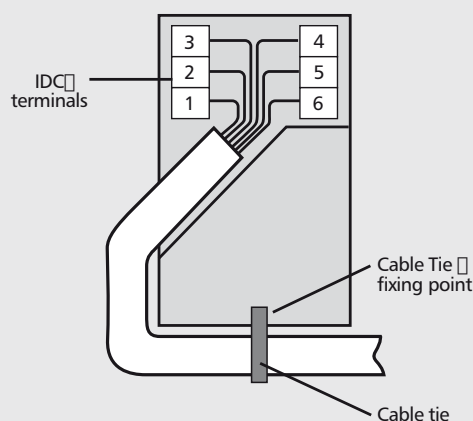
#### Domestic installations

Any number of MK sockets may be installed thereafter, with a total REN (Ring Equivalent Number) value of all telephone equipment connected on a line not exceeding 4.

### Telephone Wiring Scheme

- 1 GREEN / white
- 2 BLUE / white
- 3 ORANGE / white
- 4 WHITE / orange
- 5 WHITE / blue
- 6 WHITE / green

Note: Main wire colour is shown in capitals



## Digital TV and Telephone Outlets (Logic Plus and Modular Datacoms)

### Installation (TV sockets)

#### Product performance, systems compatibility

Isolated Outlets are intended for use where safety isolation (rated at 2000V ac) is required to provide protection against faults occurring within any mains powered product used on different parts of the distribution system. They are not suitable for use in systems where DC signals are passed through the socket, (e.g. where masthead/headend equipment is controlled by receiver/decoder equipment).

Diplexer Outlets are used in distribution systems where both TV and FM band signals are combined on a single aerial download. The filtering in the diplexer separates the appropriate signals and feeds them through to the relevant output connection port.

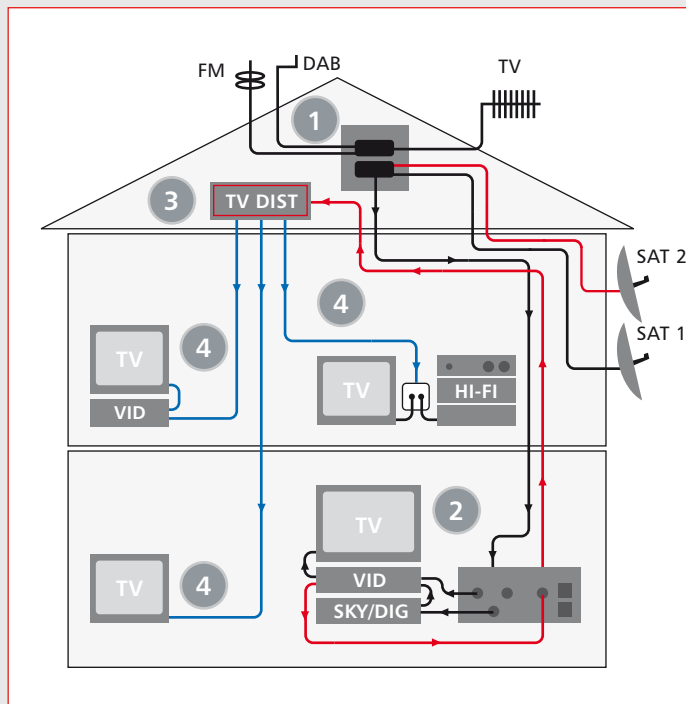
#### Cable Routing and Use of Cable Clamp

Sharp bends in the cable must be avoided during installation. The single TV/FM socket is fitted with a cable clamp that can be fixed on either side of the termination position to facilitate this.

When tightening the screening braid clamps ensure that the cable is firmly gripped and that the inner insulation is not squashed flat beyond a slight oval shape.

#### Safety Information

TV outlets or modules must not be installed in the same enclosure as equipment rated in excess of 50V, (e.g. mains rated 13A sockets or switches).



Method of installation of TV and FM aerial connection by using MK co-axial socket outlet and only one download.

Conventional distribution system for TV and FM signals using a single aerial download.

- 1 The signals from the TV and FM aerials and the satellite dish are combined together using two products. The first combines the TV and FM signals and the second adds the Sky signal to the TV/FM signal and provides a DC control path to power the LNB unit on the satellite dish. (These products are not supplied by MK).

The single aerial down lead feeds into the triplexer (black lines in wiring diagram).

- 2 The separated satellite signal is then fed to the decoder. The decoded satellite signal is then fed into the VCR along with the TV signal from the Triplexer. The output signal from the VCR then feeds into the TV and also back to the single outlet and onto the distribution amplifier (black lines in wiring diagram).
- 3 The single cable back-feed then feeds back to the input of a multi way distribution amplifier, (typically located in the loft or garage) (red lines in wiring diagram).
- 4 Each individual output from the distribution amplifier is then fed to the individual rooms in the house to a standard TV (single or diplexer) outlet to which the TV/VCR and/or Hi-Fi can be connected (blue lines in wiring diagram).

## Digital TV, Radio and Telephone Outlets

### Standards and approvals

All Logic Plus TV Outlets comply with BS 5733 and BS EN 50083 where applicable.

Also IEC 169-2, BS EN 60169-24 and BS 6312 Part 2

Modular products are Euro compatible.

#### TECHNICAL SPECIFICATION

##### SINGLE OUTLETS

TV/FM IEC Male or Female DC-950MHz  
SATF-Type DC-1.75GHz

##### DIPLEXER AND TRIPLEXER PRODUCTS

##### TV

**Diplexer:**  
5-68MHz  
120-862MHz

##### Triplexer:

5-68MHz  
120-862MHz

##### FM

**Diplexer:** 87.5-108MHz  
**Triplexer:** 87.5-108MHz

##### SAT

**Diplexer:** n/a  
**Triplexer:** 950-2250MHz

##### TV/FM/SAT PRODUCTS FOR DIGITAL RADIO

##### TV

**Diplexer:**  
5-68MHz  
120-862MHz

##### Triplexer:

5-68MHz  
120-862MHz

##### FM

**Diplexer:** 87.5-108MHz

##### SAT OR SAT1

**Triplexer:** 950-2280MHz

##### SAT2

**Triplexer:** 5-2250MHz



### Description

There are two ranges of diplexer and triplexer products, an established range suitable for VHF TV.

Diplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV and FM signals. The filtering in the diplexer splits out the appropriate signal and feeds it to the relevant output connection.

A DC control path is provided in the TV signal path through the diplexer.

Triplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV, FM and SAT signals. The filtering in the triplexer splits out the appropriate signal and feeds it to the relevant output connection.

A DC control path is provided in the SAT signal path through the triplexer.

The quad outlet contains a triplexer together with a separate satellite output, for use with Sky+, or more complex installations.

Telephone secondary outlets are provided on some products for connection of telephone or for interactive TV applications.

#### FEATURES

- Non Isolated
- Fully screened
- Earth terminal provided on TV modules
- Selected products with BT secondary outlets for interactive TV applications
- Selected products with supplementary TV outlet for back-feed for further distribution

#### BOX TYPES

| FLUSH         | FLUSH<br>(FOR EXTRA WIRING SPACE) |        | SURFACE INSULATED | SURFACE METAL     |
|---------------|-----------------------------------|--------|-------------------|-------------------|
| <b>1 GANG</b> | 861ZIC                            | 866ZIC | K2140WHI          | K2211ALM/K2213ALM |
| <b>2 GANG</b> | 862ZIC                            | 886ZIC | K2142WHI          | K2212ALM/K2214ALM |

Minimum recommended box depth 32mm

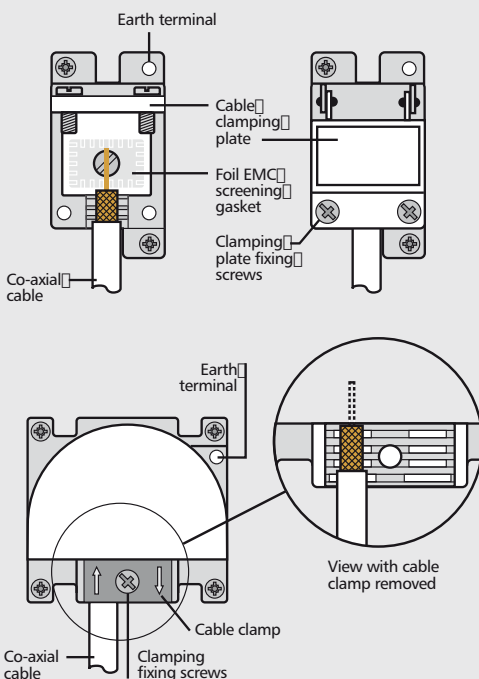
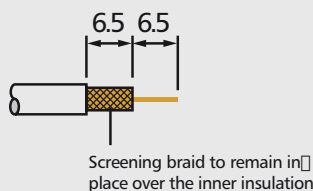
Note: Edge mounted modular products require 46mm box

## Digital TV/FM and Telephone Outlets (Logic Plus and Modular Datacoms)

### Installation

- When installing the TV co-axial cable ensure that all cable bends are smooth so that the inner insulation is not crushed or squashed, otherwise the TV signal quality may be affected
- Not suitable for loop-in loop-out installations
- Use CT100 cable (or equivalent)

TV Co-axial cable stripping details



### Telephone Outlet Connection

Carefully strip 50mm of the telephone cable outer sheath to expose the inner insulated conductors. Using the insertion tool supplied, (MK List no. 400NAT) carefully push each lead into the appropriate IDC terminals according to the wiring colour code stated in the telephone Wiring Scheme diagram.

Pins 1 and 6 are frequently unused, 4 wire cable may be used in these installations.

If an existing installation uses a different wiring colour code system, this should be retained on any new or extended installation.

Additional secondary extension outlets should be wired in parallel with the existing installation via the IDC terminals, (i.e. pin 1 to pin1, pin 2 to pin 2, etc).

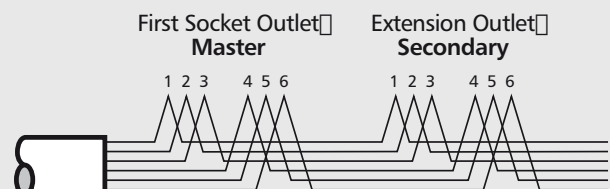
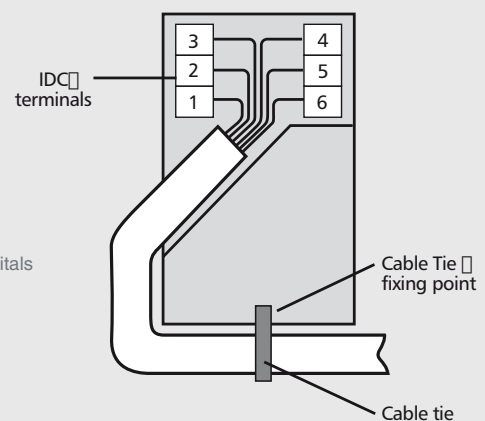
In the event that the earth terminal is required to be used, the installer must ensure that a suitable earth conductor is present to connect to the earth terminal. (In the case of 2G products both TV modules should be earthed).

In the event that the earth terminal is required to be used, the installer must ensure that a suitable earth conductor is present to connect to the earth terminal. (In the case of 2G products both TV modules should be earthed).

### Telephone Wiring Scheme

- 1 GREEN / white
- 2 BLUE / white
- 3 ORANGE / white
- 4 WHITE / orange
- 5 WHITE / blue
- 6 WHITE / green

Note: Main wire colour is shown in capitals



# Wiring Devices Technical

## – Logic Plus™



### Combination Plates 2/4-gang Stacked Combination Plate

#### 4 Gang Plate Description

The 4-gang Combination Plate carries 2x 2-gang 13A DP switched sockets, plus a Quad TV, FM/DAB, Satellite outlet, single TV (IEC Female) and an additional Telephone socket.

Additionally, there is a 4-module Euro area capable of accommodating any additional telephone or media products from the Euro modular range.



#### Quad TV, FM/DAB, Satellite outlet & additional TV Socket

As used on K3566 WHI

#### BT Telephone Socket

As used on K3566 WHI

#### 4-module Euro Housing

This portion of the plate accepts up to 4 x 50mm high by 25mm wide Euro modules. (100mm x 50mm aperture)

#### TECHNICAL SPECIFICATION

##### FRONTPLATE

The frontplate complies with the mechanical strength requirements of BS 5733 2010.

##### SWITCHED SOCKET SPECIFICATION

Compliant to BS 1363 Part 2: 1995

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13 Amp

##### TERMINAL CAPACITY

Live, Neutral & Earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (standard)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

Note

- Pre-configured back boxes available shall be used with these plates. These are 853ZIC, which is 35mm deep, and for greater wiring space 854ZIC, which is 47mm deep
- These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segmentation between mains and low voltage products is maintained
- Mains operated products and extra low voltage modules must not be installed within the same front plate aperture. Refers to BS 7671 IET Wiring regulations for detail
- When removing the fixing screws and front plate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

#### 2 Gang Plate Description

The 2-gang Combination Plate carries a 2-gang 13A DP switched sockets and an additional 4-module Euro area capable of accommodating any additional telephone or media products from the Euro modular range.

#### TECHNICAL SPECIFICATION

##### FRONTPLATE

The frontplate complies with the mechanical strength requirements of BS 5733 2010.

##### SWITCHED SOCKET SPECIFICATION

Compliant to BS 1363 Part 2: 1995

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13 Amp

##### TERMINAL CAPACITY

Live, Neutral & Earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (standard)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

Note

- Pre-configured back boxes available shall be used with these plates. These are 853ZIC, which is 35mm deep, and for greater wiring space 854ZIC, which is 47mm deep
- These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segmentation between mains and low voltage products is maintained
- Mains operated products and extra low voltage modules must not be installed within the same front plate aperture. Refers to BS 7671 IET Wiring regulations for detail
- When removing the fixing screws and front plate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

## Combination Plate

### Standards and approvals

All Aspect 13A socket outlets comply with BS 1363: Part 2:1995.

K24209 and K24210 comply with BS 5733:2010.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### VOLTAGE RATING

250V a.c.

###### CURRENT RATING

13A

###### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

(Dual earth terminals)

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

–5°C to +40°C

###### IP RATING

IP2XD

###### MAX. INSTALLATION ALTITUDE

2000 metres

#### MOUNTING BOXES

| Combination Plate List Number | 47mm Mounting Box |
|-------------------------------|-------------------|
| K24206                        | 870ZIC            |
| K24207                        | 870ZIC            |
| K24208                        | 868ZIC            |
| K24209                        | 858ZIC            |
| K24210                        | 869ZIC            |

Bespoke requirements can be achieved through the MK Design Service to deliver variation in colours, materials, finishes and markings.

Euro apertures can also be converted to grid-switch. For more information please visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk) or call 01268 563720



### Description

A range of combination plates designed for ease of installation and having all the advantageous design features of the Aspect range.

These combination socket outlets provide interior designers and installers with a stylish and practical wiring device solution. The range also has larger euro module frontplates to house eight and twelve single euro modules without the inclusion of fixed socket outlets. The K24209 combination socket outlet, for example allows for the inclusion of up to eight single Euro modules, which could include datacoms, telecoms, plus TV and Satellite modules.

Alternatively, Euro Power Modules i.e. German, French/Belgium and American socket outlets may be used.

#### Note:

- Pre-configured back boxes are designed for use with the combination plates. These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segregation between mains and extra low voltage products is maintained
- For Aspect products, back boxes must be installed 10mm sub flush to the wall surface
- Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details
- When removing the fixing screws and frontplate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

All pre-fitted sockets come complete and are fitted with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671, IET Wiring Regulations.



# Wiring Devices Technical

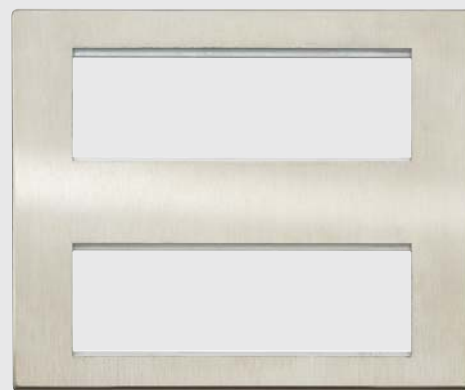
## – Aspect



### Combination Plate

#### Features

- Metal-capped rockers designed to match the chosen front plate finish
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Dual earth terminals on pre-fitted sockets are for high integrity earthing
- Backed out and captive terminal screws on pre-fitted sockets
- Pre-configured backboxes to ensure alignment of the fixing screws is correct and proper segregation between circuits is maintained to comply with BS 7671 17th Edition wiring regulations



#### Installation

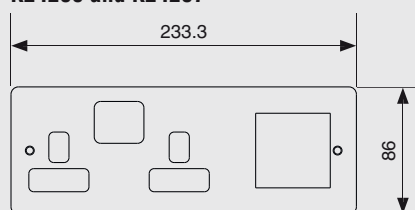
Aspect socket outlets can only be mounted on a wall. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

Install corresponding back box 10mm sub flush to finished wall surface.

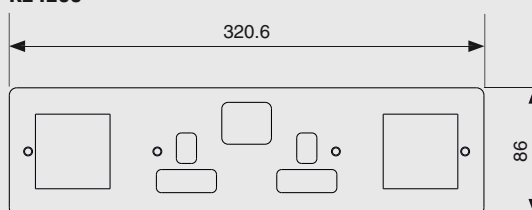
Aspect combination plates are supplied with clip on segregator.

#### Dimensions (mm)

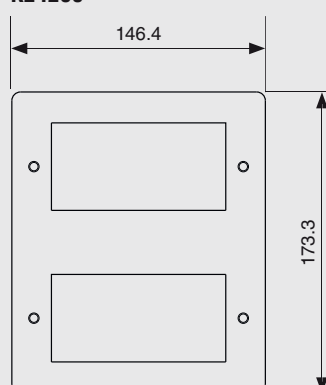
**K24206 and K24207**



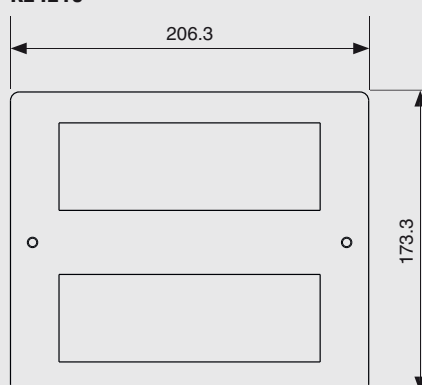
**K24208**



**K24209**



**K24210**



# Wiring Devices Technical

## – Insignia

### Combination Plate

#### Standards and approvals

All Insignia 13A socket outlets comply with BS 1363: Part 2:1995.

K14209 and K14210 comply with BS 5733:2010.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13A

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

(Dual earth terminals)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

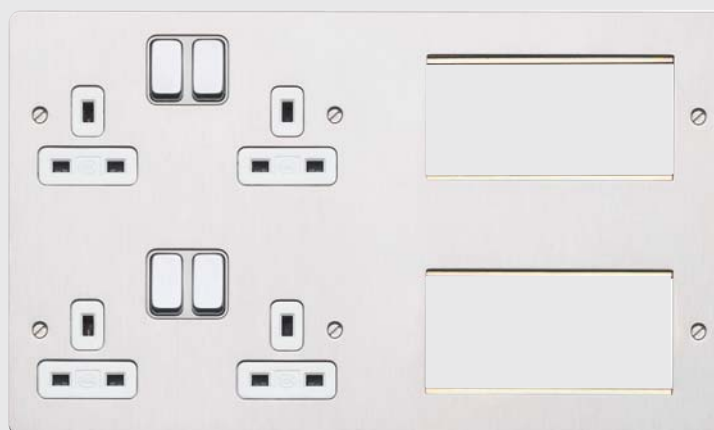
–5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres



#### Description

A range of combination plates designed for ease of installation and having all the advantageous design features of the Insignia range.

These combination socket outlets provide interior designers and installers with a stylish and practical wiring device solution. The range also has larger euro module frontplates to house eight and twelve single euro modules without the inclusion of fixed socket outlets. The K14100 combination socket outlet, for example allows for the inclusion of up to eight single Euro modules, which could include datacoms, telecoms, plus TV and Satellite modules.

Alternatively, Euro Power Modules i.e. German, French/Belgium and American socket outlets may be used.

#### Note:

- Pre-configured back boxes are designed for use with the combination plates. These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segregation between mains and extra low voltage products is maintained
- For Insignia products, back boxes must be installed flush to the wall surface
- Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details
- When removing the fixing screws and frontplate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

All pre-fitted sockets come complete and are fitted with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671, IET Wiring Regulations.



Combination plates allow the use of a variety of power and data modules making them ideal for hotels.

#### MOUNTING BOXES

| Combination Plate List Number | 35mm Mounting Box | 47mm Mounting Box |
|-------------------------------|-------------------|-------------------|
| K14200                        | K14201            | K14202            |
| K14205                        | K14206            | K14207            |
| K14100                        | K14101            | K14102            |
| K14216                        |                   | 867ZIC            |
| K14217                        |                   | 867ZIC            |
| K14208                        |                   | 868ZIC            |
| K14209                        |                   | 858ZIC            |
| K14210                        |                   | 869ZIC            |

Bespoke requirements can be achieved through the MK Design Service to deliver variation in colours, materials, finishes and markings.

Euro apertures can also be converted to grid-switch. For more information please visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk) or call 01268 563720

# Wiring Devices Technical

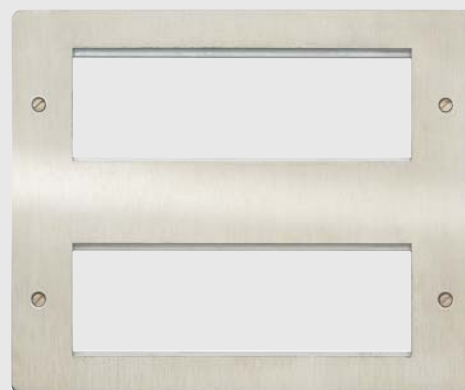
## – Insignia



### Combination Plate

#### Features

- Metal-capped rockers designed to match the chosen front plate finish
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Dual earth terminals on pre-fitted sockets are for high integrity earthing
- Backed out and captive terminal screws on pre-fitted sockets
- Pre-configured backboxes to ensure alignment of the fixing screws is correct and proper segregation between circuits is maintained to comply with BS 7671 17th Edition wiring regulations

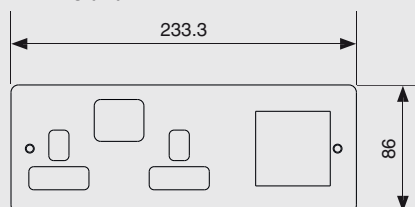


#### Installation

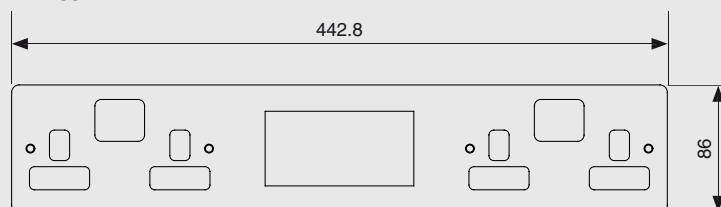
Insignia socket outlets can be mounted on either a wall or suitable bench mounted trunking. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

#### Dimensions (mm)

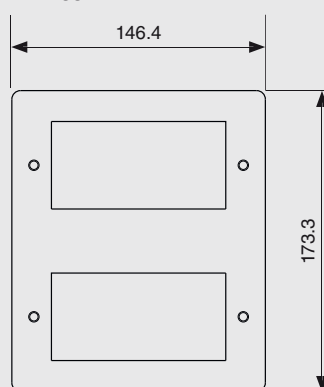
**K14216 and K14217**



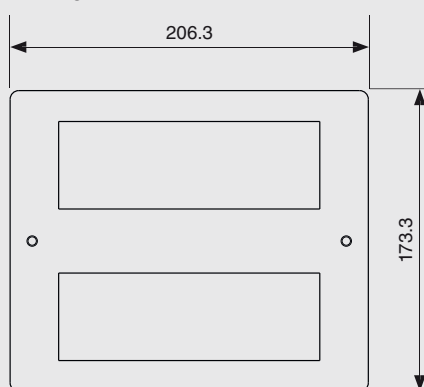
**K14200**



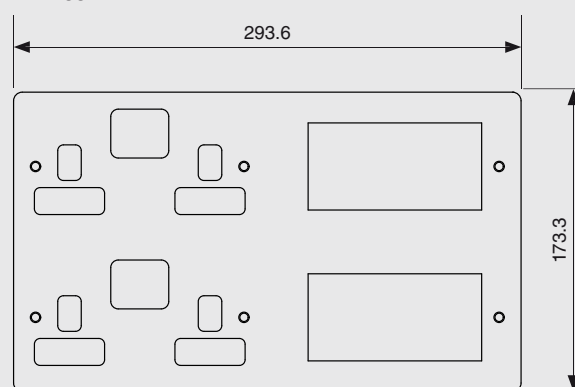
**K14209**



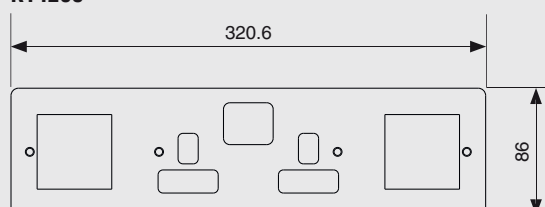
**K14210**



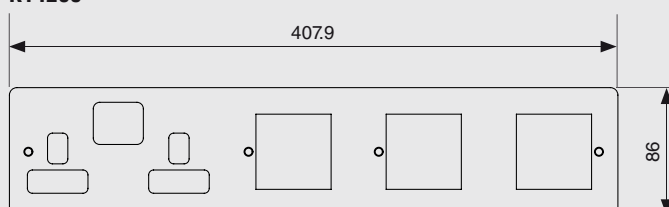
**K14100**



**K14208**



**K14205**



# Wiring Devices Technical

## – Insignia

### Key Operated Switchsocket Outlet

#### Standards and approvals

All Insignia 13A socket outlets comply with BS 1363: Part 2:1995.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13A

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup> (stranded)

(Dual earth terminals)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

–5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres



#### Description

The Key Operated 13 amp socket is designed for ease of installation and has all the design features of the Insignia range. The built-in lock ensures that power cannot be provided without key operation making it ideal for communal areas such as hotel lobbies. The key can be removed from the lock in the on or off position leaving the socket with or without power supply.

The product can be quickly installed as replacement for existing 2 gang 13 amp sockets or in a new installation (assuming suitable 47mm deep mounting box is in position).

#### Installation

Insignia socket outlets can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

#### Features

- Built in lock ensures power cannot be provided without key operation
- Printed terminal markings on grey rear mouldings for clearer identification
- Double pole switching
- Only one size of screwdriver required for installation
- Dual earth terminals for high integrity earthing

Note: The lock fitted to each socket is universal. i.e. a common key profile. However, the keys are different to those used on MK Key Operated Fire Alarm Isolator Switches, for added security.

# Wiring Devices Technical

## – Insignia



### Insignia Technical: General information

#### Mounting Boxes

Due to the slimline design MK Insignia accessories require deeper back boxes than standard. They are designed to fit into folded metal boxes that comply with BS 4662. To ensure products can be correctly installed, the box must always be installed flush or sub flush to the surface to a maximum depth of 6mm.

The recommended depth of boxes for the different types of wiring accessories are as follows:

| MOUNTING BOXES  |                  |
|---|------------------|
| Product   | Box Depth        |
| Socket Outlets  | 35mm             |
| Lockable Socket   | 47mm             |
| Lockable Switch   | 47mm             |
| German style 2 pole + E Socket Outlet mounted in Euro Frame | 47mm             |
| Connection Units  | 47mm             |
| Plateswitches   | 35mm             |
| Grid System Switches*                                       | 35mm             |
| Dimmer Switches   | 35mm             |
| Telephone, Television and Data Outlets                      | 35mm             |
| Cooker Control and 50A Switches                             | 47mm             |
| Shaver Supply Units   | 47mm             |
| 32A Triple Pole and Neutral Switch                          | List no. 5268ALM |

\*Note: If Grid system accessories are to be fitted and the installation requires the attachment of conduit via nuts inside the mounting box, then it is recommended that a box depth of 47mm is used.

#### Fixing Screws

The surface head of Insignia fixing screws is treated and compliment the finish of the frontplate. To prevent damage to the fixing screw extreme care is required. It is recommended that a screwdriver with a maximum blade of 3.5mm is used.

### Aspect Installation

The MK 'Aspect' range of products consists of the main product complete with its support frame and clipping medium, plus a separate frontplate. The product is mounted to the wall, after wiring, and the front plate clipped onto the frame.

1. The frontplate is supplied loose to aid installation.
2. Make sure not to crush or deform the spring steel clips situated along one edge of the product support frame.
3. A gasket is also supplied with each product, which may prove useful on uneven walls. See note 5 below.
4. Using the gasket with all switches and the German socket, will ensure full compliance with the appropriate standards.
5. Both standards set out to guarantee full engagement of the frontplate on uneven surfaces, even when there is a mismatch of as much as 1mm between the distance the main body of the product is from the wall and that of the front plate.
6. Where no gasket is used, if thick wallpapers are cut such that they fit around the support frame and therefore remain under the edge of the frontplate, full plate engagement with the clips may be restricted.

**Note:** When installing Aspect do not over tighten screws, so as to prevent damage or distortion to the product or support frame.

### Frontplate Removal

1. Turn off the power supply.
2. Carefully slide a screwdriver between the ramp on the main body of the product and the notch in the lower right hand edge of the plate.
3. On uneven walls, make sure the screwdriver does not go between the spring steel ramp and the wall, or damage to the wall and/or product could result.
4. Carefully slide the blade upwards and then gently lift the handle away from the wall, which will lever the plate away from the first clip. See Fig.4.
5. With the first clip released, support the plate with one hand and continue to move the blade to the left under.

#### Data products in euromounting frames

Products operating at extra low voltage levels (<50v) must not be mounted in the same Euro enclosures as equipment rated in excess of 50v.

#### Cleaning Frontplates

In order to protect the quality surface finish of the front plate, periodic cleaning should only consist of polishing with a dry lint free soft cloth.

FIGURE 1A

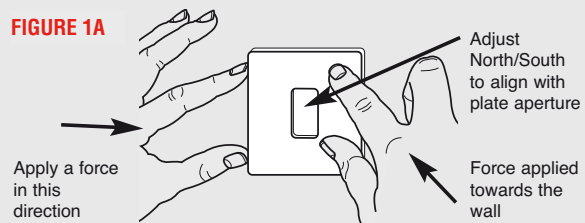
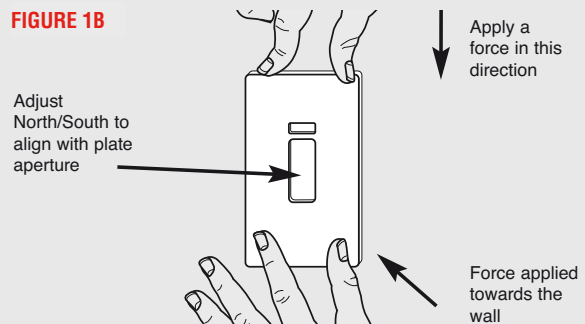


FIGURE 1B



### Frontplate Installation

FIGURE 2

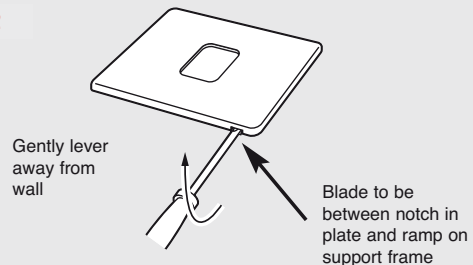


FIGURE 3

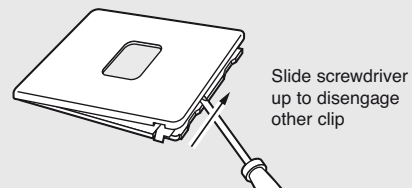


FIGURE 4

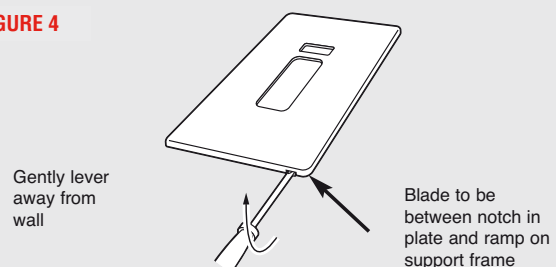
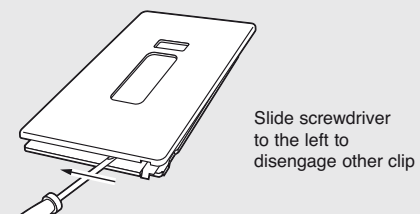


FIGURE 5



### Frontplate Removal

## Decorative Technical: General information

### Earthing: All Metal Frontplate Products

To comply with the latest edition of the BS 7671 IET regulations: the metal front plate must be earthed. All earth terminals provided must be connected to the protective earth conductor.

### Telephone Secondary and Data Sockets

To provide customers with a high level of flexibility the voice and data decorative wiring devices are available in modular formats.

For example to produce a Telephone Secondary Socket the following items are required:

| RANGE       | PRODUCTS REQUIRED |       |
|-------------|-------------------|-------|
| Albany Plus | K181              | K5821 |
| Aspect      | K24181            | K5821 |
| Insignia    | K14181            | K5821 |

Or

| RANGE       | PRODUCTS REQUIRED |       |          |
|-------------|-------------------|-------|----------|
| Albany Plus | K182              | K5821 | 2 x K186 |
| Aspect      | K24182            | K5821 | 2 x K186 |
| Insignia    | K14182            | K5821 | 2 x K186 |



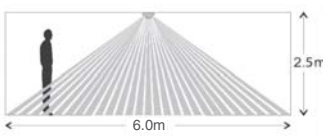
## Simple Fit Switching PIR Sensors

### TECHNICAL SPECIFICATION

**TECHNOLOGY**  
PIR

**MAXIMUM RECOMMENDED MOUNTING HEIGHT**  
1.8m to 3m

**RANGE**  
Cone-shaped detection pattern,  
6m radius at 2.5m mounting height



**OPERATING VOLTAGE**  
AC220~240V/50Hz

**RECOMMENDED CIRCUIT PROTECTION**  
16A

**MAXIMUM LOAD**  
6A or 1500W fluorescent/incandescent lighting load capacity

**PHOTOCELL**  
Approx. 30~200 Lux

**OFF DELAY**  
5sec - 40min

**COLOUR**  
White

**MATERIAL**  
Flame retardant PC  
**IP RATING**  
IP20

**K5015**

**DEPTH REQUIRED BEHIND CEILING**  
100mm

**WEIGHT**  
105g excluding cable

**K5016**

**WEIGHT**  
105g approx



K5015



K5016

### Description

MK Simple Fit Sensors offer cost effective presence detection for lighting control in small to medium areas. These one-box solutions are easy to install and commission, also no additional parts are required.

The following versions are available:

- Flush mounted K5015 – Spring Clips enable ease of installation in plasterboard ceilings
- Surface Mounted K5016 – Screw and Plug Fixings can be mounted direct to the ceiling or on to a square pattress box (K2160 WHI)

### FEATURES



Advanced presence detection by passive infrared (PIR) technology



Passive photocell holds lights off when area becomes occupied in bright ambient conditions



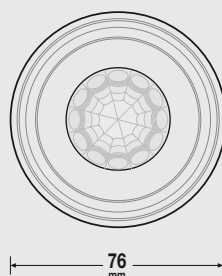
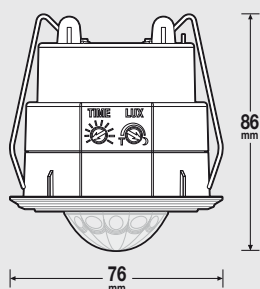
Off delay in minutes following the last observed movement after which lights switch off



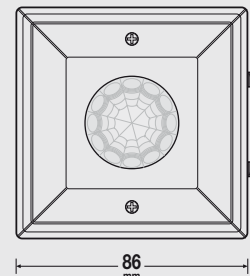
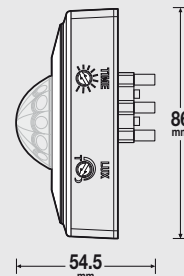
Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).

### Dimensions

K5015



K5016



# Ceiling Accessories Technical



## Ceiling Switches

### Standards and approvals

3164WHI fully complies with the 17th Edition Wiring Regulations (BS 7671:2008 with respect to safety isolation for maintenance purpose. Conforms to BS EN 60669-1:1999

3151WHI, 3190WHI, K3191WHI, K3192WHI, K3131WHI, K2051WHI, K2056WHI, conform to BS EN 60669-1:1999

### TECHNICAL SPECIFICATION

#### ELECTRICAL

**VOLTAGE RATING**  
 250V a.c.

**MAXIMUM RATING**  
 See range details

Note: Switches do not have to be derated when used with resistive or fluorescent loads

#### TERMINAL CAPACITY

**K3131, 3190, K3191, K3192**  
 4 x 1.0mm<sup>2</sup>  
 3 x 1.5mm<sup>2</sup>

#### 3164

4 x 4mm<sup>2</sup>  
 3 x 6mm<sup>2</sup>  
 1 x 10mm<sup>2</sup>  
 1 x 16mm<sup>2</sup>

#### K2051/K2056, Earth Terminal

6 x 1mm<sup>2</sup>  
 4 x 1.5mm<sup>2</sup>  
 2 x 2.5mm<sup>2</sup>  
 1 x 4mm<sup>2</sup>  
 1 x 6mm<sup>2</sup>

#### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
 -5°C to +40°C

**IP RATING**  
 IP3X

**MAX. INSTALLATION ALTITUDE**  
 2000 metres

### Installation

MK ceiling accessories are safe for use in all normal lighting applications. Do not mount them where they may be subjected to excessive moisture or dampness.

### Wiring

Products must be installed in accordance with BS 7671:2008.



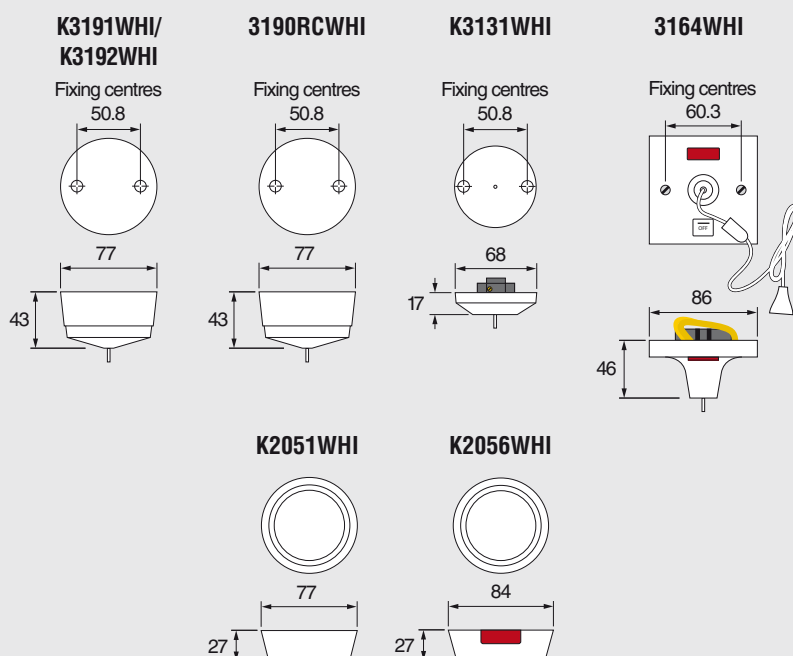
### Description

A range of 6 and 16 Amp ceiling switch options plus a 50 Amp DP flush mounted ceiling switch.

### Features

- Mounting blocks have an earth terminal rivetted into their bases
- 3190RCWHI has a retractive (momentary) switch action and can be wired as either pull to make or pull to break
- 3190RCWHI has a red pull cord
- Ceiling switches with standard white cords are 1.5m minimum length, and with standard red cords are 2m minimum length
- K3191, K3192 and K3131 have self locating feature when used with mounting block, to aid installation
- Ceiling switches with white cords **and bangles** are 2m minimum length, and with red cords **and bangles** are 3m minimum length
- 3164WHI is fitted with mechanical OFF indicator
- 3164 has a full 3 mm contact gap
- 3164 may be surface mounted

### Dimensions (mm)



# Ceiling Accessories Technical

## Ceiling Roses and Pendants

### Standards and approvals

Heat resistant lampholders comply with  
 BS EN 61184:1997 T2

All ShockGuard lampholders  
 comply with BS 7895:1997 and  
 BS EN 61184:1997 T2

Ceiling roses comply with BS 67:1987

Pendant sets are supplied with heat resisting  
 PVC insulated and sheathed flexible 0.75 two  
 core circular cable complying with  
 BS EN 50525 (H05V2V2-F)



Ceiling Rose



Pendant

### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### LAMP HOLDERS AND BATTEN LAMP HOLDERS

**VOLTAGE RATING**  
 250V a.c.

**MAXIMUM RATING**  
 150 watts

**TERMINAL CAPACITY**  
 Live, neutral & earth  
 3 x 1.0mm<sup>2</sup>  
 2 x 1.5mm<sup>2</sup>

##### CEILING ROSES & BASE OF PRE-WIRED BATTEN LAMP HOLDERS

**VOLTAGE RATING**  
 250V a.c.

**MAXIMUM RATING**  
 6 amps

**TERMINAL CAPACITY**  
 Live, neutral & earth  
 4 x 1.0mm<sup>2</sup>  
 3 x 1.5mm<sup>2</sup>  
 1 x 2.5mm<sup>2</sup>

#### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
 -5°C to +40°C

**IP RATING**  
 IP4X

**MAX. INSTALLATION ALTITUDE**  
 2000 metres

### Description

The range includes ShockGuard™ SG type lampholders, pendant sets, batten lampholders and ceiling roses.

### Features

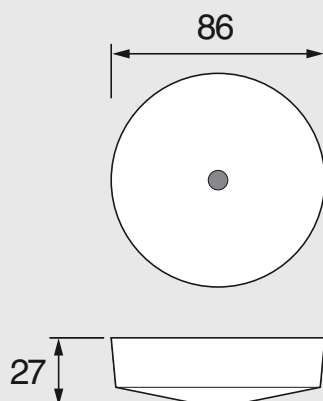
#### ShockGuard™

- Automatically shields the contacts as soon as the lamp is removed
- The contacts remain shielded until a new lamp is slotted into place
- While there is no lamp in place there is no danger of electrocution

#### Ceiling roses

- Clear base and pre-cut aperture for ease of installation
- Clear markings
- Terminal layout allows cables to be cut to even length
- Earth terminal point used for easier cable access
- Halo (K1163WHI) available to give professional finish on damaged ceilings (for use with ceiling roses and pendant sets only)

### Dimensions (mm)



# Ceiling Accessories Technical

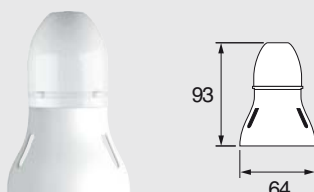


## Lampholders and Shockguard type Lampholders

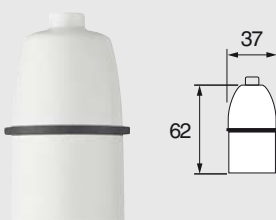
### Dimensions (mm)



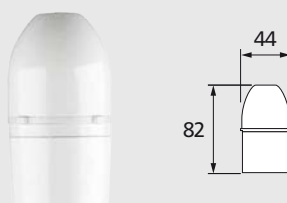
**Standard Lampholder  
 with protective skirt**



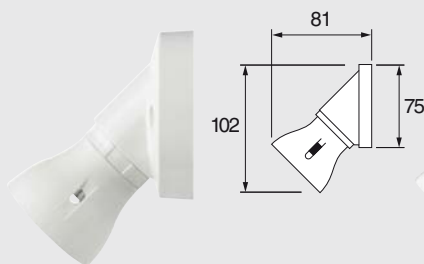
**SG Type Lampholder  
 with protective skirt**



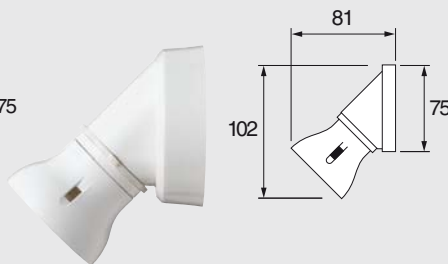
**Standard Lampholder**



**SG Type Lampholder**



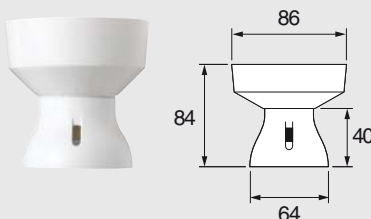
**Standard Angled Batten Lampholder**



**SG Type Angled Batten Lampholder**



**Standard Batten Lampholder**



**SG Type Batten Lampholder**

### Heat Resistance

Two levels of heat resistance are nominated for lampholders but at different maximum working temperatures and the products must be identified by a different marking code.

| HEAT RESISTANCE | MAX WORKING TEMP   |
|-----------------|--|
| T2              | Lamp cap temp<br>210°C marked<br>BS 7895 and<br>BS EN 61184 T2 |

### Lamp wattage rating

All MK lampholders comply with category T2 BS EN 61184. It is important to ensure that the wattage rating of the lamp used is not higher than that for which the particular shade or luminaire is designed.

### Weight of fittings

Ceiling roses and pendant sets are suitable for fittings of up to 3 kg. Heavier fittings must be installed using independent support, e.g. ceiling hook.

### Angled batten lampholders

Can be mounted direct to the wall.

### Straight batten lampholders

Can be screwed direct to the ceiling but it must be ensured that it is fastened to a wooden joist. Integral Ceiling Rose included.

### Ceiling roses and pendant sets

Flush mounting to circular conduit boxes in accordance with BS EN 61386-1:2008.

### Installation

MK ceiling accessories are safe for use in all normal lighting applications. Do not mount them where they may be subjected to excessive moisture or dampness.

### Wiring

Products must be installed in accordance with BS 7671:2008.

## 3 and 4 Pin Accessories/Pre-Wired

### Standards and approvals

BS 6972 & BS 5733

Heat resisting three core circular cable BS 6972 & BS 5733 to BS 6500:2000 (Table 29)

Low smoke zero halogen three core circular cable



#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
250V a.c. 50Hz

**CURRENT RATING**  
6 Amp

##### TERMINAL CAPACITY (ACCESSORIES)

Phase, neutral, earth & 'loop in' terminals will each accept:

**K3230, K4230** – 1 x 0.75 or 1 x 1.00mm conductors

**K3220, K3212, K3240, K4220, K4214 and K4240** – 5 x 0.75, 5 x 1.00, 4 x 1.50, 3 x 2.50 or 2 x 4.00mm<sup>2</sup> conductors

##### PHYSICAL

**STATIC SUSPENSION LOAD**  
5kg max

**AMBIENT OPERATING TEMPERATURE**  
–5°C to +40°C  
(not to exceed an average of more than 25°C in any 24 hour period)

**IP RATING**  
IP2XD

**MAX. INSTALLATION ALTITUDE**  
2000 metres

### Description

A connection and distribution system that brings convenience and versatility to lighting installations. The range consists of a modular plug and socket interface which provides electrical connection in one easy click-in action. Luminaries can be plugged in without isolating the circuit. All live contacts are inaccessible and the earthing connection is made before any other.

Wired products incorporate either heat resisting flex or low smoke zero halogen (LSF) insulated and sheathed flexible 0.75mm four core circular cable.

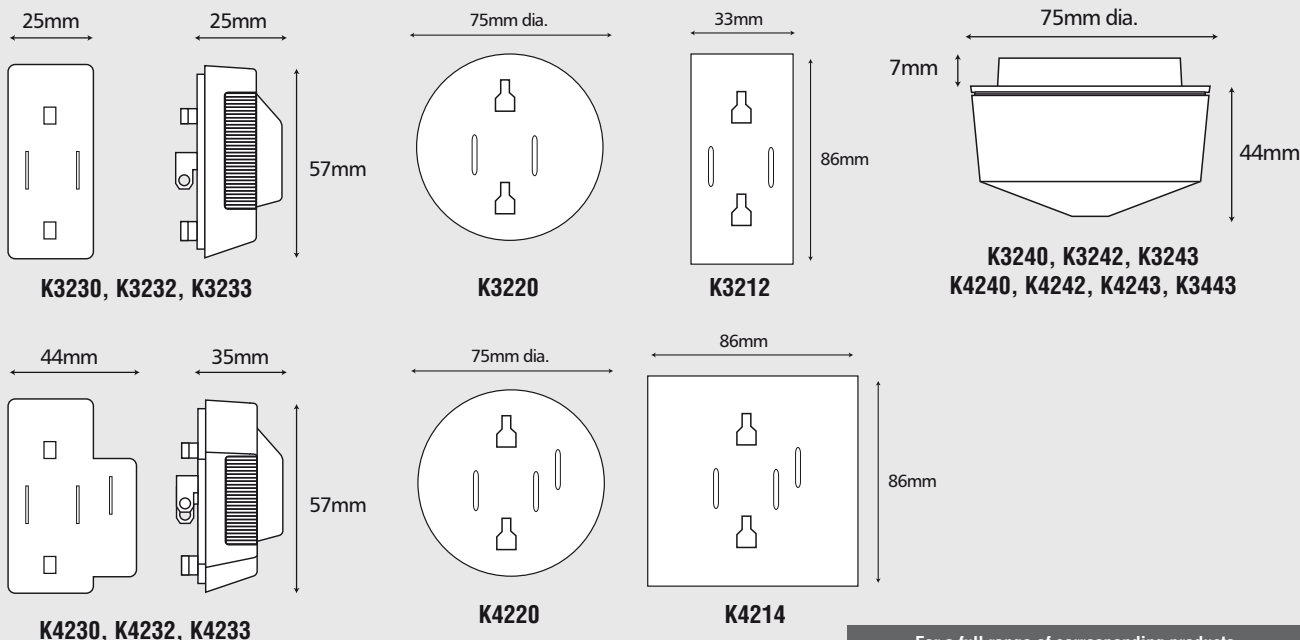
### Features

- Live contacts are inaccessible
- Earth Contact – first to make, last to break
- Mechanical and Electrical Connection in one 'click-in' action
- Strong load grips support up to 5kg

#### MOUNTING BOXES

|                    | Surface              | Flush (dryline) | Flush (solid) |
|--------------------|----------------------|-----------------|---------------|
| <b>K3220/K3240</b> | K3220/K4220/K4240WHI | N/A             | N/A           |
| <b>K4214</b>       | K2160WHI             | QFB1WHI         | 861ZIC        |

### Dimensions



## Distribution Boxes

### Standards and approvals

BS 5733

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### CURRENT RATING

6 amps

###### TERMINAL CAPACITY

3 x 6mm rated at 16 amps

##### PHYSICAL

###### CONDUIT ENTRIES WITH SNAP FIT BLANKS

20 and 25mm in top, bottom and back faces.  
Outlets to be wired as 1 or 2 banks

###### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C  
(not to exceed an average of more than 25°C in any 24 hour period)

###### IP RATING

IP2XD

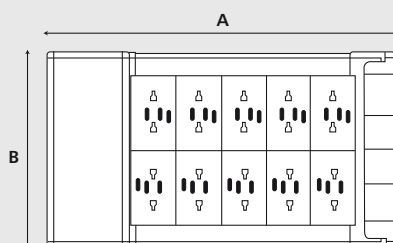
###### MAX. INSTALLATION ALTITUDE

2000 metres

### Features

- Fixing of distribution box to lighting trunking made easy through choice of cable entry points
- Distribution box can be suspended on drop rods or fitted to the wall or ceiling

### Dimensions



#### DIMENSIONS (mm)

|              | A   | B   |
|--------------|-----|-----|
| <b>K4204</b> | 237 | 222 |
| <b>K4206</b> | 335 | 222 |
| <b>K4208</b> | 400 | 222 |
| <b>K4210</b> | 465 | 222 |



**K4210 pictured**

### Description

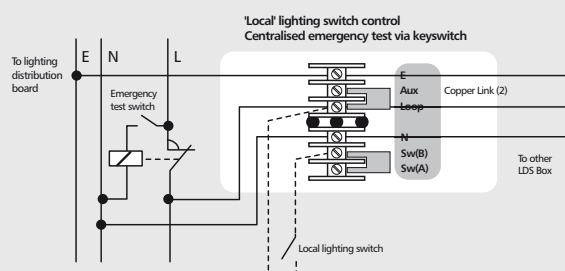
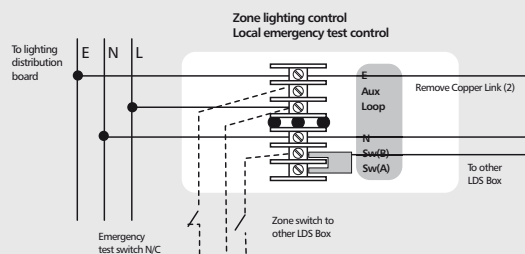
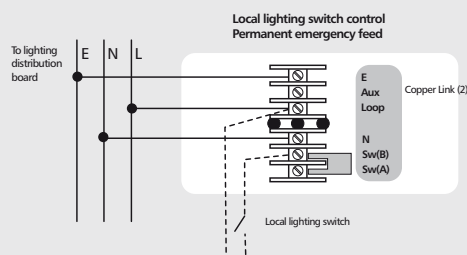
Distribution boxes consisting of an extruded aluminium body with V0 rated plastic terminal housing. Both 3 and 4 pin plugs can be used with the distribution box 4 pin socket outlets.

### Installation

Provision for screw (No. 8) fix to walls or trunking and slots for Caddy Clips\* on top, bottom and back faces. Conduit entries with snap fit blanks; 20 and 25mm in top, bottom and back faces. Outlets can be wired as 1 or 2 banks.

\*Caddy Clip is a registered trade mark of Erico Europa (UK) Ltd. Reading.

### Wiring Diagrams



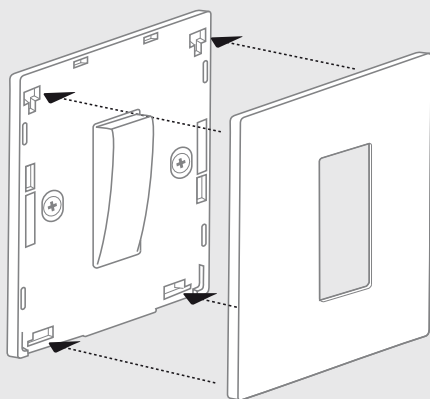
## MK Elements Collection

### Installation

The MK Elements Collection products consist of the main product module, complete with its' support frame, plus a separate clip on frontplate. The product is mounted to the wall, after wiring, and the frontplate is clipped onto the frame. The frontplate is supplied separately to aid installation.

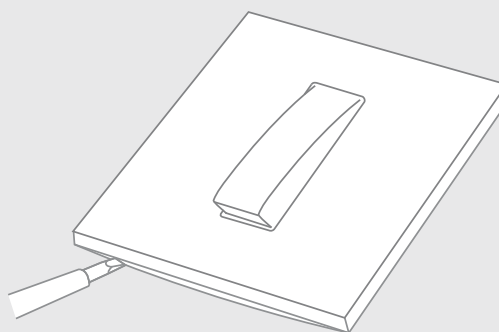
1. Ensure the depth of the back box is correct for the product and that it is fitted securely to the wall.
2. Install the cables in the normal way and, using the fixing screws supplied, mount the product, still minus its frontplate, to the wall. It is important the correct headed screws are used as any other may clash with the rear of the frontplate.
3. Do not over tighten the screws, so as to prevent damage or distortion to the product or support frame. Adjust so the frame or module sits squarely on the wall.
4. Care should be taken to ensure product features such as snap fits are not blocked during installation or decorating, preventing correct fitting of frontplates (for example plaster, tile grout, paint etc).

### Fitting and removing the frontplate



#### Fitting the frontplate

1. Locate the top and bottom hooks on the back of the frontplate into the holes on the top and bottom of the module.
2. Gently push along the top edge of the frontplate followed by the bottom edge.



#### Removing the frontplate

1. Carefully insert a 4mm screwdriver into the slots provided along the bottom edge frontplate.
2. Carefully twist the screwdriver and lift the frontplate away disengaging the snap fits.

Note: Ensure the correct frontplate is fitted to the correct module or frame

For a full range of corresponding products, see pages 70-97 in the product selector.

Note: Care should be taken to ensure product features such as snap fits are not blocked during installation or decorating, preventing correct fitting of frontplates (for example plaster, tile grout, paint etc).



# Elements Collection

## Technical

### Electronic Switches



#### Standards and approvals

All Elements electronic switches comply with IEC 60669-2-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### MAINS SUPPLY VOLTAGE

220-240V a.c. 50/60Hz

###### MAINS SUPPLY VOLTAGE RANGE

198 - 264V a.c.

###### MAINS SUPPLY FREQUENCY

50/60Hz  $\pm 3$ Hz

##### TERMINAL CAPACITY

###### All products

4 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

##### PHYSICAL

###### OPERATING TEMPERATURE

-5°C to +40°C

###### IP RATING

IP4X

###### MAX. INSTALLATION ALTITUDE

2000 metres

To prevent damage to frontplates during installation it is recommended that a screwdriver with a blade width of 4mm is used.



#### Description

Elements Electronic Switches offer intuitive touch sensitive silent switching (except K34370) with LED displays, for a unique user experience.

#### Features

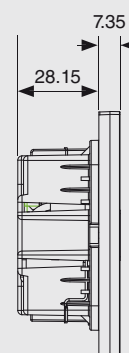
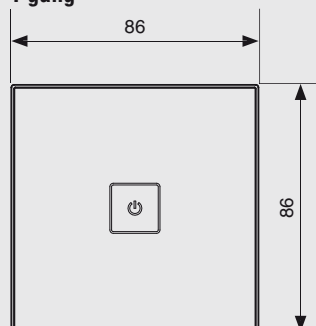
- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Touch sensitive electronic switch with LED display
- Standby light to assist location in low light level applications
- Soft start and off offers superior user experience and prolongs lamp life
- Available as 1 and 2 gang
- LED compatible (requires neutral)
- High power switches up to 10A or fluorescent load (10AX)
- Intelligent overload protection (not applicable to 10A switch)
- 2-way switching available

#### MOUNTING BOX TYPE

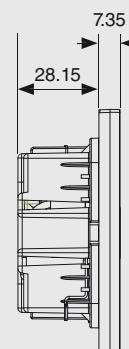
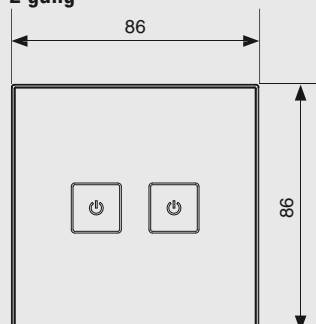
The minimum depth required is 35mm.  
When using 2.5mm<sup>2</sup> cables the minimum box depth required is 40mm.

#### Dimensions (mm)

##### 1 gang



##### 2 gang



### Electronic Switches

| LOAD RATING AND TYPE  |                                      |                                      |
|---|--------------------------------------|--------------------------------------|
| Description   | K34371 & K34372 (per gang)           | K34370                               |
| GLS/ Tungsten Filament, Mains Tungsten Halogen  | 25 – 400W                            | 25-2400W                             |
| Fluorescent tubes with ferro-magnetic ballast with power factor correction              | *18-200VA                            | 18-1800W                             |
| Fluorescent with electronic ballast   | *18-400VA                            | 18-540W                              |
| Low Energy PL-C and PL-S Fluorescent with Ferromagnetic ballast                         | *18-200VA                            | 18-750W                              |
| Low Energy PL-C and PL-S Fluorescent with electronic ballast                            | *18-400VA                            | *18-750W                             |
| Compact Fluorescent (CFL)   | *5-200W                              | *5-750W                              |
| ELV Tungsten Halogen with Ferro-magnetic transformer or Dimmable Electronic Transformer | 50-400VA<br>(Refer to note 4)        | 50-1500VA<br>(Refer to note 4)       |
| ELV Tungsten Halogen with Non-dimmable Electronic Transformer                           | *25-400VA                            | 25 – 1500VA                          |
| Mains LED lamp for incandescent replacement   | *4-150W<br>(Max. 15 lamps)           | *4-500W<br>(Max. 15 lamps)           |
| Ceiling Fan (Note: Not suitable for fan with remote controller function)                | Not applicable                       | *1-2 Max. 250W                       |
| Ventilation Fan   | *1-2 Max. 250W                       |                                      |
| Dimmable or non-dimmable LED Driver   | *4-150W<br>(Max 10 LED drivers only) | *4-500W<br>(Max 10 LED drivers only) |

Note:

1. Do not use loads of different types on the same circuit.
2. Not suitable for use with any other load type.
3. \*Neutral connection is required. It is recommended to connect neutral whenever possible when dimming LED lamps, to extend the load handling capability of the switch.
4. If neutral is connected to the switch then the minimum rating of the load can be reduced to 25VA.

# Elements Collection

## Technical



### Electronic Dimmers

#### Standards and approvals

All Elements electronic dimmers comply with IEC 60669-2-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**MAINS SUPPLY VOLTAGE**  
 220-240V a.c. 50/60Hz

##### TERMINAL CAPACITY

###### All products

4 x 1mm<sup>2</sup>  
 4 x 1.5mm<sup>2</sup>  
 3 x 2.5mm<sup>2</sup>  
 2 x 4mm<sup>2</sup>  
 1 x 6mm<sup>2</sup>

###### For 1-10V control cable of K34499

2 x 0.75mm<sup>2</sup>  
 2 x 1mm<sup>2</sup>  
 2 x 1.5mm<sup>2</sup>  
 2 x Cat 5e Cable

##### PHYSICAL

**OPERATING TEMPERATURE**  
 -5°C to +40°C

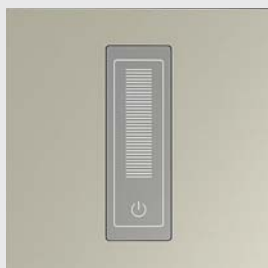
**IP RATING**  
 IP4X

**MAX. INSTALLATION ALTITUDE**  
 2000 metres

To prevent damage to frontplates during installation it is recommended that a screwdriver with a blade width of 4mm is used.

#### MOUNTING BOX TYPE

The minimum depth required is 35mm.  
 When using 2.5mm<sup>2</sup> cables the minimum box depth required is 40mm.



#### Description

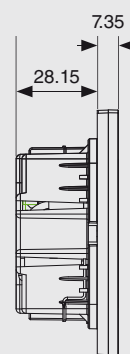
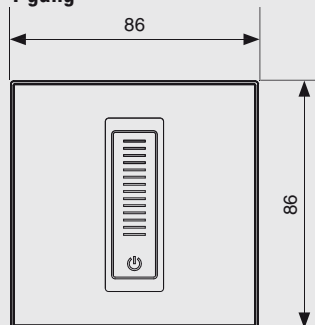
Elements Electronic Dimmers offer intuitive touch sensitive silent dimming with LED displays, for a unique user experience.

#### Features

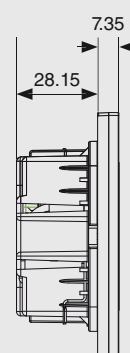
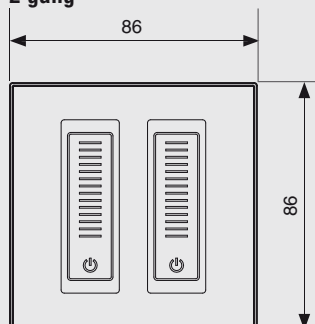
- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Touch sensitive electronic dimmer with LED display
- LED Vapour trail follows users finger to indicate the power level
- Standby light to assist location in low light level applications
- Soft start and off offers superior user experience and prolongs lamp life
- When switched on lights return to last setting
- Available as 1 and 2 gang
- LED compatible
- Intelligent overload protection (not applicable to 1-10V dimmer)
- Leading edge and trailing edge dimmers available
- 2-way dimming available

#### Dimensions (mm)

##### 1 gang



##### 2 gang



## Electronic Dimmers

| LOAD RATING AND TYPE  |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| Leading Edge Dimmers  | K34100                              | K34101 & K34102 (per gang)          |
| GLS/ Tungsten Filament, Mains Tungsten Halogen                | 40 - 500W                           | 40 – 300W                           |
| Mains dimmable LED lamp for incandescent replacement          | 6 - 150W Max.12 lamps               | 6 - 120W Max. 12 lamps              |
| ELV Tungsten Halogen with dimmable Ferro-magnetic transformer | 35 - 400VA                          | 35 - 240VA                          |
| Trailing Edge Dimmers   | K34103                              | K34104 & K34105 (per gang)          |
| GLS/ Tungsten filament, Mains Tungsten Halogen                | 25 – 500W                           | 25 – 300W                           |
| ELV Tungsten Halogen with Dimmable Electronic Transformer     | 35 – 500VA                          | 35 – 300VA                          |
| Dimmable LED Driver   | *4-150W<br>(Max 5 LED drivers only) | *4-120W<br>(Max 5 LED drivers only) |

**Note:**

1. Do not use loads of different types on the same circuit.
2. Not suitable for use with any other load type.
3. \*Neutral connection is required. It is recommended to connect neutral whenever possible to extend the load handling capability of the dimmer.

| 1-10V Dimmer               | K34499 |
|----------------------------|--------|
| Rated Load                 | 6AX    |
| Maximum number of ballasts | 10     |

Neutral connection is mandatory on 1-10V Dimmer. Suitable for use with dimmable fluorescent or LED lighting which is driven by separate 0/1-10V control gear.

Suitable for use with 0/1-10V analogue dimmable ballast operating in accordance with IEC60929 annex E.

# Elements Collection

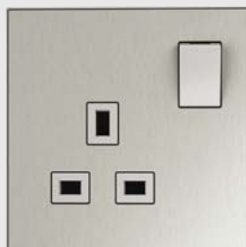
## Technical



### Socket Outlets

#### Standards and approvals

13A socket outlets comply with BS 1363 Part 2.



#### Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the Elements Collection.

Sockets are available with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008.

The products can be quickly installed as replacements for existing 13 Amp sockets or in new installations (if suitable mounting box is in position).

#### Round pin sockets

A range of round pin sockets is also available.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Products with LED locators and indicators available
- 3 pin operated shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Only one size of screwdriver required for installation
- Dual earth terminals for high integrity earthing are available
- Backed out and captive terminal screws

## 13 Amp Socket Outlets

### Standards and approvals

Elements 13A socket outlets comply with BS 1363 Part 2.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13A

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

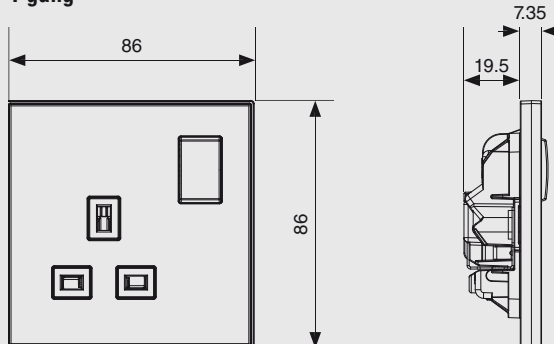
2000 metres

### Installation

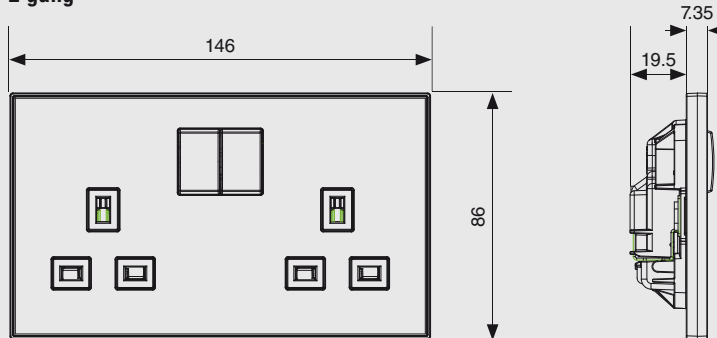
Elements socket outlets can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

### Dimensions (mm)

#### 1 gang



#### 2 gang



#### BOX TYPES

|               | Flush  | Flush (for extra wiring space) |
|---------------|--------|--------------------------------|
| <b>1 GANG</b> | 866ZIC | 877ZIC                         |
| <b>2 GANG</b> | 886ZIC | 878ZIC                         |

# Elements Collection

## Technical



### 5 Amp Socket Outlets

#### Standards and approvals

Round pin socket outlets comply with BS 546

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### TERMINAL CAPACITY

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### Description

A range of round pin socket outlets designed for ease of installation and having all the advantages and design features of the Elements Collection. These products can be quickly installed as replacements for existing socket outlets or in new installations.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- 3mm minimum switch contact gap
- Only one size of screwdriver required for installation
- Round Pin Socket Outlets available in 16 standard finishes

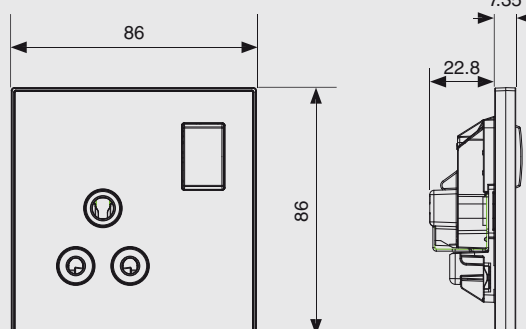
#### Installation

Elements socket outlets can be wall or bench mounted – do not mount or use as a trailing socket or where they may be subjected to excessive moisture or dampness.

#### BOX TYPES

| Flush              | Flush (for extra wiring space) |
|--------------------|--------------------------------|
| 866ZIC (35mm deep) | 877ZIC (46mm deep)             |

#### Dimensions (mm)





# Elements Collection

## Technical

### Shaver/Toothbrush Supply Unit

#### Standards and approvals

Shaver/Toothbrush supply units comply with BS EN 61558-2-5: 1998.

Accommodates plugs as follows:

- British 5mm dia pins on 16.6mm pitch (230V socket) to BS 4573:1970
- European 4mm dia pins on 17 to 19mm pitch (230V socket) to BS EN 50075
- Australian 6.5 x 1.6 flat blades each set at 30° to the vertical on a nominal pitch of 13.7mm (230V socket) AS/NZS 3112:2000
- American 6.6 x 1.6 flat horizontal blades on 12.7mm pitch (115V socket) to UL498/NEMA WD6

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

230V a.c. Input 50/60Hz  
230V or 115V nominal outputs

##### CURRENT RATING

200mA max. (internal thermister trip current)

##### MAXIMUM LOAD

20VA  
No load voltage < 275V

##### TERMINAL CAPACITIES

Each terminal will accommodate 1 x 4mm<sup>2</sup> or 2 x 2.5mm<sup>2</sup> solid conductors\*

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP41 (In Zone 2 if fixed where direct spray from showers is unlikely)

##### MAX. INSTALLATION ALTITUDE

2000 metres

\*The design of this unit means that on no load the transformer output is allowed to be as high as 275V. This means that rechargeable shavers and toothbrushes intended for use on the continent may be damaged by the inrush current created by this higher voltage. Rechargeable shavers and toothbrushes with a wide range of input voltage should be recharged at 115V. Shavers and toothbrushes manufactured for the UK are designed to be used with a transformer unit. Loads in excess of 20VA may cause the solid state overload to operate before shaving is completed. This is to protect the transformer.

#### Description

Designed for ease of installation and having many of the advantageous design features of the Elements Collection.

May be used in bathrooms and washrooms but must only be installed in accordance with the latest edition of BS 7671.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Top access terminal screws make wiring quicker and easier
- Automatic primary supply switching on insertion of plug
- Choice of 230V or 115V output socket positions
- Safety interlocked shutters to prevent insertion of two plugs simultaneously
- Only one size of screwdriver required for installation
- Frontplate fixing screws retained on rear case moulding
- Integral over current device to protect transformer
- Suitable for use with electric toothbrush chargers

#### Installation

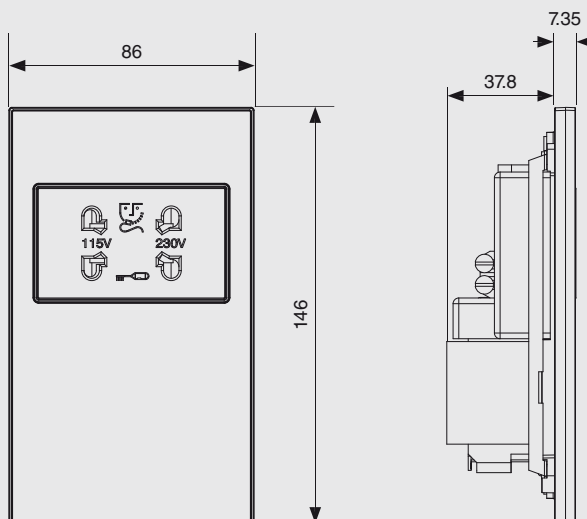
Shaver/Toothbrush supply unit should be wall mounted.

#### BOX TYPES

Flush mounting only

Metal box 878ZIC  
(minimum metal mounting box depth is 47mm)

#### Dimensions (mm)



# Elements Collection

## Technical

### Connection Units

#### Standards and approvals

All Elements Connection Units comply with BS 1363 Part 4



#### Description

A range of 13A fused connection units designed for the connection of refrigerators, central heating boilers and other fixed appliances.

The range is designed for ease of installation and has all the advantageous design features of the Elements Collection.

#### Fuse carriers

These are captive and are opened by a fast acting, worm-drive operated screwdriver for ease of replacement.

#### Flex outlets

The products are equipped with very strong, push-fit cord grips making installation safe, quick and easy.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Only one size of screwdriver required for installation
- Worm-drive operated fuse carriers for additional security
- Push-fit cord grips, for safer, quicker installation
- Additional electrical safety from neutral 'make first', 'break last' feature

## Connection Units

### Standards and approvals

All Elements Connection Units comply with BS 1363 Part 4

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13 Amp

##### TERMINAL CAPACITY

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup> (stranded)

##### Flex outlet/cord grip capacities

Min. 2 Core, 0.5mm<sup>2</sup>

Max. 3 Core, 1.5mm<sup>2</sup>

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

With flex outlet

IP2XD

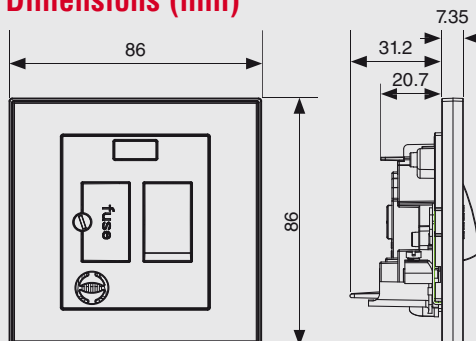
Without flex outlet

IP4X

##### MAX. INSTALLATION ALTITUDE

2000 metres

### Dimensions (mm)



### Installation

Elements connection units can be wall or bench mounted.

Do not use on a trailing lead.

#### BOX TYPES

| Flush              | Flush (for extra wiring space) |
|--------------------|--------------------------------|
| 866ZIC (35mm deep) | 877ZIC (46mm deep)             |

### Changing Fuses

1. Unscrew the fuse carrier screw to partially eject the carrier.
2. Carefully lever (by screwdriver or finger) the carrier out further to remove the fuse. Note: The carrier does not come fully out.
3. Always replace with a BS 1362 type fuse (as used in 13A plugs) of the correct rating.

# Elements Collection

## Technical



### Grid Switch Modules

#### Standards and approvals

All Elements switches comply with  
BS EN 60669-1:1999.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
250V a.c. 50Hz

##### CURRENT RATING

**1way/2way** – 10AX or 20AX versions available.

**All Push switches** – 10A only

**Intermediate** – 20AX only

**Double Pole** – 20AX only

**Centre Off** – 10A only

##### TERMINAL CAPACITY

**All products**

4 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

##### CONTACT GAP

3mm switch contact gap  
(Except K34900 and K34901)

##### PHYSICAL

**OPERATING TEMPERATURE**  
–5°C to +40°C

**IP RATING**  
IP4X

**MAX. INSTALLATION ALTITUDE**  
2000 metres

#### BOX TYPES

|                              | Flush              |
|------------------------------|--------------------|
| <b>1 and 2 gang switches</b> | 861ZIC (25mm deep) |
| <b>3 and 4 gang switches</b> | 862ZIC (25mm deep) |



#### Description

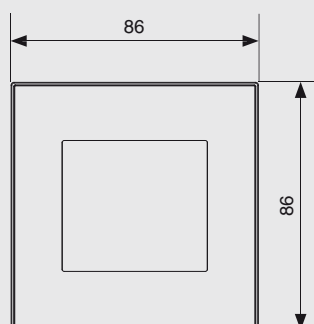
Elements Modular Switches require a separate frontplate, when ordering ensure the appropriate module and frontplate is selected.

#### Features

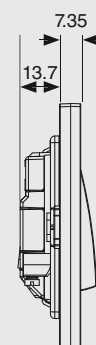
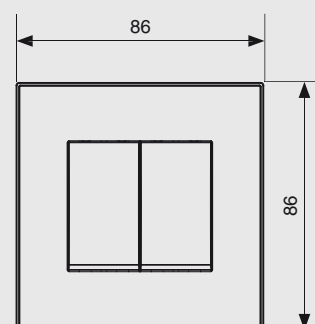
- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Switch contacts with silver contacts on both surfaces for good continuity
- Positive switch action
- Only one size of screwdriver required for installation
- Backed out and captive terminal screws
- Locator versions available for low light level applications

#### Dimensions (mm)

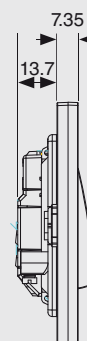
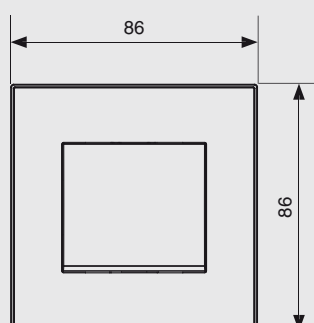
##### 1 gang



##### 2 gang



##### 1 gang wide rocker

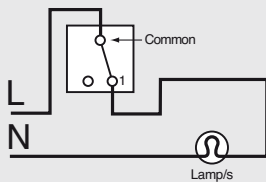


Sectional drawings show the furthest projections from the back of the frontplate (wall surface).

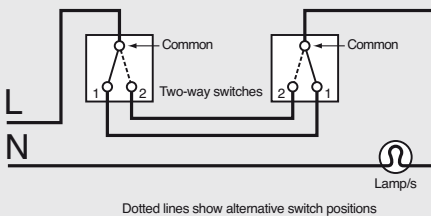
## Grid Switch Modules

### Wiring Diagrams

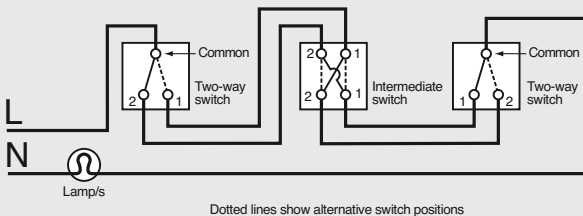
#### One-way switching



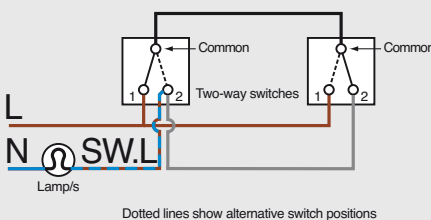
#### Two-way switching – 2 wire control



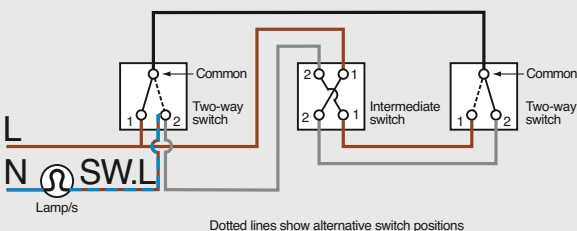
#### Two-way switching plus intermediate switching – 2 wire control



#### Two-way switching – 3 wire control



#### Two-way switching plus intermediate switching – 3 wire control



### Note:

Switches featuring locators and indicators use LED illumination.

All switches fitted with a locator are intended to give a very low light output whilst the switch is turned off. The low level of power flowing in this circuit is compatible with the majority of installation requirements however, certain lamp types or installations using multiple intermediate switches on one circuit may require the use of a snubber capacitor. The recommended capacitor to use would be X2 rated 275V 0.1  $\mu$  F.

Switches incorporating indicator or locator illumination must be disconnected before carrying out any site installation testing.

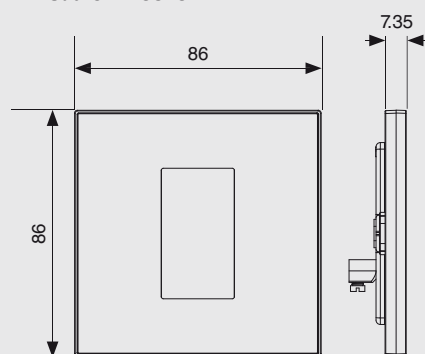
Note: Terminal positions may alter. The above diagrams are to show wiring layout.

# Elements Collection Technical

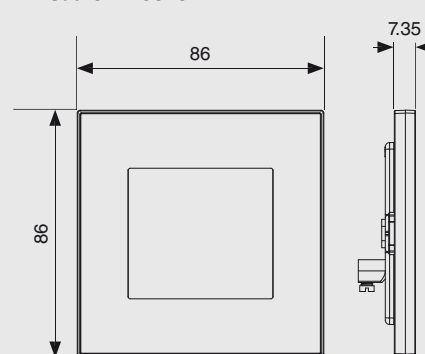
## Grid Frontplates

### Frontplate Dimensions (mm)

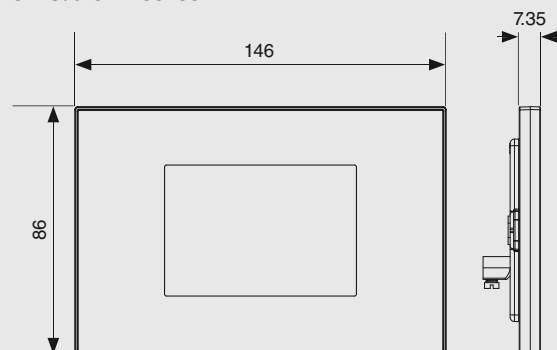
1 module – K35131



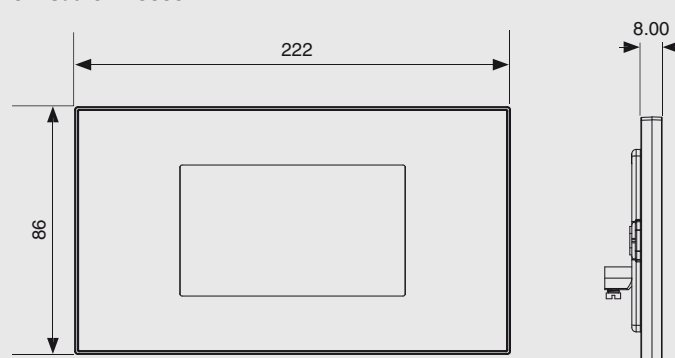
2 module – K35132



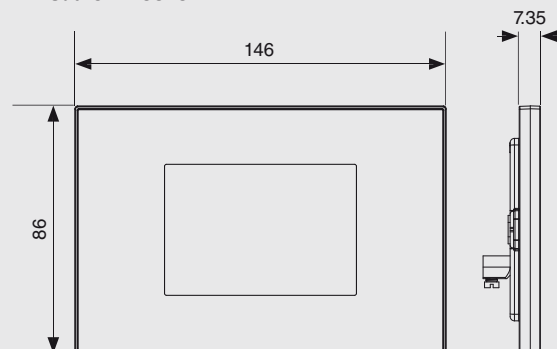
3 module – K35133



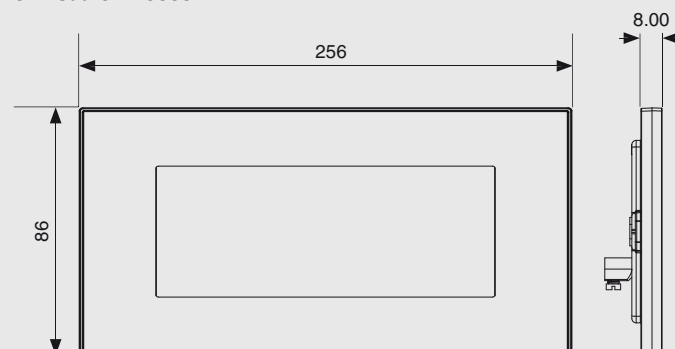
6 module - K3006



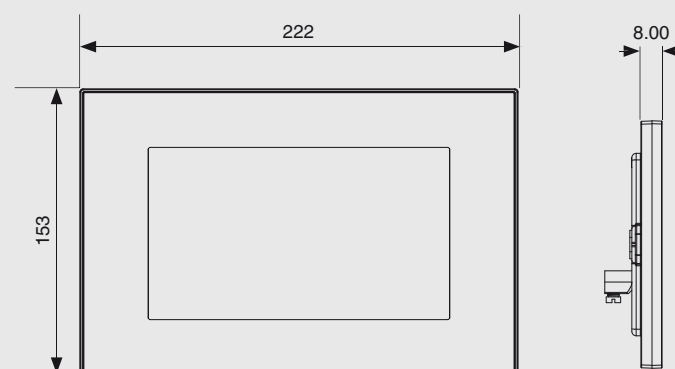
4 module – K35134



8 module - K3009



12 module - K3012



## High Current Switches

### Standards and approvals

High Current switches comply with  
BS EN 60669-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT

32A Switch

50A Switch

##### SWITCH

3mm contact gap

Double pole operation

##### TERMINAL CAPACITY, 50A SWITCHES

4 x 4mm<sup>2</sup>

3 x 6mm<sup>2</sup>

1 x 10mm<sup>2</sup>

1 x 16mm<sup>2</sup>

##### TERMINAL CAPACITY, 32A SWITCHES

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 10mm<sup>2</sup>

1 x 6mm<sup>2</sup>

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### MAX. INSTALLATION ALTITUDE

2000 metres

### Description

A range of switches harmonising with the Elements style, suitable for the switching of all domestic, commercial and industrial appliances where higher current ratings are required, i.e. cookers, heaters, commercial refrigeration units etc.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Positive double pole switching
- Toggle action switches
- Replaceable neon indicators

#### BOX TYPES

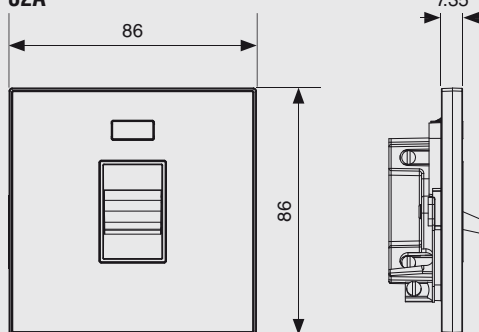
| Switches | Max. Cable Size   | Flush |
|----------|-------------------|-------|
| 32A      | 10mm <sup>2</sup> | 46mm  |
| 50A      | 16mm <sup>2</sup> | 46mm  |

#### BOX REFERENCES

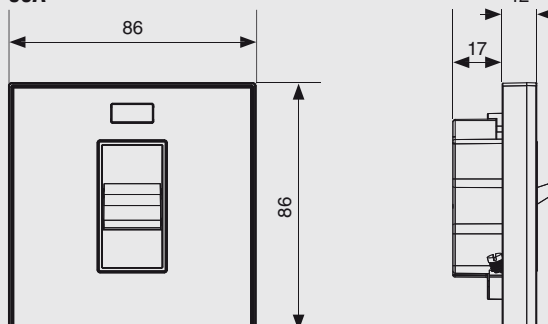
| Flush Box depth | 32A    | 50A    |
|-----------------|--------|--------|
| 46mm            | 877ZIC | 877ZIC |

### Dimensions (mm)

#### 32A



#### 50A



Note: These switches are **not** recommended for switching large banks of PCs.



# Elements Collection

## Technical

### Do Not Disturb / Make Up Room Switches

#### Standards and approvals

All Elements switches comply with BS EN 60669-1:1999.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c. 50Hz

##### CURRENT RATING

10A

##### TERMINAL CAPACITY

##### All products

4 x 1mm<sup>2</sup>

4 x 1.5mm<sup>2</sup>

3 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

1 x 6mm<sup>2</sup>

##### CONTACT GAP

K33900DND – Mini gap

K33885DND – Normal gap

##### PHYSICAL

##### OPERATING TEMPERATURE

–5°C to +40°C

##### IP RATING

IP4X

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### BOX TYPES

|              | Flush              |
|--------------|--------------------|
| All switches | 861ZIC (25mm deep) |

#### Description

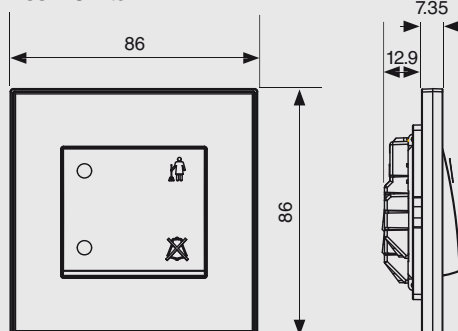
The Elements Do Not Disturb / Make Up Room Switches have been developed along with a number of other products for hotels and hospitality venues, offering guests comfort and control.

#### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- Switch contacts with silver contacts on both surfaces for good continuity
- Positive switch action
- Only one size of screwdriver required for installation
- Backed out and captive terminal screws

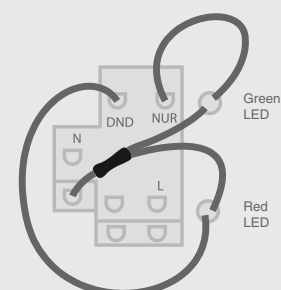
#### Dimensions (mm)

##### Room Switch

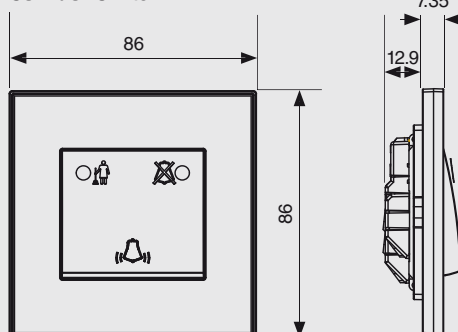


#### Connection of LED Indicators

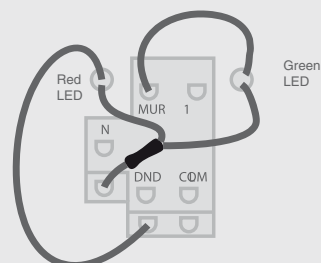
##### Room Switch – Inside “Occupancy Selector”



##### Corridor Switch



##### Corridor Switch – Outside “Bell Push/Indicator”



# Elements Collection Technical

## Keycard Switch with Time Delay

### Standards and approvals

BS EN 60669-2-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
220-240V, 50/60Hz

**CURRENT RATING**  
10A

**TERMINAL CAPACITY**  
4 x 1.5mm<sup>2</sup>  
2 x 2.5mm<sup>2</sup>  
1 x 4.0mm<sup>2</sup>  
1 x 6.0mm<sup>2</sup>

**EARTH TERMINAL**  
3 x 2.5mm<sup>2</sup>  
2 x 4.0mm<sup>2</sup>  
1 x 6.0mm<sup>2</sup>

**CONTACT GAP**  
Micro Gap

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
0°C to +35°C

**IP RATING**  
IP2X

**MAX. INSTALLATION ALTITUDE**  
2000m

**TIME DELAY (NON ADJUSTABLE)**  
30 seconds

### Description

The Elements Keycard Switch with Time Delay has been developed along with a number of other products for hotels and hospitality venues, offering guests comfort and control, whilst delivering energy efficiency by avoiding energy waste in unoccupied rooms.

The Keycard Switch has a fixed time delay; once the card is removed guests are not left in the dark.

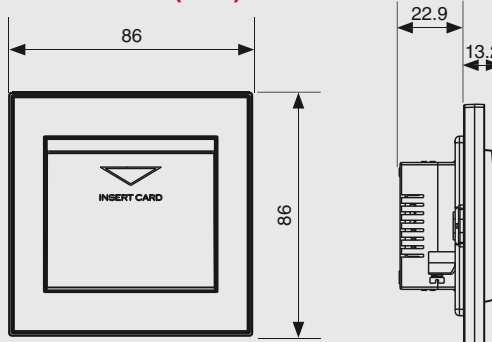
### Features

- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- 30 Second fixed time delay
- Bespoke colours, materials and finishes available via the Design Service

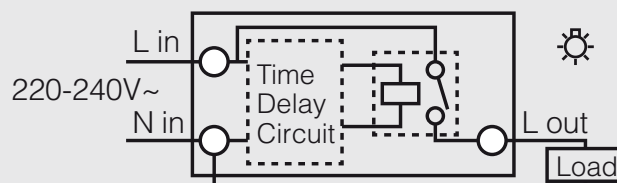
#### BOX TYPES

|               | Flush              | Flush (for extra wiring space) |
|---------------|--------------------|--------------------------------|
| <b>1 Gang</b> | 866ZIC (35mm deep) | 877ZIC (46mm deep)             |

### Dimensions (mm)



### Wiring Diagram



# Elements Collection Technical

## Euro Frontplates

### Standards and approvals

Euro frontplates comply with BS 5733:2010

### Description

Frontplates for mounting Euro Modules.

#### TECHNICAL SPECIFICATION

##### DIMENSIONS

###### HEIGHT

86mm

###### WIDTH

1G 86mm

2G 146mm

##### APERTURE DIMENSIONS

###### HEIGHT

50mm

###### WIDTH

1G 1 module 25mm

1G 2 module 50mm

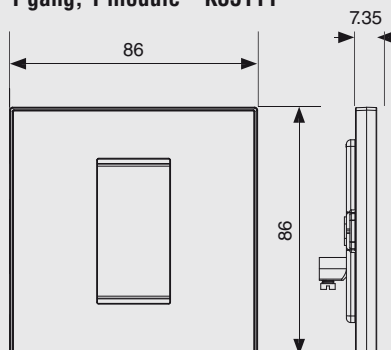
2G 4 module 100mm

#### Features

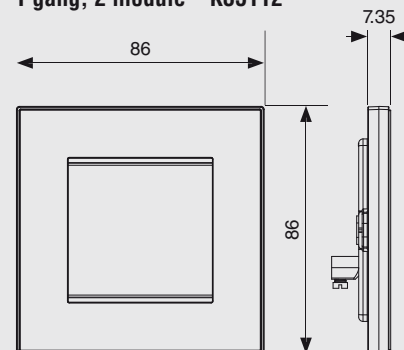
- 16 standard finishes
- Many more customised combinations of standard colours, materials and finishes available
- Bespoke colours, materials and finishes available via the Design Service
- 1G and 2G frontplates
- Accepts industry standard Euro snapfit modules
- 1G Euro frontplate accepts 1 or 2 Euro modules
- 2G Euro frontplate accepts 4 Euro modules (100 x 50mm aperture)
- Euro 1/2 module (12.5 x 50mm) blank available
- Interchangeable modules clip into frontplate

### Dimensions (mm)

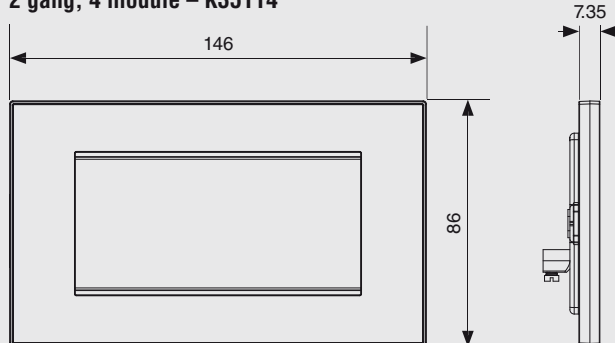
1 gang, 1 module – K35111



1 gang, 2 module – K35112



2 gang, 4 module – K35114



## Power Modules

### Standards and approvals

K5830: BS 1363 Part 2:1995

K5831: IEC 60884-1:2006

K5832: SASO 2204: 2003

K5833: BS 546: 1950

K5834: French National Standard

NF C 61-314

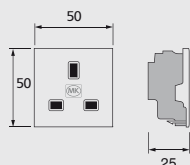
### Description

A range of euro modules designed to provide a variety of power options.

| TECHNICAL SPECIFICATION  |  |   |  |  |  |
|--|--|---|--|--|--|
| 13A UK   | 5A UK  | 16A German  | 15A American   | USB Charging Module  |  |
| <b>ELECTRICAL</b>  | <b>ELECTRICAL</b>  | <b>ELECTRICAL</b>   | <b>ELECTRICAL</b>  | <b>ELECTRICAL</b>  |  |
| <b>VOLTAGE RATING</b><br>250V a.c.   | <b>VOLTAGE RATING</b><br>250V a.c.   | <b>VOLTAGE RATING</b><br>250V a.c.  | <b>VOLTAGE RATING</b><br>127V a.c.   | <b>INPUT</b>   | <b>OUTPUT</b>  |
| <b>CURRENT RATING</b><br>13A   | <b>CURRENT RATING</b><br>5A  | <b>CURRENT RATING</b><br>16A  | <b>CURRENT RATING</b><br>15A   | <b>VOLTAGE RATING</b><br>220-240V a.c.   | <b>VOLTAGE RATING</b><br>2 x 5V d.c. Max current                                     |
| <b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>3 x 4mm <sup>2</sup><br>2 x 6mm <sup>2</sup> (stranded) | <b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>2 x 4mm <sup>2</sup><br>2 x 6mm <sup>2</sup> (stranded) | <b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>4 x 1.5mm <sup>2</sup><br>2 x 2.5mm <sup>2</sup><br>1 x 4mm <sup>2</sup> | <b>TERMINAL CAPACITY</b><br>Live, neutral & earth<br>3 x 2.5mm <sup>2</sup><br>2 x 4mm <sup>2</sup><br>1 x 6mm <sup>2</sup> (stranded) | <b>FREQUENCY</b><br>50/60Hz  | <b>CHARGING SOCKETS</b><br>USB 2.0 type A  |
| <b>PHYSICAL</b>  | <b>PHYSICAL</b>  | <b>PHYSICAL</b>   | <b>PHYSICAL</b>  | <b>RATED CURRENT</b><br>0.12A  | 2A can be delivered in total to either socket outlet, or be divided between the two. |
| <b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C  | <b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C  | <b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C   | <b>AMBIENT OPERATING TEMPERATURE</b><br>-5°C to +40°C  | <b>TERMINAL CAPACITY</b><br>Live & neutral<br>3 x 2.5mm <sup>2</sup><br>2 x 4mm <sup>2</sup> | This module is not limited to 1A from each socket outlet.                            |
| <b>IP RATING</b><br>IP2XD  | <b>IP RATING</b><br>IP2XD  | <b>IP RATING</b><br>IP2XD   | <b>IP RATING</b><br>IP2XD  | <b>PHYSICAL</b>  |  |
| <b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres   | <b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres   | <b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres  | <b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres   | <b>AMBIENT OPERATING TEMPERATURE</b><br>0°C to +40°C   |  |
|  |  |   |  | <b>IP RATING</b><br>IP2XD  |  |
|  |  |   |  | <b>MAX. INSTALLATION ALTITUDE</b><br>2000 metres   |  |

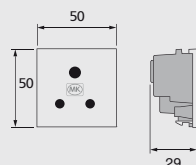
### Dimensions (mm)

13A UK



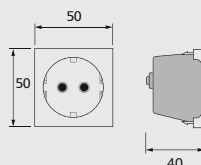
K5830

5A UK



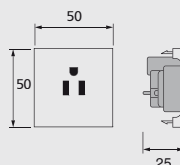
K5833

16A German



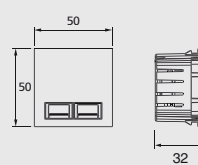
K5831

15A American



K5832

2A USB Charging Module



K5837

| BOX TYPES          |
|--------------------|
| Minimum            |
| 35mm deep          |
| Extra wiring space |
| 46mm deep          |

| BOX TYPES          |
|--------------------|
| Minimum            |
| 35mm deep          |
| Extra wiring space |
| 46mm deep          |

| BOX TYPES |
|-----------|
| Minimum   |
| 46mm deep |

| BOX TYPES          |
|--------------------|
| Minimum            |
| 35mm deep          |
| Extra wiring space |
| 46mm deep          |

| BOX TYPES          |
|--------------------|
| Minimum            |
| 35mm deep          |
| Extra wiring space |
| 46mm deep          |

# Elements Collection

## Technical

### RJ45 Data Outlets

#### Standards and approvals

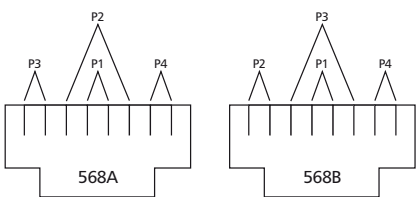
ISO/IEC 11801  
EN 50173  
TIA 568  
EN 41003

#### Installation

- Maximum cable length 90m.
- Cable bend radii, 40mm during installation, 20mm after installation.
- Maximum pull force 8.7kg.
- Do not over tighten cable ties.
- Do not unwind the twists in the wire pairs by more than 13mm max.

#### Installation details and wiring diagram illustrations

| TIA WIRING SCHEME COLOUR CODES |                |                |
|--------------------------------|----------------|----------------|
| Pin No.                        | 568A           | 568B           |
| 1                              | WHITE / green  | WHITE / orange |
| 2                              | GREEN / white  | ORANGE / white |
| 3                              | WHITE / orange | WHITE / green  |
| 4                              | BLUE / white   | BLUE / white   |
| 5                              | WHITE / blue   | WHITE / blue   |
| 6                              | ORANGE / white | GREEN / white  |
| 7                              | WHITE / brown  | WHITE / brown  |
| 8                              | BROWN / white  | BROWN / white  |

Pair 1 – BLUE/white & WHITE/blue  
Pair 2 – ORANGE/white & WHITE/orange  
Pair 3 – GREEN/white & WHITE/green  
Pair 4 – BROWN/white & WHITE/brown

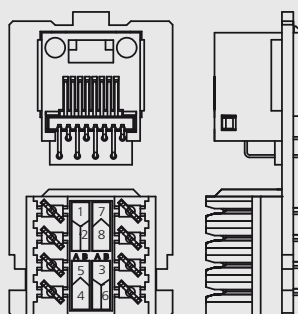


#### Description

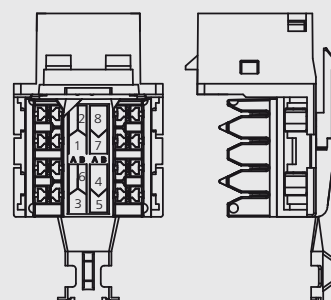
Suitable for use in all Euro modular frontplates, available in the Elements range, Cat 5e and Cat 6 modules suitable for use in structured cabling distribution systems.

#### Euro modules are to be wired as follows

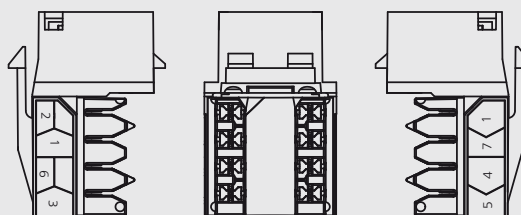
**RJ45 Cat.5e**  
**K5845 – Euro**



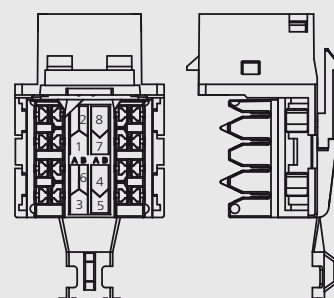
**RJ45 Cat.5e Screened**  
**K5845S – Euro**



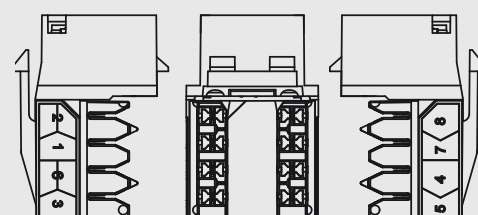
**RJ45 Cat.5**  
**K5844 – Euro Angled**



**RJ45 Cat.6 Screened**  
**K5846S – Euro**



**RJ45 Cat.6 Euro**  
**K5846 – Euro, K5864 – Euro Angled**



# Elements Collection Technical

## Telephone, RJ11/12, BNC Data and Blank Modules

### Standards and approvals

Telephone sockets K5820 and K5821 comply with BS 6312:2.2

Data sockets K5801 comply with BS 5733:2010 (where applicable).

K5887 complies with FCC68 and EN 41003.



### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### CABLE TYPES

Telephone – CW1311, CW1293, CW1308, CW1316

##### NO. OF CABLES PER TERMINATION

Telephone – 2

RJ11/12 – 1

##### BNC

50 Ohms impedance cable

RG58, RG141, URM43 Belden 9907

##### FREQUENCY RANGE

BNC Connector – 0 to 4GHz

##### IMPEDANCE

BNC Connector – 50. nominal

##### TERMINATION TYPE

Telephone module – IDC

BNC module – Crimped connection

#### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD – K5820, K5821, K5801 and K5787.

IP4X – K180, K188, K186 and K170

##### MAX. INSTALLATION ALTITUDE

2000 metres

### Description

A range of telephone, data and blank modules to fit Euro front plates. BNC Euro modules with a 50Ohm crimp connector suitable for use with RG58, URM43, URM76 and Belden 9907 type co-axial cables are also available.

### Installation (Telephone socket modules)

#### Product performance, systems compatibility

Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

#### Installation tools required IDC Connectors (telephone & RJ45 outlets)

MK insertion tool List No. 400NAT.

Wire pull-out force: 10.5 Newtons when installed correctly.

#### Wiring regulation restrictions

Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

### Features

- Meet all relevant BS and cabling standards
- Interchangeable modules clip into frontplates
- Front fixing facilitates easy exchange of modules
- Part of a complete range of products for telephone and data processing requirements

#### Telephone sockets

- Quick, simple and reliable IDC connectors
- Can be specified for all applications

#### Data sockets

- Latest specification for high performance systems
- Made to stringent quality assurance procedures
- Wide range of data connectors available

# Elements Collection

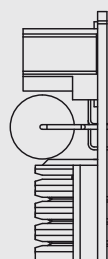
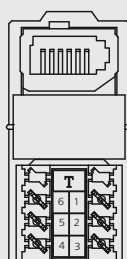
## Technical

### Telephone and RJ11/12

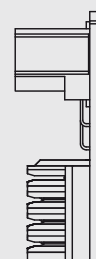
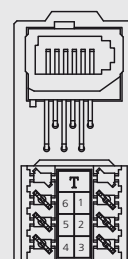
#### Telephone Wiring Scheme

| PIN NO. | STRIPPED COLOUR WIRE |
|---------|----------------------|
| 1       | Green / white        |
| 2       | BLUE / white         |
| 3       | ORANGE / white       |
| 4       | WHITE / orange       |
| 5       | WHITE / blue         |
| 6       | WHITE / green        |

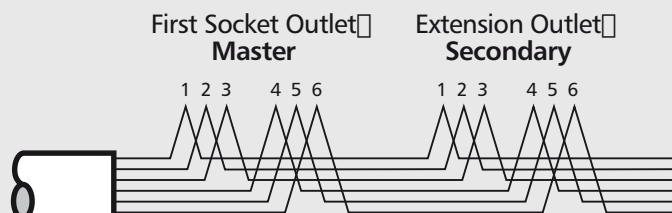
Note: Main wire colour is shown in capitals



**K5820 (MASTER)**



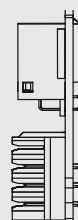
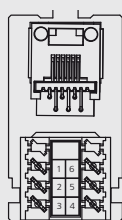
**K5821 (SECONDARY)**



#### RJ11/12 Wiring Scheme

| PIN NO. | STRIPPED COLOUR WIRE | SOLID COLOUR WIRE |
|---------|----------------------|-------------------|
| 1       | WHITE / green        | WHITE             |
| 2       | WHITE / orange       | Black             |
| 3       | BLUE / white         | Red               |
| 4       | WHITE / blue         | Green             |
| 5       | ORANGE / white       | Yellow            |
| 6       | GREEN / white        | Blue              |

Note: Main wire colour is shown in capitals



**K5887**



## Digital TV and Radio

### Standards and approvals

All MK Digital TV Outlets comply with BS 5733 and BS EN 50083 where applicable.

Also IEC 169-2, BS EN 60169-24 and BS 6312 Part 2.

Modular products are Euro compatible.

### TECHNICAL SPECIFICATION

#### SINGLE OUTLETS

TV/FM IEC MALE OR FEMALE  
DC-950MHz

SATF-TYPE  
DC-1.75GHz

#### DIPLEXER AND TRIPLEXER PRODUCTS

TV  
Diplexer: 5-68MHz  
120-862MHz  
Triplexer: 5-68MHz  
120-862MHz

FM  
Diplexer: 87.5-108MHz  
Triplexer: 87.5-108MHz

SAT  
Triplexer: 950-2250MHz

#### QUADPLEXOR

TV  
Diplexer: 5-68MHz  
120-862MHz

FM  
Diplexer: 87.5-108MHz

SAT1  
Triplexer: 950-2280MHz

SAT2  
Triplexer: 950-2250MHz

### Features

- Non Isolated
- Fully screened
- Earth terminal provided on TV modules

### Cable Management

TV outlets can be mounted in a variety



### Description

The range of diplexer and triplexer products, an established range suitable for VHF TV.

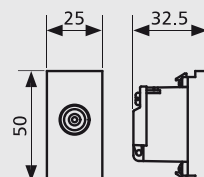
Diplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV and FM signals. The filtering in the diplexer splits out the appropriate signal and feeds it to the relevant output connection. A DC control path is provided in the TV signal path through the diplexer.

Triplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV, FM and SAT signals. The filtering in the triplexer splits out the appropriate signal and feeds it to the relevant output connection. A DC control path is provided in the SAT signal path through the triplexer.

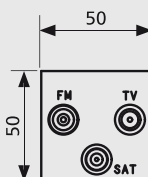
The quad outlet contains a triplexer together with a separate satellite output.

### Dimensions (mm)

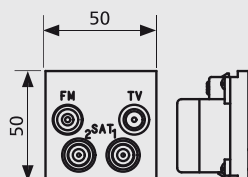
#### Euro 1 module



#### Euro 2 module Triplexer



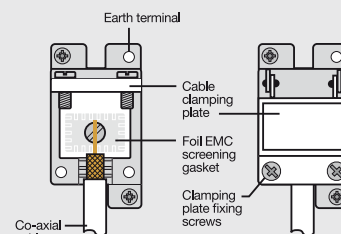
#### Euro 2 module Quadplexer



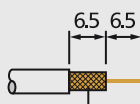
Note: Minimum box depth: 47mm

### Installation

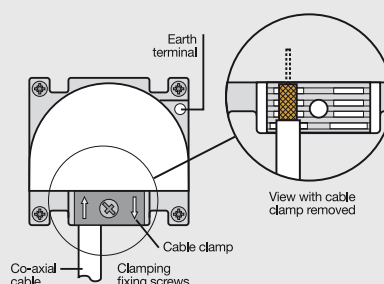
- When installing the TV Co-axial cable ensure that all cable bends are smooth so that the inner insulation is not crushed or squashed. Otherwise the TV signal quality may be affected.
- Not suitable for loop-in loop-out installations.
- Use CT100 cable (or equivalent.)



#### TV Co-axial cable stripping details



Screening braid to remain in place over the inner insulation



# Elements Collection

## Technical

### TV/FM and Satellite Socket Outlets

#### Installation (TV sockets)

##### Product performance, systems compatibility

Isolated Outlets are intended for use where safety isolation (rated at 2000V ac) is required to provide protection against faults occurring within any mains powered product used on different parts of the distribution system. They are not suitable for use in systems where DC signals are passed through the socket, (e.g. where masthead/headend equipment is controlled by receiver/decoder equipment).

Diplexer Outlets are used in distribution systems where both TV and FM band signals are combined on a single aerial download. The filtering in the diplexer separates the appropriate signals and feeds them through to the relevant output connection port.

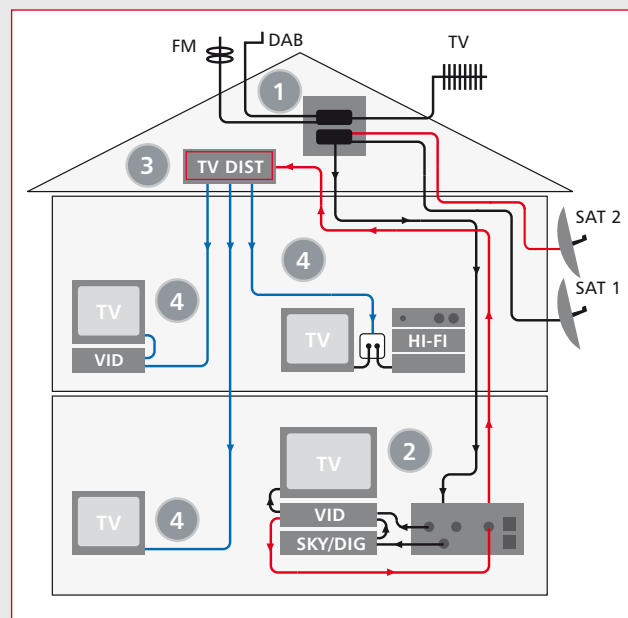
##### Cable Routing and Use of Cable Clamp

Sharp bends in the cable must be avoided during installation. The single TV/FM socket is fitted with a cable clamp that can be fixed on either side of the termination position to facilitate this.

When tightening the screening braid clamps ensure that the cable is firmly gripped and that the inner insulation is not squashed flat beyond a slight oval shape.

##### Safety Information

TV outlets or modules must not be installed in the same enclosure as equipment rated in excess of 50V, (e.g. mains rated 13A sockets or switches).



Method of installation of TV and FM aerial connection by using MK co-axial socket outlet and only one download.

Conventional distribution system for TV and FM signals using a single aerial download.

- 1 The signals from the TV and FM aerials and the satellite dish are combined together using two products. The first combines the TV and FM signals and the second adds the Sky signal to the TV/FM signal and provides a DC control path to power the LNB unit on the satellite dish. (These products are not supplied by MK).

The single aerial down lead feeds into the triplexer (black lines in wiring diagram).

- 2 The separated satellite signal is then fed to the decoder. The decoded satellite signal is then fed into the VCR along with the TV signal from the Triplexer. The output signal from the VCR then feeds into the TV and also back to the single outlet and onto the distribution amplifier (black lines in wiring diagram).
- 3 The single cable back-feed then feeds back to the input of a multi way distribution amplifier, (typically located in the loft or garage) (red lines in wiring diagram).
- 4 Each individual output from the distribution amplifier is then fed to the individual rooms in the house to a standard TV (single or diplexer) outlet to which the TV/ VCR and/or Hi-Fi can be connected (blue lines in wiring diagram).

## PIR Detector

### Standards and approvals

IEC60669-2-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### VOLTAGE RATING

220-240V

###### CURRENT RATING

10A

###### LOAD TYPE

Incandescent Light (resistive Load): 2300W

###### HV HALOGEN LAMPS

1500 W

###### INDUCTIVE LOAD

600VA

###### ELECTRONICS BALLAST

3 x 58W (max. inrush current 80A/20ms)

###### CONTACT GAP

Micro gap

###### TERMINAL CAPACITY (SCREWLESS TERMINAL)

###### Stranded Cables

1 x 2.5mm<sup>2</sup>

###### Solid Cables

1 x 2.5mm<sup>2</sup>

1 x 4mm<sup>2</sup>

###### EARTH TERMINAL (SCREW TERMINAL)

4 x 2.5mm<sup>2</sup>

3 x 4.0mm<sup>2</sup>

2 x 6.0mm<sup>2</sup>

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

0°C to +35°C

###### MAX INSTALLATION ALTITUDE

2000 metres

###### IP RATING

IP2X

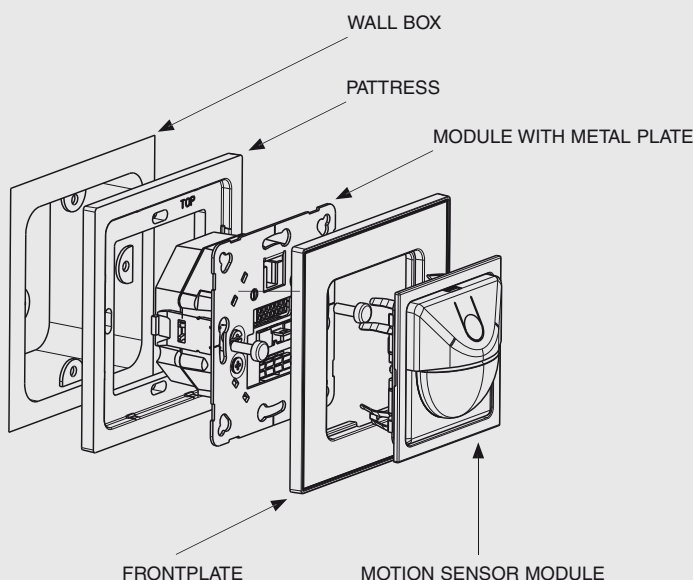
### Description

The Elements PIR Detector will deliver energy savings and lighting usage management in a wide range of applications. Offering effective and efficient detection for control of lighting, this stand alone solution is easy to install and program, with the additional benefit of variable time delay from 30 minutes to permanently on.

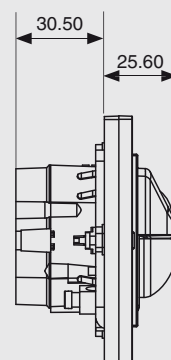
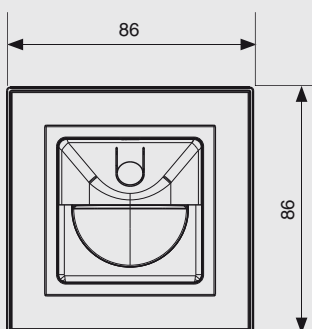
#### Features

- 16 standard finishes
- Many more customized combinations of standard colours, materials and finishes available
- Bespoke colour materials and finishes available via the Design Service
- Detection range of 8M
- Delivers energy saving by switching lights off when occupancy is not detected
- Offers safety and comfort by switching lights on when occupancy is detected
- Easy to install and program
- Time delay from 30 minutes to permanently on

### Frontplate and Module Installation



### Dimensions (mm)



### Installation

For optimal detection and control sufficient distance (1M minimum) should be maintained between the PIR Detector and lighting fixtures in order to prevent undesirable motion detector switching. The optimal installation height is 0.8M – 1.2M. Installation in areas where excessive air movement occurs can cause false activations.

#### BOX TYPES

|               | Flush         | Flush (for extra wiring space) |
|---------------|---------------|--------------------------------|
| <b>1 GANG</b> | 866ZIC (35mm) | 877ZIC (47mm)                  |

# Elements Collection

## Technical

### Echo™ Transmitters

#### Standards and approvals

BS EN 60669-1, BS EN 60669-2-1,  
 ESTI EN 301 489-1 & -3, ESTI EN 61000-6-2,  
 ESTI EN 300 220-3, EN 60950-1

#### TECHNICAL SPECIFICATION

##### PHYSICAL

##### OPERATING TEMPERATURE

-5°C + 40°C

##### OPERATING FREQUENCY:

868.3 MHz

##### IP RATING

IP2X

##### MAX INSTALLATION ALTITUDE

2000m

#### Mounting Transmitters

- All transmitters can be mounted to any 1 gang back box
- All transmitters can be mounted directly to the wall surface

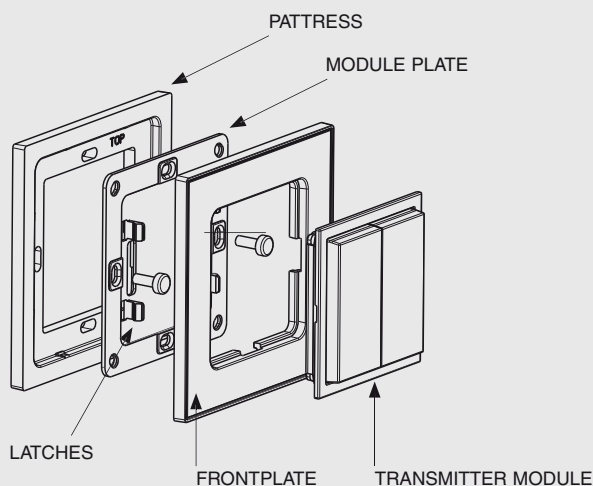
#### Description

The Elements Echo Transmitters are part of an innovative range of entirely wireless, batteryless and self powered switches. The Elements Echo Transmitters communicate with Echo receivers to switch mains power. Elements Echo Transmitters send an RF signal at 868.3 MHz, the unique feature of these transmitters is the signal transmission is made with no need for mains power or batteries.

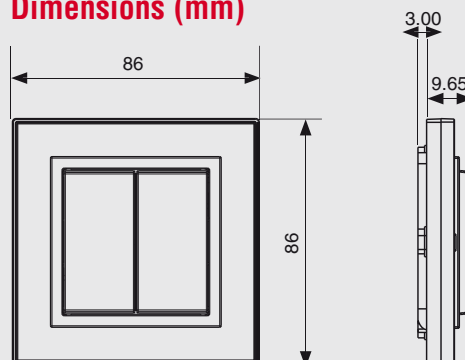
#### Features

- 16 standard finishes
- Many more customized combinations of standard colours, materials and finishes available
- Bespoke colour materials and finishes available via the Design Service
- Wireless and batteryless, using RF technology with ranges up to 30M in ideal conditions
- The transmitters are quick and easy to install with no need for cabling from the switch to the lighting circuit
- See the Echo range for available receivers

#### Frontplate and Module Installation



#### Dimensions (mm)



## Roller Shutter / Blind Control

### Standards and approvals

IEC60669-1

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250 VAC

##### CURRENT RATING

10A

##### TERMINAL CAPACITY

##### Stranded Cables

2 x 2.5mm<sup>2</sup>

1 x 4.0mm<sup>2</sup>

##### Solid Cables

2 x 2.5mm<sup>2</sup>

2 x 4.0mm<sup>2</sup>

##### EARTH TERMINAL

4 x 2.5mm<sup>2</sup>

3 x 4.0mm<sup>2</sup>

2 x 6.0mm<sup>2</sup>

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

0°C to +35°C

##### IP RATING

IP2X

##### MAX INSTALLATION ALTITUDE

2000 metres

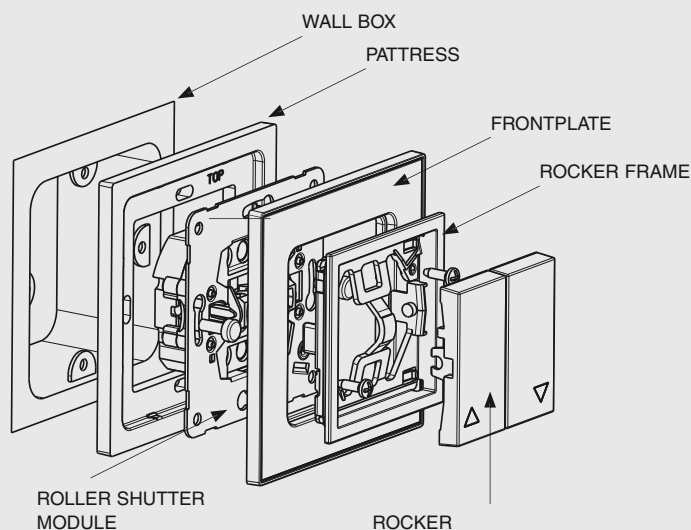
### Description

The Elements Roller Shutter / Blind Control will operate a motor run device enabling the control of window coverings.

#### Features

- 16 standard finishes
- Many more customized combinations of standard colours, materials and finishes available
- Bespoke colour materials and finishes available via the Design Service
- Easy to install

### Frontplate and Module Installation



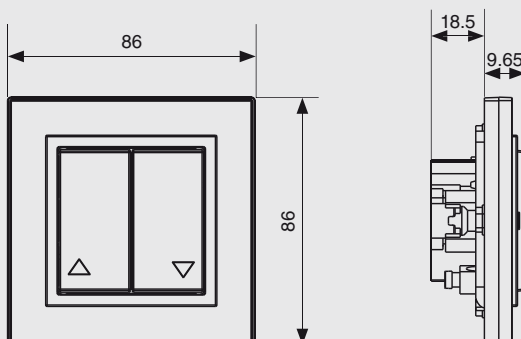
### Installation

For optimal performance ensure the product is orientated correctly.

#### BOX TYPES

|        | Flush         | Flush (for extra wiring space) |
|--------|---------------|--------------------------------|
| 1 GANG | 866ZIC (35mm) | 877ZIC (47mm)                  |

### Dimensions (mm)



# Elements Collection

## Technical



### Multimedia Plates

#### Standards and approvals

All Elements 13A socket outlets comply with BS 1363: Part 2:1995.

K34209 and K34210 comply with BS 5733:2010.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

13A

##### TERMINAL CAPACITY

Live, neutral & earth

3 x 2.5mm<sup>2</sup>

3 x 4mm<sup>2</sup>

2 x 6mm<sup>2</sup> (stranded)

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

##### MAX. INSTALLATION ALTITUDE

2000 metres

#### MOUNTING BOXES

| Combination Plate<br>List Number | 47mm<br>Mounting Box |
|----------------------------------|----------------------|
| K34206                           | 870ZIC               |
| K34207                           | 870ZIC               |
| K34208                           | 868ZIC               |
| K34209                           | 858ZIC               |
| K34210                           | 869ZIC               |

Bespoke requirements can be achieved through the MK Design Service to deliver variation in colours, materials, function, finishes and markings.

For more information please visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk) or call 01268 563720



#### Description

A range of multimedia plates designed for ease of installation and having all the advantageous design features of the Elements range.

These multimedia socket outlets provide interior designers and installers with a stylish and practical wiring device solution. The range also has larger Euro module frontplates to house eight and twelve single Euro modules without the inclusion of fixed socket outlets. The K34209 multimedia socket outlet, for example allows for the inclusion of up to eight single Euro modules, which could include datacoms, telecoms, plus TV and Satellite modules.

Alternatively, Euro Power Modules i.e. German, French/Belgium and American socket outlets may be used.

#### Note:

- Pre-configured back boxes are designed for use with the multimedia plates. These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segregation between mains and extra low voltage products is maintained (products are supplied with clip on segregators)
- Back boxes must be installed 10mm sub flush to the wall surface
- Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671 for details
- When removing the fixing screws and frontplate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply



Multimedia plates allow the use of a variety of power and data modules making them ideal for hotels.

### Features

- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Backed out and captive terminal screws on pre-fitted sockets
- Pre-configured backboxes to ensure alignment of the fixing screws is correct and proper segregation between circuits is maintained to comply with BS 7671 17th Edition wiring regulations



### Installation

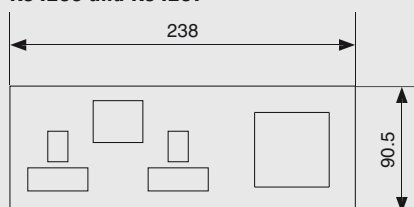
Elements socket outlets can only be mounted on a wall. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

Install corresponding back box 10mm sub flush to finished wall surface.

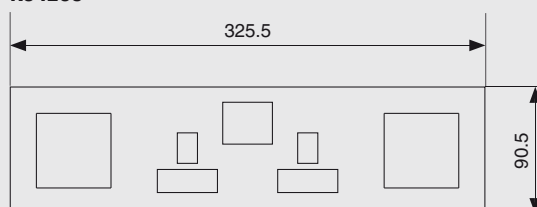
Elements multimedia plates are supplied with clip on segregator.

### Dimensions (mm)

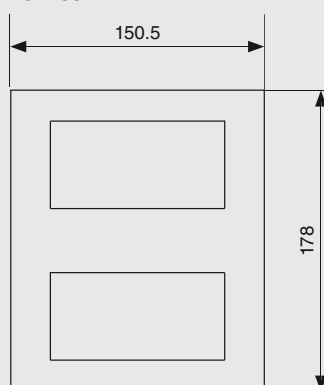
**K34206 and K34207**



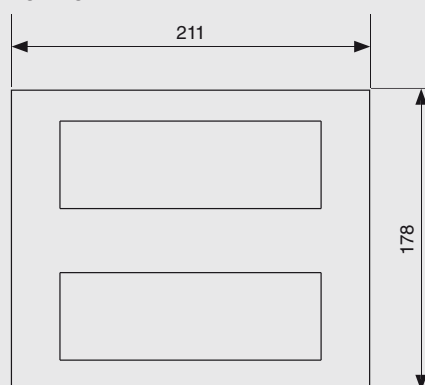
**K34208**



**K34209**



**K34210**





# Grid Plus Technical



## Modular Switching System

### Standards and approvals

#### Switch modules

BS EN 60669-1:1999

#### Indicator units

BS 5733:2010

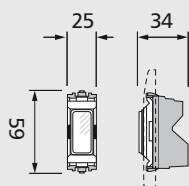
#### Dimmer switches

Dimmers comply with BS EN 60669-2-1

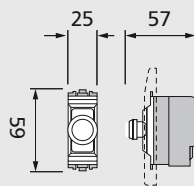
#### Accessory modules

Single non-isolated, TV/FM socket outlet,  
BS 3041-2:1977

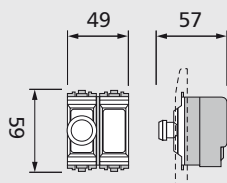
### Module Dimensions (mm)



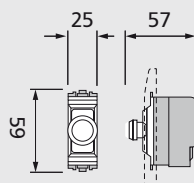
**24/240V  
buzzer units**



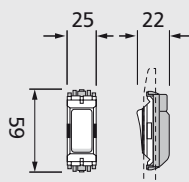
**Single dimmer  
module**



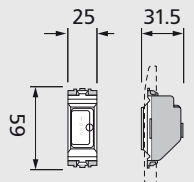
**Double dimmer  
module**



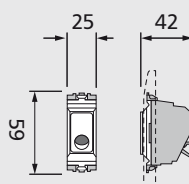
**Fluorescent  
dimmer module**



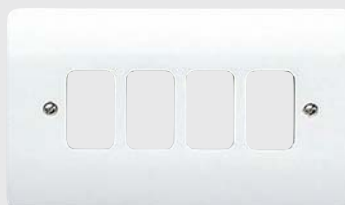
**All switch and  
indicator modules**



**Fuse unit**



**Cord unit**

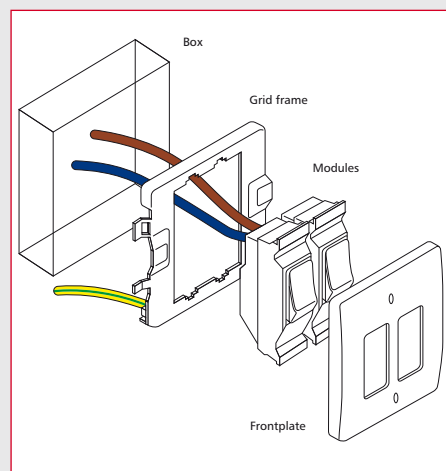


### Description

Grid Plus is a comprehensive modular switching and monitoring system ideal for a variety of applications within the commercial, public and domestic sectors.

Grid Plus cover plates have the advantageous design features of the MK wiring device ranges and the interchangeable modules also feature many of the wiring and installation benefits common to the MK wiring device ranges.

The system is extremely easy to assemble (see illustration) and modules can be individually changed without re-wiring of complete assembly by removal of frontplate and simply clipping in or out as required. For further installation details see 'Installation' overleaf.



### Features

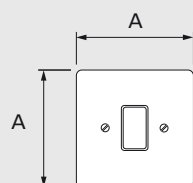
- Grid modules clip fit to frame without special tools
- Modules can be removed/replaced when grid frame is fixed in position
- Grid Plus frontplates available to match all MK wiring device ranges
- All products are 100% tested before delivery
- Options of neon/filament indicators label in rocker or printed rockers
- Wide variety of switch modules rated at 10 or 20 amps
- Single or double dimmer modules available
- Vast range of grid plates and modules from one source
- Manufactured from pre-galvanised steel to prevent corrosion
- Grid frame earth terminal has 16mm<sup>2</sup> cable capacity
- Backed out and captive terminal screws
- Up to 12 gang Logic Plus grid frontplates and up to 24 gang in decorative metal finish frontplates
- Top access terminal screws

For a full range of corresponding products,  
see pages 70-97 in the product selector.

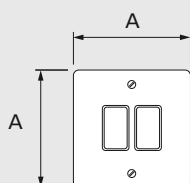
## Modular Switching System

| FRONTPLATE DIMENSIONS |                        |    |     |     |     |
|-----------------------|------------------------|----|-----|-----|-----|
| RANGE                 | MODULES                | A  | B   | C   | D   |
| Logic Plus™           | 1,2,3,4,6,8,12         | 86 | 146 | 206 | N/A |
| Aspect*               | 1,2,3,4,6,8            | 86 | 146 | N/A | N/A |
| Insignia              | 1,2,3,4,6,8,9,12,18,24 | 86 | 146 | 206 | 267 |
| Albany Plus™          | 1,2,3,4,6,8,9,12,18,24 | 86 | 146 | 206 | 267 |
| Metalclad Plus™       | 1,2,3,4,6,8,9,12,18,24 | 86 | 146 | 206 | 267 |

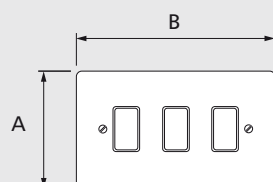
\*Aspect 12 module front plate available through MK Design Service



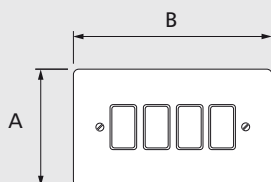
1 module



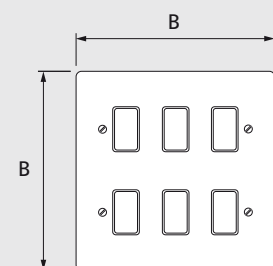
2 module



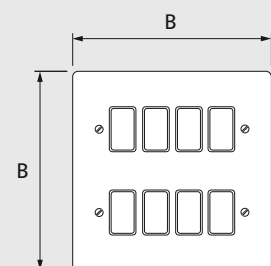
3 module



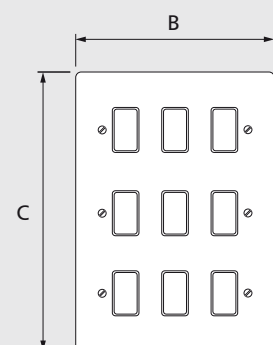
4 module



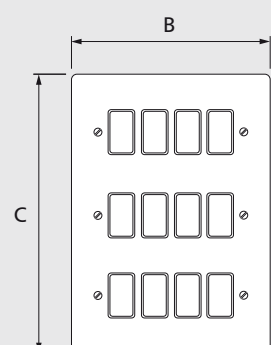
6 module



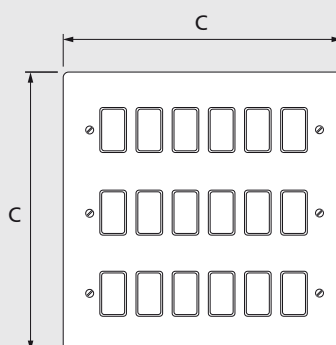
8 module



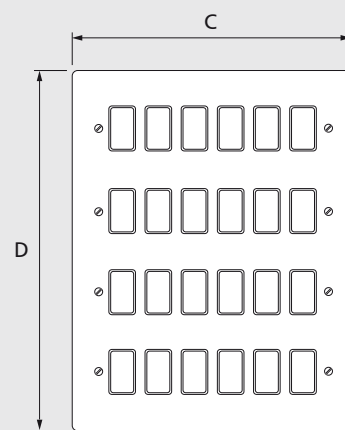
9 module



12 module



18 module



24 module

### TECHNICAL SPECIFICATION

#### ELECTRICAL

##### SWITCHES

##### VOLTAGE RATING

250V a.c.

##### CURRENT RATING

10 or 20 amps – no derating when used on fluorescent or inductive loads

##### LOAD TYPE

No restriction

##### TERMINAL CAPACITY

4 x 1mm<sup>2</sup>, 4 x 1.5mm<sup>2</sup>, 4 x 1mm<sup>2</sup>, 3 x 2.5mm<sup>2</sup>, 2 x 4mm<sup>2</sup>, 1 x 6mm<sup>2</sup>

##### INDICATOR UNITS

##### VOLTAGE RATING

24V indicators

min. 21V, max. 36V

##### 240V indicators

min. 200V, max 250V

##### TERMINAL CAPACITY

as switches

##### BUZZER UNIT

##### VOLTAGE RATING (NOMINAL)

240V a.c.

24V a.c.

##### TERMINAL CAPACITY

as switches

##### FUSE UNIT

##### VOLTAGE RATING

250V

##### CURRENT RATING

13 amps

##### TERMINAL CAPACITY

2 x 4mm<sup>2</sup>

#### CORD OUTLET

##### VOLTAGE RATING

250V

##### CURRENT RATING

16 amps

##### TERMINAL CAPACITY

Supply – 2 x 4mm<sup>2</sup>

Load – 1 x 1.5mm<sup>2</sup> multi-strand

#### DIMMERS

##### VOLTAGE RATING

230V a.c., 50Hz

##### LOAD RATING

For single dimmer installations

K4500 min. 40W/VA, max. 400W/320 VA

K4501 min. 40W/VA, max. 220W/180 VA

K4511 min. 40W/VA, max. 220W/180VA LED 4-70W

220W/180VA LED 4-70W

For multiple dimmer installation see Load Adjustment table, page 531

For multiple dimmer installation see Load Adjustment table, page 531

For multiple dimmer installation see Load Adjustment table, page 531

For multiple dimmer installation see Load Adjustment table, page 531

##### LOAD TYPES

K4500, K4501 tungsten filament

(GLS) lamps

Low voltage lighting electronic or

wire-wound transformers

K4511 Good quality LED lamps

(10max)

##### SOFT START

Raises from low to control knob

setting in 1-3 secs, (increases

lamp life significantly)

##### TERMINAL CAPACITY

1 x 2.5mm<sup>2</sup>, 2 x 1.5mm<sup>2</sup>

# Grid Plus Technical



## Modular Switching System

### Standards and approvals

#### Switch modules

BS EN 60669-1:1999

#### Indicator units

BS 5733:2010

#### Dimmer switches

Dimmers comply with BS EN 60669-2-1

#### Accessory modules

Single non-isolated, TV/FM socket outlet,  
BS 3041 Part 2: 1977

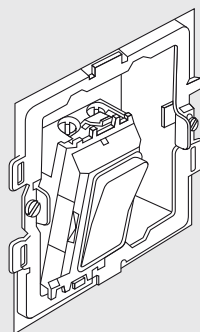
### TECHNICAL SPECIFICATION

#### PHYSICAL (ALL PRODUCTS)

AMBIENT OPERATING TEMPERATURE  
-5°C to +40°C

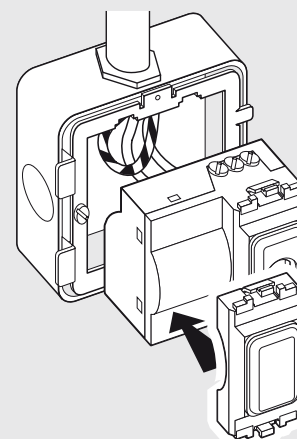
IP RATING  
IP4X

MAX. INSTALLATION ALTITUDE  
2000 metres



- 1 Locate bottom tab of module in base of grid.
- 2 Module pushes into place at top with a 'click'.
- 3 To remove module, press tab at top and lever forward.

Typical mounting arrangement



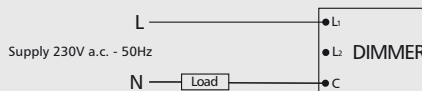
### Dimmers

The two module size dimmer can be fitted to any grid mounting frame over 1 gang. The supplied blank module can be placed at the required pitch to fill in the second position on the grid.

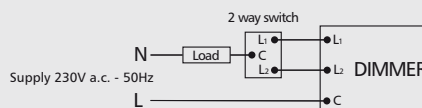
To avoid overheating when using more than one dimmer in the same Grid Plus enclosure it is recommended that the dimmers are preferentially mounted on the bottom row on 6, 8, 9, 12, 18 and 24 gang enclosures, before mounting on any other rows and its load adjusted in accordance with the information provided in the Load Adjustment Table 1 at the bottom of the next page.

### Dimmer wiring diagram

#### One-way switching



#### Two-way switching ☐ (only one dimmer can be used)



Wires must be connected to the correct Dimmer terminals. ☐  
Supply Earth must only be connected to the installation metalwork ☐  
and not to any of the terminals on the dimmer module.

### Installation

#### General

Cut cables to length and make earth connections to grid. Earth: bond grid frame to metal mounting box. Grid frames are screwed to back box, modules wired as appropriate and simply clipped into grid frame by hand. No tools are necessary. The front plate is screw fixed to the grid frame to finish the assembly.

To remove or change modules, simply remove front plate. Individual modules fit perfectly into the frontplate in flush fitting installations.

#### Grid mounting

An integral design feature automatically ensures that the modules fit perfectly into the frontplate in flush fitting installations.

Some manual adjustment may be required for surface mounted applications or low profile ranges (Insignia).

### Rocker window labels

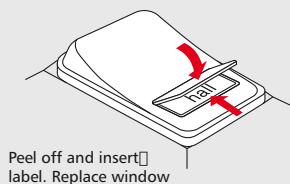
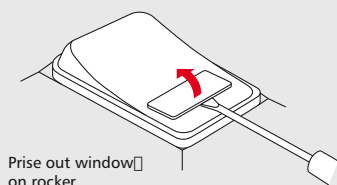
The following labels are available for insertion into window rockers.

|                 |              |             |                 |
|-----------------|--------------|-------------|-----------------|
| air conditioner | water heater | dish washer | store           |
| bedroom         | dining area  | kitchen     | lounge          |
| pool            | lights       | bar         | conference room |
| office          | reception    | bell        | push            |
| front           | middle       | bottom      | rear            |
| back            | top          | landing     | hall            |
| porch           | toilets      | ladies      | gents           |
| exterior        |              |             |                 |

## Modular Switching System

**The simple installation process is shown below.**

Spare labels and windows are available.



### TV/FM socket outlets

The TV outlet must not be mounted in the same enclosure as mains voltage exceeding 50V.

### Printed Modules

A wide range of pre-printed switches are also available. See pages 194-201 for details.

# Grid Plus Technical



## Grid Plus Dimmer Switches

### Standards and approvals

All Grid Plus dimmer switches comply with the EC Low Voltage Directive: 73/23/EEC, Electromagnetic Compatibility Directive 89/336/EEC. They also comply with BS EN 60669-2-1 and BS EN 55015.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### MAINS SUPPLY VOLTAGE

230V a.c. (Nominal)

###### MAINS SUPPLY VOLTAGE RANGE

216V a.c. to 253V a.c.

###### MAINS SUPPLY FREQUENCY

50Hz

###### TYPE OF LOADS

Intelligent Dimmers

###### K4500, K4501

Fused GLS Tungsten Filament lamps to BS EN 60064: 1996 and BS EN 60432-1,2 rated at 230/240V. Dimmable wire wound or electronic Low Voltage Transformers of good quality. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

###### K4511

Is suitable for use with good quality dimmable LED lamps (10max). Due to market variability in LED lamp design it is advisable to check with lamp manufacturer to determine suitability. For best performance LED manufacturers lamps should not be mixed on one circuit.

Note: Transformers must be suitable for dimming leading or trailing edge dimmers.

Warning: These dimmer switches are not suitable for use with Fluorescent Lamps or CFL Lamps.

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

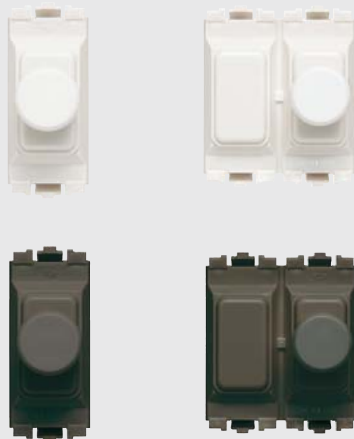
0°C to +40°C

###### IP RATING

IP4X

###### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

#### Intelligent Dimmer Switches

Dimmer Switches belonging to this category employ the latest, state of the art, micro-controller base electronic circuitry and use current sensing to compute the load conditions. These products show progressive reaction to Over-load conditions, depending on the extent of Over-load – see Table 1. List numbers belonging to this category are identified by the suffix letters LV, e.g. K4501 WHI LV. These Dimmer Switches employ one pole change over switches to facilitate two way switching.

MK Grid Plus Dimmer Switches are not suitable for use with Fluorescent Lamps or CFL Lamps.

#### FEATURES

##### MK Grid Plus Dimmer Switches incorporate the following advanced features

- Suitable for dimming Low Voltage Halogen lamps via suitable, fully dimmable electronic or wire-wound transformers. See Table 2 for the number of transformers allowed to be used with each dimmer
- Can be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability
- Unidirectional current sensing. While being used with wire-wound transformers for low voltage lighting, these dimmer switches continuously monitor the drive conditions to the transformers, which require essentially, bi-directional a.c. supply at their input terminals. If, due to some fault condition, the supply to the wire-wound transformer is detected to be unidirectional, which could result in over-heating and/or damaging the transformer, the dimmer switches' circuitry automatically stops supplying the transformer after a few cycles of detected unidirectional supply
- Soft Start, which gradually increases the light output from the load over 1 to 3 seconds after switch on. The Soft Start feature is also particularly beneficial when used to dim Mains Voltage Tungsten Halogen lamps which have inherent very high inrush current at switch on
- Grid Plus dimmer switches which are rated for LED load types incorporate a minimum brightness adjustment. This setting may be performed without removing any fixing screws to account for LED load performance. Please refer to the relevant installation instructions on [mkelectric.co.uk](http://mkelectric.co.uk)

### Multiple Dimmer Installation Load Ratings

When installing more than one dimmer in multi-gang plates, the power rating must be reduced to allow for heat generation.

See Table 1 page 531.

## Grid Plus Dimmer Switches

**TABLE 1 – LOAD ADJUSTMENT FOR GRID PLUS DIMMERS**

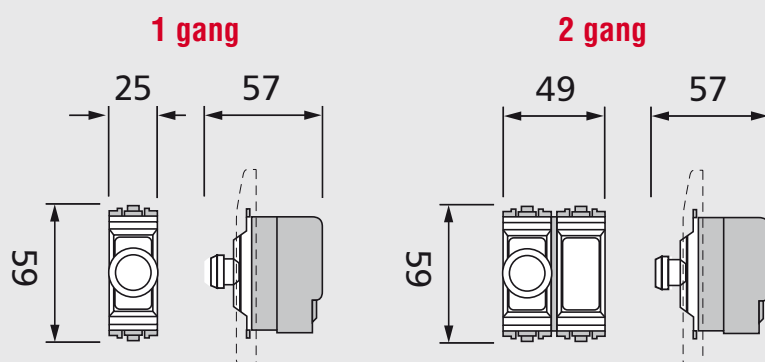
| FRONTPLATE SIZE, NUMBER OF GANGS  | 2   | 3   | 4   | 6   | 8   | 9   | 12  | 18   | 24   |
|---|-----|-----|-----|-----|-----|-----|-----|------|------|
| Max Power/Load per Row – Tungsten GLS Lamps – W   | 400 | 480 | 480 | 480 | 480 | 480 | 480 | 720  | 720  |
| Max Power/Load per Row – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA         | 320 | 380 | 380 | 380 | 380 | 380 | 380 | 580  | 580  |
| Max Power/Load for Total Plate – Tungsten GLS Lamps – W   | 400 | 480 | 480 | 740 | 740 | 940 | 940 | 1440 | 1800 |
| Max Power/Load for Total Plate – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA | 320 | 380 | 380 | 600 | 600 | 750 | 750 | 1155 | 1440 |

K4511 – No derating is required for LED load types.

**TABLE 2 – OVERLOAD REACTION**

| 40-400W CIRCUIT                  | 40-300W CIRCUIT                  | COMMENTS                               |
|----------------------------------|----------------------------------|--|
| <b>Overload management</b>       | <b>Overload management</b>       | This is the minimum controlled voltage |
| 40-400W nominal                  | 40-220W nominal                  |  |
| 40-500W function without dimming | 40-275W function without dimming |  |
| > 500-700W dim to 68V±8V r.m.s.  | > 275-375W dim to 68V±8V r.m.s.  |  |
| > 700W switch off                | > 375W switch off                |  |

## Dimensions



**TABLE 3 – GRID PLUS INTELLIGENT DIMMER SWITCHES**

|                        | RATING                       | MAX NO. OF TRANSFORMERS |
|------------------------|------------------------------|-------------------------|
| 1 module dimmer switch | 40-220W (LV rating 40-180VA) | 3                       |
| 2 module dimmer switch | 40-400W (LV rating 40-320VA) | 5                       |

Do not connect more than the maximum number of transformers stated for each dimmer. Grid Plus dimmer switch ratings are for each dimmer when installed singly.

In multiple installations, each dimmer switch must be de-rated – see Table 1 above.

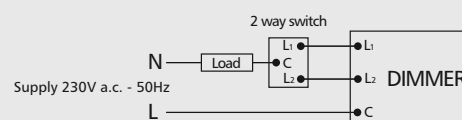
## Wiring Diagrams

### One-way switching



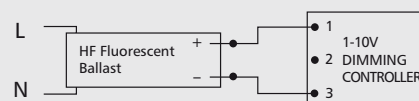
### Two-way switching

(only one dimmer can be used)



Wires must be connected to the correct dimmer terminals.  
DO NOT connect earth to dimmer.

### Fluorescent dimmer



Wires must be connected to the correct dimmer terminals.  
DO NOT connect earth to dimmer.

## Fluorescent Dimmer

MK Fluorescent dimmers are low voltage controllers that require only a single two-core wire connection to 1-10V controllable ballast inputs. The dimmer operates by applying a variable resistance to the ballast 1-10V control input.

We recommend using a separate on/off switch to isolate the luminaire(s) in use.

### Features

Preset adjust to set minimum light level. Preset adjust for use with multiple dimmable ballasts.

Up to four ballasts can be connected to one dimmer.

# Grid Plus Technical



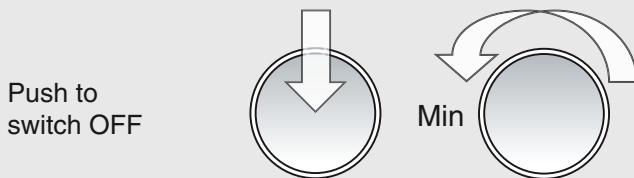
## Minimum Brightness Adjustment for LED Intelligent Dimmers

The light output of some LED lamps may appear to be too dim or invisible when the dimmer knob is at the minimum dim level. Follow the steps below to adjust the minimum brightness level. This feature is primarily for adjusting the minimum brightness level of the LED lamp although it can be used for other load types.

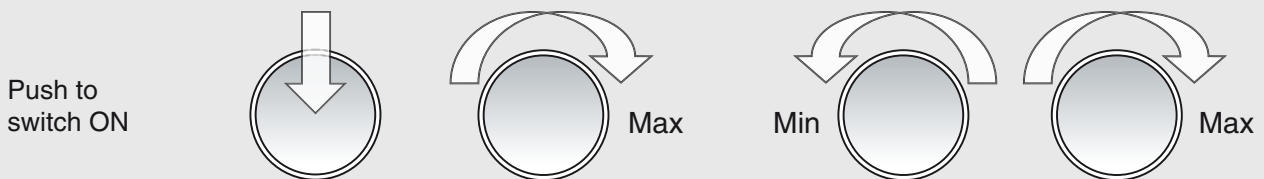
For a double gang dimmer, the light level of each gang has to be adjusted separately.

### Step 1 – Access To Programming Mode

1. Push the dimmer knob so that it is in OFF state.
2. Set the dimmer knob to minimum level.



3. Turn on the dimmer and immediately rotate the knob 3 times in full rotary span within 5 seconds.



NOTE: Wait for 3 seconds, the lamp will then dim to minimum before automatically brightening to about 30% level. Turning/pushing the dimmer knob before the end of automatic brightening will end access to programming mode

4. Dimmer enters programming mode.

### Step 2 – Adjust Brightness Level and Exit Programming Mode

5. Rotate the dimmer knob anticlockwise to adjust the lamp to the desired brightness level.

NOTE: Some LED lamps may not work properly if the brightness level is set too low thus it is recommended to keep the brightness level of the lamp at a visible level. The dimmer will exit programming mode automatically without saving the new setting if there is no dimmer knob movement for 15 seconds. The dimmer will restore its factory default light level.



6. Confirm the new setting and exit programming mode by turning OFF the dimmer.



### Step 3 – Success indication (Programming Complete)

7. The next time the dimmer is turned on the lamp will automatically brighten to the maximum level before dimming to the brightness level corresponds to the knob level.



## MK LED Dimmer



LED Dimmer from MK Electric offers the widest lamp compatibility for a reliable dimming solution and allows the user to create ambience for comfortable surroundings.

### Product Specifications

- MK Electric is the first leading manufacturer to offer a LED dimming solution across its wiring devices range
- Available as a single or double dimmer, in MK Logic Plus and MK Grid Plus\*
- MK Logic Plus product is rated 4 – 70W (300W/240VA)
- MK Grid Plus product is rated 4 – 70W (220W/180VA)
- Compatible with tungsten filament, low voltage halogen and dimmable LED lamps
- Greater user control, with a minimum load adjustment control on dimmer switch
- Maximum 10 lamps per circuit
- Intelligent load protection will prevent lamp wattage exceeding rating of dimmer



### Reduce Energy Costs

LED lighting technology delivers enhanced lamp endurance and energy savings. Dimmable LED lamps can increase energy savings, allowing you to reduce energy costs further.

### Achieve a Consistent Look

The MK LED Dimmer is available in a wide range of decorative finishes to compliment interior design styles. Matching wiring devices including sockets and switches are available to ensure a consistent look and feel.

### A Perfect Match

The MK LED Dimmer has been tested with leading lamp manufacturers and is compatible with tungsten filament, low voltage halogen and a wide range of dimmable LED lamps.

### Decorative LED Finish Selector



\*Grid Plus range is available in 13 colour options, with black or white inserts. The Module is designed to be used with MK Electric's decorative range of Aspect, Insignia, Albany Plus cover plates.

# High Power Dimmer Technical



## Standards and approvals

All High Power Dimmer modules comply with EN 60669-2-1

### TECHNICAL SPECIFICATION

#### ELECTRICAL

**MAINS SUPPLY**  
220-240V / 50Hz  
220V / 60 Hz

#### TYPE OF LOADS

Fused GLS Tungsten filament lamps. Dimmable wirewound or electronic low voltage transformers of good quality. Inductive loads (i.e. conventional wire-wound transformers, etc.) must not be connected to the trailing edge dimmers.

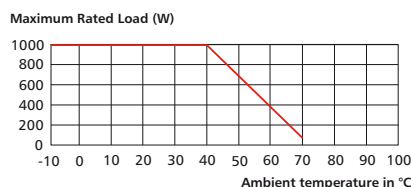
Warning: These dimmer modules are not suitable for use with fluorescent lamps or energy saving lamps.

#### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
-5°C to +40°C

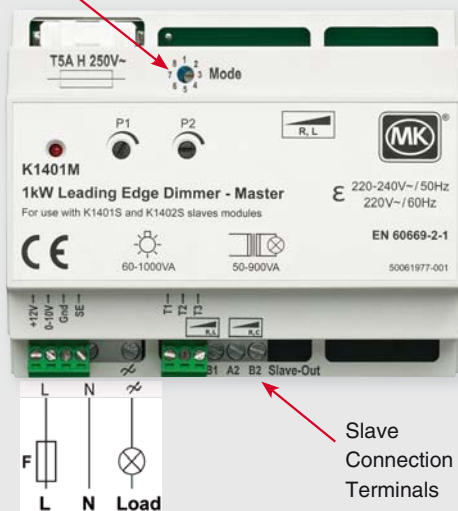
#### REDUCTION OF THE DIMMER POWER

If this product is used in an ambient temperature exceeding 40°C, the maximum allowable load will need to be reduced according to the table below. This will prevent the internal thermal protection in the product from activating and switching the load off.



## Connection Diagram

Operating Mode  
Selector Switch



## Description

These dimmer modules are designed for mounting into distribution and consumer units containing 35mm Din rail according to EN50022. All master and slave dimmers must be connected to the same supply phase. Key points to observe during installation:

- The mains supply to the dimmer(s) must be protected by a suitable fuse or MCB rated no greater than 16A
- Do not exceed maximum control line length of 100m and do not run slave control lines parallel to mains and network cables
- Always observe the transformers recommended loading guidelines
- Load transformers at or close to their full rated capacity. Do not connect a small load to a larger transformers, (e.g. a 35W lamp on a 600VA transformer)
- Ensure that slaves are wired to the correct control terminals and that the polarity is observed

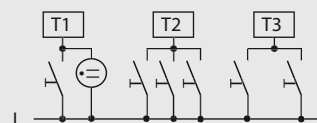
Note: The outputs of the K1402M and K1402S trailing edge dimmers may be connected in parallel to drive a single load greater than 1kW/900VA.

### Control Wiring for operating Modes 1-6 (K1400) and Modes 1-7 (K1401/K1402)

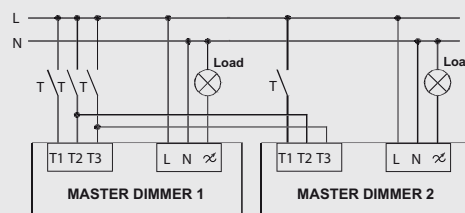
Control switches T1-3 should be push-to-make momentary contact switches.

Up to 10 operating switches may be wired in parallel with Neon indicators being allowed on control line T1 only.

Example 1: Multiple control buttons:



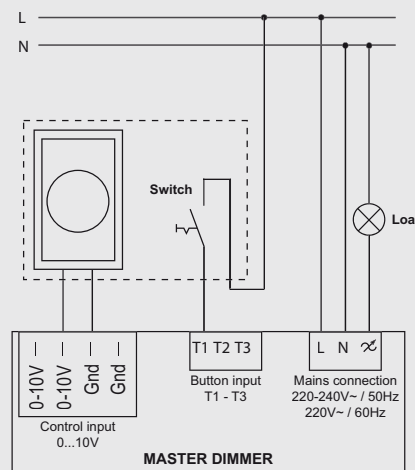
Example 2: Wiring for Multiple Master Dimmers with common Central-ON and Central-OFF



T1 = Separate Dimming control for each master  
T2 = Central-ON for both master dimmers  
T3 = Central-OFF for both master dimmers

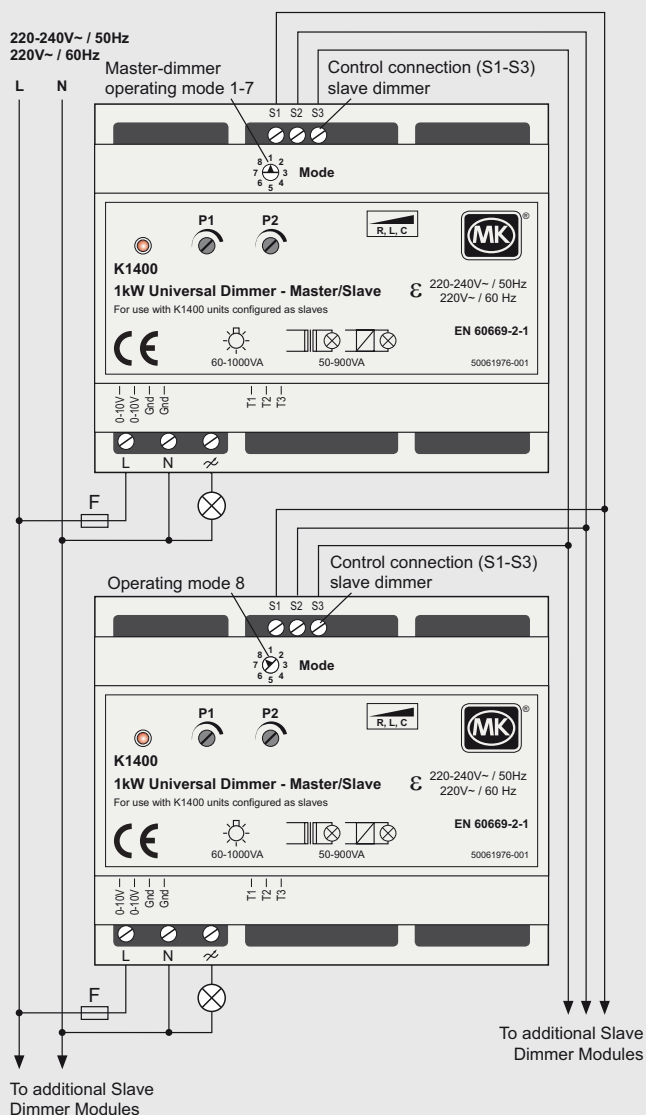
### Control Wiring for operating Mode 7 (K1400) and Mode 8 (K1401/K1402)

Control switches T1 should be a standard single pole light switch with dimming via the rotary 0/1-10V potentiometer connected between 0-10V and Gnd on the Master dimmer.

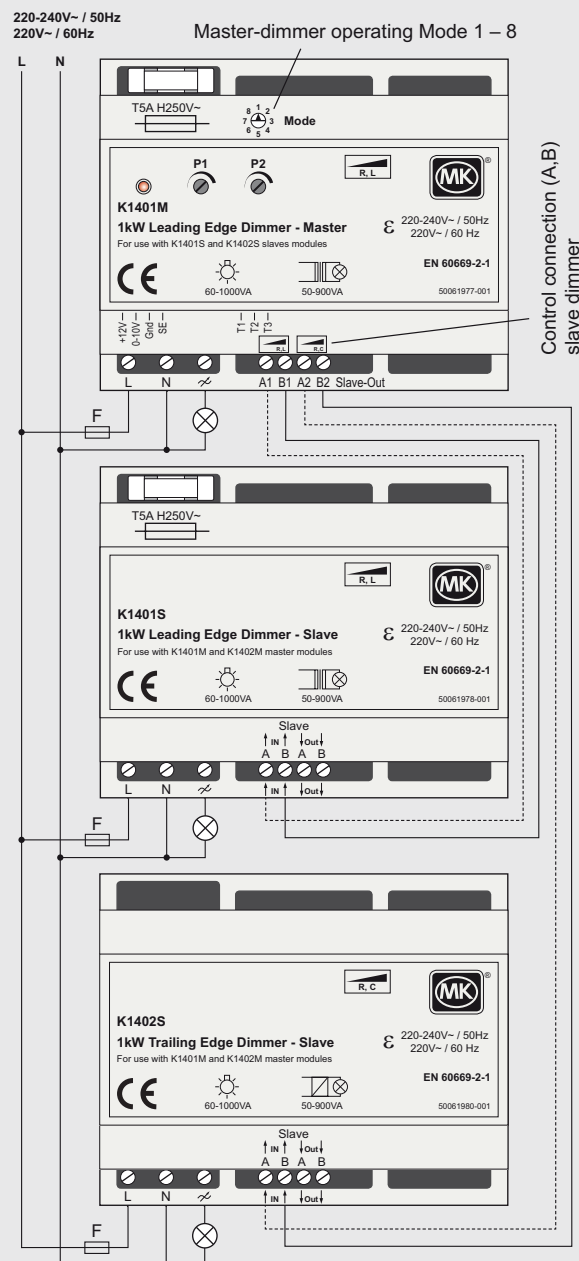


# Technical

## K1400M



## K1401M



For a full range of corresponding products,  
see pages 208-210 in the product selector.

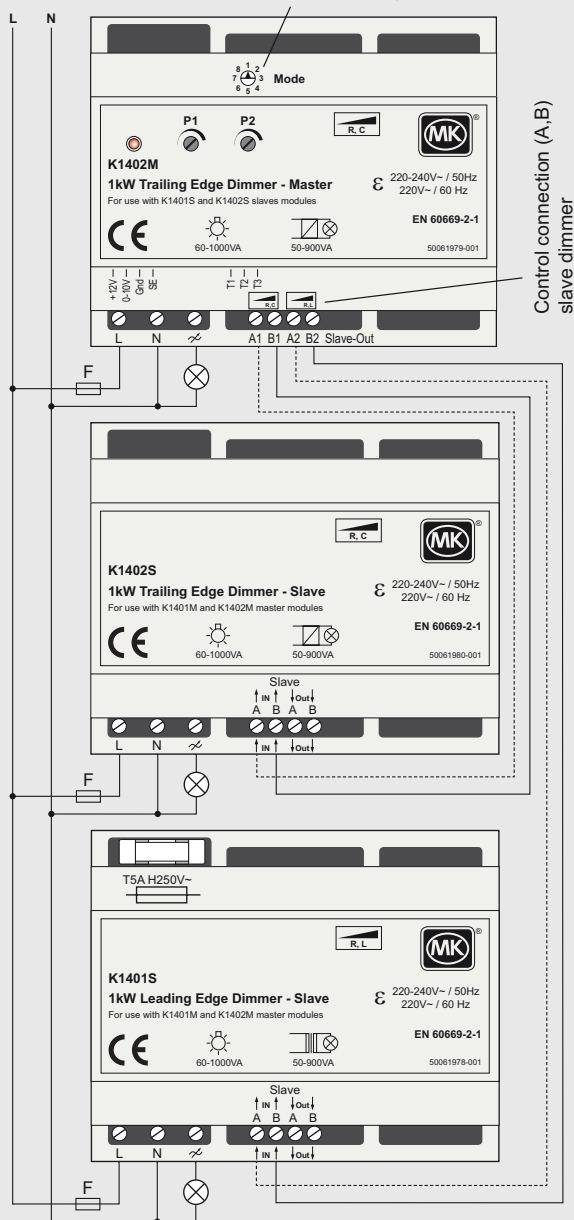
# High Power Dimmer Technical



## K1402M

220-240V~ / 50Hz  
220V~ / 60Hz

Master-dimmer operating Mode 1 – 8



Control connection (A, B)  
slave dimmer

## GI BACK BOXES

### Standards and Approvals

Comply with BS4662

### Description

MK GI back boxes are manufactured from pre-galvanized sheet steel with following design features that add value and benefit to end customers. All MK GI back boxes comply with BS4662 and are delivered with improved earth clamp terminal also known as Pillar Terminals.

### Benefits

The Earth terminal is manufactured from passivated steel clamps and screws with following advantages:

- Terminal with screw clamping in which the conductor is inserted into a hole or cavity, where it is clamped under the end of the screw or pressure plate.
- This design is superior to those with brass terminals as the wire is directly clamped to the back box and there are no riveted or spun joints.
- Material of clamp and screws are passivated for corrosion resistant.
- More reliable clamping of conductors with adequate mechanical strength.
- Undue damage to conductors not possible with pressure plate.
- The wire does not slip out when clamp is tightened.
- The terminal is fixed to back box and does not come loose from its seating. Accepts both single strand or multi strand wires.
- Ease of installation with more cross sectional area to accommodate two or more cable for earth looping.



### TECHNICAL SPECIFICATION

| ITEM                   | 866ZICS6               | 877ZICS6               | 886ZICS6                | 878ZICS6               |
|------------------------|------------------------|------------------------|-------------------------|------------------------|
| External width         | 75 +/- 04 x 75 +/- 04  | 75 +/- 04 x 75 +/- 04  | 75 +/- 04 x 135 +/- 04  | 75 +/- 04 x 135 +/- 04 |
| Internal Minimum width | (68.3mm)               | (68.3mm)               | (68.3mm)                | (68.3mm)               |
| Fixing Centers         | (60.3mm)               | (60.3mm)               | (120.6mm)               | (120.6mm)              |
| Gang                   | 1 gang                 | 1 gang                 | 2 gang                  | 2 gang                 |
| Depth                  | 35mm                   | 47mm                   | 35mm                    | 47mm                   |
| Adjustable Lug         | 1 adjustable lug       | 1 adjustable lug       | 1 adjustable lug        | 1 adjustable lug       |
| Knock Outs             | 7 x 20 mm<br>3 x 25 mm | 6 x 20 mm<br>4 x 25 mm | 11 x 20 mm<br>4 x 25 mm | 9 x 20 mm<br>6 x 25 mm |
| Earth Terminal         | Pressure clamp         | Pressure clamp         | Pressure clamp          | Pressure clamp         |
| Standard               | BS4662                 | B24662                 | BS4662                  | BS4662                 |

# Duraplug® Technical



## Plugs and Adaptors

### Standards and approvals

All 13 Amp Duraplug® rubber plugs conform to BS 1363/A Part 1:1995. The plugs are third party approved and licensed by ASTA.

Round pin plugs comply with BS 546:1950.

#### TECHNICAL SPECIFICATION

##### TERMINAL/CABLE SIZE

| LIST NO.     | MAXIMUM CABLE SIZE           |                                     |
|--------------|------------------------------|-------------------------------------|
|              | OUTER DIAMETER OF CABLE (MM) | CONDUCTOR C.S.A. (MM <sup>2</sup> ) |
| <b>PF133</b> | 11.0                         | 1.5                                 |
| <b>P53</b>   | 9.4                          | 0.75                                |
| <b>P153</b>  | 11.0                         | 1.5                                 |

VOLTAGE RATING  
230V a.c.



### Description

#### 13 Amp plugs

All Duraplug® 13 Amp plugs are supplied with 13 Amp fuses, and can be used on ring and radial circuits; however, alternative fuse ratings are available on special order.

#### Round pin plugs

Available unfused at 5 and 15 amp.

For a full range of corresponding products, see pages 236-239 in the product selector.

## Lead Connectors, Extension Leads, Portable Sockets and Cable Couplers

### Standards and approvals

2 pin Duraplug® lead connectors comply with BS 5733:2010.

3 pin Duraplug® lead connectors comply with BS 5733:2010.

All 13A Duraplug® trailing socket outlets comply with BS 1363/A Part 2:1995.

15A Round pin Duraplug® trailing socket outlets comply with BS 5733:2010 and BS 546 for plug pin aperture and engagement face dimensions.

All 13A Duraplug® portable socket outlets comply with BS 1363/A Part 2:1995.

Cable Couplers comply with BS 5733:2010. (BS 1363 pin centres for 13A, BS 546 pin centres for 5A and 15A).

Replacement fuses where fitted are to BS 1362.

Cables to BS EN 50525-2-11 (H05VV-F).



### Description

A range of tough, rewirable lead connectors for use with extension leads for domestic, garden and light workshop applications. Two pin lead connectors are only for use with double insulated class 2 appliances. Three pin lead connectors must be used with earthed appliances.

#### Filtered socket only

Protects electronic equipment by filtering mains borne interference such as Voltage spikes. This product complies with the LV (72/23/EEC) directive.

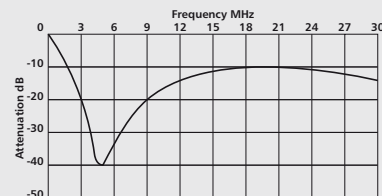
#### Filtered Response Characteristics

Mains filter rated at 250v RMS and 0.15μF

Varistar (Transient Voltage Suppressor) has a more constant voltage 275v ac

Clamping voltage @ 40A: 665v

Milliwatt constant: 800



#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
250V a.c.

**CURRENT RATING**  
As 'Product range' table

**TERMINAL CAPACITIES**  
Lead connector – 1.0mm<sup>2</sup> conductor  
Trailing/Portable socket – 1.5mm<sup>2</sup> conductor

**MAX. CABLE CAPACITY**  
Lead connector – LCP102: 2-core insulated cable with 1.0mm<sup>2</sup> conductors, LCP103: 3-core insulated cable with 1.0mm<sup>2</sup> conductors. 11mm overall diameter  
Trailing/Portable sockets – 3-core insulated cable with 1.5mm<sup>2</sup> conductors, 11mm overall diameter

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
-5°C to +40°C

**MAX. INSTALLATION ALTITUDE**  
2000 metres

### Installation

Duraplug® products should not be allowed to lie in excessively damp areas, e.g. wet grass, puddles etc. Care must be taken to avoid contact with petroleum spirits.

For added safety trailing sockets should be used in conjunction with a residual current device (RCD).

#### FEATURES

##### Lead connectors

- Manufactured with a thermoplastic elastomer cover and polypropylene inserts
- Integral cable grips
- Retaining lugs to prevent accidental disconnection

##### Trailing sockets

- Manufactured from tough ABS/Polycarbonate with rubber cover. FC153 is all-rubber construction
- All internal component parts are retained in the base for ease of wiring
- Visible red nylon shutters

##### Portable sockets

- Manufactured from high impact resistant ABS/Polycarbonate
- Equal length wire stripping for ease of wiring
- Visible red nylon shutters
- Optional wall mounting holes



# Duraplug® Technical



## Extension Leads

| TECHNICAL DATA GUIDE |   |                       |  |   |                     |
|----------------------|---|-----------------------|--|---|---------------------|
| PRODUCT CODE         | SOCKET OUTLETS  | CABLE LENGTH<br>CABLE | CABLE SPECIFICATION  | PLUG TYPE   | PLUG FUSE<br>RATING |
| <b>EXL135WHI</b>     | 13A 4-gang socket with fuse and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour white          | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour white. | Duraplug® Rubber cover type PF133.<br>Colour white. | 13                  |
| <b>EXL135BLK</b>     | 13A 4-gang socket with fuse and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour black          | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour black. | Duraplug® Rubber cover type PF133.<br>Colour black. | 13                  |
| <b>EXL136WHI</b>     | 13A 4-gang socket with switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour white.       | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour white. | Duraplug® Rubber cover type PF133.<br>Colour white. | 13                  |
| <b>EXL136BLK</b>     | 13A 4-gang socket with switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour black.       | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour black. | Duraplug® Rubber cover type PF133.<br>Colour black. | 13                  |
| <b>EXL137WHI</b>     | 13A 4-gang socket with fuse, switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour white. | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour white. | Duraplug® Rubber cover type PF133.<br>Colour white. | 13                  |
| <b>EXL137BLK</b>     | 13A 4-gang socket with fuse, switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS 1363A Part 2:1995.<br>Colour black. | 2                     | 1.25mm <sup>2</sup> <HAR> 3-core PVC insulated cable to BS EN 50525-2-11 (H05VV-F).<br>Colour black. | Duraplug® Rubber cover type PF133.<br>Colour black. | 13                  |

# Plugs and Adaptors

## Technical

## Plugs and Adaptors

### Standards and Approvals

All 13 Amp standard Safetyplugs conform to BS 1363 Part 1:1995. All 13 Amp Toughplugs conform to BS 1363/A Part 1:1995. The above plugs are third party approved and licensed by ASTA.

Round pin plugs comply with BS 546:1950.

Non-standard Safetyplugs comply with BS 1363 Part 1:1995 where applicable.



### Description

#### 13 Amp plugs

MK standard 13 Amp plugs can be used on ring and radial circuits and are available with 13 Amp fuses or 3 Amp fuses.

#### Round pin plugs

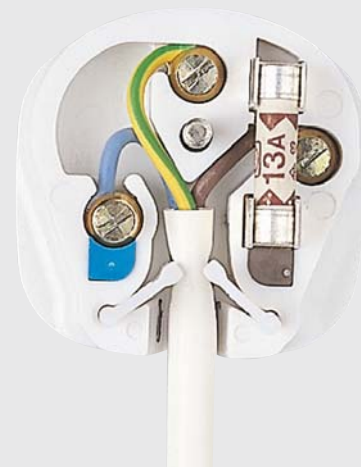
Available unfused at 2, 5 and 15 Amp. They can also be supplied fused, the 15 Amp fitted with a 5 Amp fuse. The British Standard does not allow the 15 Amp plug to be fused higher than 5 Amp. The 15 Amp plug is normally used on a radial system which is protected by a 20 Amp protective device.

#### Non standard safetyplug

Non standard safety plug utilizing "T" shaped earth pin specifically for use with MK non standard sockets only, e.g. K1257WHI – Logic Plus 1 Gang 13 Amp Switched, Non Standard Socket Outlet.

#### Adaptors

Both the 13 Amp two way adaptor and the shaver adaptor are designed to BS 1363: Part 3: 1995. The two way adaptor is unfused and has two shuttered 13 Amp socket outlets. The unique feature of the shaver adaptor is the raised wall on the socket face which restricts the size of plug which can be inserted to the typical shaver plug.



### TECHNICAL SPECIFICATION

#### TERMINAL/CABLE SIZE

| LIST NO. | MAXIMUM CABLE SIZE           |                                     |
|----------|------------------------------|-------------------------------------|
|          | OUTER DIAMETER OF CABLE (mm) | CONDUCTOR C.S.A. (mm <sup>2</sup> ) |
| 646      | 11.0                         | 1.5                                 |
| 647      | 11.0                         | 1.5                                 |
| 655      | 11.0                         | 1.5                                 |
| 502      | 8.7                          | 0.5                                 |
| 505      | 9.4                          | 0.75                                |
| 515      | 11.0                         | 1.5                                 |
| 639      | 8.7                          | 0.5                                 |
| 641      | 9.4                          | 0.75                                |
| 643      | 11.0                         | 1.5                                 |

#### VOLTAGE RATING

250V a.c.

For a full range of corresponding products, see pages 240-241 in the product selector.

# Masterseal Plus™ Technical



## 13 Amp Socket Outlets

### Standards and approvals

Socket outlets comply with  
BS 1363 Part 2:1995.

All products allow compliance with  
BS 7671:2008 when correctly installed.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
250V a.c.

**CURRENT RATING**  
13A

**TERMINAL CAPACITY**  
Live, neutral & earth  
3 x 2.5mm<sup>2</sup>  
3 x 4mm<sup>2</sup>  
2 x 6mm<sup>2</sup> (standard)

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
0°C to +40°C

**IP RATING**  
IP66

**MAX. INSTALLATION ALTITUDE**  
2000 metres



### Description

A range of socket outlets specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the range is sealed to IP66 against dust, water and is impact resistant and will completely protect virtually any 13 amp plug\* including moulded plugs, allowing safe connection to any appliance.

\*When in doubt, please use an MK 13A plug or Duraplug.

#### FEATURES

- IP66 protected to BS EN 60529:1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any standard 13 Amp plug, including those with moulded on plug tops
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- 3 pin operated safety shutter on socket outlets
- 3mm minimum switch contact gap
- Additional electrical safety from neutral 'make first, break last' feature
- Moulded 'on' indicator flash on switches will not rub off
- Printed terminal markings on grey rear mouldings for clearer identification
- Double pole switching
- Switch contacts with silver contacts on both surface for good continuity
- Products are available in grey, black and white

### Boxes

Rear entry back boxes are supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502, 1 gang / K56503, 2 gang). These boxes must also be used if cable or conduit enters the enclosure from the rear.

### IP66 Protection

Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water.

The Masterseal Plus™ IP66 rating breakdown is as follows:

#### IP COMPARISON

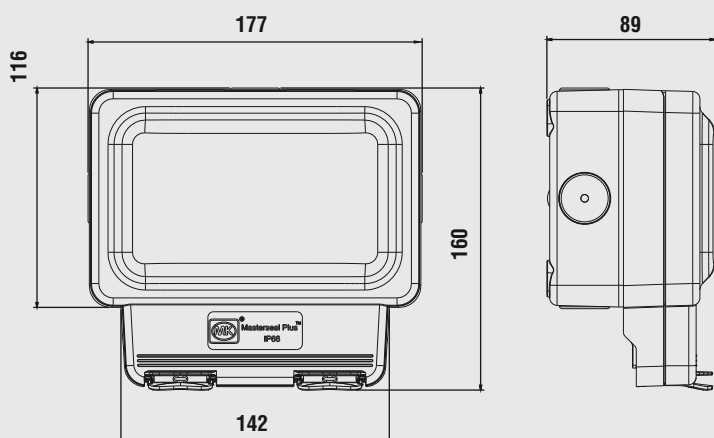
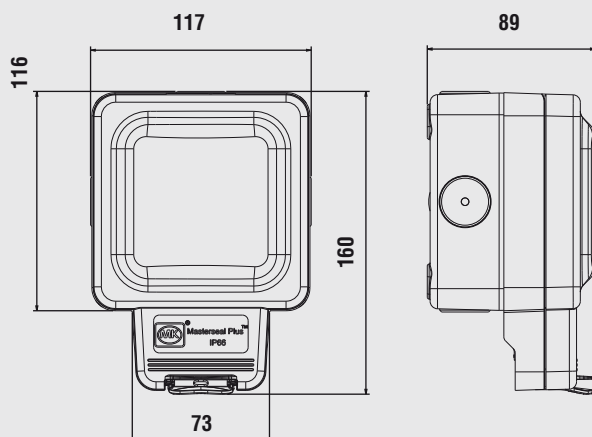
| IP56 | SOLID PROTECTION  | LIQUID PROTECTION   |
|------|---|---|
|      | Dust protected.<br>Ingress of dust is not entirely protected, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment. Complete protection against contact | Powerful jets of water against the enclosure from any direction shall have no harmful effects |
| IP66 | SOLID PROTECTION  | LIQUID PROTECTION   |
|      | Dust tight.<br>No ingress of dust, complete protection against contact  | Powerful jets of water against the enclosure from any direction shall have no harmful effects |

For a full range of corresponding products, see pages 242-249 in the product selector.

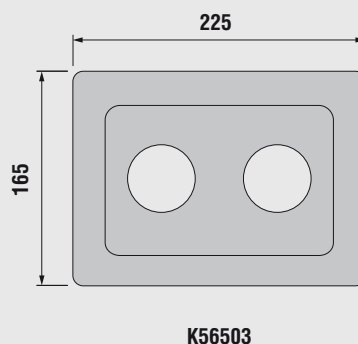
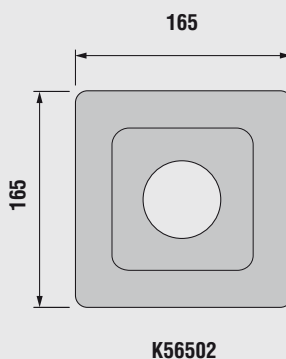
## 13 Amp Socket Outlets

### Dimensions (mm)

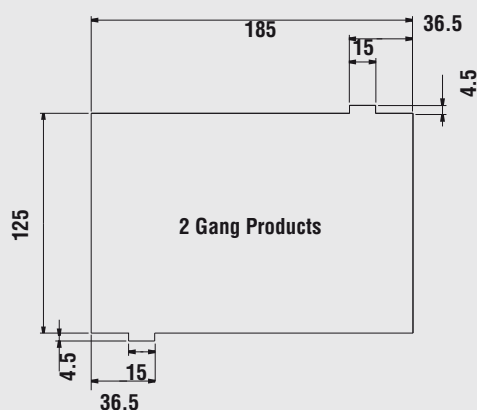
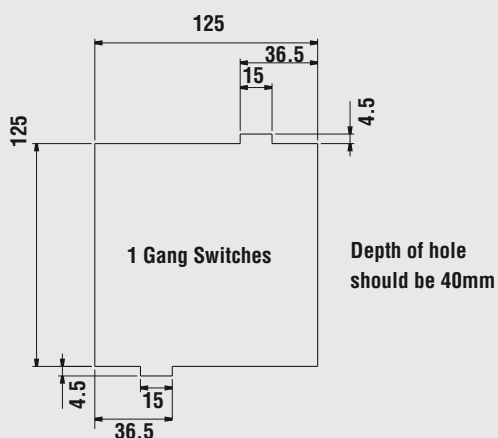
#### 1 gang / 2 gang with fixing dimensions



#### Flush Mounting Bezels



#### Flush Mounting Bezel Cut-outs



# Masterseal Plus™ Technical



## Timer Socket Outlet

### Standards and approvals

Socket outlet complies with  
BS 1363 Part 2:1995.

Enclosure conforms to BS EN 60529 IP66

Timer module complies with IEC 60730-1  
IEC 60730-2-7, EN 55014-1:2000, EN 55022,  
EN 61000-3-2, EN 61000-4-2, EN 61000-4-4,  
EN 61000-4-5, EN 61000-4-6, EN 61000-4-11

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**SUPPLY VOLTAGE**  
230V a.c.

**SUPPLY FREQUENCY**  
50Hz

**CURRENT RATING FOR SOCKET OUTLET  
(RESISTIVE) 13A**

**TERMINAL CAPACITY**  
Supply Line, Neutral and Earth  
3 x 2.5mm<sup>2</sup>  
3 x 4mm<sup>2</sup>  
2 x 6mm<sup>2</sup>

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
0°C to +40°C

**IP RATING**  
IP66

**MAX. INSTALLATION ALTITUDE**  
2000 metres



### Description

This socket outlet, switched by a single pole timer module is specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the product is sealed to IP66 against dust and water, and is impact resistant. The product ensures a very high degree of protection for virtually any 13A plug\* to BS 1363, allowing safe connection to electrical appliances, which can be switched on and off at pre-determined times.

#### FEATURES

- Single 13A rated socket outlet switched via the Single Pole timer module
- Weekly Electronic Timer
- 24 hour clock
- Multi-function Liquid Crystal Display (LCD)
- 6 ON/OFF programmes per day
- Individual day selection as well as 4 block day selections
- Supplied with a LOOP terminal in the back box, which has 5 entries for cables
- Override button to switch the load ON/OFF directly, bypassing the timer
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any standard 13 Amp plug, including those with moulded on plug tops
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- 3 pin operated safety shutter on socket outlets
- Products are available in grey, black and white

### Timer module

The product employs an electronic timer module, which switches the Supply Line to the socket outlet, via a single pole relay. 6 ON/OFF cycles per day can be programmed via the buttons on the face of the timer module. Days in the week can be set individually or set to repeat in 4 separate blocks as follows:

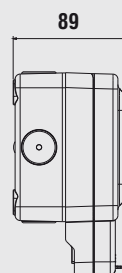
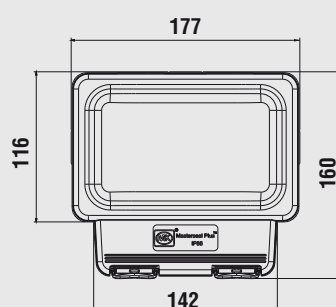
1. Monday to Friday
2. Saturday and Sunday
3. Monday to Saturday
4. Monday to Sunday

An Override button is available to switch the load ON/OFF directly, bypassing the timer.

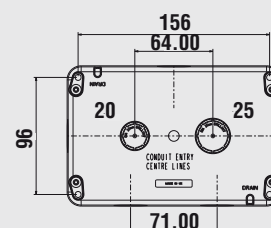
### Boxes

Rear entry back box is supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezel (K56503). These boxes must also be used if cable or conduit enters the enclosure from the rear.

### Dimensions



### Fixing Dimensions



\* When in doubt, please use an MK 13A plug

## Sentrysocket

### Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:  
Low Voltage Directive Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD Single Sockets also comply with the requirements of the following standards:  
BS 7288:1990  
BS EN 50082-1:1992

Sentrysocket RCD Double Sockets also comply with the requirements of the following standards:  
BS 7288:1990  
BS EN 61543:1996

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**RATED VOLTAGE**  
240V a.c.

**CURRENT RATING**  
13A resistive

**RATED TRIPPING CURRENT**  
30mA

**TERMINAL CAPACITY**  
1 Gang: 3 x 4mm<sup>2</sup>  
2 Gang: 2 x 4mm<sup>2</sup>

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
0°C to +40°C

**IP RATING**  
IP66

**MAX. INSTALLATION ALTITUDE**  
2000 metres



### Description

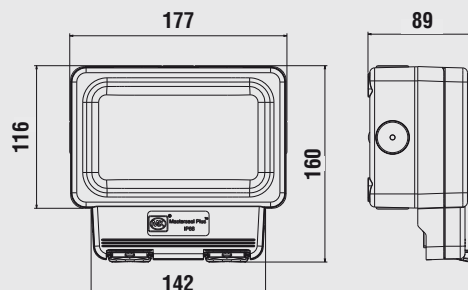
Sentrysocket provides a high level of protection for portable equipment when used in damp environments or outdoors.

#### FEATURES

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Comply fully with current Wiring Regulations if installed correctly
- Double pole switching
- Flexible and versatile in use
- Ideal for use with equipment subject to wet weather or high humidity
- They are a.c. and pulsating d.c. fault current sensitives
- Products are available in grey, black and white

### Dimensions (mm)

Single and double Sentrysockets are identical in size and shape.  
The following dimensions apply



Masterseal Plus™  
Sentrysocket is suitable for surface mounting only.

### Active control circuits

Incorporate a 'Re-set' mechanism and are mains failure sensitive, ie they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

### Passive control circuit

Incorporates a 'Stay-set' mechanism and is mains failure proof, ie it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

# Masterseal Plus™ Technical



## 16A 2P+E Socket Outlet (Non UK)

### Standards and approvals

Complies with IEC 60884-1:2006

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### SUPPLY VOLTAGE

250V a.c.

###### CURRENT RATING

16A

###### TERMINAL CAPACITY

Supply Line, Neutral and Earth

4 x 1.5mm<sup>2</sup>

2 x 2.5mm<sup>2</sup>

2 x 4mm<sup>2</sup>

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

0°C to +40°C

###### IP RATING

IP66

###### MAX. INSTALLATION ALTITUDE

2000 metres

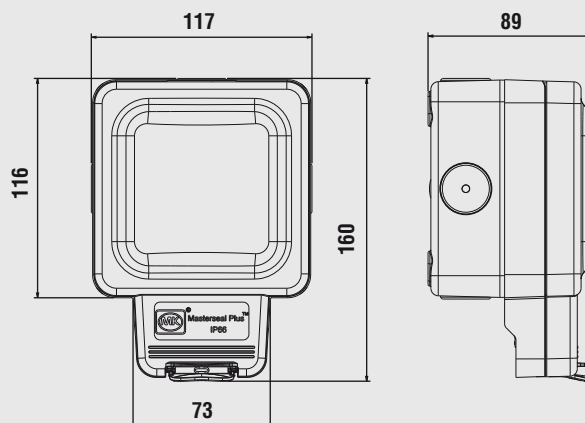


16A 2P + E German socket outlet is suitable for surface mounting only.

#### FEATURES

- IP66 protected to BS EN 60529:1992
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any plug with a right-angled cable exit, including those with moulded on plug tops
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- Products are available in grey, black and white

### Dimensions (mm)





## 13A Connection Units

### Standards and approvals

All Masterseal Plus™ Connection Units comply with BS 1363 Part 4:1995. All units are fitted with a 13A fuse link to BS 1362.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

**VOLTAGE RATING**  
250V a.c.

**CURRENT RATING**  
Connection units – 13 amp

##### TERMINAL CAPACITY

Supply terminal  
2 x 6mm<sup>2</sup> stranded  
3 x 4mm<sup>2</sup>  
3 x 2.5mm<sup>2</sup>  
3 x 1.5mm<sup>2</sup>

##### LOAD TERMINALS

1 x 1.5mm<sup>2</sup>

##### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
–5°C to +40°C

**IP RATING**  
IP66

**MAX. INSTALLATION ALTITUDE**  
2000 metres



### Description

Masterseal Plus™ connection units are specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the range is sealed to IP66 against dust, water and is impact resistant and will completely protect and provide a safe connection to any appliance.

#### FEATURES

- IP66 protected to BS EN 60529:1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- Screw fitted fuse carrier
- Fuse carrier lockable in open position
- Captive fuse carrier
- 3mm minimum switch contact gap
- Double pole switching
- Moulded 'on' indicator flash on switches will not rub off

### Impact Resistance

All Masterseal Plus™ products have an impact resistance equivalent to a 500g object falling from a height of 40cm.

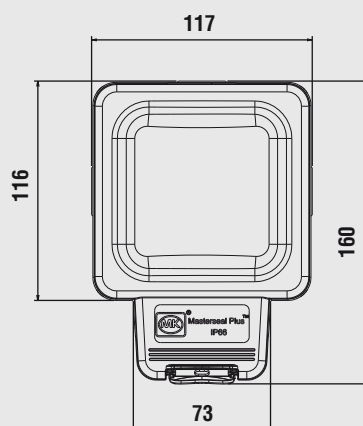
### Boxes

Rear entry back boxes are supplied for 'tamper proof' surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502). These boxes must also be used if cable or conduit enters the enclosure from the rear.

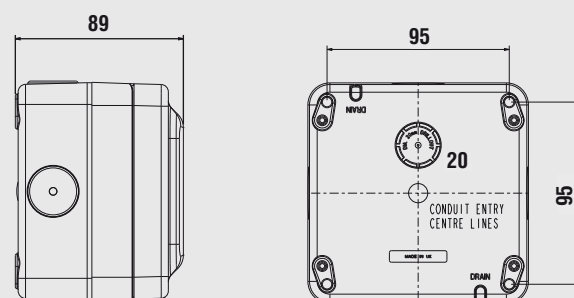
### Installation

Masterseal Plus connection units can be wall or bench mounted. Do not use on a trailing lead.

### Dimensions (mm)



### Fixing Dimensions



# Masterseal Plus™ Technical



## Switches

### Standards and approvals

Switches and enclosures comply with BS EN 60669-1:1999 and are IP66 for BS EN 60529:1992.

Switch modules comply with BS EN 60669-1:1999.

All products comply with or allow compliance with BS 7671:2008.



### TECHNICAL SPECIFICATION

#### ELECTRICAL

**SUPPLY VOLTAGE**  
250V a.c.

**CURRENT RATING**  
10 or 20 amps – no derating when used on fluorescent or inductive loads.

**LOAD TYPE**  
No restriction

#### PHYSICAL

**AMBIENT OPERATING TEMPERATURE**  
0°C to +40°C

**IP RATING**  
IP66 (Grid Plus enclosures are IP56)

**MAX. INSTALLATION ALTITUDE**  
2000 metres

### Description

A range of switches and enclosures specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water.

Constructed from extremely robust polycarbonate, the range is sealed to \*IP66 against dust, water and is impact resistant. Masterseal Plus™ is easy to install and the large rocker switches and clip in modules make it easy to use, even when wearing heavy gloves.

#### FEATURES

- IP66 protected to BS EN 60529:1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- Large, easy to use rocker switches
- Wide range of switch modules and accessories make Masterseal Plus™ versatile
- Switch modules snap into position

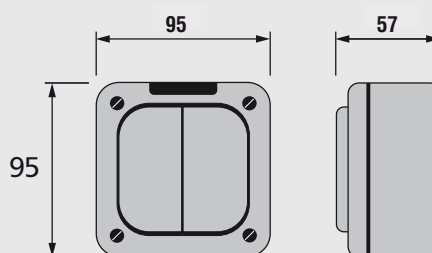
### Boxes

Rear entry back boxes are supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezels (56502). These boxes must also be used if cable or conduit enters the enclosure from the rear.

### Customer Configurable Grid – K56414

1. Up to two wiring device modules may be selected from the MK Grid Plus modular range and fitted to the configurable grid enclosure.
2. If a TV outlet is to be fitted in combination with a mains voltage device, then it is essential that the cabling and modules are isolated from each other.
3. Grid modules are assembled into the front face of the front plate and clip firmly into position.
4. Two bezel mouldings are supplied. Select the appropriate bezel depending on whether one or two modules are fitted, locate in position and secure with the two screws provided as shown in Figure 1.

### Dimensions (mm)



### Fixing dimensions

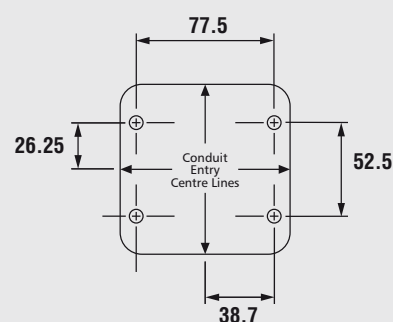
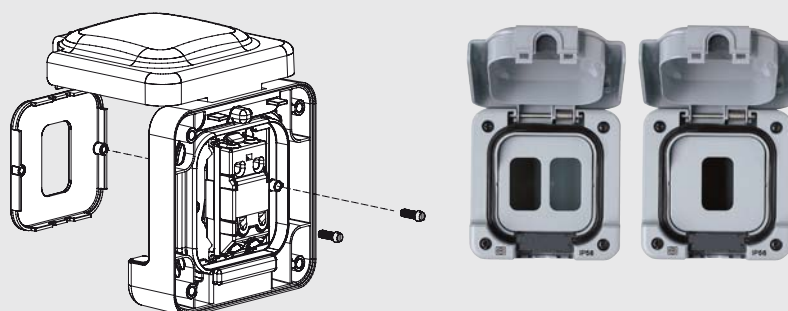


Figure 1



# Masterseal Plus™

## Technical

### Euro Enclosure and Telephone and Data Modules

#### Standards and approvals

Telephone sockets K5820 and K5821 comply with the following: BS 6312-2.

K5844/K5845/K5845s comply with: ISO/IEC 11801, EN 50173, TIA 568, and EN 41003.

K5887 complies with FCC68 and EN 41003.

#### TECHNICAL SPECIFICATION

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

0°C to +40°C

##### IP RATING

IP66

##### MAX. INSTALLATION ALTITUDE

2000 metres



#### Description

A range of Euro telephone, data and blank modules and weatherproof enclosure. Enclosure accommodates 2 modules providing care is used to ensure that the cables are correctly routed through the outlet.

#### Installation (Telephone socket modules)

##### Product performance, systems compatibility

**Master Sockets:** For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

**Secondary Sockets:** for use as extension sockets when connected on the same line as a Master Socket.

#### FEATURES

- IP66 protected to BS EN 60529:1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc.
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- Products are available in grey, white and black

#### MODULE DIMENSIONS (MM)

25 x 50

For euro module wiring diagrams, please refer to wiring devices technical section, pages 467-475

# Masterseal Plus™ Technical



## Installation

### Notes

1. The enclosure is made from polycarbonate which is a highly durable material, and ideal for most environments. However, if installing in areas where creosote, some chemicals, synthetic oils and harsh cleaners are used, seek advice from MK Technical Sales Service Department or refer to the table on page 249.
2. The enclosure must be mounted on a flat, vertical surface that is free from grease, dirt and loose material.
3. If the conduit cable entry is from the top or sides the lower drain hole in the mounting box must be drilled out using a 5mm diameter drill bit. This will allow any condensation formed in the conduit system to drain out of the unit.

NOTE: opening the drain hole will reduce the IP rating; therefore ensure that jetted water is not directed at the unit.

4. The drain hole should not be drilled out if the enclosure is to be installed in an excessively dusty environment. If the drain hole is not drilled out, only the bottom cable entry must be used.
5. If conduit is used for bottom cable entry, a 5 mm diameter drain hole needs to be drilled in the lowest point of the conduit run.
6. If wiring directly to the enclosure without conduit and the installation is outdoors, ensure that a cable specified for outside use is used.
7. PVC Cable Entry (see Service Items) must only be used at the bottom cable entry of the enclosure.

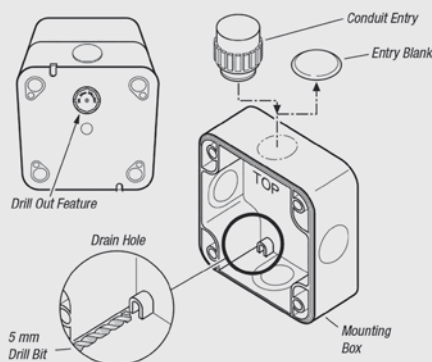
NOTE: If using box coupler 56464 to join boxes use a suitable sealant to ensure full IP protection is maintained.

### Instructions

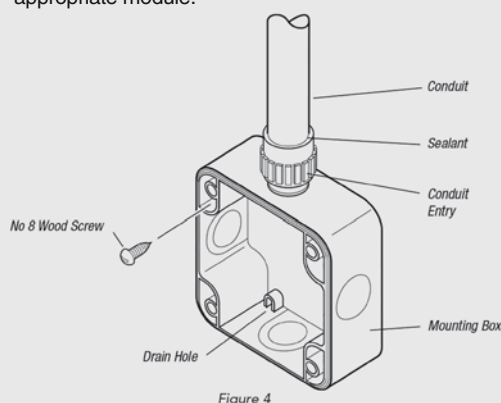
#### CAUTION

Do not allow paint or wood preservative to come into contact with the product. The product can be safely mounted on painted surfaces or surfaces treated with wood preservative when the paint or wood preservative is completely dry.

1. Read the safety instructions.
2. Mark the position of the fixing holes for the mounting box.
3. Drill holes and fit wall plugs suitable for a No. 8 wood screw.
4. Prior to fitting the mounting box to the wall, drill out the drain hole if required (see Installation Note 3). File out the complete drain hole profile. Take care not to damage the small internal wall.
5. Carefully remove the cable entry blanks, or drill out the rear cable entry, as required and fit conduit entry (see Service Items).
6. Secure the mounting box to wall with four No. 8 wood screws. Position drain hole at bottom left hand corner.
7. Align and install conduit or cable entry as required.
8. Seal the conduit and conduit entry with a non setting conduit sealant such as EWPLUS. Refer to Figure 4.



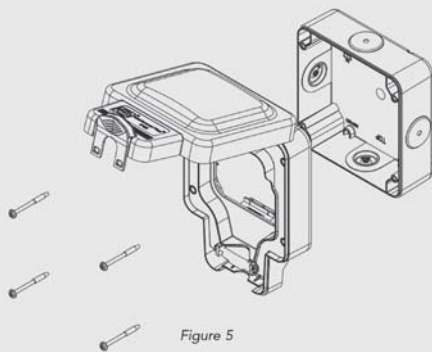
9. For instructions on how to wire the front plate of telephone and data products see the instruction leaflets supplied with the appropriate module.



10. Before wiring and fitting the front plate, position the seal on the front plate. Ensure the holes are aligned and seal is aligned with the ribs on the mounting box and the cables are threaded through the seal and screws are fully tightened.

## Installation

- 11.** Wire and fit the front plate. Ensure the seal is correctly located and the cables are not trapped or pinched.



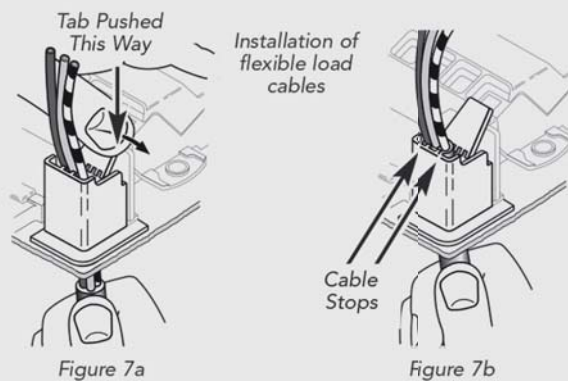
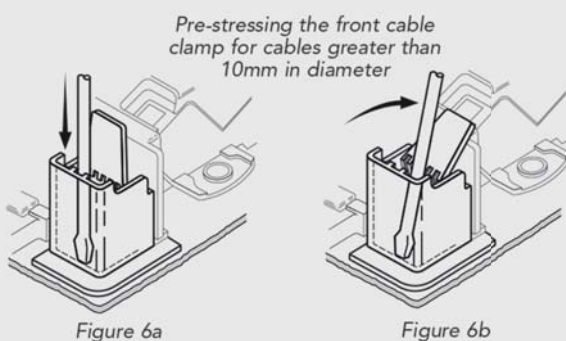
### When installing connection units using the front flexible cable clamp

1. Strip back the outer sheath on the appliance flexible LOAD cable and trim wires to 55mm in length. Do not trim the insulation on the three individual cables for the moment.
2. When using cables of 10mm or more in diameter, it is necessary to prestress the cable clamp before attempting to load the cable.
3. To pre-stress the clamp insert a flat bladed screwdriver into the cord grip as shown in fig. 6a and flex the clamping jaw open until it touches the grey base moulding fig. 6b. Then remove the screwdriver.

**IMPORTANT:** The clamp must not be re-used for cables below 6mm diameter after pre-stressing.

4. Cables below 10mm diameter do not need the cable clamp pre-stressed and the installation from this point is the same for all products.
5. To assist pushing the load cable through the front of the product, ease the clamping jaw pressure by holding the product securely in one hand and pushing the tab firmly with your thumb in the direction shown in fig. 7a.
6. Continue pushing the cable through the clamp until the outer sheath reaches the cable stops. See fig. 7b. The jaws must clamp on the outer sheath.
7. Carefully strip back the insulation on all three cables to expose 10mm of the conductor.
8. Ensure all conductors are connected to the appropriate terminals.

**NOTE:** Terminal screws must be securely tightened. Pull on each cable to ensure that the terminal screw has securely fixed the conductor.



## Testing

Test the completed installation in accordance with the latest edition of the IET wiring regulations (BS 7671).

## Service and Maintenance

### CLEANING

1. The exterior of the product must only be cleaned with a solution of mild detergent (e.g. washing up liquid) and warm water.

# Masterseal Plus™

## Technical



### Polycarbonate Chemical Resistance Table

| REAGENT                    | CONCENTRATION | RESISTANCE |
|----------------------------|---------------|------------|
| ACETIC ACID, AQUEOUS       | 40            | ■          |
| ACETIC ACID, AQUEOUS       | 5             | ▲          |
| ACETONE                    |               | ■          |
| AMMONIA, AQUEOUS           | 10            | ■          |
| BENZENE                    |               | ■          |
| BEVERAGES, ALCOHOLIC       |               | ▲          |
| BITUMEN                    |               | Not tested |
| BLEACHING LYE, AQUEOUS     |               | ■          |
| BORIC ACID                 |               | ▲          |
| BUTANOL                    |               | ■          |
| BUTTER                     |               | ●          |
| BUTYRIC ACID               |               | ■          |
| CALCIUM CHLORIDE, AQUEOUS  | 10            | ▲          |
| CARBON TETRACHLORIDE       |               | ■          |
| CHLORINE GAS               |               | ●          |
| CHLORINE, AQUEOUS SOLUTION |               | ■          |
| CHLOROFORM                 |               | ■          |
| CITRIC ACID, AQUEOUS       | 10            | ▲          |
| COCONUT OIL                |               | ▲          |
| DIESEL FUEL                |               | ●          |
| EDIBLE FATS                |               | ▲          |
| EDIBLE OILS                |               | ▲          |
| ETHANOL                    | 96            | ▲          |
| ETHYLENE ACETATE           |               | ■          |
| ETHYLENE ETHER             |               | ■          |
| FORMALDEHYDE, AQUEOUS      | 30            | ▲          |
| FORMIC ACID, AQUEOUS       | 40            | ●          |
| FREON, LIQUID              |               | ▲          |
| FRIGEN, LIQUID             |               | ▲          |
| FRUIT JUICES               |               | ▲          |
| FUEL OIL (HEATING)         |               | ●          |
| GAS LIQUOR                 |               | Not tested |
| GLYCERINE                  |               | ▲          |
| GLYCOL                     |               | ▲          |
| GLYSANTINE, AQUEOUS        | 40            | Not tested |
| HEXANE                     |               | ▲          |
| HYDROCHLORIC ACID, AQUEOUS | 2             | ■          |
| HYDROFLUORIC ACID, AQUEOUS | 40            | ▲          |
| HYDROGEN PEROXIDE, AQUEOUS | 10            | ▲          |
| INK                        |               | ▲          |
| IODINE TINCTURE, ALCOHOLIC |               | ■          |

#### Key

- ▲ Resistant
- Limited resistance
- Not resistant

NOTE: Caution is advised to ensure compatibility of cleaning agents used in the vicinity of Polycarbonate plastics, particularly if frequent cleaning is employed.

### Polycarbonate Chemical Resistance Table

| REAGENT                               | CONCENTRATION | RESISTANCE |
|---------------------------------------|---------------|------------|
| KEROSENE                              |               | ■          |
| LATIC ACID, AQUEOUS                   | 10            | ▲          |
| LAVENDER OIL                          |               | Not tested |
| LINSEED OIL                           |               | Not tested |
| MACHINE OILS                          |               | ■          |
| MERCURY                               |               | ▲          |
| METHANOL                              |               | ■          |
| METHYLENE CHLORIDE                    |               | ■          |
| MILK                                  |               | ▲          |
| MINERAL OILS                          |               | ▲          |
| NITRIC ACID, AQUEOUS                  | 2             | ▲          |
| OLEIC ACID                            |               | ▲          |
| OZONE                                 |               | ▲          |
| PARAFFIN OIL                          |               | ▲          |
| PEPPERMINT OIL                        |               | Not tested |
| PERFUMES                              |               | ■          |
| PETROL (GASOLINE)                     |               | ●          |
| PHENOL, AQUEOUS                       |               | ■          |
| PHOSPHORIC ACID, AQUEOUS              | 10            | ■          |
| POTASSIUM HYDROXIDE SOLUTION, AQUEOUS | 5             | ■          |
| POTASSIUM HYDROXIDE SOLUTION, AQUEOUS | 50            | ■          |
| ROSE OIL                              |               | ●          |
| SALT SOLUTION, HOUSEHOLD, AQUEOUS     | 10            | ▲          |
| SILICON OILS                          |               | ▲          |
| SOAP SOLUTION, AQUEOUS                |               | ▲          |
| SODA SOLUTION, AQUEOUS                | 10            | ▲          |
| SODIUM HYDROXIDE SOLUTION, AQUEOUS    | 10            | ■          |
| SODIUM, AQUEOUS                       | 10            | Not tested |
| SULPHUR                               |               | ▲          |
| SULPHURIC ACID, AQUEOUS               | 10            | ▲          |
| TALLOW                                |               | ▲          |
| TAR                                   |               | ▲          |
| TETRACHLOROETHENE                     |               | ■          |
| TOLUENE                               |               | ■          |
| TRICHLORETHANE                        |               | ■          |
| VASELINE                              |               | ▲          |
| WATER                                 |               | ▲          |
| WATER, HOT (80°C)                     |               | ●          |
| WAX, MELTED                           |               | Not tested |
| XYLENE                                |               | ■          |

#### Key

- ▲ Resistant
- Limited resistance
- Not resistant

NOTE: Caution is advised to ensure compatibility of cleaning agents used in the vicinity of Polycarbonate plastics, particularly if frequent cleaning is employed.



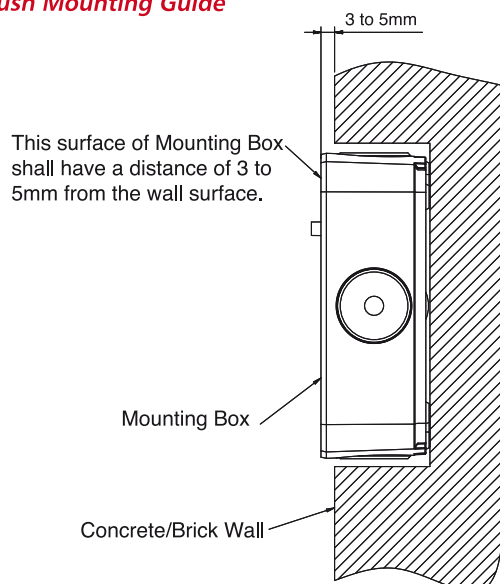
# Masterseal Compact Technical



## Product Range Features

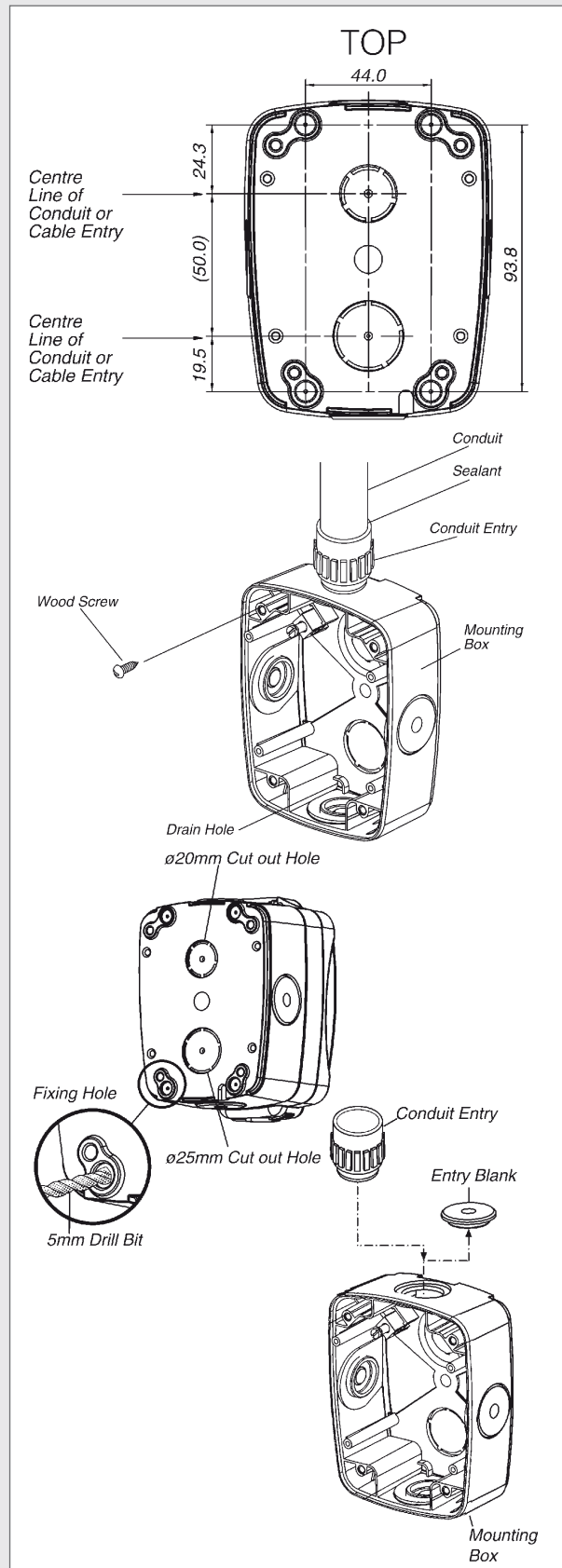
- Surface mounted and flush mounted products and associated service items are available.
- If flush mounting is intended, the conduit cable entry shall be installed from the rear of the mounting box.
- Suitable for indoor and outdoor use wherever dirt and moisture protection is required. All products accept MK push in conduit and cable entries.
- The use of Polycarbonate for the housing of the products created a robust range of switches and socket outlets.
- Provided all enclosure lids are closed and the products are correctly installed, the Masterseal™ Compact range offers an international protection code of IP66 when the products are in or out of use.

### Flush Mounting Guide



- Only plugs that have cable entry from a side edge will allow the lid to close correctly.
- All products conform to their relevant National standard as well as the standard for enclosures BSEN/IEC60529.  
13AMP Sockets conform to BS1363 : Part 2, connection units to BS1363:Part 4 and switches to IEC60669-1.

## Installation Guide



# Masterseal Compact Technical

## Service Items

| List No. | Description                 | D x H mm         |
|----------|-----------------------------|------------------|
| 56460    | Entry Blank                 | 26.9 dia x 5.25  |
| 56461    | PVC Cable Entry             | 26.9 dia x 10.15 |
| 56462    | 20mm Plain Conduit Entry    | 26.9 dia x 28    |
| 56463    | 20mm Threaded Conduit Entry | 26.9 dia x 28    |
| 56464    | Box Coupler                 | 26.9 dia x 16.5  |
| 9933     | M20 Earth Lead Adaptor      |                  |

## Safety Instructions

Switch off and isolate the mains supply before carrying out installation of the Masterseal™ Compact product.

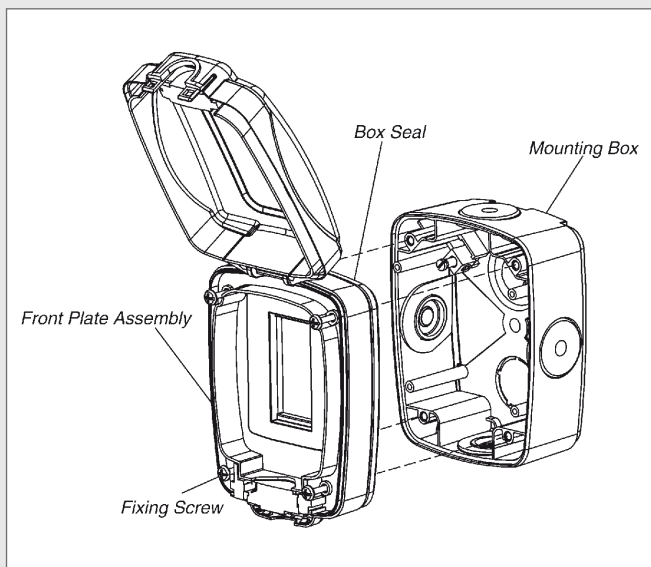
1. The Masterseal™ Compact Euro Data Enclosure 86540 and 86541 are intended for use with extra low voltage data and telephone modules. Data and telephone outlets must not be mixed with other modules intended for mains supply (110-250 VAC 50/60Hz).
2. This product should be installed by a competent person (eg. a qualified electrician).
3. It is essential that all connections are made as instructed, such that cables are not stressed and terminals are fully tightened.

The box seal is attached on the front plate. Ensure the holes are aligned and the slot in the seal is aligned with the ribs on the mounting box.

Wire and fit the front plate. Ensure the seal is correctly located and no cables are trapped.

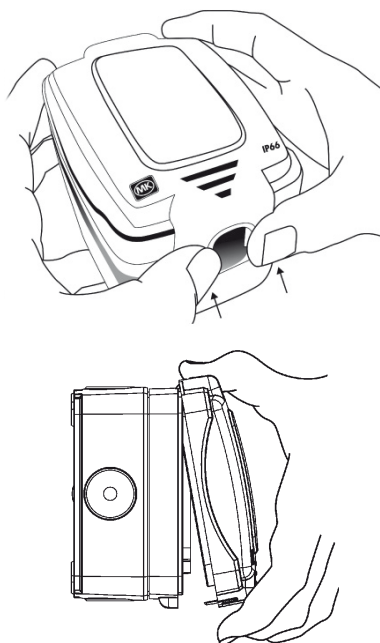
The full IP66 rating is only achieved when the lid is clipped in the closed position.

Do not operate with damp hands or whilst it is raining.



## User Guide

Method to release Lid Latch



For the enclosure of a socket-outlet, ensure the cable to the appliance is positioned so as to pass through the gel seal before closing the lid, thereby preventing accidental damage to the cable. The gel seal may stain the cable sleeve, this does not cause harm to the cable.

## Specification

This product complies with the following standard.

|                          |                             |
|--------------------------|-----------------------------|
| General                  | BS 5733                     |
| 13A Socket-outlet        | BS 1363-2                   |
| 15A Socket-outlet        | BS 546                      |
| Connection Unit          | BS 1363-4                   |
| Switch                   | IEC 60669-1                 |
| Environmental Protection | BSEN/IEC60529               |
| Operating Temperature    | -50C to +400C               |
| Material                 | Polycarbonate UV stabilised |

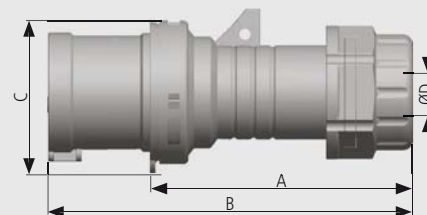
| IP                 | 6  | 6  |
|--------------------|--|--|
| Ingress protection | Dustproof to sawdust, dust and other small particles | Waterproof to strong jets of water, from any direction |

# Commando Technical



## Plugs 16 and 32 Amp

**IP44 SPLASHPROOF**



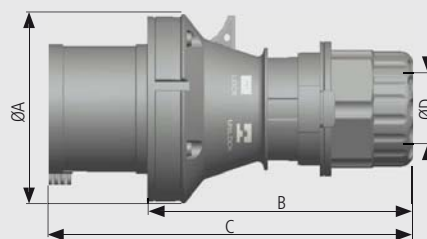
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |      | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |      |      |
|------|--------------------|---------------------|---------------------|---------------------|---------------------|------|---------------------------------------|------------------|------|------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX  |                                       | A                | B    | C    |
| 16A  | 2P+E               | K9000YEL            | K9001BLU 6          |                     | 8.2                 | 13   | 1-2.5                                 | 132.3            | 95.5 | 55.5 |
| 16A  | 3P+E               |                     | K9006BLU 6          | K9007RED 6          | 8.9                 | 15.5 | 1-2.5                                 | 132.3            | 95.5 | 61.5 |
| 16A  | 3P+N+E             |                     | K9014BLU 9          | K9015RED 6          | 10.1                | 17   | 1-2.5                                 | 132.3            | 95.5 | 67.5 |
| 32A  | 2P+E               | K9032YEL 4          | K9033BLU 6          |                     | 11.7                | 18   | 2.5-6                                 | 135.8            | 90   | 72.5 |
| 32A  | 3P+E               |                     | K9036BLU            | K9037RED 6          | 11.7                | 22   | 2.5-6                                 | 135.8            | 90   | 72.5 |
| 32A  | 3P+N+E             |                     | K9044BLU 9          | K9045RED 6          | 14.2                | 22   | 2.5-6                                 | 141.8            | 95.8 | 79.7 |

Earth Hour Position

\*Flexible conductors

## Plugs 63 Amp

**IP44 SPLASHPROOF**



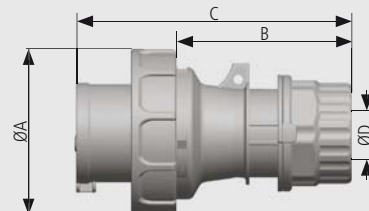
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |       |      |
|------|--------------------|---------------------|---------------------|---------------------|---------------------|-----|---------------------------------------|------------------|-------|-------|------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX |                                       | A                | B     | C     | D    |
| 63A  | 2P+E               | K9063BLU 6          |                     |                     | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 | 36.4 |
| 63A  | 3P+E               |                     | K9066RED 6          |                     | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 | 36.4 |
| 63A  | 3P+N+E             |                     |                     | K9071RED 6          | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 | 36.4 |

Earth Hour Position

\*Flexible conductors

## Plugs 16 and 32 Amp

**IP67 WATERTIGHT**



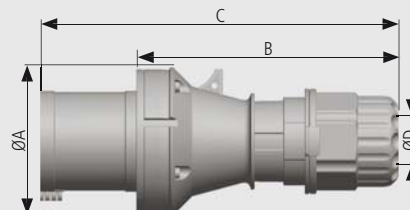
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |       |
|------|--------------------|---------------------|---------------------|---------------------|---------------------|-----|---------------------------------------|------------------|-------|-------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX |                                       | A                | B     | C     |
| 16A  | 2P+E               | K9023YEL 4          | K9024BLU 6          |                     | 8.2                 | 13  | 1-2.5                                 | 72               | 81.2  | 117.6 |
| 16A  | 3P+E               |                     |                     | K9025RED 6          | 8.9                 | 17  | 1-2.5                                 | 75.4             | 87.2  | 123.6 |
| 16A  | 3P+N+E             |                     |                     | K9026RED 6          | 10.1                | 17  | 1-2.5                                 | 88               | 93.6  | 129.6 |
| 32A  | 2P+E               |                     | K9054BLU 6          |                     | 11.7                | 18  | 2.5-6                                 | 92               | 97.2  | 142.6 |
| 32A  | 3P+E               |                     |                     |                     |                     |     |                                       |                  |       |       |
| 32A  | 3P+N+E             |                     |                     | K9056RED 6          | 14.2                | 22  | 2.5-6                                 | 98               | 102.9 | 148.3 |




Earth Hour Position

\*Flexible conductors

## Plugs 63 Amp

**IP67 WATERTIGHT**



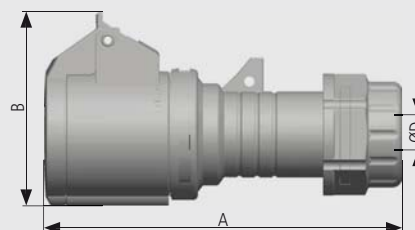
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ   | 200-250V<br>50-60HZ   | 380-415V<br>50-60HZ   | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |       |
|------|--------------------|---|---|---|---------------------|-----|---------------------------------------|------------------|-------|-------|
|      |                    | LIST NO  | LIST NO  | LIST NO  | MIN                 | MAX |                                       | A                | B     | C     |
| 63A  | 2P+E               | K9063BLU 6  |   |   | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 |
| 63A  | 3P+E               |   | K9066RED 6  |   | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 |
| 63A  | 3P+N+E             |   | K9292RED 6  | K9071RED 6  | 16.5                | 36  | 6-16                                  | 102              | 180.8 | 247.3 |




 Earth Hour Position


\*Flexible conductors

## Connectors 16, 32 and 63 Amp

**IP44 SPLASHPROOF**



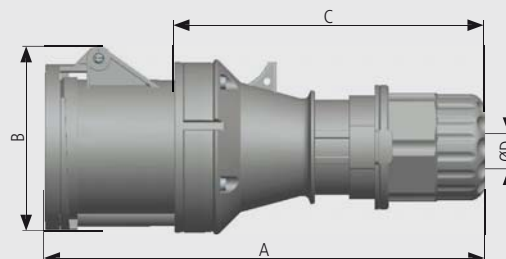
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ   | 200-250V<br>50-60HZ   | 380-415V<br>50-60HZ   | CABLE DIAMETER D MM |      | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |      |
|------|--------------------|---|---|---|---------------------|------|---------------------------------------|------------------|------|
|      |                    | LIST NO  | LIST NO  | LIST NO  | MIN                 | MAX  |                                       | A                | B    |
| 16A  | 2P+E               | K9100YEL 4  | K9101BLU 6  |   | 8.2                 | 13   | 1-2.5                                 | 142              | 77.3 |
| 16A  | 3P+E               |   |   | K9107RED 6  | 8.9                 | 15.5 | 1-2.5                                 | 142              | 80.8 |
| 16A  | 3P+N+E             |   |   | K9115RED 6  | 10.1                | 17   | 1-2.5                                 | 142              | 90   |
| 32A  | 2P+E               | K9132YEL 4  | K9133BLU 6  |   | 11.7                | 18   | 2.5-6                                 | 148              | 92   |
| 32A  | 3P+N+E             |   | K9143BLU 9  | K9144RED 6  | 11.1                | 22   | 2.5-6                                 | 154              | 98.5 |
| 63A  | 3P+N+E             |   |   | K9170RED 6  | 16.5                | 36   | 6-16                                  | 109.5            | 256  |



 Earth Hour Position


\*Flexible conductors

## Connectors 63 Amp

**IP44 SPLASHPROOF**



| AMPS | PIN. CONFIGURATION | 200-250V<br>50-60HZ   | 380-415V<br>50-60HZ   | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |     |      |
|------|--------------------|---|---|---------------------|-----|---------------------------------------|------------------|-----|------|
|      |                    | LIST NO  | LIST NO  | MIN                 | MAX |                                       | A                | B   | C    |
| 63A  | 2P+E               | K9172BLU 6  |   | 16.5                | 36  | 6-16                                  | 109.5            | 256 | 36.4 |
| 63A  | 3P+E               |   |   |                     |     |                                       |                  |     |      |
| 63A  | 3P+N+E             |   | K9170RED 6  | 16.5                | 36  | 6-16                                  | 109.5            | 256 | 36.4 |

 Earth Hour Position

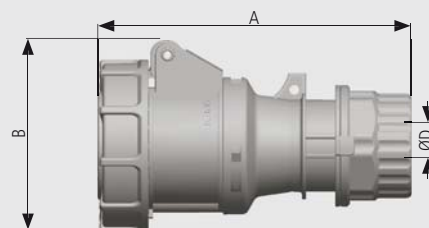
\*Flexible conductors

# Commando Technical



## Connectors 16 and 32 Amp

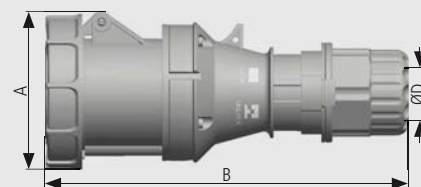
**IP67 WATERTIGHT**



| AMPS                | PIN.<br>CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER<br>D MM |      | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS<br>IN MM |     |
|---------------------|-----------------------|---------------------|---------------------|---------------------|------------------------|------|--|---------------------|-----|
|                     |                       | LIST NO             | LIST NO             | LIST NO             | MIN                    | MAX  |  | A                   | B   |
| 16A                 | 2P+E                  | K9123YEL 4          | K9124BLU 6          |                     | 8.2                    | 13   | 1-2.5                                    | 151                 | 80  |
| 16A                 | 3P+E                  |                     |                     | K9125RED 6          | 8.9                    | 17   | 1-2.5                                    | 168                 | 88  |
| 16A                 | 3P+N+E                |                     |                     | K9126RED 6          | 10.1                   | 21.5 | 1-2.5                                    | 170                 | 97  |
| 32A                 | 2P+E                  | K9155YEL 4          | K9156BLU 6          |                     | 11.7                   | 21.5 | 2.5-6                                    | 177                 | 102 |
| 32A                 | 3P+E                  |                     |                     | K9157RED 6          | 11.7                   | 21.5 | 2.5-6                                    | 177                 | 102 |
| 32A                 | 3P+N+E                |                     |                     | K9158RED 6          | 14.2                   | 21.5 | 2.5-6                                    | 182                 | 109 |
| Earth Hour Position |                       |                     |                     |                     |                        |      | *Flexible conductors                     |                     |     |

## Connectors 63 Amp

**IP67 WATERTIGHT**

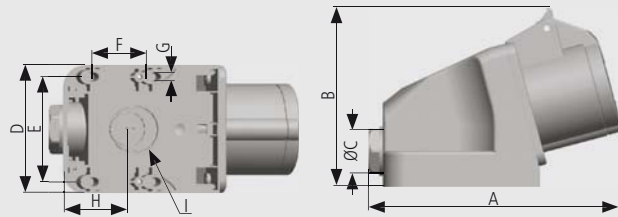


| AMPS                | PIN.<br>CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER<br>D MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS<br>IN MM |     |
|---------------------|-----------------------|---------------------|---------------------|---------------------|------------------------|-----|--|---------------------|-----|
|                     |                       | LIST NO             | LIST NO             | LIST NO             | MIN                    | MAX |  | A                   | B   |
| 63A                 | 2P+E                  | K9855YEL 4          | K9856BLU 6          |                     | 14                     | 41  | 4 - 16                                   | 286                 | 111 |
| 63A                 | 3P+E                  |                     |                     | K9842RED 6          | 16.5                   | 41  | 4 - 16                                   | 286                 | 111 |
| 63A                 | 3P+N+E                |                     |                     | K9852RED 6          | 16.5                   | 41  | 4 - 16                                   | 286                 | 111 |
| Earth Hour Position |                       |                     |                     |                     |                        |     | *Flexible conductors                     |                     |     |

## Socket Outlets Angled Surface Mounting 16 and 32 Amp

FITTED WITH CABLE ENTRY GLAND THREAD SIZE M48

**IP44 SPLASHPROOF**



| AMPS                  | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |      | TERMINAL CAPACITY*<br>MM²     | DIMENSIONS IN MM |     |    |    |    |    |   |    |        |
|-----------------------|--------------------|---------------------|---------------------|---------------------|---------------------|------|-------------------------------|------------------|-----|----|----|----|----|---|----|--------|
|                       |                    | LIST NO 🌐           | LIST NO 🌐           | LIST NO 🌐           | MIN                 | MAX  |                               | A                | B   | C  | D  | E  | F  | G | H  | I      |
| 16A                   | 2P+E               | K9200YEL 4          | K9201BLU 6          |                     | 8.2                 | 13   | 1-2.5                         | 138.7            | 99  | 20 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 16A                   | 3P+E               |                     | K9206BLU 9          | K9207RED 6          | 8.9                 | 15.5 | 1-2.5                         | 138.7            | 101 | 20 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 16A                   | 3P+N+E             |                     | K9214BLU 9          | K9215RED 6          | 10.1                | 17   | 1-2.5                         | 139.7            | 105 | 20 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 32A                   | 2P+E               | K9232YEL 4          | K9233BLU 6          |                     | 11.7                | 18   | 2.5-6                         | 150.6            | 107 | 25 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 32A                   | 3P+E               |                     | K9236BLU 9          | K9237RED 6          | 11.7                | 22   | 2.5-6                         | 150.6            | 107 | 25 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 32A                   | 3P+N+E             |                     | K9240BLU 9          | K9241RED 6          | 11.1                | 22   | 2.5-6                         | 151.6            | 110 | 25 | 71 | 58 | 34 | 5 | 35 | Ø19/26 |
| 🌐 Earth Hour Position |                    |                     |                     |                     |                     |      | *Solid or Stranded conductors |                  |     |    |    |    |    |   |    |        |

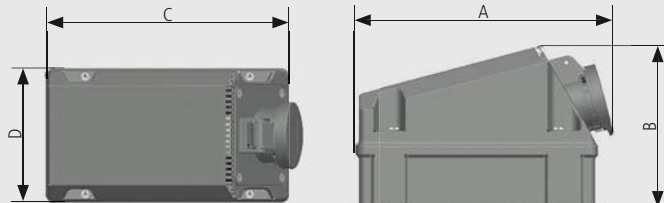
Earth Hour Position

\*Solid or Stranded conductors

## Socket Outlets Angled Surface Mounting 63 Amp

TOP CONDUIT OR REAR CABLE ENTRY, COMPLETE WITH BLANKING PLUG

**IP44 SPLASHPROOF**



| AMPS | PIN. CONFIGURATION | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |       |     |
|------|--------------------|---------------------|---------------------|---------------------------------------|------------------|-------|-------|-----|
|      |                    | LIST NO             | LIST NO             |                                       | A                | B     | C     | D   |
| 63A  | 2P+E               | K9274BLU            |                     | 6-16                                  | 300.8            | 165.4 | 274.5 | 135 |
| 63A  | 3P+N+E             |                     | K9269RED            | 6-16                                  | 300.8            | 166.1 | 275   | 135 |

Earth Hour Position

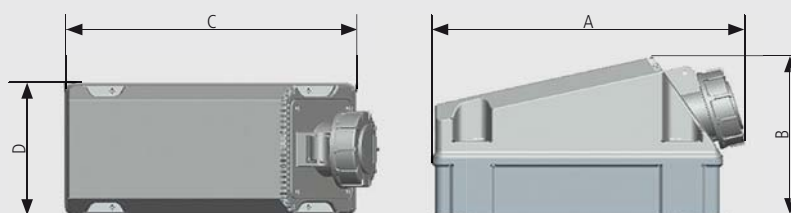
\*Flexible conductors

# Commando Technical



## Socket Outlets Angled Surface Mounting 63 Amp

**IP67 WATERTIGHT**

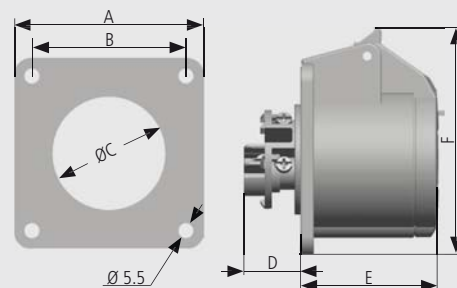


| AMPS                | PIN. CONFIGURATION | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS<br>IN MM |       |       |     |
|---------------------|--------------------|---------------------|---------------------|---------------------------------------|---------------------|-------|-------|-----|
|                     |                    | LIST NO             | LIST NO             |                                       | A                   | B     | C     | D   |
| 63A                 | 2P+E               | K9857BLU            |                     | 6-16                                  | 300.8               | 165.4 | 274.5 | 135 |
| 63A                 | 3P+E               |                     | K9858RED            |                                       | 300.8               | 166.1 | 275   | 135 |
| 63A                 | 3P+N+E             |                     | K9859RED            | 6-16                                  | 300.8               | 166.1 | 275   | 135 |
| Earth Hour Position |                    |                     |                     | *Flexible conductors                  |                     |       |       |     |

## Socket Outlets Straight Panel Mounting 16 and 32 Amp

ALL FLANGES HAVE THE SAME FIXING CENTRES AND OUTSIDE DIMENSIONS TO ASSIST PANEL BUILDING.

**IP44 SPLASHPROOF**

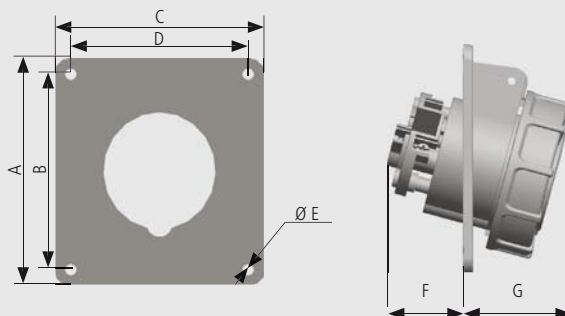


| AMPS                | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |    |    |      |      |      |
|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-----|---------------------------------------|------------------|----|----|------|------|------|
|                     |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX |                                       | A                | B  | C  | D    | E    | F    |
| 16A                 | 2P+E               | K9400YEL 4          | K9401BLU 6          |                     | 8.2                 | 13  | 1-2.5                                 | 70               | 56 | 41 | 20.9 | 50   | 83   |
| 32A                 | 2P+E               | K9432YEL 4          | K9433BLU 6          |                     | 11.7                | 18  | 2.5-6                                 | 70               | 56 | 55 | 26.5 | 60.4 | 92   |
| 32A                 | 3P+N+E             |                     |                     | K9445RED 6          | 11.1                | 22  | 2.5-6                                 | 70               | 56 | 55 | 26.5 | 60.4 | 98.5 |
| Earth Hour Position |                    |                     |                     |                     |                     |     | *Solid or Stranded conductors         |                  |    |    |      |      |      |



## Socket Outlets Angled Panel Mounting 16 and 32 Amp

**IP67 WATERTIGHT**



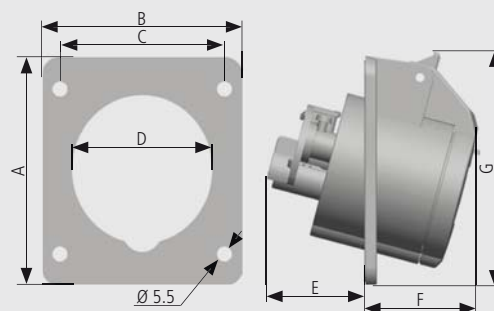
| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |    |    |    |   |      |      |
|------|--------------------|---------------------|---------------------|---------------------|---------------------|-----|---------------------------------------|------------------|----|----|----|---|------|------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX |                                       | A                | B  | C  | D  | E | F    | G    |
| 16A  | 2P+E               | K9802YEL 4          |                     |                     |                     |     | 1-2.5                                 | 100              | 85 | 92 | 77 | 5 | 33.6 | 46.8 |

Earth Hour Position

\*Solid or Stranded conductors

## Socket Outlets Angled Panel Mounting 16 and 32 Amp

**IP44 SPLASHPROOF**



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER D MM |     | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |    |    |      |    |    |      |
|------|--------------------|---------------------|---------------------|---------------------|---------------------|-----|---------------------------------------|------------------|----|----|------|----|----|------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | MIN                 | MAX |                                       | A                | B  | C  | D    | E  | F  | G    |
| 16A  | 2P+E               |                     | K9771BLU 6          |                     | 8.2                 | 13  | 1-2.5                                 | 84               | 74 | 60 | 51.2 | 36 | 41 | 85.6 |

Earth Hour Position

\*Solid or Stranded conductors

# Commando Technical

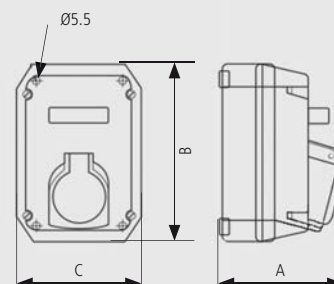


## Switchsocket Outlets Interlocked Angled Surface Mounting 16, 32 and 63 Amp

SWITCH CAN BE LOCKED IN OPEN OR CLOSED POSITION

**IP44 SPLASHPROOF**

**16 amp and 32 amp**  
Will accept auxiliary contact eg. 6813 and 6814  
M32/M25 conduit entry, with mounting for FL9 flange plate  
**63 amp**  
M40 conduit entry with mounting for FL 13 flange plate  
Switch Utilisation Category AC 22A



| AMPS | PIN. CONFIGURATION | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |     |     | FIXING CENTRES |
|------|--------------------|---------------------|---------------------|---------------------------------------|------------------|-----|-----|----------------|
|      |                    | LIST NO             | LIST NO             |                                       | A                | B   | C   |                |
| 16   | 3P+E               | K9601BLU 9          |                     | 1.5-10                                | 125              | 198 | 135 | 91.5 x 165     |
| 16   | 3P+N+E             | K9607BLU 9          |                     | 1.5-10                                | 125              | 198 | 135 | 91.5 x 165     |
| 32   | 3P+E               |                     |                     | 1.5-10                                | 135              | 198 | 135 | 91.5 x 165     |
| 32   | 3P+N+E             | K9639BLU 9          |                     | 1.5-10                                | 135              | 198 | 135 | 91.5 x 165     |
| 63   | 3P+E               |                     | K9665RED 6          | 6-25                                  | 183              | 228 | 165 | 91.5 x 201     |
| 63   | 3P+N+E             |                     |                     | 6-25                                  | 183              | 228 | 165 | 91.5 x 201     |

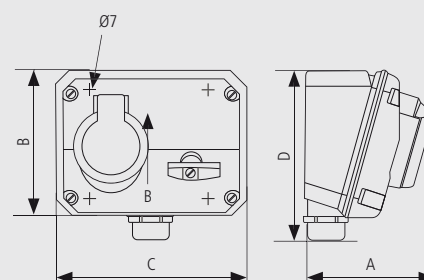
Earth Hour Position

\*Solid or Stranded conductors

## Switchsocket Outlets Interlocked Angled Conduit Entry Surface Mounting 63 Amp

**IP44 SPLASHPROOF**

**16 amp and 32 amp**  
With 29mm knockout at top.  
Will accept FL13 flange.  
Bottom entry M25.  
**63 amp**  
FL13 flange entry at top.  
Supplied with cover plate and gland plate.  
Switch Utilisation Category AC 22A



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |     |     | FIXING CENTRES | CONDUIT ENTRY |
|------|--------------------|---------------------|---------------------|---------------------|---------------------------------------|------------------|-----|-----|----------------|---------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             |                                       | A                | B   | C   |                |               |
| 63   | 2P+E               |                     | K9306BLU 6          |                     | 6-25                                  | 168              | 168 | 206 | 152 x 132      | 2 x 32mm      |

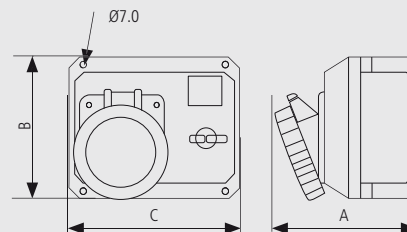
Earth Hour Position

\*Solid or Stranded conductors

## Switchsocket Outlets Interlocked Angled Surface Mounting 63 Amp

**IP67 WATERTIGHT**

**63 amp**  
With 32mm knockouts top and bottom.  
Will accept FL13 flange top and bottom.  
Switch can be locked in open position or closed position.  
Switch Utilisation Category AC 22A



| AMPS       | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |     |     | FIXING CENTRES | CONDUIT ENTRY |
|------------|--------------------|---------------------|---------------------|---------------------|---------------------------------------|------------------|-----|-----|----------------|---------------|
|            |                    | LIST NO             | LIST NO             | LIST NO             |                                       | A                | B   | C   |                |               |
| <b>63A</b> | 3P+E               |                     |                     | K9342RED            | 6-25                                  | 182              | 168 | 206 | 152 x 132      | 2 x 32mm      |

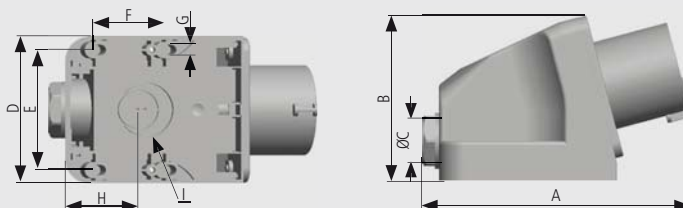
Earth Hour Position

\*Solid or Stranded conductors

## Splashproof Appliance Inlets Angled Surface Mounting 16 and 32 Amp

TOP CONDUIT OR REAR CABLE ENTRY, COMPLETE WITH BLANKING PLUG

**IP44 SPLASHPROOF**



| AMPS       | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE DIAMETER |      | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |     |    |    |     |     |    | TOP CONDUIT ENTRY D | REAR ENTRY G |
|------------|--------------------|---------------------|---------------------|---------------------|----------------|------|---------------------------------------|------------------|-----|----|----|-----|-----|----|---------------------|--------------|
|            |                    | LIST NO             | LIST NO             | LIST NO             | MIN            | MAX  |                                       | B                | C   | C1 | E1 | F   | H   | I  |                     |              |
| <b>16A</b> | 2P+E               |                     | K9701BLU            |                     | 8.2            | 14   | 1.5-10                                | 66               | 75  | 54 | 72 | 5.5 | 110 | 30 | M20                 | Ø23          |
| <b>32A</b> | 2P+E               |                     | K9733BLU            |                     | 11.7           | 19.5 | 1.5-10                                | 85               | 111 | 72 | 94 | 5.5 | 153 | 33 | M25                 | Ø29          |

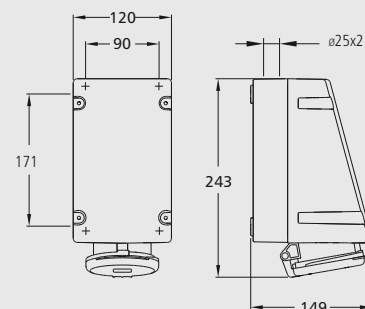
Earth Hour Position

\*Solid or Stranded conductors

# Commando Technical

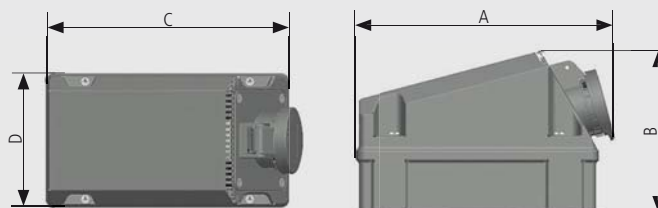


## Socket Outlets Loop in Surface Mounting 16 and 32 Amp



### IP44 SPLASHPROOF

| AMPS                | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE ENTRY<br>KNOCKOUTS | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | FIXING<br>CENTRES<br>MM |
|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------------|--|-------------------------|
|                     |                    | LIST NO             | LIST NO             | LIST NO             |                          |  |                         |
| 32A                 | 2P+E               | K13232YEL 4         |                     |                     | 2 x $\varnothing 25$ top | 2 x (2.5-10)                             | 90 x 170                |
| Earth Hour Position |                    |                     |                     |                     |                          | *Solid or Stranded conductors            |                         |



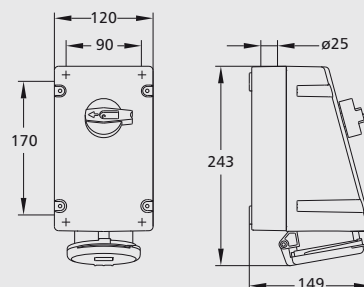
| AMPS                | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |     |     |
|---------------------|--------------------|---------------------|---------------------|---------------------|--|------------------|-------|-----|-----|
|                     |                    | LIST NO             | LIST NO             | LIST NO             |  | A                | B     | C   | D   |
| 16A                 | 2P+E               | K13300YEL           | K13301BLU           |                     | 1-2.5                                    | 227.7            | 143.5 | 215 | 120 |
| 32A                 | 2P+E               |                     | K13333BLU           |                     | 2.5-6                                    | 235.5            | 143.5 | 215 | 120 |
| 32A                 | 3P+N+E             |                     |                     | K13341RED           | 2.5-6                                    | 235.5            | 143.5 | 215 | 120 |
| Earth Hour Position |                    |                     |                     |                     | *Solid or Stranded conductors            |                  |       |     |     |

## Switchsocket Outlets Interlocked Surface Mounting 16 and 32 Amp

(SUITABLE FOR TOP ENTRY)

**IP44 SPLASHPROOF**

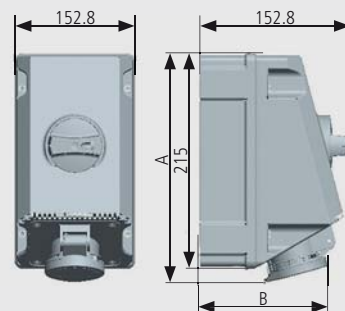
Switch Utilisation Category AC 22A  
Will accept auxiliary contacts 6813 and 6814  
Switch can be locked in open or closed position.



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE ENTRY<br>KNOCKOUTS | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | FIXING<br>CENTRES<br>MM |
|------|--------------------|---------------------|---------------------|---------------------|--------------------------|--|-------------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             |                          |  |                         |
| 16A  | 3P+E               |                     |                     | K13607RED 6         | 2 x Ø25 top              | 1.5-4                                    | 90 x 170                |
| 32A  | 2P+E               | K13632YEL 4         |                     |                     | 2 x Ø25 top              | 2.5-10                                   | 90 x 170                |
| 32A  | 3P+E               |                     |                     | K13637RED 6         | 2 x Ø25 top              | 2.5-10                                   | 90 x 170                |

Earth Hour Position

\*Solid or Stranded conductors

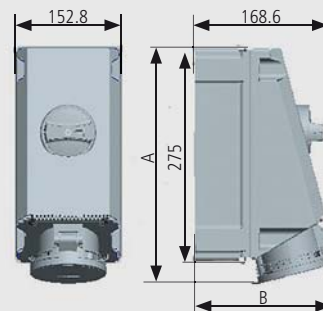


| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 120/208-<br>144/250V<br>50-60HZ | 200/346-<br>240/415V<br>50-60HZ | DIMENSIONS IN<br>MM |       | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS        | FIXING<br>CENTRES |
|------|--------------------|---------------------|---------------------|---------------------|---------------------------------|---------------------------------|---------------------|-------|--|---------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                         | LIST NO                         | A                   | B     |  |                                 |                   |
| 16A  | 2P+E               | K73600YEL 4         | K73601BLU 6         |                     |                                 |                                 | 228                 | 128.5 | 1.5-4                                    | Ø20/25+Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+N+E             |                     |                     |                     | K73603BLU 9                     | K73615RED 6                     | 229                 | 142.5 | 1.5-4                                    | Ø20/25+Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 2P+E               |                     | K73633BLU 6         |                     |                                 |                                 | 235.5               | 148   | 2.5-10                                   | Ø20/25+Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+E               |                     |                     | K73637RED 6         |                                 |                                 | 235.5               | 148   | 2.5-10                                   | Ø20/25+Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+N+E             |                     |                     |                     | K73635BLU 9                     | K73641RED 6                     | 235.5               | 154.5 | 2.5-10                                   | Ø20/25+Ø25/32<br>top and bottom | 108 x 165         |

Earth Hour Position

\*Solid or Stranded conductors

## Switchsocket Outlets Interlocked Surface Mounting 63 Amp



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 120/208-<br>144/250V<br>50-60HZ | 200/346-<br>240/415V<br>50-60HZ | DIMENSIONS IN<br>MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS     | FIXING<br>CENTRES |
|------|--------------------|---------------------|---------------------|---------------------|---------------------------------|---------------------------------|---------------------|-----|--|------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                         | LIST NO                         | A                   | B   |  |                              |                   |
| 63A  | 3P+N+E             |                     |                     |                     |                                 | K73643RED 6                     | 301                 | 175 | 6-25                                     | 2 x Ø32/40 top<br>and bottom | 123 x 225         |

Earth Hour Position

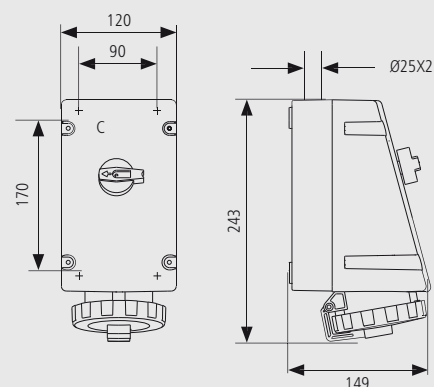
\*Solid or Stranded conductors

# Commando Technical



## Switchsocket Outlets Interlocked Surface Mounting 16 and 32 Amp

Switch Utilisation Category AC 22A  
Will accept auxiliary contacts 6813 and 6814  
Switch can be locked in open or closed position.

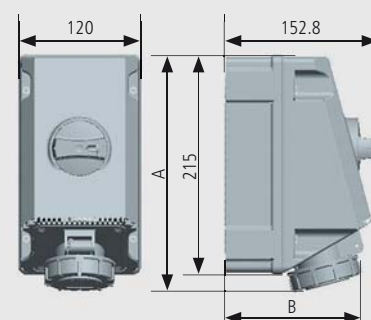


### IP67 WATERTIGHT

| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | CABLE ENTRY<br>KNOCKOUTS | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | FIXING<br>CENTRES<br>MM |
|------|--------------------|---------------------|---------------------|---------------------|--------------------------|--|-------------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             |                          |  |                         |
| 16A  | 3P+E               |                     |                     | K13625RED 6         | 2 x Ø25 top              | 1.5-4                                    | 90 x 170                |
| 32A  | 2P+E               | K13653YEL 4         |                     |                     | 2 x Ø25 top              | 2.5-10                                   | 90 x 170                |
| 32A  | 3P+E               |                     |                     | K13655RED 6         | 2 x Ø25 top              | 2.5-10                                   | 90 x 170                |

Earth Hour Position

\*Solid or Stranded conductors

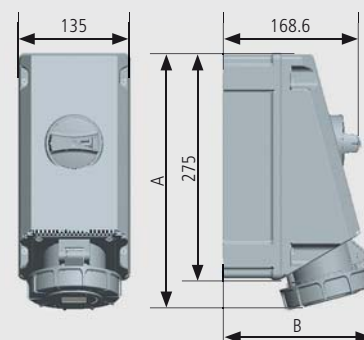


| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | DIMENSIONS<br>IN MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS          | FIXING<br>CENTRES |
|------|--------------------|---------------------|---------------------|-----------------------------|---------------------|-----|--|-----------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO                     | A                   | B   |  |                                   |                   |
| 16A  | 2P+E               | K73623YEL 4         | K73624BLU 6         |                             | 233                 | 135 | 1.5-4                                    | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+N+E             |                     |                     | K73626RED 6                 | 233                 | 147 | 1.5-4                                    | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 2P+E               |                     | K73654BLU 6         |                             | 241                 | 153 | 2.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+N+E             |                     |                     | K73656RED 6                 | 241                 | 159 | 2.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |

Earth Hour Position

\*Solid or Stranded conductors

## Switchsocket Outlets Interlocked Surface Mounting 63 Amp



| AMPS | PIN. CONFIGURATION | 200-250V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | DIMENSIONS<br>IN MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS     | FIXING<br>CENTRES |
|------|--------------------|---------------------|-----------------------------|---------------------|-----|--|------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO                     | A                   | B   |  |                              |                   |
| 63A  | 2P+E               | K73660BLU 6         |                             | 312                 | 185 | 6-25                                     | 2 x Ø32/40<br>top and bottom | 123 x 225         |
| 63A  | 3P+N+E             |                     | K73658RED 6                 | 312                 | 185 | 6-25                                     | 2 x Ø32/40<br>top and bottom | 123 x 225         |

Earth Hour Position

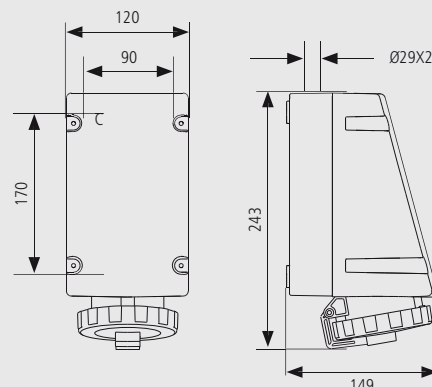
\*Solid or Stranded conductors

## Socket Outlets Surface Mounting 16 and 32 Amp Loop In Versions

(SEE DIMENSIONS B)

Fitted with terminals for Loop In

**IP67 WATERTIGHT**

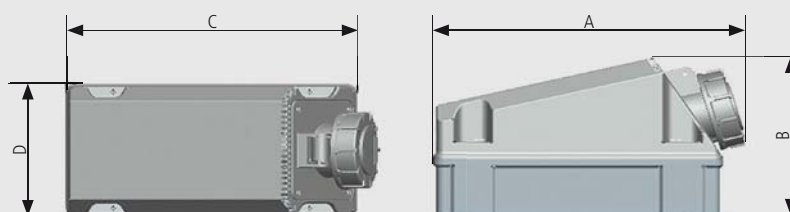


Dimensions B

| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY KNOCKOUTS | FIXING CENTRES<br>MM |
|------|--------------------|---------------------|---------------------|---------------------|---------------------------------------|-----------------------|----------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             |                                       |                       |                      |
| 32   | 2P+E               | K13053YEL 4         |                     |                     | 2 x (2.5-10)                          | 2 x Ø25 top           | 90 x 170             |

Earth Hour Position

\*Solid or Stranded conductors



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | TERMINAL CAPACITY*<br>MM <sup>2</sup> | DIMENSIONS IN MM |       |     |     |
|------|--------------------|---------------------|---------------------|---------------------------------------|------------------|-------|-----|-----|
|      |                    | LIST NO             | LIST NO             |                                       | A                | B     | C   | D   |
| 16A  | 2P+E               | K13323YEL           | K13324BLU           | 1-2.5                                 | 232.5            | 143.5 | 215 | 120 |
| 32A  | 2P+E               |                     | K13354BLU           | 2.5-6                                 | 240.8            | 143.5 | 215 | 120 |

Earth Hour Position

\*Solid or Stranded conductors



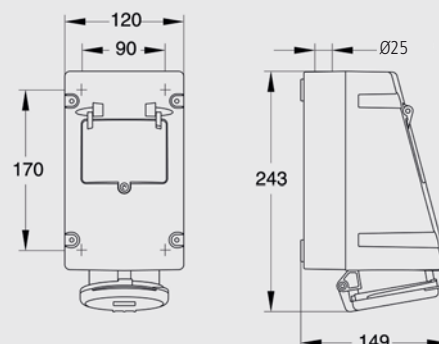
# Commando Combi™

## Technical



Socket Outlets  
Single Pre-wired with 30mA RCD  
16 and 32 Amp

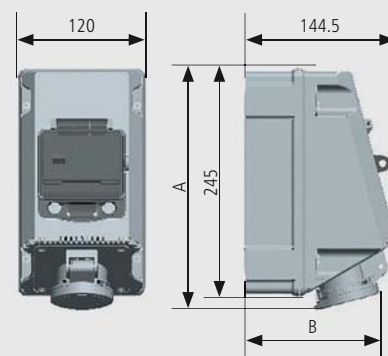
**IP44 SPLASHPROOF**



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | RCD<br>TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | EARTH<br>TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | CABLE ENTRY<br>KNOCKOUTS |
|------|--------------------|---------------------|---------------------|-----------------------------|---|-----|---|-----|--------------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO                     | MIN   | MAX | MIN   | MAX |                          |
| 16A  | 2P+E               | K13413YEL 4         |                     |                             | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 16A  | 3P+E               |                     |                     | K13415RED 6                 | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 16A  | 3P+N+E             |                     |                     | K13416RED 6                 | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 32A  | 3P+E               |                     |                     | K13434RED 6                 | 2.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |

Earth Hour Position

\*Solid or Stranded conductors



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | DIMENSIONS<br>IN MM |       | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS          | FIXING<br>CENTRES |
|------|--------------------|---------------------|---------------------|---------------------|-----------------------------|---------------------|-------|--|-----------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                     | A                   | B     |  |                                   |                   |
| 16A  | 2P+E               | K73413YEL 4         | K73414BLU 6         |                     |                             | 228                 | 128.5 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+E               |                     |                     | K73415RED 6         |                             | 228                 | 135.5 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+N+E             |                     |                     |                     | K73416RED 6                 | 229                 | 142.5 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 2P+E               |                     | K73433BLU 6         |                     |                             | 235.5               | 148   | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+E               |                     |                     | K73434RED 6         |                             | 235.5               | 148   | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+N+E             |                     |                     |                     | K73435RED 6                 | 235.5               | 154.5 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |

Earth Hour Position

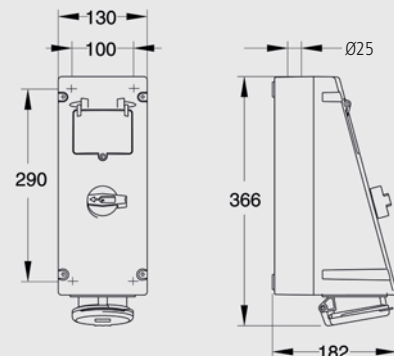
\*Solid or Stranded conductors




# Commando Combi™


## Technical

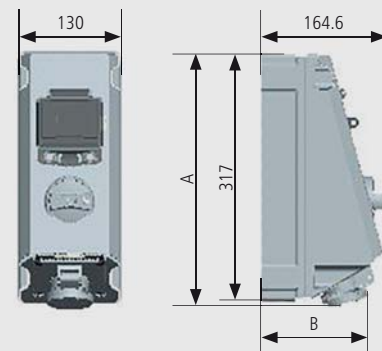
Switchsocket Outlets  
Interlocked Pre-wired with 30mA RCD  
16 and 32 Amp





**IP44 SPLASHPROOF**




| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ   | 200-250V<br>50-60HZ   | 200/346-240/415V<br>50-60HZ  | RCD<br>TERMINAL<br>CAPACITY*<br>MM² |     | EARTH<br>TERMINAL<br>CAPACITY*<br>MM² |     | CABLE ENTRY<br>KNOCKOUTS |
|------|--------------------|---|---|--|-------------------------------------|-----|---------------------------------------|-----|--------------------------|
|      |                    | LIST NO  | LIST NO  | LIST NO  | MIN                                 | MAX | MIN                                   | MAX |                          |
| 16A  | 2P+E               | K13309YEL 4   |   |  | 1.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |
| 16A  | 3P+E               |   |   | K13311RED 6  | 1.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |
| 16A  | 3P+N+E             |   |   | K13312RED 6  | 1.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |
| 32A  | 2P+E               | K13342YEL 4   | K13343BLU 6   |  | 2.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |
| 32A  | 3P+E               |   |   | K13344RED 6  | 2.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |
| 32A  | 3P+N+E             |   |   | K13345RED 6  | 2.5                                 | 35  | 2.5                                   | 25  | 2 x Ø25 top              |

 Earth Hour Position \*Solid or Stranded conductors



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ   | 200-250V<br>50-60HZ   | 380-415V<br>50-60HZ   | 200/346-240/415V<br>50-60HZ   | DIMENSIONS<br>IN MM |       | TERMINAL<br>CAPACITY*<br>MM² | CABLE ENTRY<br>KNOCKOUTS          | FIXING<br>CENTRES |
|------|--------------------|---|---|---|---|---------------------|-------|------------------------------|-----------------------------------|-------------------|
|      |                    | LIST NO  | LIST NO  | LIST NO  | LIST NO  | A                   | B     |                              |                                   |                   |
| 16A  | 2P+E               | K73309YEL 4   | K73310BLU 6   |   |   | 325                 | 136.5 | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |
| 16A  | 3P+E               |   |   | K73311RED 6   |   | 325                 | 143.5 | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |
| 16A  | 3P+N+E             |   |   |   | K73312RED 6   | 326                 | 150.5 | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |
| 32A  | 2P+E               | K73342YEL 4   | K73343BLU 6   |   |   | 333                 | 156   | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |
| 32A  | 3P+E               |   |   | K73344RED 6   |   | 333                 | 156   | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |
| 32A  | 3P+N+E             |   |   |   | K73345RED 6   | 333                 | 162   | 1.5-10                       | Ø20/25 + Ø25/32<br>top and bottom | 118 x 261         |

 Earth Hour Position \*Solid or Stranded conductors

For a full range of corresponding products,  
see pages 262-275 in the product selector.

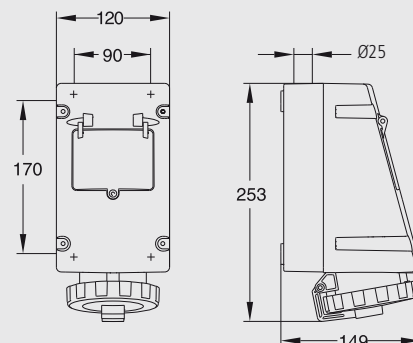
# Commando Combi™

## Technical



Switchsocket Outlets  
Interlocked Pre-wired with 30mA RCD  
16 and 32 Amp

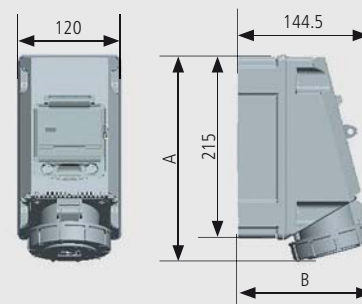
**IP67 WATERTIGHT**



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | RCD<br>TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | EARTH<br>TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | CABLE ENTRY<br>KNOCKOUTS |
|------|--------------------|---------------------|---------------------|-----------------------------|---|-----|---|-----|--------------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO                     | MIN   | MAX | MIN   | MAX |                          |
| 16   | 2P+E               | K13713YEL 6         |                     |                             | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 16   | 3P+E               |                     |                     | K13715RED 6                 | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 16   | 3P+N+E             |                     |                     | K13716RED 6                 | 1.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 32   | 2P+E               |                     | K13733BLU 6         |                             | 2.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |
| 32   | 3P+E               |                     |                     | K13734RED 6                 | 2.5   | 35  | 2.5   | 25  | 2 x Ø25 top              |

Earth Hour Position

\*Solid or Stranded conductors



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | DIMENSIONS<br>IN MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS          | FIXING<br>CENTRES |
|------|--------------------|---------------------|---------------------|---------------------|-----------------------------|---------------------|-----|--|-----------------------------------|-------------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                     | A                   | B   |  |                                   |                   |
| 16A  | 2P+E               | K73713YEL 4         | K73714BLU 6         |                     |                             | 233                 | 135 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+E               |                     | K73717BLU 9         | K73715RED 6         |                             | 233                 | 141 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 16A  | 3P+N+E             |                     |                     |                     | K73716RED 6                 | 233                 | 147 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 2P+E               | K73718YEL 4         | K73733BLU 6         |                     |                             | 241                 | 153 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+E               |                     | K73736BLU 9         | K73734RED 6         |                             | 241                 | 153 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |
| 32A  | 3P+N+E             |                     |                     |                     | K73735RED 6                 | 241                 | 159 | 1.5-10                                   | Ø20/25 + Ø25/32<br>top and bottom | 108 x 165         |

Earth Hour Position

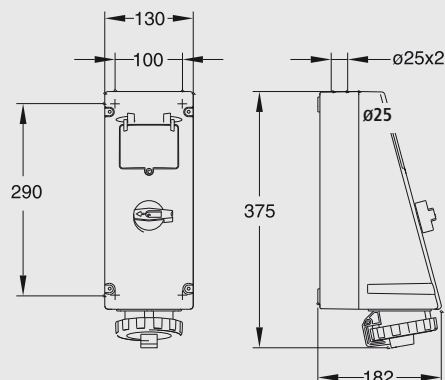
\*Solid or Stranded conductors

# Commando Combi™

## Technical

Switchsocket Outlets  
Interlocked Pre-wired with 30mA RCD  
16 and 32 Amp

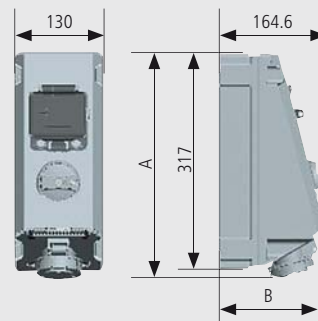
**IP67 WATERTIGHT**



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | RCD TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | EARTH TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> |     | CABLE ENTRY<br>KNOCKOUTS | FIXING CENTRES |
|------|--------------------|---------------------|---------------------|-----------------------------|--|-----|--|-----|--------------------------|----------------|
|      |                    | LIST NO             | LIST NO             | LIST NO                     | MIN  | MAX | MIN  | MAX |                          |                |
| 16   | 2P+E               | K13346YEL 6         | K13348BLU 6         |                             | 1.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |
| 16   | 3P+E               |                     |                     | K13350RED 6                 | 1.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |
| 16   | 3P+N+E             |                     |                     | K13351RED 6                 | 1.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |
| 32   | 2P+E               | K13347YEL 6         | K13349BLU 6         |                             | 2.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |
| 32   | 3P+E               |                     |                     | K13352RED 6                 | 2.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |
| 32   | 3P+N+E             |                     |                     | K13353RED 6                 | 2.5  | 35  | 2.5  | 25  | 2 x Ø25 top              | 100 x 290      |

Earth Hour Position

\*Solid or Stranded conductors



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 200/346-240/415V<br>50-60HZ | DIMENSIONS<br>IN MM |     | TERMINAL<br>CAPACITY*<br>MM <sup>2</sup> | CABLE ENTRY<br>KNOCKOUTS       | FIXING CENTRES |
|------|--------------------|---------------------|---------------------|---------------------|-----------------------------|---------------------|-----|--|--------------------------------|----------------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                     | A                   | B   |  |                                |                |
| 16A  | 2P+E               | K73346YEL 4         | K73348BLU 6         |                     |                             | 330                 | 143 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |
| 16A  | 3P+E               |                     | K73354BLU 6         | K73350RED 6         |                             | 330                 | 149 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |
| 16A  | 3P+N+E             |                     |                     |                     | K73351RED 6                 | 330                 | 155 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |
| 32A  | 2P+E               | K73347YEL 4         | K73349BLU 6         |                     |                             | 338                 | 161 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |
| 32A  | 3P+E               |                     | K73355BLU 6         | K73352RED 6         |                             | 338                 | 161 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |
| 32A  | 3P+N+E             |                     |                     |                     | K73353RED 6                 | 338                 | 167 | 1.5-10                                   | Ø20/25 + Ø25/32 top and bottom | 118 x 261      |

Earth Hour Position

\*Solid or Stranded conductors

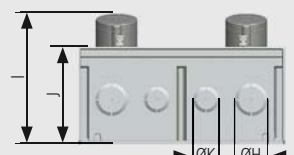
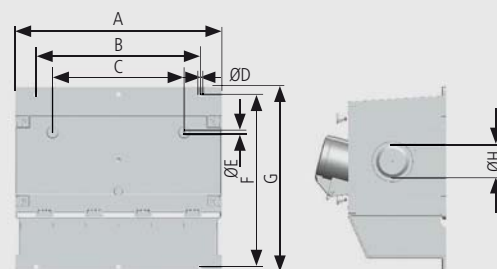
# Commando Combi™

## Technical



### Twin Surface Socket Outlet 16 and 32 Amp

**IP44 SPLASHPROOF**

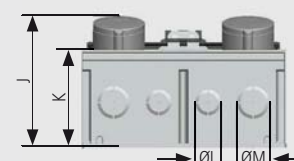
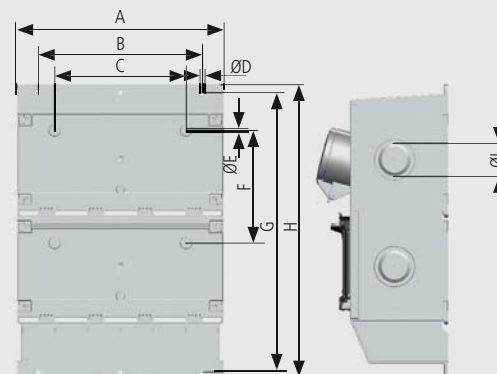


| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | EARTH TERMINAL<br>CAPACITY MM² |     | DIMENSIONS IN MM |   |     |     |       |       | CABLE ENTRY KNOCKOUTS |       |       | FIXING CENTRES |     |
|------|--------------------|---------------------|---------------------|--------------------------------|-----|------------------|---|-----|-----|-------|-------|-----------------------|-------|-------|----------------|-----|
|      |                    | LIST NO             | LIST NO             | MIN                            | MAX | A                | D | E   | G   | I     | J     | H                     | K     | L     | BXF            | C   |
| 16A  | 2P+E               | K73143YEL 4         | K73144BLU 6         | 1.5                            | 10  | 252              | 6 | 4.5 | 228 | 158.8 | 118.7 | 2xØ40                 | 4xØ32 | 4xØ40 | 200x210        | 160 |

Earth Hour Position

### Twin Surface Socket Outlet with Individual 30mA RCD Protection 16 and 32 Amp

**IP44 SPLASHPROOF**



| AMPS | PIN. CONFIGURATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | 200/346-<br>240/415V<br>50-60HZ | EARTH<br>TERMINAL<br>CAPACITY<br>MM² |     | DIMENSIONS IN MM |   |     |     |       |       | CABLE ENTRY<br>KNOCKOUTS |         |         | FIXING<br>CENTRES |           |
|------|--------------------|---------------------|---------------------|---------------------|---------------------------------|--------------------------------------|-----|------------------|---|-----|-----|-------|-------|--------------------------|---------|---------|-------------------|-----------|
|      |                    | LIST NO             | LIST NO             | LIST NO             | LIST NO                         | MIN                                  | MAX | A                | D | E   | H   | J     | K     | I                        | L       | M       | BXG               | CXF       |
| 16A  | 2P+E               | K73173YEL 4         | K73174BLU 6         |                     |                                 | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 158.8 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |
| 16A  | 3P+E               |                     |                     | K73175RED 6         |                                 | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 158   | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |
| 16A  | 3P+N+E             |                     |                     |                     | K73176RED 6                     | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 160.1 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |
| 32A  | 2P+E               |                     | K73184BLU 6         |                     |                                 | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 170.5 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |
| 32A  | 3P+E               |                     |                     | K73185RED 6         |                                 | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 170.5 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |
| 32A  | 3P+N+E             |                     |                     |                     | K73186RED 6                     | 1.5                                  | 65  | 252              | 6 | 4.5 | 358 | 171.1 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340         | 160 x 137 |

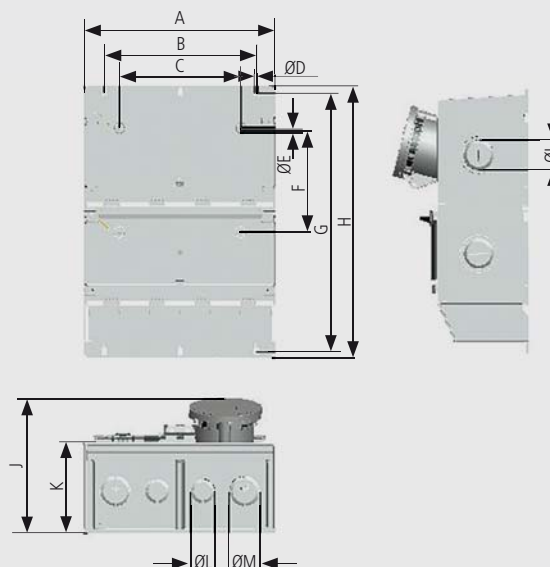
Earth Hour Position

# Commando Combi™

## Technical

Socket Outlets  
Single Pre-wired with 30mA RCD  
63 Amp

**IP44 SPLASHPROOF**



| AMPS                  | PIN. CONFIG-<br>RATION | 100-130V<br>50-60HZ | 200-250V<br>50-60HZ | 380-415V<br>50-60HZ | EARTH<br>TERMINAL<br>CAPACITY<br>MM <sup>2</sup> |     | DIMENSIONS IN MM |   |     |     |       |       | CABLE ENTRY<br>KNOCKOUTS |         |         | FIXING CENTRES |           |
|-----------------------|------------------------|---------------------|---------------------|---------------------|--|-----|------------------|---|-----|-----|-------|-------|--------------------------|---------|---------|----------------|-----------|
|                       |                        | LIST NO 🌍           | LIST NO 🌍           | LIST NO 🌍           | MIN  | MAX | A                | D | E   | H   | J     | K     | I                        | L       | M       | BXG            | CXF       |
| 63A                   | 2P+E                   |                     | K73463BLU 6         |                     | 1.5  | 65  | 252              | 6 | 4.5 | 358 | 177.9 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340      | 160 x 137 |
| 63A                   | 3P+N+E                 |                     |                     | K73465RED 6         | 1.5  | 65  | 252              | 6 | 4.5 | 358 | 177.9 | 118.7 | 4 x Ø40                  | 4 x Ø32 | 4 x Ø40 | 200 x 340      | 160 x 137 |
| 🌍 Earth Hour Position |                        |                     |                     |                     |  |     |                  |   |     |     |       |       |                          |         |         |                |           |

Earth Hour Position





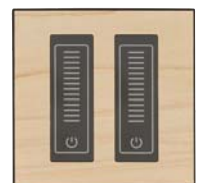
# PRODUCT APPLICATION

## DESIGN SERVICE TOOL

MK Electric has created a unique product configurator tool that enables interior designers to experiment with its MK Elements Collection on a tablet or laptop.

Selecting front plates to match interior finishes such as a black granite countertop or a metallic finish to blend with stainless steel appliances has never been easier. The tool allows designers to work with their clients to narrow that selection down to 2-3 just by having the ability to show the selected background or surroundings. When designs of customised light switches and sockets are cached on the device they can be stored for later use or emailed when designers are back online.

To find out more visit [Designtool.mkelements.com](http://Designtool.mkelements.com)







# Sentry Technical

| Range   | Technical Data |
|---|----------------|
| <b>Circuit Protection</b>   |                |
| <b>Sentry</b><br>Consumer units and a wide variety of modular protection and control products | 430-458        |
| <b>Sentrysocket</b><br>RCD protected switchsockets with active and passive control circuits   | 460-461        |

# Sentry Technical



## Metal Consumer Units and Enclosures

### Standards and approvals

All Sentry consumer units are designed to fully comply with the requirements of BS EN 61439-3.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### MAXIMUM CURRENT RATING

All Sentry consumer units have a maximum rating of 100A except the 4 module range which is rated at 63A

##### TERMINAL CAPACITY

16mm<sup>2</sup> earth and neutral

##### RATED FREQUENCY

50Hz

##### RATED OPERATIONAL VOLTAGE

Consumer unit: 220-250V

##### RATED INSULATION VOLTAGE

Consumer unit: 300V

##### SHORT CIRCUIT WITHSTAND

16kA rms (based on the use of a BS 1361 Type 2 fuse of rating not exceeding 100A)

##### EARTHING SYSTEM

Suitable for use with TN-S, TN-C-S and TT systems

##### SPLIT LOAD

Split load units are supplied with a pre-fitted switch, RCD(s) and suitable cables



### Description

Specific consumer unit configurations have been designed to provide flexible solutions in meeting the requirements of the 17th Edition with regards to RCD protection for circuits, cables and socket outlets. MK Sentry Metal Consumer units allow for protected and unprotected ways with the circuits being split across up to 2 RCDs, whilst the labelling sheet allows for full identification of all circuits.

Sentry Metal Consumer units and enclosures are designed on a modular basis, with 4 to 21 module enclosures in the range, to accommodate a wide variety of MK modular protection and control products. Sentry Metal Consumer units provide a housing with facility for earthing the metal box.

The enclosures are provided with ample wiring space and cable entry points.

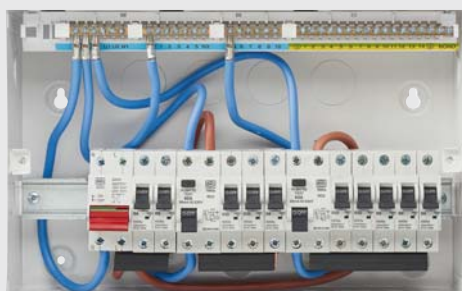
### Colours / finishes

All Sentry Metal Consumer units are colored in white (UV protected powder coated paint).

Certain models are provided with a pre-assembled split load arrangement with switch and up to 2 RCDs. The range is complemented by a versatile selection of small four module enclosures suitable for housing RCDs or other combinations of Sentry products.

All Sentry Metal Consumer Units have neutral and earth terminal bars with 16mm<sup>2</sup> capacity for solid stranded copper cables.

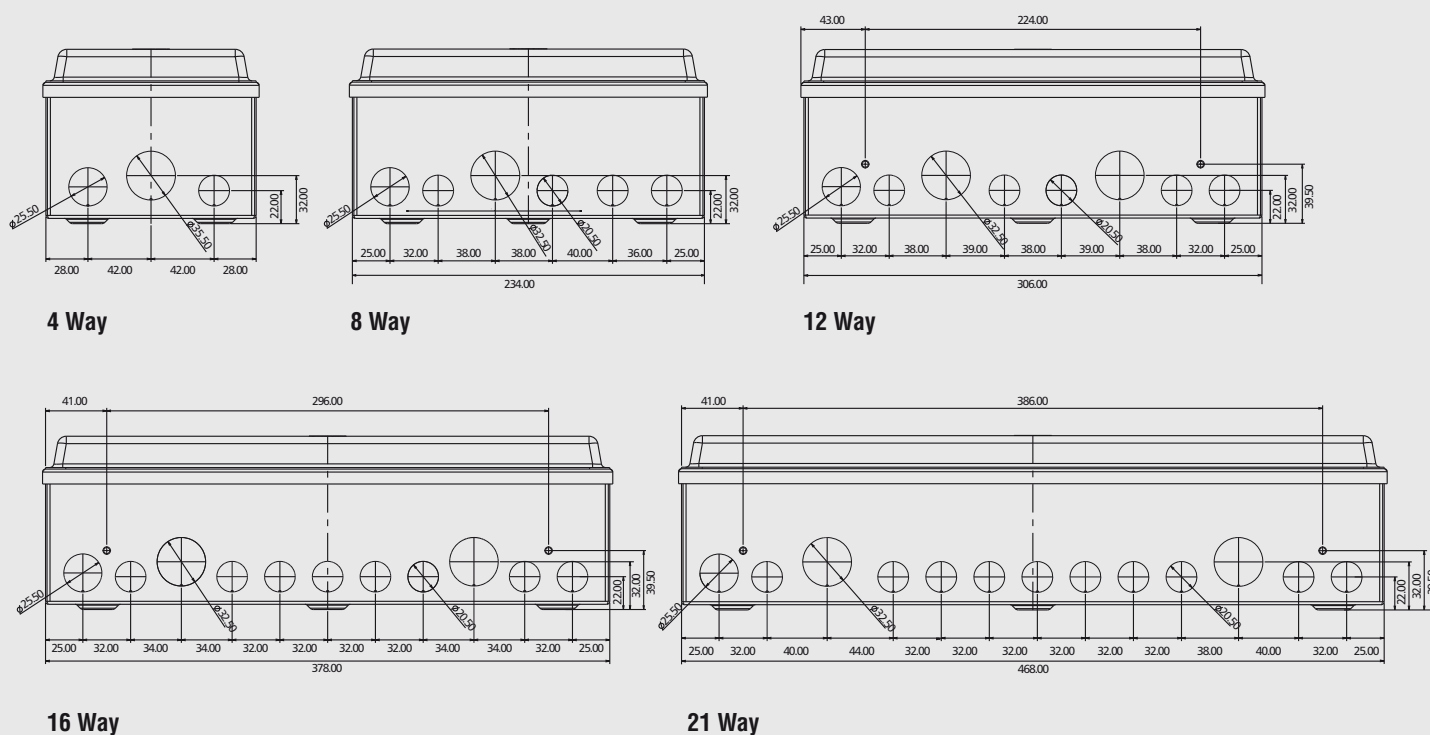
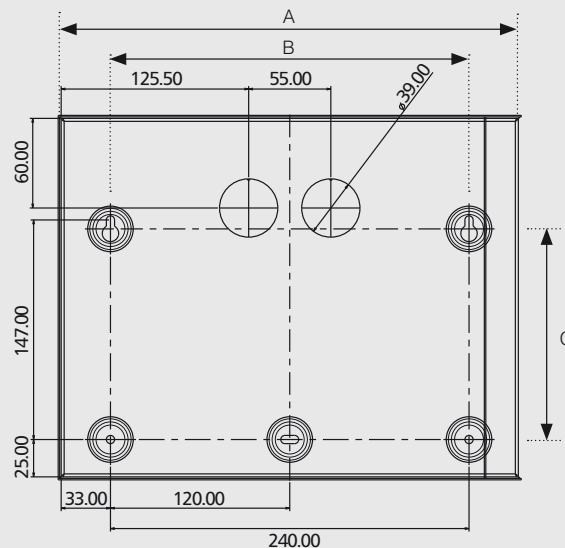
For enquiries where large number of similarly designed consumer units i.e. specified. MK can provide complete pre-assembled factory built units, subject to certain conditions. For further information please contact the MK Electric Technical Services Department (01268 563720).



#### FEATURES

- Attractive styling
- Modular design
- Suitable for most residential, commercial and light industrial applications
- Single, dual and RCD consumer units available for 17th Edition compliance
- Fully comply with British and European Harmonised Standards
- Available as an empty enclosure or prefitted with switch disconnector and up to 2 RCDs
- Custom build options available

21 WAY: 4.7kg



## Consumer Units and Enclosures

### Standards and approvals

All Sentry consumer units are designed to fully comply with the requirements of BS EN 61439-3.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### MAXIMUM CURRENT RATING

All Sentry consumer units have a maximum rating of 100A except K5504s, K5604s, which are rated at 63A

###### TERMINAL CAPACITY

16mm<sup>2</sup> earth and neutral

###### RATED FREQUENCY

50Hz

###### RATED OPERATIONAL VOLTAGE

Consumer unit: 220-250V

2 module enclosure: 220-250V

4 module enclosure: 220-415V

###### RATED INSULATION VOLTAGE

Consumer unit: 300V

2 module enclosure: 300V

4 module enclosure: 660V

###### SHORT CIRCUIT WITHSTAND

16kA rms (based on the use of a BS 1361 Type 2 fuse of rating not exceeding 100A)

###### EARTHING SYSTEM

Suitable for use with TN-S, TN-C-S and TT systems

###### SPLIT LOAD

Split load units are supplied with a pre-fitted switch, RCD and suitable cables.

The following versions are offered:

|               | MAIN INCOMER | RCD |
|---------------|--------------|-----|
| <b>K5682s</b> | 100A Switch  | 63A |
| <b>K5662s</b> | 100A Switch  | 80A |
| <b>K5666s</b> | 100A Switch  | 63A |
| <b>K5686s</b> | 100A Switch  | 80A |
| <b>K5681s</b> | 100A Switch  | 80A |
| <b>K5582s</b> | 100A Switch  | 63A |
| <b>K5566s</b> | 100A Switch  | 63A |
| <b>K5586s</b> | 100A Switch  | 80A |
| <b>K5581s</b> | 100A Switch  | 80A |



### Description

Specific consumer unit configurations have been designed to provide flexible solutions in meeting the requirements of the 17th Edition with regards to RCD protection for circuits, cables and socket outlets. MK Sentry Consumer Units, available in insulated and metal versions, allow for protected and unprotected ways with the circuits being split across up to 3 RCDs, whilst the labelling sheet allows for full identification of all circuits.

Sentry consumer units and enclosures are available in both surface metal and insulated types, designed on a modular basis, with 2 to 21 module enclosures in the range, to accommodate a wide variety of MK modular protection and control products.

Surface insulated units provide an all insulated housing. Metal units provide a housing with facility for earthing the metal box.

The enclosures are provided with ample wiring space and cable entry points.

#### Colours / finishes

All surface insulated consumer units have a textured magnolia cover and lid. The surface metal consumer units are white (powder coated paint). The flush bases are of galvanized steel.

Certain models are provided with a pre-assembled split load arrangement with switch and up to 3 RCDs. The range is complemented by a versatile selection of small, two and four module enclosures suitable for housing RCDs or other combinations of Sentry products. A 2 module enclosure K5592s is suitable for housing the one module RCBO.

All Sentry Consumer Units have neutral and earth terminal bars with 16mm<sup>2</sup> capacity for solid stranded copper cables.

For enquiries where large number of similarly designed consumer units i.e. specified. MK can provide complete pre-assembled factory built units, subject to certain conditions. For further information please contact the MK Electric Technical Services Department (01268 563720).



#### FEATURES

- Attractive styling
- Modular design
- Suitable for most residential, commercial and light industrial applications
- Single, dual and triple RCD consumer units available for 17th Edition compliance
- Fully comply with British and European Harmonised Standards
- Available as an empty enclosure or prefitted with switch disconnecter and up to 3 RCDs
- Factory built options available

## TECHNICAL SPECIFICATION

### ELECTRICAL (WEATHERPROOF ENCLOSURES ONLY)

#### MAXIMUM CURRENT RATING

5702s 2 pole devices up to 100A  
5704s 4 pole devices up to 63A

#### Note:

5702s – Can accept up to 4 module ways with removal of moulded blanks.

5704s – Can accept up to 8 module ways with removal of moulded blanks.

#### TERMINAL CAPACITY

5702s: 4 x 6mm<sup>2</sup> earth and neutral  
5704s: 2 x 6mm<sup>2</sup> and 6 x 4mm<sup>2</sup> earth and neutral.

#### RATED OPERATIONAL VOLTAGE

220-415V

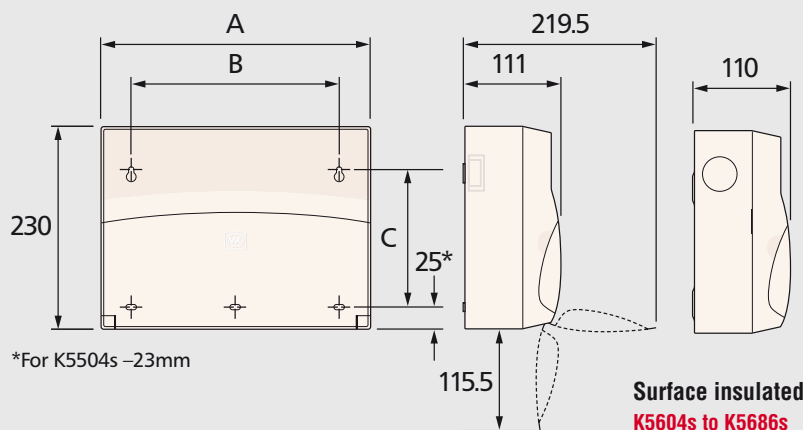
#### RATED INSULATION VOLTAGE

660V

## Dimensions (mm)

Note: Knockout details on following page

### Consumer unit



## TECHNICAL SPECIFICATION

### PHYSICAL

#### AMBIENT OPERATING TEMPERATURE

–5°C to +40°C (not to exceed an average of more than +35°C in any 24 hour period)

IP ratings: (see also 'Service Conditions', below)

| CONSUMER UNIT              | IP2XC |
|----------------------------|-------|
| 2 module enclosure 5502s   | IP3X  |
| 2 module enclosure 5702s   | IP65  |
| 2 module enclosure K5592s  | IP30  |
| 4 module enclosure 5504s   | IP3X  |
| 4 module enclosure 5604s   | IP3X  |
| 4 module enclosure 5704s   | IP65  |
| Max. installation altitude | 2000m |

## SURFACE INSULATED K5604S / K5686S

| UNIT              | MODULES | DIMENSIONS |     |     |
|-------------------|---------|------------|-----|-----|
|                   |         | A          | B   | C   |
| SURFACE INSULATED | 4       | 140        | 70  | 156 |
|                   | 8       | 234        | 164 | 156 |
|                   | 12      | 306        | 236 | 156 |
|                   | 16      | 378        | 308 | 156 |
|                   | 21      | 468        | 398 | 156 |

# Sentry Technical



## Switch Disconnectors

### Standards and approvals

Sentry switch disconnectors are designed to fully comply with the requirements of BS EN 60947-3.

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### CATEGORY OF DUTY

AC22A

##### LOAD TYPE CAPABILITY

Both resistive and inductive

##### OPERATING VOLTAGE

240V a.c.

##### OPERATING FREQUENCY

50Hz

|  | 5560S               | 5500S               |
|--|---------------------|---------------------|
| <b>RATED OPERATIONAL CURRENT LE</b>            | 63A                 | 100A                |
| <b>RATED DUTY</b>                              | Uninterrupted       | Uninterrupted       |
| <b>RATED MAKING CAPACITY LC</b>                | 189A rms            | 300 rms             |
| <b>RATED SHORT TIME WITHSTAND CURRENT LCW</b>  | 2kA rms for 1 sec   | 2kA rms for 1 sec   |
| <b>RATED SHORT CIRCUIT MAKING CAPACITY LCM</b> | 3kA peak            | 3kA peak            |
| <b>RATED CONDITIONAL SHORT CIRCUIT CURRENT</b> | 6kA rms prospective | 6kA rms prospective |

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

Front face IP3X, screw IP2X

##### TIGHTENING TORQUE

3Nm

##### MAX INSTALLATION ALTITUDE

2000 metres

#### RATING SPECIFICATION

| SWITCH DISCONNECTOR | RATING |
|---------------------|--------|
| 5500s               | 100A   |
| 5560s               | 63A    |



### Description

The Sentry range offers a choice of switch disconnector rated at either 100A or 63A.

The operating dolly is capable of being locked in either the ON or OFF position. When locked in the ON position it will no longer operate as an isolator. Positive indication of the opening of the contacts is only given when the green stripe can be seen on the dolly.

The terminals are of a tunnel design and offer a generous cable capacity of 50mm<sup>2</sup> for solid stranded conductors and 35mm<sup>2</sup> for flexible conductors, on both current ratings.

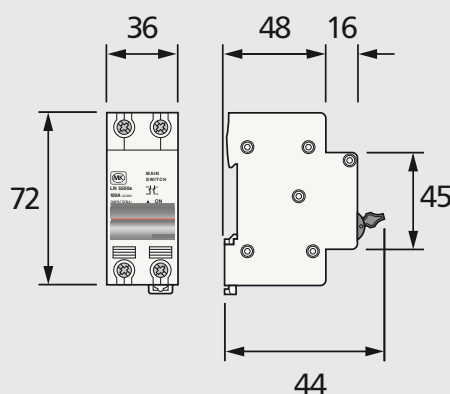
### Category of duty

The Sentry switch disconnector is capable of switching both resistive and inductive loads and has a category of duty of AC22A.

#### FEATURES

- Meet BS EN and IEE Wiring Regulation requirements
- Choice of current ratings
- Tunnel design terminals for ease of wiring
- Generous cable capacity
- Lockable operating dolly
- Make first, break last on neutral

### Dimensions (mm)



### Installation

The Sentry switch disconnector is designed to accept both cable-in/cable-out and direct-to-busbar connections.

The terminal screws are touch-proof to IP2X, captive and feature combination heads.

## Miniature Circuit Breakers (MCBs)

### Standards and approvals

Sentry switch disconnectors are designed to fully comply with the requirements of BS EN 60947-3.

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### VOLTAGE RATING

230V/400V a.c.

##### OPERATING FREQUENCY

50Hz

##### RATED SHORT CIRCUIT CAPACITY I<sub>cn</sub>

6000A

##### SERVICE SHORT CIRCUIT CAPACITY I<sub>cs</sub>

6000A

When backed up by a BS 1361, 100A fuse, then the breaking capacity of the MCB is increased to 16,000A.

Energy limiting class: 3

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### CALIBRATION TEMPERATURE

+30°C

##### IP RATING

Front face IP4X, screw IP2X

##### TERMINAL CAPACITY

35mm<sup>2</sup>

##### TIGHTENING TORQUE

3Nm Max

##### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

Sentry MCBs are of the thermo-magnetic, current limiting type and are available with either Type B or Type C operating characteristics.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate. The contacts themselves are manufactured from carefully chosen materials, selected specifically for their low electrical resistance and low propensity to weld under fault conditions.

#### Positive contact status indication

When the green indicator is visible, then a contact gap of 4mm has been achieved. Sentry MCBs may therefore be used as single pole isolating switches where appropriate.

#### Terminals

The Sentry MCB features tunnel terminals of 35mm<sup>2</sup> capacity on all ratings. Each terminal has a protective shutter to prevent cable being installed incorrectly. The terminal screws are touch proof to IP2X, captive and feature combination heads.

#### Modes of operation

The mechanism of the Sentry MCB has been carefully designed and engineered using thermal and magnetic elements to detect overcurrents due to both overload and fault currents. The MCB will operate and interrupt the supply to prevent damage to the installation.

The thermal component is a carefully calibrated, thermally operated bi-metal element.

Larger overloads and fault current situations are dealt with using the magnetic tripping mode of the MCB. This acts very quickly, overriding the thermal operation.

BS EN 60898 requires the tripping to occur within 100 milliseconds and the design of the Sentry MCB allows fault currents of up to 6000A (M6) to be safely interrupted well within this time scale.



# Sentry Technical



## Miniature Circuit Breakers (MCBs)

| RATING SPECIFICATION |        |
|----------------------|--------|
| TYPE B SINGLE POLE   | RATING |
| 5903s                | 3A     |
| 5906s                | 6A     |
| 5910s                | 10A    |
| 5916s                | 16A    |
| 5920s                | 20A    |
| 5925s                | 25A    |
| 5932s                | 32A    |
| 5940s                | 40A    |
| 5945s                | 45A    |
| 5950s                | 50A    |
| TYPE C SINGLE POLE   | RATING |
| 8703s                | 3A     |
| 8706s                | 6A     |
| 8710s                | 10A    |
| 8716s                | 16A    |
| 8720s                | 20A    |
| 8725s                | 25A    |
| 8732s                | 32A    |
| 8740s                | 40A    |
| 8750s                | 50A    |

### FEATURES

- Meet BS EN and IEE Wiring Regulation requirements
- Trip-free' mechanism
- Positive contact status indicator
- Tunnel type, touch-proof, captive terminals
- Generous terminal capacity
- Can be used as single pole isolating switch
- Protective shutter

## Description (continued)

### Operating characteristics

#### TYPE B

The magnetic operating limits are between 3 and 5 times the current rating of the MCB. Under these conditions the mechanism of a 10A MCB will operate between 30A and 50A in an overcurrent situation.

#### TYPE C

In the case of Type C MCBs, the magnetic operating limits are between 5 and 10 times the current rating of the MCB. Under these conditions the mechanism of a 10A MCB will operate between 50A and 100A in an overcurrent situation.

Type C devices are capable of supplying the majority of inductive and capacitive loads such as motors, transformers and tungsten or fluorescent lighting.

Time/Current and Energy let through characteristics of Sentry MCBs are shown graphically on the Time current characteristics chart (See separate document).

#### TYPE D

The Type D MCB is suitable for applications involving equipment generating very high inrush currents, e.g. x-ray equipment, transmitters and computer power supplies. The magnetic operating limits are between 10 and 50 times the current rating of the MCB.

(For Modular Combi use only)

## Installation

Selection of the most suitable MCB should take into account the following considerations:

### 1. Operating voltage and frequencies

It is possible to use the Sentry MCB on other voltages than 230/400V a.c. 50Hz, but it should be noted that this takes the MCB outside the scope of BS EN 60898.

### 2. Type of load

#### RESISTIVE

No derating is required in the case of resistive loads.

#### INDUCTIVE

In the case of inductive loads from direct-on-line motors, the surge on energisation can produce up to 5 times full load current, which may be present for several seconds. It is therefore recommended that Type C MCBs are used for such circuits.

When using assisted start motors, the usually quoted figures are 2.5 times the full load current, for periods generally longer than those for direct-on-line starters. It is thus important to establish the degree of inrush current in order to select a suitable MCB. In all instances, reference should be made to both the motor manufacturer's curves and MK's circuit breaker curves in order to select the compatible miniature circuit breaker.

#### CAPACITIVE

Surges on energisation, for example with discharge lighting, may well reach 25 times the rated current of the device, but only for very short duration. Type B devices will often be adequate, but for more specialised circuits, a Type C may be required. The lighting fitting manufacturer's recommendations should be observed.

## Miniature Circuit Breakers (MCBs)

### 3. Fault breaking capacity

All Sentry MCBs have a short circuit breaking capacity of 6,000A (M6).

For applications where the prospective fault current is in excess of this, a BS 1361, 100A (maximum) fuse should be used upstream of the MCB to provide a system breaking capacity of 16,000A (in accordance with BS EN 60439-3).

### 4. Discrimination

A Sentry MCB consumer unit will normally be supplied via an HRC fuse. The HRC in such instances will be the major device and remain unaffected by any fault current which causes the MCB to operate.

The level of fault current up to which this can be assured is determined by comparing the  $I^2t$  characteristics of the two devices. Discrimination will theoretically occur up to the level at which the value of the total operating  $I^2t$  of the MCB is below the minimum pre-arcing  $I^2t$  of the fuse, although in practice, discrimination will be achieved at higher levels than this.

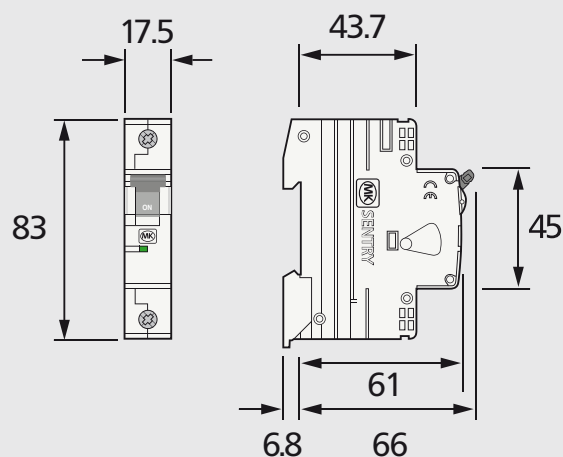
### 5. Cable protection

The current carrying capacity of the cable should always exceed the current rating of the MCB to prevent damage.

However, should this not be the case, a further calculation may show that the MCB can still interrupt the current in a sufficiently short time to prevent overheating of the cable insulation. Although this will prevent mechanical damage to the cables, further overload protection should be provided by a separate device, e.g. a motor overload relay.

In case of doubt please contact the MK Technical Sales and Service Department.

### Dimensions (mm)



## Tripping Characteristics Curve

Limit specified in BS EN 60898 1: 2003

In: Rated Current

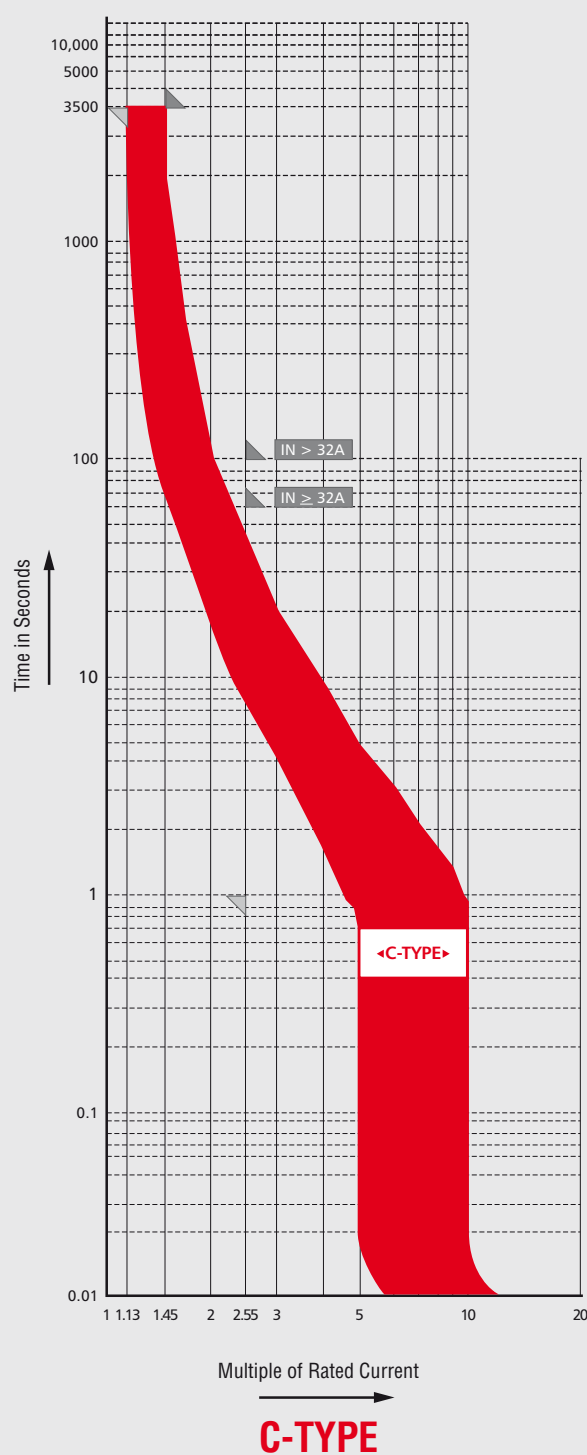
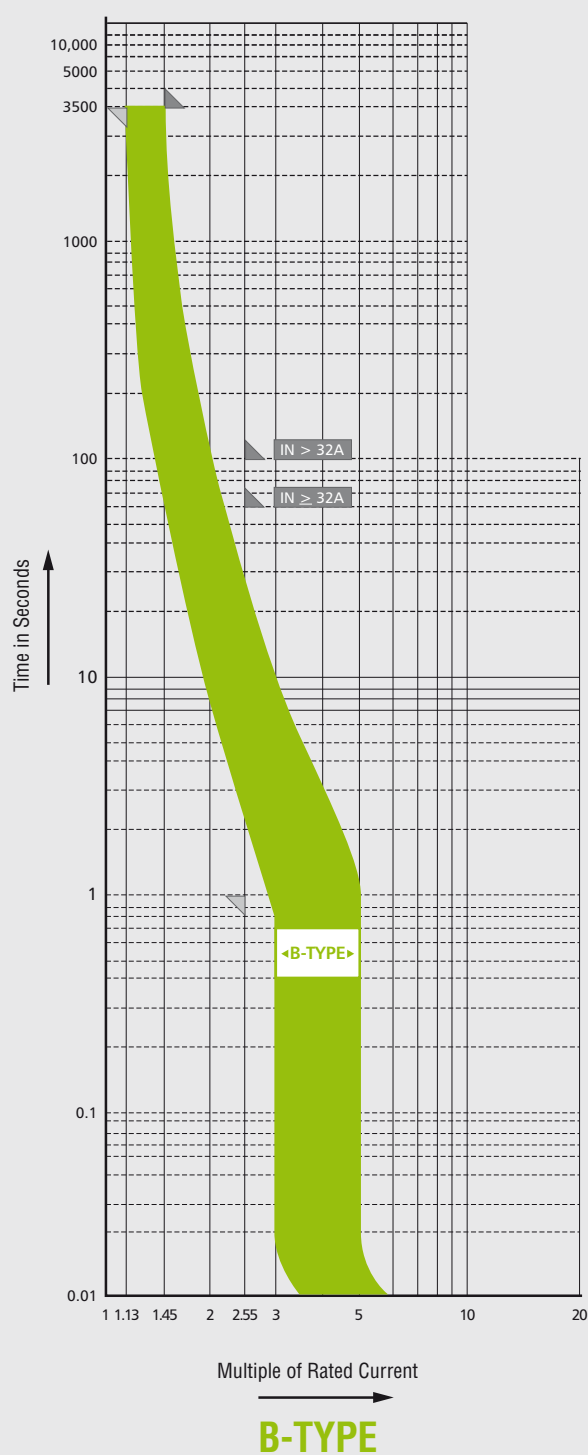
B TYPE: 3A to 50A

C TYPE: 3A to 50A

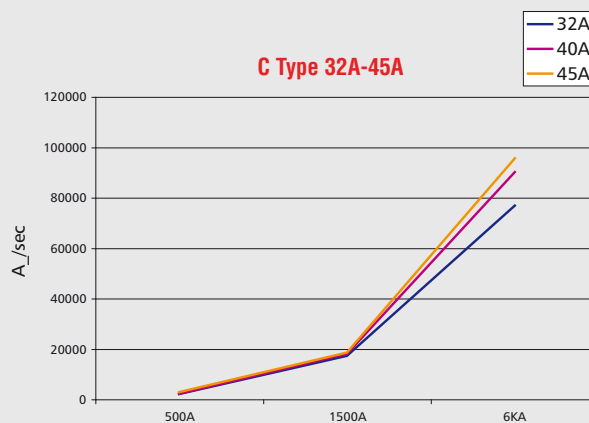
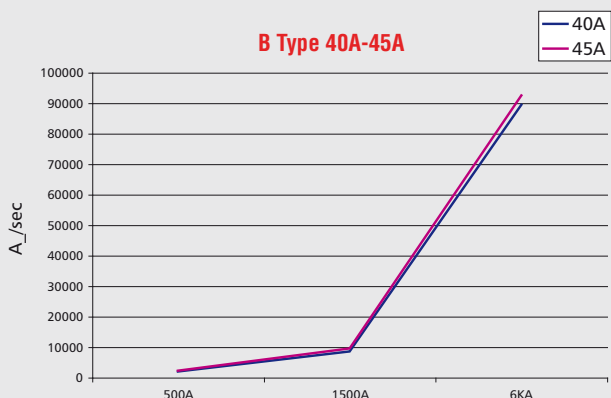
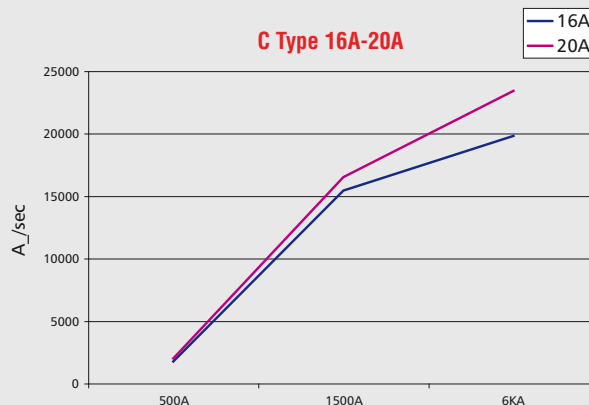
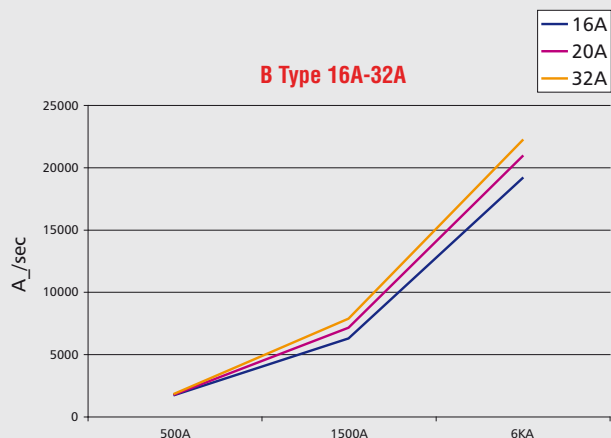
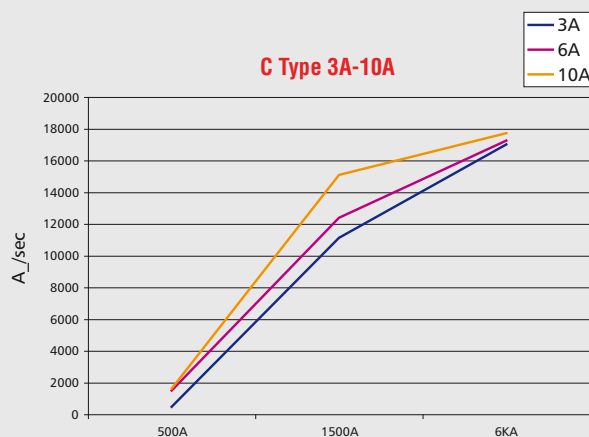
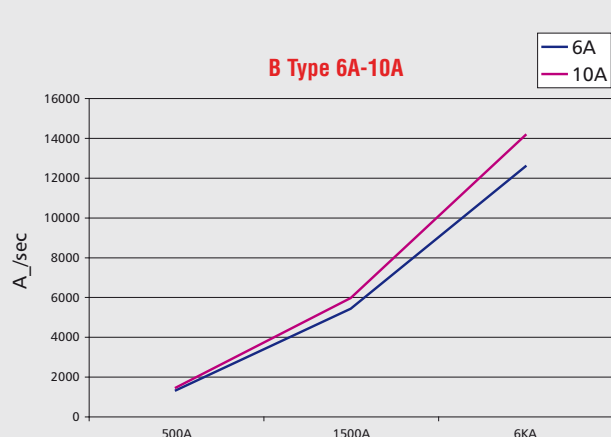
Reference calbi. temp. 30°C

Lower Limit as per Standard

Upper Limit as per Standard



## I<sup>2</sup>t curves



# Sentry Technical



## Residual Current Breakers with Overcurrent Protection (RCBOs)

### Standards and approvals

All Sentry RCBOs are designed to fully comply with the relevant requirements of BS EN 61009-1, BS IEC 61 009-2-2, BS 61543 for EMC.

The RCBOs feature positive contact status indication in accordance with 17th edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2).

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### OPERATING VOLTAGE

230V a.c.

###### OPERATING FREQUENCY

50Hz

###### RATED SHORT CIRCUIT CAPACITY ICN

6,000A

###### SERVICE SHORT CIRCUIT CAPACITY ICS

6,000A

When backed up by a BS 1361, 100A fuse, then the breaking capacity of the RCBO is increased to 16,000A.

Type AC

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-25°C to +40°C

###### IP RATING

Front face IP4X, screw IP2X

###### TERMINAL CAPACITY

Line in 25mm<sup>2</sup>

Line and neutral out 25mm<sup>2</sup>

###### TIGHTENING TORQUE

2.5Nm

###### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

The Sentry range features solid neutral type single pole RCBOs in one module format.

The one module Sentry RCBOs are a combination of a Type B MCB and a Residual Current Device. This enables both overcurrent protection and earth fault current protection to be provided by a single unit.

This combination allows earth fault protection to be restricted to a single circuit, thus ensuring that only the circuit with the fault is interrupted. (When groups of circuits are protected by an RCD, all circuits would be interrupted under fault conditions, which may cause unnecessary inconvenience).

The operating switch on all Sentry RCBOs may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate.

Sentry RCBOs feature tunnel terminals of generous capacity, with 25mm<sup>2</sup> for live supply for live and neutral load terminals. The neutral supply (blue) and earth supply (white/cream) are provided via flying leads.

### Mode of operation

As the RCBO is a combination of an MCB and RCD, reference should be made to the relevant technical information regarding these devices.

#### FEATURES

- Single module
- Meet BS EN and IEE Wiring Regulation requirements
- Allows both overcurrent and earth fault protection and detection
- Available in a range of current ratings
- Tunnel type terminals
- Generous terminal capacity
- Positive contact status indication

## Residual Current Breakers with Overcurrent Protection (RCBOs)

| RATING SPECIFICATION |                  |                 |                 |
|----------------------|------------------|-----------------|-----------------|
| RATING RCBO          | TRIPPING CURRENT | LIST NO. TYPE B | LIST NO. TYPE C |
| 6A, 230V             | 30mA             | 7932s           | 8932s           |
| 10A, 230V            | 30mA             | 7933s           | 8933s           |
| 16A, 230V            | 30mA             | 7934s           | 8934s           |
| 20A, 230V            | 30mA             | 7935s           | 8935s           |
| 32A, 230V            | 30mA             | 7936s           | 8936s           |
| 40A, 230V            | 30mA             | 7937s           |                 |
| 45A, 230V            | 30mA             | 7938s           |                 |
| 50A, 230V            | 30mA             | 7939s           |                 |

### Installation

Sentry RCBOs may be installed anywhere along the length of the busbar and will occupy one outgoing way.

Selection of the most suitable RCBO should take into account the following considerations:

#### 1. Operating voltage and frequencies

#### 2. Fault breaking capacity

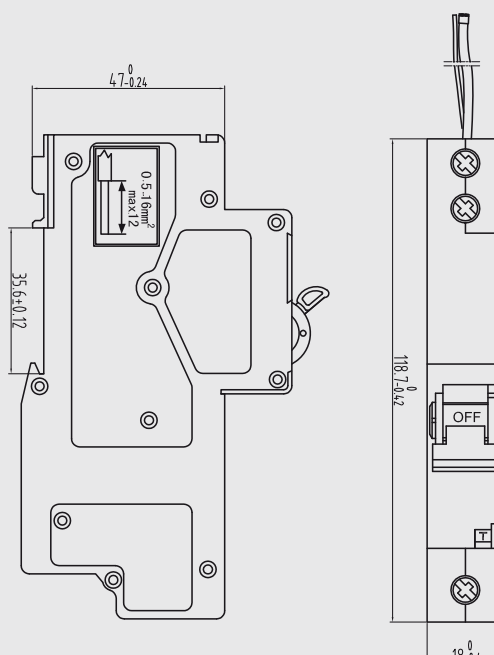
For applications where the prospective fault current is in excess of this, a BS 1361, 100A (maximum) fuse should be used upstream of the RCBO to provide a system breaking capacity of 16,000A.

#### 3. Cable protection

The current carrying capacity of the cable should always exceed the current rating of the RCBO, to prevent damage. However, should this not be the case, a further calculation may show that the RCBO can still interrupt the current in a sufficiently short time to prevent overheating of the cable insulation. Although this will prevent mechanical damage to the cables, further overload protection should be provided by a separate device, e.g. a motor overload relay.

In case of doubt please contact the Technical Sales and Service Department.

### Dimensions (mm)



## Residential 6kA Residual Current Devices (RCDs)

### Standards and approvals

All Sentry RCDs are designed to fully comply with the requirements of BS EN 61 008:1995. IEC 1008:1990

They all feature positive contact status indication in accordance with 17th edition IEE Wiring Regulations (537.2.2.2 and 537 .3 .2 .2).

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### RATED MAKING AND BREAKING CAPACITY /M

16 - 40A = 500A

63 - 80A = 800A

Type AC

###### RATED SHORT-CIRCUIT CURRENT / INC

16A - 40A = 6,000A (100A Fuse)

Rated residual short-circuit current /I<sub>Am</sub>: 16 - 100A = 6,000A

###### RATED VOLTAGES

2 pole devices, 230V

###### OPERATING VOLTAGES

2 pole devices, 230V - 100V to 250V

###### TRIPPING TIME

1 x I<sub>An</sub> ~300ms

5 x I<sub>An</sub> ~40ms

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-25°C to +40°C

###### IP RATING

Front face after installation of enclosure IP40

###### TERMINAL CAPACITY

Solid stranded - 1 x 1.5 - 35mm<sup>2</sup> Flexible with ferrule  
- 1 x 1 .5 - 35mm<sup>2</sup>

###### TIGHTENING TORQUE

3Nm

###### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

The Sentry range of RCDs offer a comprehensive selection of devices designed to meet most residential, commercial and light industrial requirements.

The range is two pole, a.c. fault current sensitive with a selection of current ratings from 16 to 80A and is available in a variety of tripping sensitivities.

When in the OFF position a contact gap of 4mm is present, enabling Sentry RCDs to be used as isolating switches where appropriate.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate, i.e. the RCD is 'trip-free'. It is not possible to hold the contacts closed when a fault condition exists.

All Sentry RCDs incorporate a filtering device to provide protection against transient surges in the supply to the unit, thus reducing the occurrence of unwanted tripping.

#### FEATURES

- Meet BS EN and IEE Wiring Regulation requirements
- Extensive range to suit all specifications
- Protect against unwanted tripping
- Positive contact status indication
- Suitable for most residential, commercial and light industrial applications
- Offer a high degree of protection against electrocution in accidental shock hazard situations
- Two module, double pole units available up to 80A



## Residential 6kA Residual Current Devices (RCDs)

| RATING SPECIFICATION  |                  |          |
|-----------------------|------------------|----------|
| DOUBLE POLE, 2 MODULE |                  |          |
| RATING RCBO           | TRIPPING CURRENT | LIST NO. |
| 16A                   | 30mA             | 7816s    |
| 32A                   | 30mA             | 7832s    |
| 40A                   | 30mA             | 7840s    |
| 63A                   | 30mA             | 7860s    |
| 80A                   | 30mA             | 7880s    |
| 63A                   | 100mA            | 7560s    |
| 80A                   | 100mA            | 7580s    |
| 63A                   | 300mA            | 7660s    |
| 80A                   | 300mA            | 7680s    |

### Operation

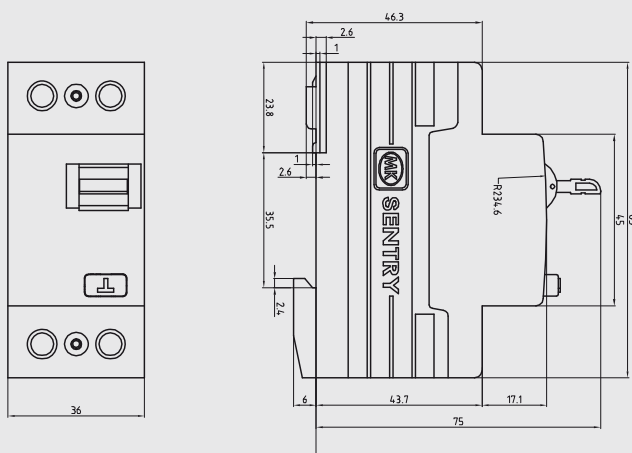
The RCD provides an indication of an earth fault and contact status as detailed below.

The operating dolly provides the following indication:

- I = Switched ON
- O = Switched OFF

The contact status is shown via dolly markings.

In the event of an Earth Fault in the installation or the operation of the test button, the dolly will move to the OFF position. To re-connect the supply the dolly must be reset by moving it to the ON position.



### Testing

If an RCD is installed as additional protection for basic protection, it is a requirement of the IEE Regulations that the effectiveness of the RCD be verified. This must be achieved by a test simulating an appropriate fault condition and be independent of any test facility incorporated in the RCD. The test currents to be applied are as follows:

| Test current              | Condition                  |
|---------------------------|----------------------------|
| $0.5 \times I_{\Delta n}$ | RCD must not trip          |
| $1.0 \times I_{\Delta n}$ | RCD must trip within 300ms |
| $5.0 \times I_{\Delta n}$ | RCD must trip within 40ms  |

Where  $I_{\Delta n}$  is the RCD's rated tripping current in accordance with wiring regulations and product standard BS EN 61008.

## Industrial 10kA Residual Current Devices (RCDs)

### Standards and approvals

All Sentry RCDs are designed to fully comply with the requirements of BS EN 61008:1995. IEC 1008:1990

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

###### RATED MAKING AND BREAKING CAPACITY / M

16 - 40A = 500A  
63 - 80A = 800A  
100A = 1000A

Type AC

###### RATED SHORT-CIRCUIT CURRENT / INC

16A - 40A = 10,000A (63A Fuse)  
63A - 80A = 10,000A (100A Fuse)  
100A = 10,000A (125A Fuse)

###### RATED RESIDUAL SHORT-CIRCUIT CURRENT /ΔM

16 - 100A = 10,000A

###### RATED VOLTAGES

2 pole devices, 110V and 230V  
4 pole devices, 230V to 440V

###### OPERATING VOLTAGES

2 pole devices, 110V - 100V to 250V  
230V - 100V to 250V

4 pole devices, 185V - 440V

###### TRIPPING TIME

1 x  $I_{\Delta n} \leq 300\text{ms}$   
5 x  $I_{\Delta n} \leq 40\text{ms}$

Time delay version

1 x  $I_{\Delta n} - 150 - 500\text{ms}$   
5 x  $I_{\Delta n} - 50 - 150\text{ms}$

##### PHYSICAL

###### AMBIENT OPERATING TEMPERATURE

-25°C to +40°C

###### IP RATING

Front face after installation of enclosure IP40

###### TERMINAL CAPACITY

Solid stranded - 1 x 1.5 - 50mm<sup>2</sup>  
Flexible with ferrule - 1 x 1.5 - 35mm<sup>2</sup>

###### TIGHTENING TORQUE

3Nm

###### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

The Sentry range of RCDs offers a comprehensive selection of devices designed to meet most residential, commercial and light industrial requirements.

The range includes two and four pole, a.c., d.c. fault current sensitive and time delayed models and a selection of current ratings from 16 to 100A is available in a variety of tripping sensitivities.

When in the OFF position a contact gap of 4mm is present, enabling Sentry RCDs to be used as isolating switches where appropriate.

Positive indication of the opening of the contacts is only given when contact status indicator shows green.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate, i.e. the RCD is 'trip-free'. It is not possible to hold the contacts closed when a fault condition exists.

All Sentry RCDs incorporate a filtering device to provide protection against transient surges in the supply to the unit, thus reducing the occurrence of unwanted tripping.

#### FEATURES

- Meet BS EN and IEE Wiring Regulation requirements
- Extensive range to suit all specifications
- Protect against unwanted tripping
- Positive contact status indication
- Suitable for most residential, commercial and light industrial applications
- Offer a high degree of protection against electrocution in accidental shock hazard situations
- Two module, double pole units available up to 100A
- Indication of earth fault, via central dolly position

## Industrial 10kA Residual Current Devices (RCDs)

| RATING SPECIFICATION   |                  |          |
|--|------------------|----------|
| DOUBLE POLE, 2 MODULE  |                  |          |
| RATING RCBO  | TRIPPING CURRENT | LIST NO. |
| 16A, 110V  | 10mA             | 6016s    |
| 16A, 110V  | 30mA             | 6416s    |
| 16A, 230V  | 10mA             | 6316s    |
| 16A, 230V  | 30mA             | 5716s    |
| 32A, 110V  | 30mA             | 6032s    |
| 32A, 230V  | 30mA             | 6730s    |
| 40A, 230V  | 30mA             | 5740s    |
| 63A, 230V  | 30mA             | 5760s    |
| 63A, 230V  | 100mA            | 6160s    |
| 63A, 230V  | 300mA            | 5860s    |
| 80A, 230V  | 30mA             | 5780s    |
| 80A, 110V  | 30mA             | 6080s    |
| 80A, 230V  | 300mA            | 5880s    |
| 80A, 230V  | 100mA            | 6180s    |
| 100A, 230V   | 30mA             | 7700s    |
| 100A, 230V   | 100mA            | 6600s    |
| 100A, 230V   | 300mA            | 7800s    |
| DOUBLE POLE, PULSATING D.C., FAULT CURRENT SENSITIVE, 2 MODULE |                  |          |
| 16A, 230V  | 10mA             | 6216s    |
| 16A, 230V  | 30mA             | 6716s    |
| 32A, 230V  | 30mA             | 6630s    |
| 40A, 230V  | 30mA             | 5640s    |
| 63A, 230V  | 30mA             | 5660s    |
| TIME DELAYED, 2 MODULE   |                  |          |
| 80A, 230V  | 100mA            | 6980s    |
| 100A, 230V   | 100mA            | 6400s    |
| FOUR POLE, 4 MODULE  |                  |          |
| 25A, 230/400V  | 30mA             | 6425s    |
| 40A, 230/400V  | 30mA             | 6440s    |
| 40A, 230/400V  | 100mA            | 6240s    |
| 63A, 230/400V  | 30mA             | 6463s    |
| 63A, 230/400V  | 100mA            | 6363s    |
| 63A, 230/400V  | 300mA            | 6263s    |
| FOUR POLE, PULSATING D.C., FAULT CURRENT SENSITIVE, 4 MODULE   |                  |          |
| 40A, 230/400V  | 30mA             | 6640s    |

### Installation

Sentry RCDs must never be used as the sole method of basic protection, but are invaluable in providing supplementary protection in high risk environments where damage may occur.

### Application

The choice of the most suitable RCD for a particular application should take into account the following considerations:

#### 1. Sensitivity

10mA RCDs offer a high degree of protection against electrocution in an accidental shock hazard situation. They are of particular value in a high risk area where resistances external to the body are likely to restrict the earth fault current flowing through the body to less than 30mA and where 110V supply is being used.

30mA RCDs offer a high degree of protection in an accidental shock hazard situation and are by far the most popular sensitivity used in the United Kingdom. In a shock situation, the current flowing through the human body at 240V 50Hz could be between 80 and 240mA, depending on the resistance of the body in question. To ensure that there are no harmful physiological effects in such a situation, it is necessary for the RCD to operate within 300ms at 30mA and 40ms at 150mA. As the Sentry RCD typically operates well below these times, it clearly more than satisfies this requirement.

100mA RCDs may, in some circumstances, provide protection against electrocution in an accidental shock hazard situation. However, it is important to note that there is a likelihood that the earth fault current may be below the sensitivity of the RCD. This becomes increasingly likely if additional resistances to that of the human body are in the current path.

300mA RCDs provide protection against the risk of fire only. They do not provide protection against electrocution in an accidental shock hazard situation. A typical application would be lighting circuits where it is deemed that the risk of electric shock is small.

It is important to note that a current of less than 500mA flowing in a high resistance path is sufficient to bring metallic parts to incandescence and, potentially, initiate a fire.

#### 2. Requirements of the IEE Wiring Regulations BS 7671

RCDs may be used to provide additional protection against both fault protection and basic protection.

#### Fault Protection

Defined as protection against electric shock under single fault conditions.

Effective earthing in conjunction with automatic disconnection should always be employed to protect against the effects of fault protection. The provision of a low resistance path back to the supply from the fault should ensure that the overcurrent device operates before damage occurs. This is the earth fault loop impedance.

In circumstances where the earth fault loop impedance in the circuit is too high to ensure operation of the overcurrent device, then the IEE Wiring Regulations allow the installation of an RCD. To comply with the Regulations, the earth loop impedance of the circuit (in ohms), multiplied by the rated tripping current of the RCD (in amperes) must not produce a value greater than 50. With this in mind, the maximum values of earth loop impedance permissible when installing an MK Sentry RCD are as follows:

$$Z_s (\text{max}) = \frac{50}{I_{\Delta n}} = \frac{50}{0.03} = 1667 \text{ Ohms}$$

| Rated Tripping Current of RCD | Maximum Permissible Earth Fault Loop Impedance |
|-------------------------------|--|
| 10mA                          | 5000 Ohms                                      |
| 30mA                          | 1667 Ohms                                      |
| 100mA                         | 500 Ohms                                       |
| 300mA                         | 166 Ohms                                       |

RCD's are further specified for fault protection on TT systems (Regulation 411.5.2, 411.5.3 apply)

## Industrial 10kA Residual Current Devices (RCDs)

### Application (continued)

#### Direct Contact

Defined as "contact of persons or livestock with live parts".

The Regulations recognise four main means of providing protection against direct contact which include enclosures and the use of extra low voltage systems.

However, the use of RCDs is specified by the Regulations in the following instances:

- A socket outlet rated at 32A or less which may reasonably be expected to supply portable equipment for use outdoors shall be protected by an RCD having the characteristics specified in Regulation 412-06-02. (Regulation 471-16-01 applies.)
- Where socket outlets are used to supply caravans on caravan sites, then they must be protected by an RCD having the characteristics specified in Regulation 412-06-02

Regulation 412-06-02 stipulates among other things that where supplementary protection is provided by residual current devices, their rated residual operating current must not exceed 30mA and that they must trip within 40ms at 5 times rated operating current.

Although RCDs must never be used as the sole method of direct contact protection, they are invaluable in providing supplementary protection in high risk environments where damage may occur. Typical applications include situations where equipment may be used outside or fed by trailing sockets, equipment accessible to children or equipment used in wet areas.

For these reasons RCDs are commonly found in schools, hospitals and residential installations.

#### 3. Types of fault current

In an installation different types of fault current can occur. MK offer RCDs to suit these conditions.

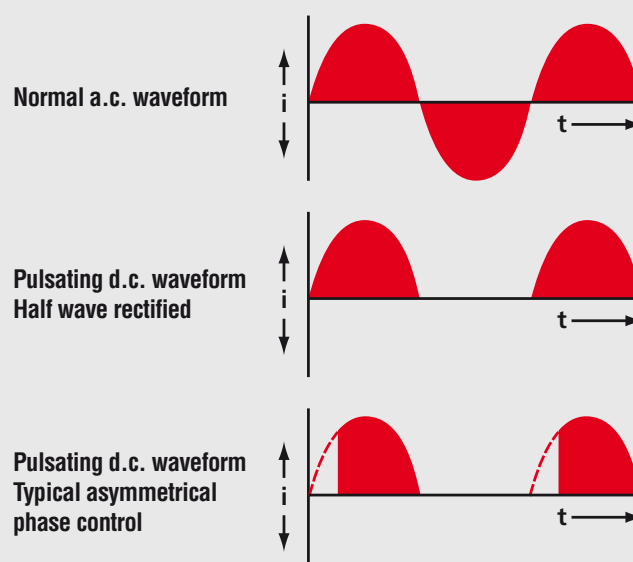
Sentry Type AC RCDs are suitable for situations where there are residual sinusoidal alternating currents, whether applied suddenly or rising slowly. This is the most commonly used type of RCD in the UK.

Sentry Type A RCDs (i.e. pulsating d.c. fault current sensitive) are suitable for situations where there are residual sinusoidal alternating currents, whether suddenly applied or slowly rising.

These situations can occur with the use of semiconductor devices in modern electrical and electronic equipment, such as computers, printers, plotters, televisions, video cassette recorders and hi-fi equipment, is growing.

Such devices may result in the normal sinusoidal a.c. waveform generated by the mains electrical supply being 'modified'. For example, the waveform may be rectified or, as in asymmetric phase control devices, the waveform may be chopped.

The resulting waveforms are said to contain a pulsating d.c. component as illustrated below.



## Industrial 10kA Residual Current Devices (RCDs)

### Application (continued)


#### Pulsating d.c. fault current sensitive RCDs


Should a waveform containing a pulsating d.c. component develop an earth fault, then it is possible that it may not be detected by an "a.c. only" sensitive RCD. For this reason, the Sentry range contains RCDs designed to be sensitive to pulsating d.c. fault currents thus maintaining the intended degree of protection.



Type B RCDs are suitable for situations where there are residual sinusoidal alternating currents, residual pulsating direct currents and smooth d.c. and a.c. residual current of various frequencies, which would not trip Type AC or A RCDs.

These situations can occur in 50Hz a.c. installations with electronic equipment, e.g. frequency converters, UPS installations, power supply unit or high-frequency power converters.


The following symbols are used on the front plate of the device to indicate the type of RCD.

 – type AC RCD.

 – type A RCD.

  – type B RCD.

#### 4. Temperature

All Sentry RCDs are suitable for use in the temperature range  $-25^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ . This is indicated on the RCD by the symbol .

#### 5. Time Delayed RCDs Type S (or selective)

When two or more Sentry RCDs are installed in series with one another, measures must be taken to ensure that they discriminate properly. In event of an earth fault, only the RCD immediately upstream from the fault should operate.

RCDs do not discriminate on rated tripping current alone, i.e. a 100mA rated RCD situated upstream from a 30mA rated RCD, will not offer inherent discrimination.

In order to ensure that discrimination is achieved, a Sentry Time Delayed RCD should be used. The in-built time delay period ensures that the downstream RCD opens the circuit before the upstream RCD starts to operate.

The maximum tripping time of a Sentry Time Delayed RCD is 500ms.

Please refer to the current edition of the Wiring Regulations BS 7671 for guidance on the use of these products.

#### 6. 3 phase, 3 wire systems

Sentry 4 pole RCDs may be used to provide earth fault protection on 3 phase, 3 wire systems, as the current balance mechanism does not require a neutral to be connected in order to operate effectively.

## Industrial 10kA Residual Current Devices (RCDs)

### Operation

The RCD provides an indication of an earth fault and contact status as detailed below.

The operating dolly provides the following indication:

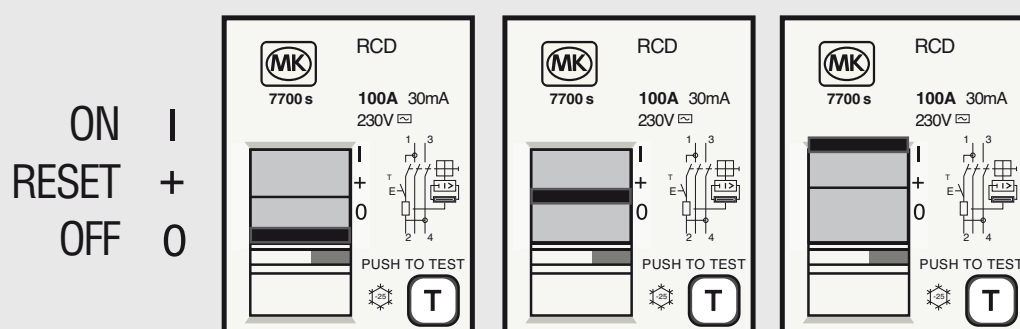
- I** = Switched ON
- +** = Switched OFF due to Earth Fault or test button operation
- 0** = Switched OFF

The contact status is shown through the window.

Red = contact closed

Green = contact open (RCD is switched off)

In the event of an Earth Fault in the installation or the operation of the test button, the dolly will move to the central position (+) and the contact status indicator shows green. To re-connect the supply the dolly must be reset by moving to the off position before switching on.



### Testing

If an RCD is installed for additional protection against indirect contact, it is a requirement of the IEE Regulations that the effectiveness of the RCD be verified. This must be achieved by a test simulating an appropriate fault condition and be independent of any test facility incorporated in the RCD. The test currents to be applied are as follows:

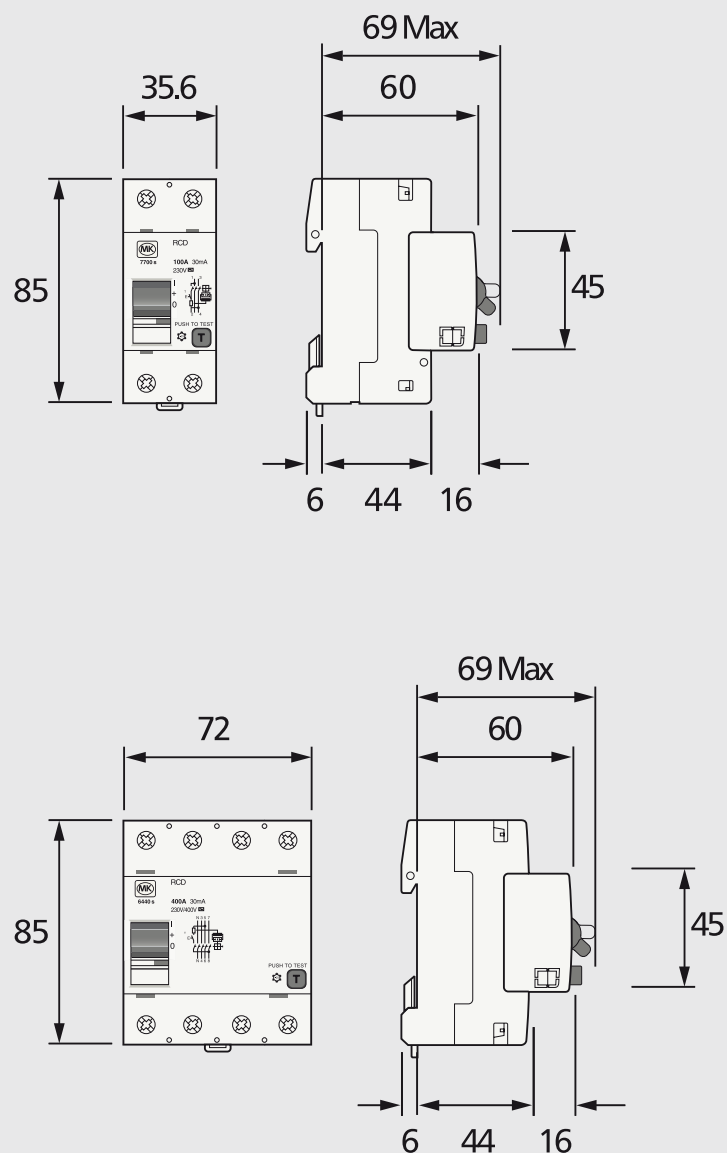
| Test current              | Condition                  |
|---------------------------|----------------------------|
| $0.5 \times I_{\Delta n}$ | RCD must not trip          |
| $1.0 \times I_{\Delta n}$ | RCD must trip within 300mS |
| $5.0 \times I_{\Delta n}$ | RCD must trip within 40mS  |

Where  $I_{\Delta n}$  is the RCD's rated tripping current in accordance with wiring regulations and product standard BS EN 61008.

For time delay RCD  $1.0 \times I_{\Delta n}$  RCD must trip between 130-500mS.

## Industrial 10kA Residual Current Devices (RCDs)

### Dimensions (mm)





# Sentry Technical



## Contactors

### Standards and approvals

All Sentry contactors in the range are designed to fully comply with BS EN 61095

#### RATING SPECIFICATION

| TYPE                    | WIDTH    | LIST NO. |
|-------------------------|----------|----------|
| <b>20A, double pole</b> | 1 module | 6220s    |
| <b>20A, four pole</b>   | 3 module | 6420s    |
| <b>40A, four pole</b>   | 3 module | 7440s    |
| <b>63A, four pole</b>   | 3 module | 7463s    |



### Description

Sentry contactors provide a method of remotely switching single and three phase loads. In this regard, they are particularly useful for switching heating, lighting and ventilation circuits, in particular when used in conjunction with REC supply off-peak tariffs.

They are suitable for mounting on a standard DIN rail and are therefore fully compatible with all Sentry Consumer Units and small enclosures. (5704s, 5702s.)

### Functions

#### CONTROL

Achieved by energising and de-energising the contactor coil, via an MK Time Switch or REC meter during 'off peak' hours as set by supply authorities. A coil status indicator is visible through the small window on the front of the contactor.

## Contactors

### TECHNICAL SPECIFICATION

All Contactor List Nos. are designed to operate at either 20, 40 or 63 amps continuous current (AC1-AC7b) 50Hz and have a mechanical life of 1,000,000 operations.

The coil voltages are 220/240V 50Hz.

| LIST NO.  | 6220S   | 6420S      | 7440S  | 7463S      |
|---|---|------------|--|------------|
| DESCRIPTION   | CONTACTOR   |            |  |            |
| <b>Contactor rating (Ith)</b>   | 20A   | 20A        | 40A  | 63A        |
| <b>Includes manual override?</b>  | No  | No         | No   | No         |
| <b>No. of poles (normally open only)</b>  | 2   | 4          | 4  | 4          |
| <b>Width in 18mm modules</b>  | 1   | 2          | 3  | 3          |
| <b>Rated Voltage (V)</b><br><b>(i) Insulation (Ui)</b><br><b>(ii) Max. operating (Ue)</b> | 400<br>250  | 500<br>415 | 500<br>415   | 500<br>415 |
| <b>Average consumption of – inrush</b><br><b>control circuit coil (VA) – closed</b>       | 15<br>3.8   | 34<br>4.6  | 53<br>6.5  | 53<br>6.5  |
| <b>Terminal cable capacity (max.) Controls</b>  | 2 x 2.5mm <sup>2</sup> flexible<br>2 x 1.5mm <sup>2</sup> rigid |            |  |            |
| <b>Power</b>  | 2 x 2.5mm <sup>2</sup> flexible<br>2 x 6mm <sup>2</sup> rigid   |            | 2 x 4mm <sup>2</sup> flexible<br>2 x 25mm <sup>2</sup> rigid |            |
| <b>Torque for terminals</b>   | 1.2Nm   |            | 2.0Nm  |            |

### Installation

a) When a contactor is mounted alongside an MCB of greater than 10 amp current rating, or two contactors are mounted alongside an MCB of any current rating, it is advisable to insert a module blank between them. (List No. 5544s.)

b) When mounting more than two contactors side by side, it is necessary to insert a module blank between every two contactors, to give ventilation.

c) When using dual rail consumer units, it is advisable to mount electronic products on the lower rail and contactors on the upper rail. If mounting in a single rail consumer unit, it is advisable to mount electronic products as far away as possible from contactors. As a minimum they should be spaced by a single module width blank.

d) Ensure the load to be controlled is protected against short circuit and overload conditions by a suitable rated Sentry MCB.

e) Contactors are mounted into Sentry Consumer Units and enclosures, by clipping onto the DIN rail mounted in the base by means of the spring clip. If the contactor is required to be removed for any reason, unclip the contactor from the DIN rail by means of the spring clip on the contactor.

### FEATURES

- Compatible with all Sentry Consumer Units (single phase only) (excludes 5502s) and the following Sentry enclosures: 5504s, 5604s, 5704s, 5702s (for single and three phase)
- Suitable for heating, lighting and ventilation circuits
- Choice of functions
- Ideal for use with REC supply off-peak tariffs

## Contactors

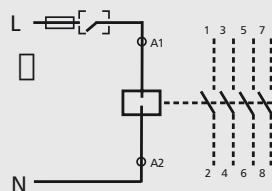
### Terminal Layout

#### i) Contactor

- a) The coil connections to control energisation should be made between terminals A1 and A2
- b) One normally open main contact is between terminals 1 and 2
- c) A second normally open main contact is between terminals 3 and 4
- d) In the case of four pole contactors, the other main contacts are between terminals 5 and 6, and 7 and 8 respectively

### Typical schematic layouts of modular contactors

Without Manual Override



## Contactors

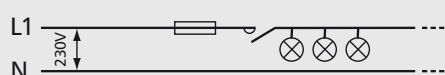
### Applications and Maximum Ratings

#### LIGHTING – Maximum number of lamps

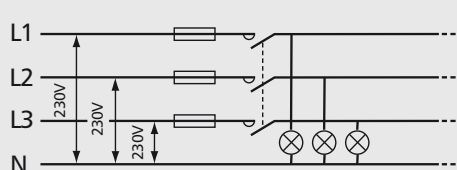
Presentation of installations according to type of supply.

The maximum number of lamps which can be operated per phase is equal to the total number of lamps in the “Single-Phase 230V” table.

Single-phase circuit, 230V



3-phase circuit, 400V (with neutral)



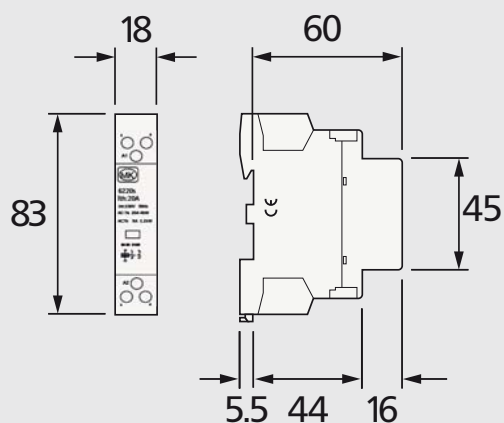
| SINGLE-PHASE 230V TABLE  |                                      |           |                               |           |                               |           |
|--|--------------------------------------|-----------|-------------------------------|-----------|-------------------------------|-----------|
| TYPE OF LIGHTING APPLICATION<br>(AC5A AND AC5B CATEGORIES)                     | 6220S/6420S/<br>MAXIMUM NO. OF LAMPS |           | 7440S<br>MAXIMUM NO. OF LAMPS |           | 7263S<br>MAXIMUM NO. OF LAMPS |           |
| INCANDESCENT AND HALOGEN LAMPS   |                                      |           |                               |           |                               |           |
| 40W  | 57                                   |           | 115                           |           | 172                           |           |
| 60W  | 45                                   |           | 85                            |           | 125                           |           |
| 100W   | 28                                   |           | 70                            |           | 100                           |           |
| HALOGEN LAMPS USED WITH TRANSFORMER  |                                      |           |                               |           |                               |           |
| 60W  | 14                                   |           | 27                            |           | 40                            |           |
| 80W  | 12                                   |           | 23                            |           | 35                            |           |
| FLUORESCENT LAMP WITH STARTER (SINGLE FITTING WITH PARALLEL CORRECTION)        |                                      |           |                               |           |                               |           |
| 15W  | 20                                   |           | 40                            |           | 60                            |           |
| 20W  | 20                                   |           | 40                            |           | 60                            |           |
| 40W  | 20                                   |           | 40                            |           | 60                            |           |
| FLUORESCENT LAMP WITH STARTER (SINGLE FITTING NON-CORRECTED)                   |                                      |           |                               |           |                               |           |
| 15W  | 30                                   |           | 70                            |           | 100                           |           |
| 20W  | 30                                   |           | 70                            |           | 100                           |           |
| 40W  | 28                                   |           | 70                            |           | 100                           |           |
| ELECTRONIC BALLAST (FLUORESCENT LAMP SINGLE SETTING)                           |                                      |           |                               |           |                               |           |
| 18W  | 111                                  |           | 222                           |           | 333                           |           |
| 36W  | 58                                   |           | 117                           |           | 176                           |           |
| ELECTRONIC COMPACT LAMP (LOW CONSUMPTION)                                      |                                      |           |                               |           |                               |           |
| 7W   | 200                                  |           | 400                           |           | 600                           |           |
| 11W  | 120                                  |           | 240                           |           | 360                           |           |
| 15W  | 88                                   |           | 176                           |           | 264                           |           |
| 20W  | 66                                   |           | 132                           |           | 200                           |           |
| MOTORS – MAXIMUM POWER TYPE OF SMALL MOTOR APPLICATION (AC1 – AC7A CATEGORIES) |                                      |           |                               |           |                               |           |
| 220/240V single phase with capacitor   | 1.2kW                                |           | 5.5kW                         |           | 8.5kW                         |           |
| 400V three phase motor   | 3.2kW                                |           | 12.5kW                        |           | 15kW                          |           |
| HEATING – MAXIMUM POWER TYPE OF SMALL HEATING APPLICATION (AC7B CATEGORY)      |                                      |           |                               |           |                               |           |
| NUMBER OF OPERATING CYCLES   | 230V SINGLE PH                       | 400V 3 PH | 230V SINGLE PH                | 400V 3 PH | 230V SINGLE PH                | 400V 3 PH |
| 100,000  | 5.4kW                                | 16kW      | 8.6kW                         | 26kW      | 13.6kW                        | 41kW      |
| 150,000  | 4.6kW                                | 14kW      | 7.4kW                         | 22kW      | 11.6kW                        | 35kW      |
| 200,000  | 3.5kW                                | 10kW      | 5.6kW                         | 17kW      | 8.8kW                         | 26.5kW    |
| 500,000  | 1.6kW                                | 5kW       | 2.6kW                         | 7.5kW     | 4kW                           | 12kW      |
| 1,000,000  | 1.2kW                                | 3.5kW     | 1.9kW                         | 6kW       | 3kW                           | 9kW       |
| ELECTRICAL ENDURANCE   |                                      |           |                               |           |                               |           |
| AC1 and AC7a categories  | 250,000 operations                   |           |                               |           |                               |           |

# Sentry Technical

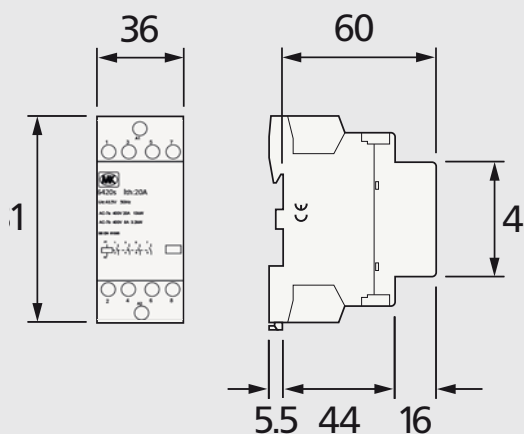
## Contactors

### Dimensions (mm)

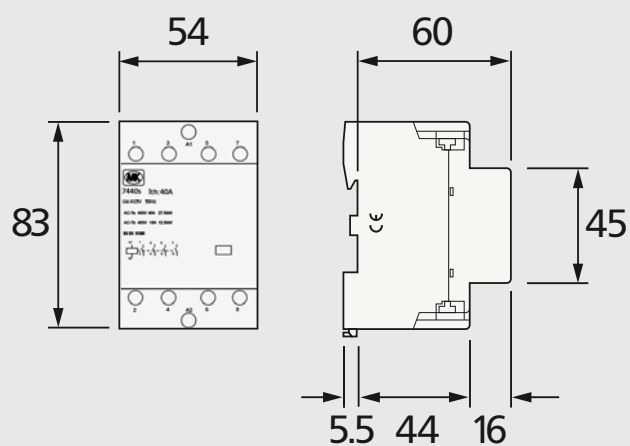
#### 6220s



#### 6420s



#### 7440s/7463s



## Bell Transformer

### Standards and approvals

The Sentry Bell Transformer is designed to comply fully with the requirements of EN 60558-2-8.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### PRIMARY VOLTAGE

220V/240V a.c. 50Hz

##### SECONDARY VOLTAGE

8V a.c.

##### RATED OUTPUT CURRENT

1A

##### PHYSICAL

##### WIDTH

2 modules (36mm)

##### TERMINAL CAPACITY

1 x 2.5mm<sup>2</sup>

##### AMBIENT OPERATING TEMP

-5°C to +40°C

##### IP RATING

Front face IP4X

##### MAX. INSTALLATION ALTITUDE

2000 metres



### Description

The Bell Transformer is of the safety isolating, fail safe type. The construction is all insulated, Class II.

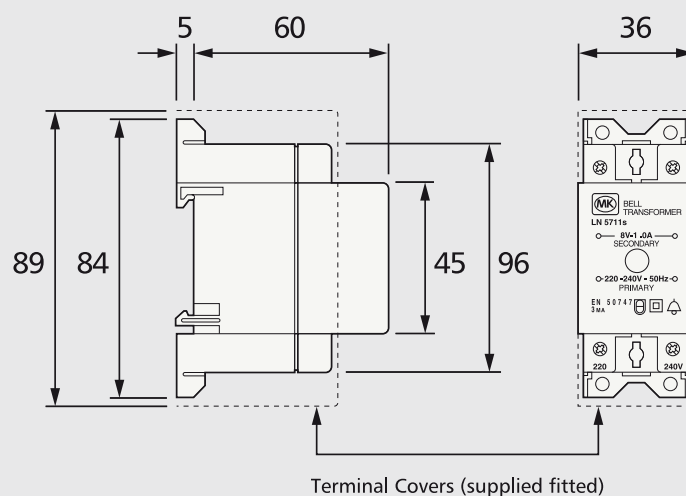
It may be mounted within a Sentry Consumer Unit within 2 or 4 module enclosures alongside MCBs, RCDs and RCBOs or surface mounted.

### Installation

The Sentry Bell Transformer should always be connected in series with an MCB or other type of protective device of rating not exceeding 6A.

When installed in a 230V environment, i.e. inside a consumer unit, the cables used to connect the bell or chime to the transformer must have a 230V rated voltage. If bell wire is used, suitable sleeving must be provided to increase its insulation rating to 230V.

### Dimensions (mm)



## Electromechanical & Digital Timeswitches

### Standards and approvals

EN 60730-1, EN 60730-2-7

#### FEATURES

- Ideal for independent programmable control of lighting, heating and other functions
- Can be mounted in Sentry Consumer Units and appropriate Sentry enclosures, or surface mounted
- Integral resistance to normal electrical interference
- Manual override of programmed commands
- Display indication of switch position for each Channel, i.e. ON or OFF (Digital only)
- Simple summer time to winter time (and vice versa) adjustment facility (Digital only)
- Random and holiday setting programme (5733s only)



### Description

Sentry electromechanical and digital timeswitches enable pre-programmed commands to be executed on a given circuit. The Sentry time delay switches can be installed on circuits to energise suitable equipment for between 1 to 7 minutes.

**Note:** Inductive loads, particularly fluorescent lamps or energy saving lamps, place a heavy stress on the switching contacts. If in doubt about the ability of the timeswitches to directly switch a particular load it is advisable to install the timeswitch in conjunction with a suitable relay or contactor. If in doubt please consult the Technical Sales and Service Department for assistance.

#### Electromechanical

All Sentry electromechanical timeswitches are suitable for DIN rail mounting in Sentry Consumer Units and appropriate Sentry enclosures.

Quartz controlled units (5807s, 5824s) contain a power reserve of 150 hrs for accurate time keeping in the event of a mains failure.

3 module timeswitches have an additional insulated 'parking' terminal for earth or other connections.

24 hr units have a minimum switching time of 30 mins and 7 day units 3 hrs.

#### Digital

All Sentry digital timeswitches are suitable for DIN rail mounting in Sentry Consumer Units and 2 and 4 module Sentry enclosures.

Sentry digital timeswitches are available in both 1 and 2 module widths.

The 1 channel 1 module digital timeswitch (5733s) provides 50 programming selections, with random and holiday options. A simple summer to winter time (and vice versa) adjustment facility is provided. The timeswitch contains a power reserve of 150 hrs for accurate time keeping in the event of mains failure.

The two module digital timeswitches are available in both one channel (5731s) and 2 channel (5732s) versions. The units are supplied pre-programmed to UK time, and will automatically change from winter to summer time. The integral battery (with a 3 year power reserve) maintains the settings until the mains supply is connected. This feature will allow programming of switching commands prior to installation, if required.

The 1 channel 2 module digital timeswitch (5731s) provides for 20 programming selections.

The 2 channel 2 module digital timeswitch (5732s) provides a facility for independent control of two circuits. A maximum of 20 switching commands can be programmed for each channel.

All digital timeswitches have a minimum programming time of 1 minute and a manual override. Commands can be programmed for individual days or for groups of days.

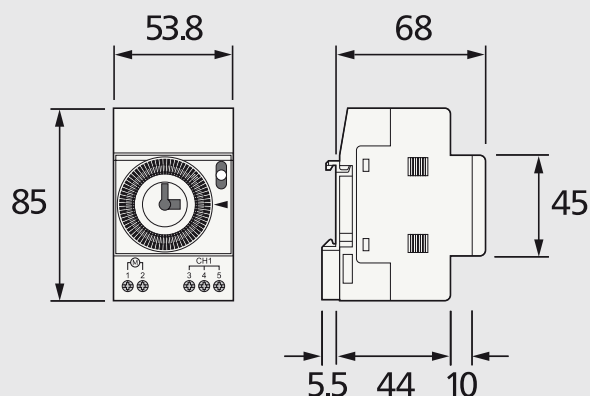


| TECHNICAL SPECIFICATION        |                        |                        |                       |                        |                        |
|--------------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|
| ELECTROMECHANICAL              | 5707S                  | 5724S                  | 5833S                 | 5807S                  | 5824S                  |
| Supply voltage                 | 220-240V a.c. 50Hz     | 220-240V a.c. 50Hz     | 220-240V a.c. 50Hz    | 220-240V a.c. 50-60Hz  | 220-240V a.c. 50-60Hz  |
| Maximum power consumption      | 1VA                    | 1VA                    | 1VA                   | 1VA                    | 1VA                    |
| Switching capacity per channel |                        |                        |                       |                        |                        |
| – Resistive                    | 16A                    | 16A                    | 16A                   | 16A                    | 16A                    |
| – Inductive                    | 4A (Cos.Ø 0.6)         | 4A (Cos.Ø 0.6)         | 4A (Cos.Ø 0.6)        | 4A (Cos.Ø 0.6)         | 4A (Cos.Ø 0.6)         |
| – Fluorescent                  | 1350W                  | 1350W                  | 1350W                 | 1350W                  | 1350W                  |
| Switching arrangement          | 1 x c/o                | 1 x c/o                | 1 x n/o               | 1 x c/o                | 1 x c/o                |
| No. of switching commands      | 56                     | 48                     | 48                    | 56                     | 48                     |
| Minimum programme time         | 3hrs                   | 30mins                 | 30mins                | 3hrs                   | 30mins                 |
| Operating temperature range    | –25°C to +55°C         | –25°C to +55°C         | –25°C to +55°C        | –20°C to +55°C         | –20°C to +55°C         |
| Running reserve                | –                      | –                      | –                     | *150hrs                | *150hrs                |
| Width of unit                  | 54mm (3 mods)          | 54mm (3 mods)          | 18mm (1 mod)          | 54mm (3 mods)          | 54mm (3 mods)          |
| Terminal capacity              | 2 x 2.5mm <sup>2</sup> | 2 x 2.5mm <sup>2</sup> | 2 x 4mm <sup>2</sup>  | 2 x 2.5mm <sup>2</sup> | 2 x 2.5mm <sup>2</sup> |
| DIGITAL AND TIME DELAY         | 5731S                  | 5732S                  | 5733S                 |                        |                        |
| Supply voltage                 | 220-240V a.c. 50-60Hz  | 220-240V a.c. 50-60Hz  | 220-240V a.c. 50-60Hz |                        |                        |
| Maximum power consumption      | 5VA                    | 5VA                    | 5VA                   |                        |                        |
| Switching capacity per channel |                        |                        |                       |                        |                        |
| – Resistive                    | 16A                    | 16A                    | 16A                   |                        |                        |
| – Inductive                    | 8A (Cos.Ø 0.6)         | 8A (Cos.Ø 0.6)         | 8A (Cos.Ø 0.6)        |                        |                        |
| – Fluorescent                  | 1000W                  | 1000W                  | 1000W                 |                        |                        |
| Switching arrangement          | 1 x c/o                | 2 x c/o                | 1 x c/o               |                        |                        |
| No. of switching commands      | 50                     | 50                     | 50                    |                        |                        |
| Programme options              | –                      | –                      | R/H                   |                        |                        |
| Minimum programme time         | 1min                   | 1min                   | 1min                  |                        |                        |
| Operating temperature range    | –25°C to +55°C         | –25°C to +55°C         | –25°C to +55°C        |                        |                        |
| Operating accuracy @ 20°C      | 2.5sec/day             | 2.5sec/day             | 2.5sec/day            |                        |                        |
| Running reserve                | 3 years from factory   | 3 years from factory   | 3 years from factory  |                        |                        |
| Width of unit                  | 36mm (2 mods)          | 36mm (2 mods)          | 18mm (1 mod)          |                        |                        |
| Terminal capacity              | 2 x 2.5mm <sup>2</sup> | 2 x 2.5mm <sup>2</sup> | 2 x 4mm <sup>2</sup>  |                        |                        |
| Summer/winter changeover       | Yes                    | Yes                    | Yes                   |                        |                        |
| Neon indicator lamp load       | –                      | –                      | –                     |                        |                        |

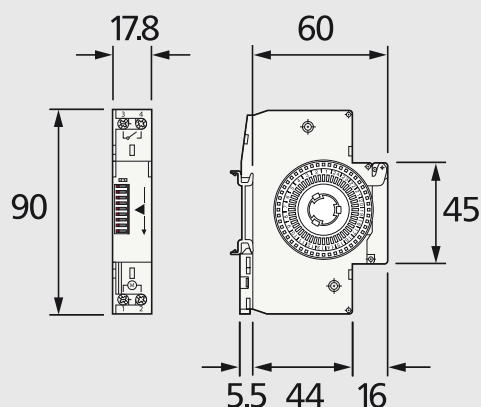
R/H = Random/holiday C/O = Changeover switch N/O = Normally open contact \* = after 140hr charging time

## Dimensions (mm)

### 5707s/5724s/5807s/5824s



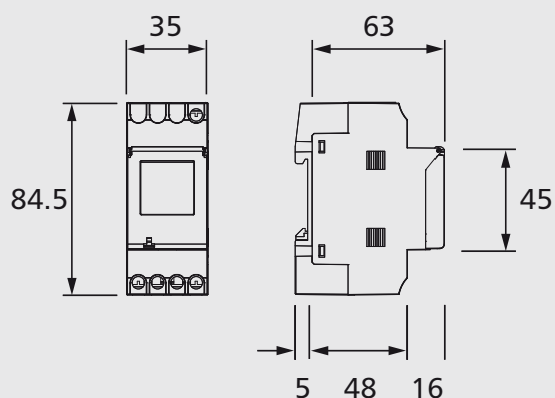
### 5833s



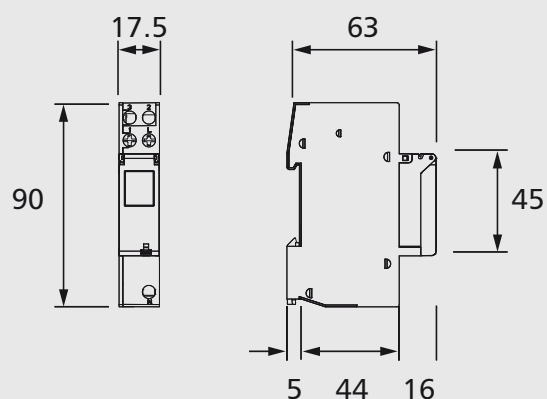
# Sentry Technical

## Dimensions (mm)

### 5731s/5732s



### 5733s





# CASE STUDY

## THE YORK BUILDING, LONDON

London's West End is renowned architecturally, for its style and sophistication and the York Building is no different.

The development, which occupies an island site close to Marble Arch, is a mix of commercial, retail and residential use. The 22 high quality residential apartments feature the latest and best in hi-tech services and MK was asked to design bespoke combination plates to provide a neat outlet for power and data applications.

The Design team came up with specially-designed in-line combination plates that met both the aesthetic and service requirements for these state of the art living spaces. Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.

To find out more visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk)



# Sentrysocket<sup>®</sup>

## Technical



### Sentrysocket

#### Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:

Low Voltage Directive

Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD DP Single Sockets comply with the requirements of the following standards:

BS 7288:1990

BS EN 50082-1:1998

Sentrysocket RCD SP Double Sockets also comply with the requirements of BS EN 61543:1996.

#### TECHNICAL SPECIFICATION

##### ELECTRICAL

##### RATED VOLTAGE

240V a.c.

##### CURRENT RATING

13A resistive

Rated tripping current 10mA/30mA

##### TERMINAL CAPACITY

3 x 4mm<sup>2</sup> for 1 gang

2 x 4mm<sup>2</sup> for 2 gang

##### PHYSICAL

##### AMBIENT OPERATING TEMPERATURE

-5°C to +40°C

##### IP RATING

IP2XD

IP66 (K56301/K56231/K56233)

##### MAX. INSTALLATION ALTITUDE

2000 metres

Sentrysockets are not suitable for connection across two lines of a 127V line to Neutral Voltage System

#### Cable management

Logic Plus™, Albany Plus™ and Metalclad Plus™ Sentrysockets can be mounted in a variety of MK trunking systems.

#### Installation

##### Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

For a full range of corresponding products, see pages 288-289 in the product selector.



#### Description

Sentrysocket provides a high level of protection against electrocution and gives further protection when used with appliances vulnerable to insulation damage, particularly when they are in damp environments or outdoors. The Sentrysocket units are not suitable for mounting in damp environments or outdoors.

Sentrysocket, incorporating an RCD, is part of a complete range of fixed and portable wiring devices and circuit protection devices suitable for use in domestic, commercial and light industrial applications.

#### Active control circuits

Incorporate a 'Re-set' mechanism and are mains failure sensitive, i.e. they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

#### Passive control circuits

Incorporate a 'Stay-set' mechanism and is mains failure proof, i.e. it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

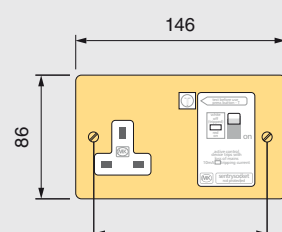
#### FEATURES

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Flexible and versatile in use
- Single Sockets have double pole switching, double sockets are single pole switching
- Masterseal Plus products are ideal for use with equipment subject to wet weather or high humidity
- Part of a complete range of MK circuit protection devices
- They are a.c. and pulsating d.c. sensitive for residual current
- Double Socket products have an enhanced RF Immunity performance

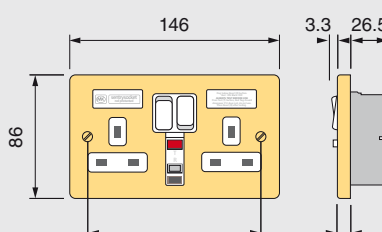
Sentrysockets products can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

#### Dimensions (mm)

##### Single socket



##### Double socket



# Sentrysocket®

## Technical

## Sentrysocket

### Installation

#### Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

### Socket Testing

#### Single Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly:

1. Ensure that no appliance is connected to the Sentrysocket.  
**Switch Sentrysocket on:** The switch should remain closed and the red flag will appear in the window. If the switch fails to remain closed, check that the Supply L and N connections are not reversed or the Supply N connection is not open circuit. If the Sentrysocket is correctly connected and still trips after being switched on, the Sentrysocket is faulty and should not be used.
2. If the Sentrysocket stays on, **press the test button:** The switch will open and the white flag will appear in the window. If the Sentrysocket does not trip and there is mains voltage present at the socket outlet, Sentrysocket is faulty and should not be used.
3. **Switch Sentrysocket on:** Connect an RCD tester and ensure that the Sentrysocket trips within the specified time:  
 $\leq 200 \text{ ms AT RATED TRIP CURRENT}$   
 $\leq 40 \text{ ms AT } 5 \times \text{RATED TRIP CURRENT}$   
 If the Sentrysocket does not trip within the specified times then the product is faulty and should not be used (If more than one RCD is in series then there is no guarantee as to which device will trip first).
4. **Reset all tripped RCD's including the Sentrysocket.**
5. **Switch off the mains supply switch disconnecter.** On mains failure, a Sentrysocket with Active Control Circuit will trip, whilst a Sentrysocket with Passive Control Circuit will not trip. If the Active Control device does not trip, it is faulty and should not be used – see note below. If no faults have been found then installation testing has been completed successfully.

Note: If a fault is identified at any stage of installation testing procedure do not use Sentrysocket, and contact your local electrician, or your local MK stockist.

### Double Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly follow the steps 1 to 4 below:

1. Ensure that no appliance is connected to the Sentrysocket.
2. **Reset** – Press the button marked R (for Reset) – the contact status indicator should show red, indicating that the socket outlets are now live (if the switches are in the ON positions).
3. **Test** – Press the TEST button marked T (for Test), the product should trip with the contact status indicator showing black. In this state the socket outlets are disconnected from the supply.
4. **Reset** – Press the button marked R again, the contact status indicator should show red.
5. Connect an RCD Tester to either socket outlet and ensure that the Sentrysocket trips with the specified times below:  
 $\leq 200 \text{ ms AT RATED TRIP CURRENT}$   
 $\leq 40 \text{ ms AT } 5 \times \text{RATED TRIP CURRENT}$
6. Reset the Sentrysocket as in step 2 above.
7. Switch off the Mains Supply Switch Disconnecter.
8. A Sentrysocket with Active Control Circuit should trip while a Sentrysocket with Passive Control Circuit should not trip.

If all the operations in steps 2 to 8 above give correct results, the Sentrysocket RCD socket outlet is safe to use.

**If the procedures in steps 2 to 8 above are not completed correctly, do not use the Sentrysocket product and seek professional advice or contact the MK Technical Sales and Service department on +44 (0)1268 563720.**

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| 4352SSLIVT9 | 100 | 222 |
| 4352SSNIPT9 | 100 | 222 |
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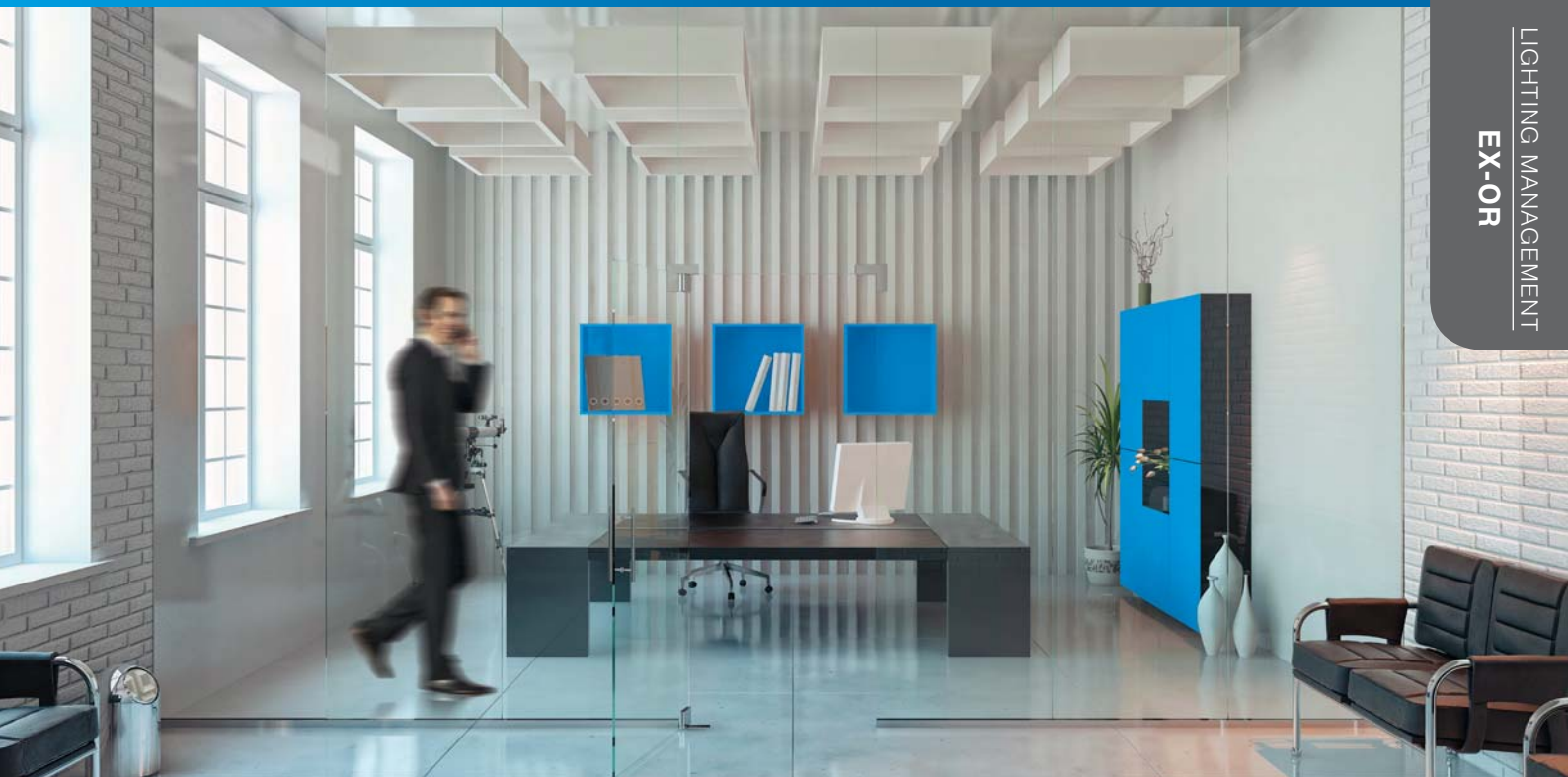
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# EX-OR

## RANGE INTRODUCTION

Ex-Or lighting management systems offers lighting controls for all applications and includes presence detection, lighting management, architectural dimming and scene-setting, and emergency lighting testing.

Ex-Or Systems help customers achieve energy savings, reduce fuel bills, and create an optimum environment for staff or visitors.

### EX-OR MLS DIGITAL – NETWORKED MANAGED LIGHTING SYSTEM

MLS Digital offers a flexible, user-responsive, building-wide control solution via a network of communicating detectors, either integrated within individual luminaires or mounted remotely to control groups of lights.

#### FEATURES & BENEFITS

**MAXIMISES CUSTOMERS' ENERGY SAVINGS**

**ZONED LIGHTING FOR ENHANCED CONVENIENCE AND VISUAL COMFORT**

**STRAIGHTFORWARD INSTALLATION AND SIMPLE COMMISSIONING**

**FLEXIBILITY TO ACCOMMODATE CHANGES IN LAYOUT OR USAGE WITHOUT ALTERING WIRING**



# Ex-Or



## EX-OR CONNECT – LIGHTING CONTROL MODULES AND PLUG-IN CONNECTION CENTRES

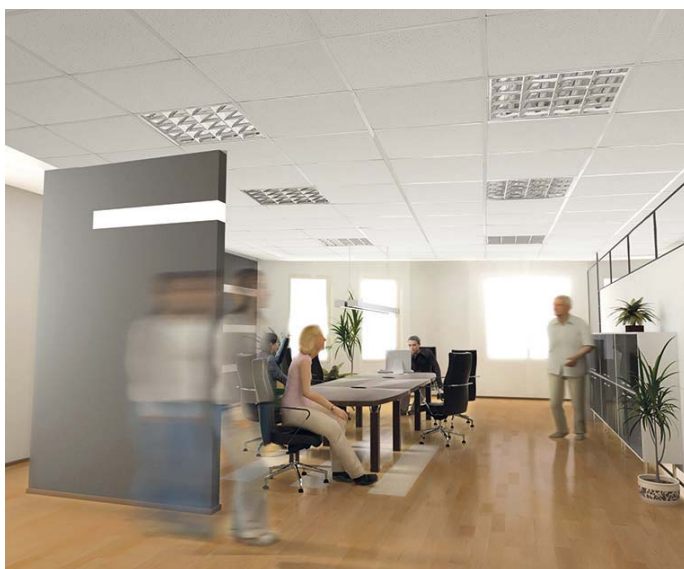
Ex-Or Connect offers plug-in simplicity via a range of purpose-designed connection centres with varying degrees of sophistication. MLS Connect Digital can also incorporate FailSafe emergency lighting testing.

### FEATURES & BENEFITS

**QUICKER AND EASIER INSTALLATION FOR TIME AND COST SAVINGS**

**ELIMINATION OF WIRING FAULTS AS PRE-WIRED LUMINAIRES AND DETECTORS ARE DELIVERED DIRECT TO SITE**

**FLEXIBILITY AS LUMINAIRES AND DETECTORS CAN BE CHANGED OR RE-POSITIONED WITHOUT MAJOR DISRUPTION**



## EX-OR LIGHTSPOT HD – STAND-ALONE LIGHTING CONTROL BY PRESENCE DETECTION AND DAYLIGHT HARVESTING

Ex-Or LightSpot HD controls are designed to save energy by ensuring that lights are never left burning needlessly in an area that has been vacated or where there is already enough natural light. Savings of 40% to 60% are usually made in office applications but they can be as high as 70% and more in areas such as warehouses.

### FEATURES & BENEFITS

**EFFECTIVE ENVIRONMENTAL AND MONEY-SAVING SOLUTION**

**HIGH DEFINITION LENSES AND PERFORMANCE OPTICS PROVIDE CLASS LEADING SENSITIVITY**

**EASY TO INSTALL, EASY TO COMMISSION AND EASY TO USE.**



## EX-OR SCENESELECT – ARCHITECTURAL SCENE-SETTING AND DIMMING SYSTEM

Ex-Or SceneSelect allows the user to create and recall custom pre-set scenes. Once the lighting is set up in the area for an activity, the combination of lighting levels is saved as a pre-set scene and the user can fade between different pre-sets at the touch of a button.

### FEATURES & BENEFITS

**FLEXIBILITY IN DESIGN**

**INCREASED LAMP LIFE AND ENERGY SAVINGS**

**EASE OF INSTALLATION AND CONFIGURATION**





# HONEYWELL DOORBELLS

## RANGE INTRODUCTION

Honeywell doorbells represent the next generation in technology for the home – doorbells that not only adapt to suit your home, but have the capability to grow with your family as needs and habits evolve.

By taking Friedland's 60 year heritage of creating the best doorbells in the world, and adding Honeywell's expertise and track record in innovation, we've designed a range of truly revolutionary doorbells from the ground up that are not only stunning and incredibly reliable, but also completely change the definition of what a doorbell is capable of.

Honeywell doorbells are different because of their intuitive design and flexibility. They grow with your family, adapting to your home and lifestyle through a range of clever, customisable features so you're always able to control how you use them.

## FEATURES & BENEFITS

**PLUG IN DOORBELLS**

**PORTABLE DOORBELLS**

**HOME & GARDEN KITS**

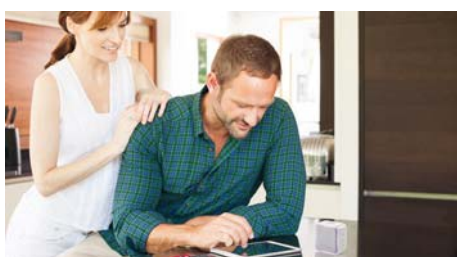
**FRONT & BACK DOOR KITS**





### Never miss a visitor or delivery

- ✓ Portable doorbells can be taken with you anywhere around the home and garden
- ✓ Wireless range of up to 200m means your doorbell will always work, wherever you place it
- ✓ Link two doorbells together to boost the wireless range from 200m up to 400m



### Visual alerts

- ✓ The unique halo light and LED strobe features provide visual alerts – great in loud environments, when sleep or mute mode is activated
- ✓ Customisable halo light with 7 colours to choose from
- ✓ Nightlight mode guides your way in the dark with a soft comforting glow



### Disturbance free

- ✓ Sleep mode mutes the sound for 3, 6, 9 or 12 hours, so you can relax free of any disturbance
- ✓ Use mute mode to silence the doorbell until you turn the sound back on again
- ✓ Easily adjust the volume to suit your family or mood



### Compact size, rich sound

- ✓ Crystal clear sound quality that can be heard throughout the home and garden
- ✓ A maximum volume of 90dB gives an audible range of up to 100m
- ✓ Choose from up to 8 melodies
- ✓ Customise with your own melodies



### Revolutionary design

- ✓ Compact size and stunning design seamlessly fits in with your décor
- ✓ Neutral colours of white and grey complement any room
- ✓ The USB charging feature means you can still charge your phone or tablet without unplugging your doorbell



### Peace of mind

- ✓ Connect alarm accessories to your doorbell with Honeywell ActivLink™, to build a simple home alarm system for your family
- ✓ LED confidence light clearly indicates that your doorbell push is working
- ✓ Press three times quickly, and our secret knock function plays a different melody, so you know if it's a family member or friend at the door



# PRODUCT GUARANTEE

The Company undertakes to replace or repair Products at its discretion should they become defective within the following periods:

| PRODUCT GUARANTEE                    |                 |
|--------------------------------------|-----------------|
| <b>MK ELECTRO / MECHANICAL</b>       | <b>20 YEARS</b> |
| <b>ELEMENTS ELECTRO / MECHANICAL</b> | <b>20 YEARS</b> |
| <b>ELEMENTS ELECTRONIC</b>           | <b>5 YEARS</b>  |
| <b>MK SENSORS</b>                    | <b>2 YEARS</b>  |
| <b>USB INTEGRATED SOCKET</b>         | <b>5 YEARS</b>  |
| <b>ECHO</b>                          | <b>2 YEARS</b>  |
| <b>COMMANDO</b>                      | <b>10 YEARS</b> |
| <b>MK ELECTRONIC</b>                 | <b>10 YEARS</b> |
| <b>CIRCUIT PROTECTION</b>            | <b>10 YEARS</b> |
| <b>POWER DISTRIBUTION SYSTEMS</b>    | <b>5 YEARS</b>  |
| <b>CABLE MANAGEMENT</b>              | <b>10 YEARS</b> |

Solely as a result of faulty materials and or workmanship. Understandably if the product has not been installed or maintained in accordance with the Company's instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the Guarantee will be invalidated.

This Guarantee states the Company's entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This Guarantee does not restrict or infringe the normal statutory or other rights of the consumer.





# Abbreviation Key

## ABBREVIATIONS USED IN THIS CATALOGUE

|              |                                   |            |   |
|--------------|-----------------------------------|------------|---|
| <b>17ED</b>  | 17th Edition                      | <b>M</b>   | Master (High Power Dimmer)                |
| <b>ABS</b>   | Antique Brass                     | <b>MAG</b> | Magnolia                                  |
| <b>ALM</b>   | Aluminium                         | <b>MBB</b> | Metallic Brushed Bronze                   |
| <b>ALMW</b>  | Painted White Aluminium           | <b>MBS</b> | Metallic Brushed Steel                    |
| <b>ALU</b>   | Aluminium                         | <b>MCI</b> | Metallic Cast Iron                        |
| <b>AMB</b>   | Amber                             | <b>MET</b> | Metal                                     |
|              |                                   | <b>MSP</b> | Metallic Satin Platinum                   |
|              |                                   | <b>MST</b> | Metallic Satin Titanium                   |
|              |                                   | <b>MW</b>  | Microwave                                 |
| <b>B</b>     | Black Inserts                     | <b>N</b>   | Neon                                      |
| <b>BLK</b>   | Black                             | <b>NBO</b> | Natural British Oak                       |
| <b>BLU</b>   | Blue                              | <b>NCH</b> | Natural Cream Hide                        |
| <b>BR</b>    | Boiler                            | <b>NDH</b> | Natural Dark Hide                         |
| <b>BRC</b>   | Brushed Chrome                    | <b>NDW</b> | Natural Dark Wenge                        |
| <b>BRO</b>   | Brown                             | <b>NIP</b> | Nickle Plated                             |
| <b>BRS</b>   | Brass (Ancillary Products Only)   |            |   |
| <b>BSS</b>   | Brushed Stainless Steel           | <b>ORG</b> | Orange                                    |
|              |                                   | <b>OV</b>  | Oven                                      |
| <b>CE</b>    | Clean Earth                       | <b>P</b>   | Marked 'Press'                            |
| <b>CH</b>    | Cooker Hood                       | <b>PBR</b> | Polished Brass                            |
| <b>CK</b>    | Marked 'Cooker'                   | <b>PBZ</b> | Polished Bronze (Ancillary Products only) |
| <b>CLR</b>   | Clear                             | <b>PCR</b> | Polished Chrome                           |
| <b>CM</b>    | Coffee Machine                    | <b>PH</b>  | Plinth Heater                             |
|              |                                   | <b>POC</b> | Polished Chrome                           |
| <b>DAB</b>   | Digital Audio Broadcast           | <b>RED</b> | Red                                       |
| <b>DBZ</b>   | Desert Bronze                     |            |   |
| <b>DW</b>    | Dishwasher                        | <b>S</b>   | Slave (High Power Dimmer)                 |
|              |                                   | <b>SAG</b> | Satin Gold                                |
| <b>EL</b>    | Marked 'EMG LTG' (Grid Plus Only) | <b>SBP</b> | Synthetic Beach Pebble                    |
|              |                                   | <b>SCW</b> | Synthetic Chalk White                     |
| <b>FF</b>    | Fridge Freezer                    | <b>SNS</b> | Synthetic Natural Stone                   |
| <b>FG</b>    | Fridge                            | <b>SH</b>  | Marked 'Shower'                           |
| <b>FN</b>    | Fan                               |            |   |
| <b>FZ</b>    | Freezer                           | <b>TCO</b> | Textured Copper                           |
|              |                                   | <b>TD</b>  | Tumble Dryer                              |
| <b>GIW</b>   | Glass Effect Ice White            | <b>TIR</b> | Textured Iron                             |
| <b>GLAA</b>  | Glass, Aluminium                  |            |   |
| <b>GLAB</b>  | Glass, Black                      | <b>W</b>   | With Window                               |
| <b>GLAG</b>  | Glass, Green                      | <b>W</b>   | White Inserts                             |
| <b>GLAGA</b> | Glass, Grooved Aluminium          | <b>WC</b>  | Wine Cooler                               |
| <b>GPJ</b>   | Glass Effect Polished Jade        | <b>WD</b>  | Waste Disposal                            |
| <b>GPO</b>   | Glass Effect Polished Onyx        | <b>WDA</b> | Warming Drawer                            |
| <b>GPS</b>   | Glass Effect Polished Stone       | <b>WDR</b> | Washer Dryer                              |
| <b>GRA</b>   | Graphite                          | <b>WH</b>  | Water Heater                              |
| <b>GRY</b>   | Grey                              | <b>WHI</b> | White                                     |
|              |                                   | <b>WHI</b> | Porcelain White (Decorative Only)         |
| <b>HB</b>    | Hob                               | <b>WL</b>  | Worktop Lighting                          |
| <b>HR</b>    | Heater                            | <b>WM</b>  | Washing Machine                           |
|              |                                   |            |   |
| <b>IG</b>    | Intumescent Gasket                | <b>YEL</b> | Yellow                                    |
| <b>IH</b>    | Immersion Heater                  |            |   |
|              |                                   | <b>ZIC</b> | Zinc Plated LV                            |
| <b>KO</b>    | Tamperproof Screw                 |            |   |
|              |                                   |            |   |
| <b>L</b>     | Neon Locator / Luminous           |            |   |
| <b>LBK</b>   | Lustrous Black                    |            |   |
| <b>LBS</b>   | Lacquered Brushed Steel           |            |   |
| <b>LIV</b>   | Lustrous Ivory                    |            |   |
| <b>LSF</b>   | Low Smoke and Fume                |            |   |
| <b>LV</b>    | Low Voltage                       |            |   |

**1** Standard Carton Quantities are indicated by the number in the box after all product descriptions eg:

**K2747WHI 1**  
2 GANG

# Standard Conditions of Sale

All previous issues are cancelled.

## General

The "Seller" means Novar ED&S Limited.

The "Buyer" means the person, firm or company to whom the Seller supplies the Goods.

All quotations are given and all orders are accepted on these terms, replace and supersede any other terms wherever appearing, and override and exclude any other terms stipulated or incorporated or referred to by the Buyer, whether in the order or in any negotiations, and any course of dealing established between the Seller, and the Buyer. All orders hereafter made by the Buyer shall be deemed to be made subject to these terms.

## Acceptance of Orders

No contract for the sale of goods ("the Goods") shall be concluded until either the Seller sends or otherwise communicates to the Buyer its acceptance of the Buyer's order or on the delivery to the Buyer of the Goods, whichever is the earlier. The Buyer acknowledges that there are no representations outside these terms that have induced the Buyer to enter into the contract (which expression shall include any contract of which these terms form part) and save as provided herein, these terms shall constitute the entire understanding between the parties for the sale of the Goods. No modification of these terms shall be effective unless made by an express written agreement between the parties. The signing by the Seller of any of the Buyer's documentation shall not imply any modification of these terms.

## Illustrations, Descriptive Matter and Dimensions

All descriptions and illustrations contained in catalogues, price lists and advertisements or otherwise communicated to the Buyer are intended merely to present a general idea of the Goods described therein, and nothing contained in any of them shall form any part of the contract.

## Designs

The Seller's policy is one of continuous improvement. The right to change designs at any time without notice is reserved.

## Samples

Notwithstanding that a sample of the Goods may have been exhibited to and inspected by the Buyer, it is hereby agreed that such sample was so exhibited and inspected solely to enable the Buyer to judge for himself the quality of the bulk and not so as to constitute a sale by sample. The Buyer shall take the Goods at his own risk as to their corresponding with the said sample or as to their quality condition or sufficiency for any purpose.

## Prices

All prices listed or quoted are provisional only and are subject to alteration without prior notice, and prices charged will be those current at the time of despatch of the Goods.

## Delivery

All delivery dates are estimates only and the time of delivery shall not be of the essence of the contract. In no circumstances shall the Seller be liable to compensate the Buyer in damages or otherwise for non-delivery or late delivery of the Goods or any of them for whatever reason or for any loss consequential or otherwise arising there from. The Seller reserves the right to make partial deliveries and to allocate available supplies amongst customers in time of shortage. The Seller shall be entitled to deliver the Goods in one or more consignments unless otherwise expressly agreed. For UK sales, delivery shall be deemed to take place when the Goods are despatched from the Seller's premises. The Seller shall not be liable for any loss of any kind to the Buyer arising from any damage to the Goods occurring after the risk has been passed to the Buyer however caused, nor shall any liability of the Buyer to the Seller be diminished or extinguished by reason of such loss.

## Carriage and Packing

Packing materials are in most instances non-returnable. The Seller will pay packing and carriage on all orders having a nett value of £250 (exc.VAT) or over and the Goods will be consigned by carrier at goods rate. Orders instructing despatch by other means will be subject to a packing and carriage charge to cover additional cost. Orders of less than £250 (exc.VAT) nett value will be consigned by parcel post up to 5kg in weight, otherwise goods will be consigned by carrier at goods rate.

A packing and carriage charge will be made for all such orders at the rate of £50 (exc.VAT).

## Instructions and Labels

The Buyer shall ensure that labels, names, reference numbers and marks on the Goods and packing materials and cases are not removed altered or covered whilst the Goods are in his possession and shall not remove any label or plaque affixed to the Goods referring any user thereof to the Seller's or any other party's instructions and/or recommendations for use. If any item comprised in the Goods is resold by the Buyer the Buyer shall bring to the attention of his purchaser all instructions and/or recommendations for use packed with the Goods or which the Seller has otherwise notified to the Buyer.

## Damage or Loss in Transit

When the price quoted includes delivery, the Seller shall repair or replace free of charge goods damaged in transit or not delivered in accordance with the advice note, provided that in the event of damage or shortage, written notification giving details of such damage or shortage must be sent to the Seller within 7 days of receipt, and in the event of non-delivery must be sent to the Seller within 14 days of the date shown on the advice note. Order number, advice note and date of despatch are required, and in the event of failure to give notice within the aforementioned period, the Goods will be deemed to be in all respects as invoiced.

## Returns

Goods supplied in accordance with the Buyer's orders cannot be accepted for return without the Seller's written consent. If such consent is given an administration charge will be made. Returned Goods must be sent carriage free and at the Buyer's risk and will only be accepted if packed in the original carton which in the Seller's opinion is in a saleable condition. Only Goods of current design will be accepted for return.

## Payments

For UK and Republic of Ireland sales, payment is due before the

end of the month following despatch. Value Added Tax for UK sales is payable and is calculated on the cash discounted value of each invoice. If the Seller shall allow provisional credit in respect of any part of the Goods it shall be without prejudice to its rights to refuse to give up possession of any other part of the Goods except against payment: and the whole of the price of all goods bought or agreed to be bought by the Buyer shall fall due and payable without demand immediately on the happening of any of the following events:-

- (a) failure by the Buyer to pay any sum due to the Seller within 14 days of the due date for payment;
  - (b) commencement of the winding up of the Buyer;
  - (c) any act, event or occurrence entitling any creditor of the Buyer to petition for the bankruptcy of the Buyer.
  - (d) appointment of a receiver of any asset of the Buyer, or the levying of any distress or execution or any asset of the Buyer.
- The failure of the Buyer to pay any part of the price of the Goods in due time shall entitle the Seller to treat such failure as a repudiation of the whole contract by the Buyer and to recover damages for such breach of contract.

Interest on all sums due shall run at the rate of 2 per cent per annum over the base lending rate of Barclays Bank plc until payment is received before as well as after any judgement therefore.

## Liability

These terms set out the Seller's entire liability in respect of the Goods and the Seller's liability under these terms shall be in lieu and to the exclusion of all other warranties, conditions, terms and liabilities expressed or implied statutory or otherwise in respect of the quality or the fitness for any particular purpose of the Goods or otherwise (notwithstanding any advice or representation to the Buyer, all liability in respect of which howsoever arising, is expressly excluded) except any implied by law which by law cannot be excluded. Save as provided in these terms and except as aforesaid the Seller shall not be under any liability, whether in contract, tort (including negligence) or otherwise, in respect of defects in the Goods or failure to correspond to specification or sample or for any injury, damage or loss resulting from such defects or failure or from any work done in connection therewith. The Seller shall be under no liability to any purchaser of the Goods from the Buyer. In any event the Seller's liability (if any) whether in contract, tort or otherwise in respect of any defect in the Goods, or for any breach of this Agreement or of any duty owed to the Buyer in connection herewith, shall be further limited in the aggregate to the price of the Goods in question. Nothing in these terms shall restrict the Seller's liability for death or personal injury caused by the Seller's negligence.

## Indemnity

The Buyer shall indemnify the Seller in respect of all damage injury or loss occurring to any person or property and against all actions, suits, claims, demands, charges or expenses in connection therewith arising from the condition or use of the Goods in the event and to the extent that the damage injury or loss shall have been occasioned partly or wholly by the carelessness of the Buyer and his servants or agents or by any breach by the Buyer of its obligations to the Seller hereunder.

## U.K. and Republic of Ireland Sales

For UK and Republic of Ireland sales risk of loss or damage to the Goods shall pass to the Buyer at the time of delivery. The property in the Goods shall not pass to the Buyer until: all sums due or owing to the Seller by the Buyer on any account have been paid. The whole of the price shall not be treated as paid until any cheque, bill of exchange or other instrument of payment given by the Buyer has been met on presentation or otherwise honoured in accordance with its terms. The Seller may sue for the whole of the price at any time after it has become payable.

Until such time as the property in the Goods passes to the Buyer, the Buyer shall hold the Goods on a fiduciary basis as bailee of the Seller and shall keep the Goods separate from those of the Buyer and third parties and properly stored, protected, insured and identified as the Seller's property, but the Buyer shall be entitled to resell and use the Goods in the ordinary course of its business for the account of the Seller. Until property in Goods passes from the Seller, the entire proceeds of sale or otherwise of the Goods shall be held in trust for the Seller and shall not be mixed with any other money or paid into any overdrawn bank account and shall be at all material times identified as the Seller's money. Until such time as property in Goods passes from the Seller the Buyer shall upon request deliver up such of the Goods as have not ceased to be in existence, or resold to the Seller. If the Buyer fails to do so the Seller may enter upon any premises owned, occupied or controlled by the Buyer where the Goods are situated and repossess the Goods. The Buyer shall not pledge or in any way charge by way of security for any indebtedness any of the Goods which remain the property of the Seller. Without prejudice to the other rights of the Seller, if the Buyer does so all sums whatever owing by the Buyer to the Seller shall forthwith become due and payable.

## Export

All orders are accepted subject to a minimum value of £500. All Goods will be supplied and invoiced in multiples of carton quantities only. The basis of the prices quoted will be FOB as defined in Incoterms 2000 Edition, at a UK port which may be nominated by the Seller, or such other basis as may seem appropriate to the Seller in the circumstances.

Payment unless otherwise agreed must be by irrevocable letter of credit confirmed by an established UK bank satisfactory to the Seller. The Seller has separate standard terms and conditions which apply to export sales, and a copy will be supplied to the export buyers.

## NOVAR ED&S Patents and Registered Designs

Many of the products offered for sale by the Seller are covered by UK and foreign patents or other intellectual property rights. It is not feasible to mark each component or product with the appropriate patent numbers, but any relevant and reasonable enquiries will be dealt with on application, subject to reimbursement of the Seller's out of pocket expenses. The Seller also has rights in a number of

names and trade marks, registered and unregistered. The Seller will take all necessary legal action in any part of the world against any party found to be manufacturing, selling or otherwise dealing with any article which infringes the Seller's patents, trade marks or other similar intellectual property rights.

## Force Majeure

Neither party shall be liable to the other for any failure or delay in the performance of any obligation hereunder as a result of strikes, lockouts, trade disputes, breakdown of plants, accident or other cause whatsoever beyond the reasonable control of the Seller or the Buyer respectively.

## Legal Construction

The contract shall be governed by and interpreted in accordance with English Law, and the Buyer submits to the jurisdiction of the Courts in England but the Seller may enforce the contract in any court of competent jurisdiction. A person who is not a party to the contract shall have no rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any of its terms.

## Assignment

The Buyer shall not assign any benefit under the contract without the consent in writing of the Seller, which may if given be on such terms as to guarantee or indemnify or otherwise as the Seller thinks fit.

## Health and Safety at Work etc. Act 1974.

## Statement to purchasers and prospective purchasers

1. Section 6\* of this Act provides that manufacturers, designers, importers or suppliers of articles for use at work have a duty to ensure, so far as is reasonably practicable, that the article will be safe and without risk to health at all times when it is being set, used, cleaned or maintained by a person at work. An absence of safety or risk to health is to be disregarded insofar as the case in or in relation to which it arises is shown to be one the occurrence of which could not reasonably be foreseen and in determining whether any such duty as aforementioned has been performed regard shall be had to any relevant information or advice which has been provided by the manufacturer, designer, importer or supplier.
2. Having regard to these provisions the following is given as a guide to the information which is readily available to you, in order that the obligations of all concerned may be met as fully as is reasonably practicable. This information relates to those products detailed in the Seller's catalogue(s) or associated literature.
3. Information on the design, construction and installation of the Seller's products to ensure that so far as is reasonably practicable they are safe and without risk to health when properly used may be found in:
  - Regulations for Electrical Equipment of Buildings (published by the Institution of Electrical Engineers) Catalogues and product leaflets of the Seller.
  - Or may be obtained by specific request to the Seller.
4. It is important that the products concerned should be installed, commissioned and maintained by, or under the supervision of competent persons in accordance with good engineering practice and
  - The Regulations for the Electrical Equipment of Buildings
  - Codes of Practice
  - Statutory Requirements
  - Any instructions specifically advised by the Seller and where appropriate, with particular reference to information marked on the product.
5. In accordance with the provisions of the Act, the Buyer is therefore requested to take such steps as are necessary to ensure that any appropriate information relevant to the Seller's products is made available by you to anyone concerned.

\* As amended by section 36 of the Consumer Protection Act 1987.

Novar ED&S Limited,  
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SS14 3EA

## MK Trade Mark.

Registered in Great Britain and other countries 'MK' are the initials of 'Multy-Kontakt' – a name coined to signify 'many points of contact' the salient feature of our pioneer spring-grip socket patented in 1919.



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Standard Conditions of sale are subject to change, visit [www.mkelectric.co.uk](http://www.mkelectric.co.uk) for the latest version.

# Sustainable Opportunities Policy

## Honeywell's Commitment to Health, Safety and the Environment

By integrating health, safety and environmental considerations into all aspects of our business, we protect our employees, our communities and the environment, achieve sustainable growth and accelerated productivity, drive compliance with all applicable regulations and develop technologies that expand the sustainable capacity of our world. Our health, safety and environmental management systems reflect our values and help us meet our business objectives.

- We protect the safety and health of our employees, and minimise the environmental footprint of our operations through efforts to prevent illness, injury and pollution.
- We actively promote and develop opportunities for expanding sustainable capacity by increasing fuel efficiency, improving security and safety, and reducing emissions of harmful pollutants.
- We are committed to compliance with all of our health, safety, environmental and legal requirements everywhere we operate.
- Our commitment to health, safety and the environment is an integral aspect of our design of products, processes and services, and of the lifecycle management of our products.
- Our management systems apply a global standard that provides protection of both human health and the environment during normal and emergency situations.
- We identify, control and endeavour to reduce emissions, waste and inefficient use of resources and energy.
- We are open with stakeholders and work within our communities to advance laws, regulation and practices that safeguard the public.
- We abide by the company's own strict standards in cases where local laws are less stringent.
- Our senior leadership and individual employees are accountable for their role in meeting our commitments.
- We measure and periodically review our progress and strive for continuous improvement.

These are our commitments to health, safety, and the environment, and to creating Sustainable Opportunity everywhere we operate.



# MK Electric Catalogue Rangefinder

| Product Range              | Pages   | Technical Data |
|----------------------------|---------|----------------|
| <b>Wiring Devices</b>      |         |                |
| Albany Plus                | 165-186 | 301-344        |
| Ancillary Products         | 216-221 | N/A            |
| Aspect                     | 96-127  | 301-344        |
| Boxes                      | 209-215 | 391            |
| Ceiling Accessories        | 51-55   | 346-348        |
| Commando Combination Units | 268-271 | 422-427        |
| Commando Plugs and Sockets | 258-267 | 410-421        |
| Commando Safetyswitch      | 256-257 | NA             |
| Duraplug                   | 233-237 | 392-394        |
| Echo                       | 19-29   | 297-300        |
| Elements                   | 67-95   | 351-379        |
| Grid Plus                  | 187-205 | 380-386        |
| High Power Dimmer          | 206-208 | 388-390        |
| Insignia                   | 128-164 | 301-344        |
| Link                       | 58-63   | 349-350        |
| Logic Plus                 | 30-50   | 301-344        |
| Masterseal Compact         | 248-253 | 408-409        |
| Masterseal Plus            | 240-247 | 396-407        |
| Metalclad Plus             | 222-232 | 301-344        |
| Plugs and Adaptors         | 238-239 | 395            |
| Sensors                    | 56-57   | 345            |
| <b>Circuit Protection</b>  |         |                |
| Sentry                     | 273-288 | 429-458        |
| Sentrysocket               | 291-292 | 460-461        |

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