# WIRING DEVICES TECHNICAL

# **MK DIMENSIONS**

# **INSTALLATION**

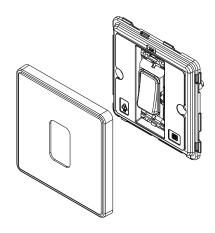
The MK Dimensions products consist of the main product module, complete with support frame, plus a separate clip on clear protective frontplate. The product is mounted to the wall, after wiring, and the clear protective frontplate is clipped onto the frame..

- **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, minus its frontplate, to the wall. It is important the correct headed screws provided are used as any other may clash with the rear of the frontplate.
- 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).
- 5. Apply clip on frontplate.

#### GASKET

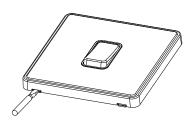
- 1. A gasket is also supplied which may prove useful for installation on uneven wall surfaces.
- Using the gasket with all switches will ensure compliance to IEC 60669.
- 3. IEC 60669 is intended to guarantee full engagement of the frontplate on uneven surfaces, even when there is a mismatch of as much as 1mm between the distance the main body of the product is from the wall and that of the front plate.
- 4. Where no gasket is used, if thick wallpapers are cut such that they fit around the module but remain under the edge of the frontplate, full plate engagement with the frontplate clips may be restricted.

## FITTING AND REMOVING THE FRONTPLATE



#### FITTING THE FRONTPLATE

- 1. Align the frontplate with the front of the wall module and press gently in all four corners until the frontplate clicks into place.
- 2. Gently push along all outer edges to ensure the frontplate is securely fitted to the wall module.



# REMOVING THE FRONTPLATE

- 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.

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).

# WIRING DEVICES TECHNICAL

# 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 2:2016.

# TECHNICAL SPECIFICATION **ELECTRICAL VOLTAGE RATING** 250V a.c. **CURRENT RATING 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 MK range of wiring devices.

Sockets are fitted with two earth terminals on a common busbar to provide a double earth facility.

The products can be quickly installed as replacement for existing 13A sockets or in a new installation.

# 13A SOCKET OUTLETS

#### INSTALLATION

## 1 GANG SWITCHSOCKET - VIEW FROM REAR

Top-facing, angled, backed-out terminals make wiring easier and quicker.

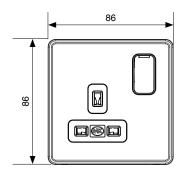




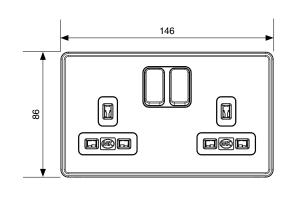


## **FEATURES**

- MOULDED 'ON' INDICATOR FLASH ON PLASTIC SWITCHES WILL NOT RUB OFF TOTALLY SAFE
- 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
- 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
- DUAL EARTH TERMINALS
- BACKED OUT AND CAPTIVE TERMINAL SCREWS









# WIRING DEVICES TECHNICAL

# 2 GANG SWITCHSOCKET OUTLET WITH INTEGRATED DUAL USB CHARGING CAPABILITY

# STANDARDS AND APPROVALS

Standards and approvals Dimensions 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. (where relevant)

# **TECHNICAL SPECIFICATION ELECTRICAL VOLTAGE RATING** 220-240V 50/60Hz CURRENT RATING 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) AMBIENT OPERATING TEMPERATURE -5°C to +40°C IP RATING IP2XD MAX. INSTALLATION ALTITUDE 2000 metres

	MODEL	MINIMUM BOX DEPTH	BOX DEPTH FOR EXTRA WIRING SPACE MINIMUM BOX DEPTH	
	DIMENSIONS	25mm*	35mm	
		*For compliance to BS 1363 use either a 35mm back box or the K1000 pattress		

Note: When carrying out insulation resistance testing, first **DISCONNECT** the product. Failing to do this could damage the product and could also give spurious insulation readings.



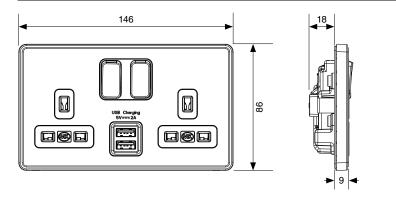
#### **DESCRIPTION**

A range of socket outlets designed for ease of installation and having all the advantageous design features of the MK range of wiring devices. 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 EARTH



# WIRING DEVICES TECHNICAL

# **ROUND PIN SOCKET OUTLETS**

# STANDARDS AND APPROVALS

#### 5A Unswitched Socket

BS546:1950 IEC60884-1:2006

#### 5A Switchsocket

BS546:1950 IEC60884-2-3:2006

#### 15A Switchsocket

BS546:1950

# **TECHNICAL SPECIFICATION** ELECTRICAL **VOLTAGE RATING** 250V a.c. **TERMINAL CAPACITY** 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



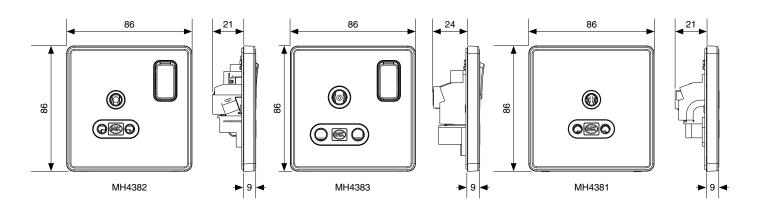


#### **DESCRIPTION**

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 L 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

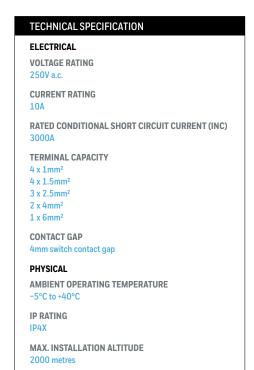


# WIRING DEVICES TECHNICAL

# THREE POLE FAN ISOLATORS

# STANDARDS AND APPROVALS

Comply with BS EN 60669-2-4:2005



## **DESCRIPTION**

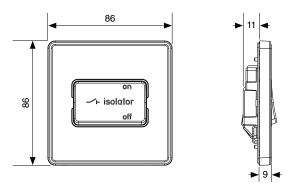
The MK Three Pole Fan Isolator provides a safe and simple method of isolating mechanical fan units and is particularly useful in bathrooms, toilets, storerooms and basements where there is little or no natural light. For example, timer controlled fans are often linked into the lighting circuit for energy 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.

#### **FEATURES**

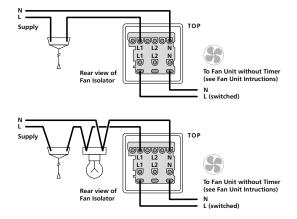
 SWITCHLOCK LIST NO. K4858 IS AVAILABLE TO ALLOW THE ISOLATOR TO BE LOCKED IN THE DISCONNECTED POSITION TO FACILITATE FAN MAINTENANCE

#### DIMENSIONS (MM)

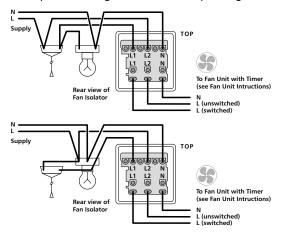


#### WIRING DIAGRAMS

Two pole switching for fan units without timers



Three pole switching for fan units incorporating timers



# WIRING DEVICES TECHNICAL

# SHAVER/TOOTHBRUSH SUPPLY UNITS

# STANDARDS AND APPROVALS

Shaver/Toothbrush supply units comply with BSEN 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 13.7 MM (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**

A 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** 

230V a.c. Input 50/60Hz (will operate at 220-250V a.c.)

**CURRENT RATING** 

200mA max.

(internal thermister over current protection)

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

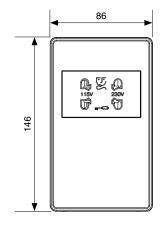
2000 metres

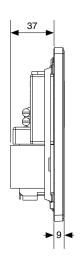
#### INSTALLATION

Shaver/Toothbrush supply unit should be wall mounted.

## **FEATURES**

- TOP ACCESS TERMINAL SCREWS MAKE WIRING QUICKER AND FASIER.
- 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





# WIRING DEVICES TECHNICAL

# 13A CONNECTION UNITS, 20A SWITCH AND 25A FLEX OUTLET

# STANDARDS AND APPROVALS

All Connection Units comply with BS 1363-4:2016.

All 20A DP Switches comply with BS EN 60669-1:1999.

Flex Outlet complies with BS 5733:2010.

Fuses comply with BS 1362:1973.

#### TECHNICAL SPECIFICATION ELECTRICAL **VOLTAGE RATING** 250V a.c. **CURRENT RATING Connection Units: 13A** DP switch: 20A Flex outlet: 25A **TERMINAL CAPACITY** Supply terminal: **Load terminals:** 3 x 2.5mm 3 x 2.5mm 2 x 4mm 2 x 4mm 2 x 6mm 2 x 6mm **CORD GRIP CAPACITY Connection units:** min: 2 core, 0.5mm max: 3 core. 1.5mm 20A DP switches & flex outlet: min: 3 core, 1.5mm max: 3 core, 2.5mm PHYSICAL AMBIENT OPERATING TEMPERATURE -5°C to +40°C IP RATING IP2XD MAX. INSTALLATION ALTITUDE 2000 metres

## **DESCRIPTION**

A range of 13A fused connection units, 20A DP switches and 25A flex outlets 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  $175^\circ$  visibility in the horizontal and vertical planes.

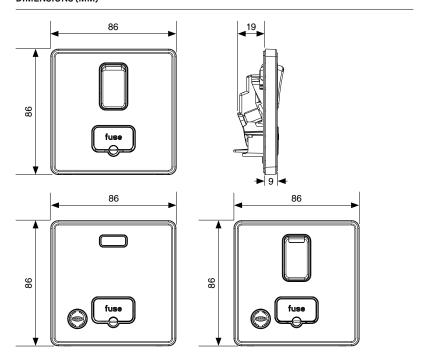
#### **Fuse carriers**

These are captive and are opened by a fast acting, screwdriver operated worm drive for ease of replacement. Fuse carriers can be locked open using a padlock.

#### Flex outlet

An unfused flex outlet with cord grip and 3 pairs of terminals.

## DIMENSIONS (MM)



# INSTALLATION

#### Wiring

Products must be installed in accordance with current IET Regulations.

#### **Changing Fuses**

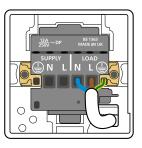
- 1. Unscrew the fuse carrier screw to partially eject the carrier.
- Carefully lever the carrier out further to remove the fuse. Note: The carrier does not come fully out.
- **3.** Always replace with a BS 1362 type fuse (as used in 13A plugs) of the correct rating.
- **4.** Consistent fuse blowing could mean a faulty appliance. If in doubt, consult a qualified electrician.
- 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.

# WIRING DEVICES TECHNICAL

# 13A CONNECTION UNITS, 20A SWITCHES AND FLEX OUTLETS

## **FEATURES**

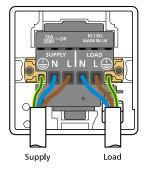
- OPTIONAL INDICATORS IN THE SWITCH ROCKERS WITH 175° VISIBILITY IN THE HORIZONTAL AND VERTICAL PLANES
- WORM-DRIVE OPERATED FUSE CARRIERS FOR ADDITIONAL SECURITY
- FUSE CARRIER LOCKABLE IN OPEN POSITION
- ALL SUPPLY AND LOAD CABLES CAN BE CUT AND STRIPPED TO THE SAME LENGTH
- INTEGRALLY WIRED NEON INDICATORS SAVE INSTALLATION TIME
- PUSH-FIT CORD GRIPS, FOR SAFER, QUICKER INSTALLATION (EXCEPT 25A FLEX OUTLET)
- 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



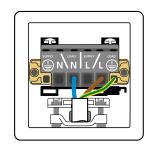
Front outlet cord grip



Lockable fuse carrier



Supply and non flexible load

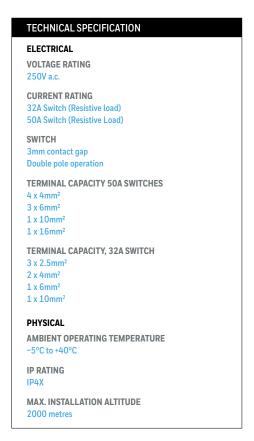


# WIRING DEVICES TECHNICAL

# HIGH CURRENT SWITCHES

# STANDARDS AND APPROVALS

All DP switches in the range comply with BS EN 60669-1:1999.

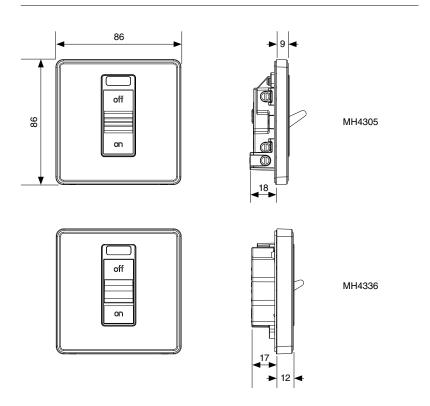


## **DESCRIPTION**

A range of switches 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



# **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

#### 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





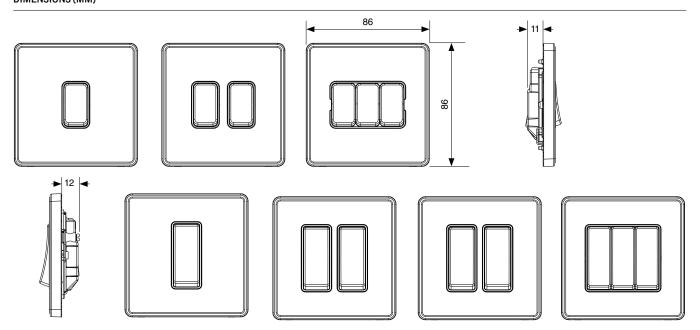


## **DESCRIPTION**

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.

## **FEATURES**

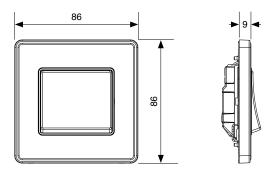
- TWO WAY SWITCHES CAN BE WIRED AS ONE OR TWO WAY
- MATCHING GRID SWITCHES AVAILABLE IN 10 OR 20A RATINGS
- 3MM SWITCH CONTACT GAP
- POSITIVE SWITCH ACTION
- TOP ACCESS, BACKED OUT AND CAPTIVE TERMINAL SCREWS



# WIRING DEVICES TECHNICAL

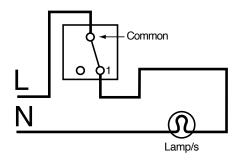
# **PLATESWITCHES**

## DIMENSIONS (MM)

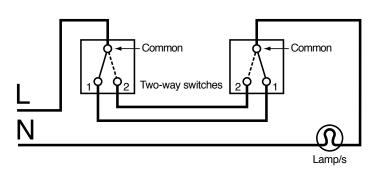


#### WIRING DIAGRAMS

# **One-way switching**

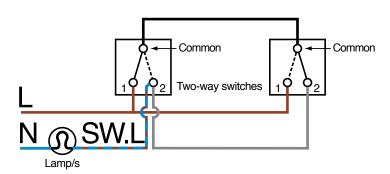


# Two-way switching - 2 wire control



Dotted lines show alternative switch positions

# Two-way switching - 3 wire control



Dotted lines show alternative switch positions

# DIMMER SWITCHES

# STANDARDS AND APPROVALS

All CE marked Dimensions 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 FREQUENCY

50Hz

60Hz (MH1661\* only)

#### TYPE OF LOADS

#### 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.

MH1523LV\* and MH1524LV\* are 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 use with leading edge dimmers

Warning: These dimmer switches are not suitable for use with Fluorescent Lamps or CFL Lamps.

#### PHYSICA

AMBIENT OPERATING TEMPERATURE

0°C to +40°C

IP RATING

MAX. INSTALLATION ALTITUDE

2000 metres

#### **DESCRIPTION**

# MK dimmer switches can fall into one of four categories

- 1. Non-UK Dimmer Switches
- 2. LED Intelligent Dimmer Switches

#### **LED Intelligent Dimmer Switches**

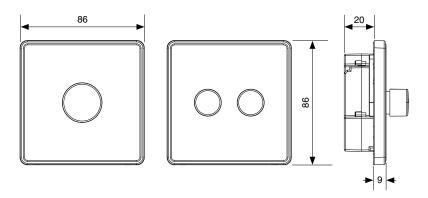
Dimmer Switches belonging to this category, employ the latest, state of the art, micro-controller based electronic circuitry and use current sensing to compute the load conditions. These products show progressive reaction to overload conditions, depending on the extent of overload as shown in the table below. List numbers belonging to this category are identified by the suffix letters LV. All MK Intelligent Dimmer Switches employ one pole change over switches to facilitate two way switching.

NOTE: MK LED Intelligent Dimmer Switches are not suitable for use with Fluorescent Loads, including CFL Lamps.

# \*Non-UK Dimmer Switches

Dimmer switches belonging to this category conform to safety and functional 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.

NOTE: Only one Dimmer Switch can be used in a two-way switching circuit.



# WIRING DEVICES TECHNICAL

# MINIMUM BRIGHTNESS ADJUSTMENT FOR LED INTELLIGENT DIMMERS

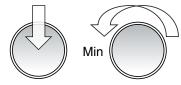
The light output of some LED lamps may appear to be too dim or invisible when the dimmer knob is at the minimum dim level. Follow the steps below to adjust the minimum brightness level. This feature is primarily for adjusting the minimum brightness level of the LED lamp although it can be used for other 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.



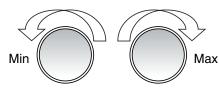


3. Turn on the dimmer and immediately rotate the knob 3 times in full rotary span within 5 seconds.

Push to switch ON





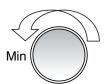


NOTE: Wait for 3 seconds, the lamp will then dim to minimum before automatically brightening to about 30% level. Turning/pushing the dimmer knob before the end of automatic brightening will end access to programming mode

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.



Turn anticlockwise to adjust the 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.

Push to switch OFF



# 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.

# WIRING DEVICES TECHNICAL

# **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

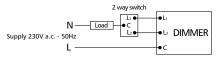
- SUITABLE ONLY FOR USE WITH FUSED GLS TUNGSTEN FILAMENT LAMPS TO BS EN 60064 AND BS EN 60432-1
- ONE WAY DIMMER SWITCHES INCORPORATE MANUAL SOFT START
- INCORPORATE THERMAL SWITCHES FOR PROTECTION AGAINST OVERLOAD

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
	single dimmer	40-300W	40-240W/VA	=	4	-
INTELLIGENT DIMMER SWITCHES	double dimmer	2 x 40-300W	2 x 40-240W/VA	=	4 per dimmer	=
OWITCHES	single dimmer	60-500W	60-400W/VA	=	5	=
	single dimmer	40-250W	-	-	-	-
STANDARD DIMMER SWITCHES	double dimmer	2 x 40-250W	-	-	-	-
SWITCHES	single dimmer	65-450W	-	-	-	-
LED INTELLIGENT	single dimmer	40-300W	40-240W/VA	4-70W	4	10
DIMMER SWITCHES	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** One-way switching Supply 230V a.c. - 50Hz ●□ DIMMER N — Load

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		

Note: The dimmer may be substituted for any Two-Way switches.

# WIRING DEVICES TECHNICAL

# **EURO FRONTPLATES**

# STANDARDS AND APPROVALS

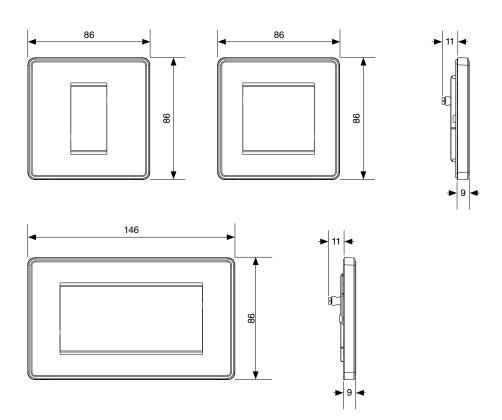
BS 5733:2010

# **DESCRIPTION**

Frontplates used for mounting snapfit modules.

# **FEATURES**

- 1, 2 & 4 MODULE EURO FRONTPLATES
- 1 MODULE EURO FRONTPLATE ACCEPTS 1 EURO MODULE (25MM X 50MM APERTURE)
- 2 MODULE EURO FRONTPLATE ACCEPTS 2 EURO MODULE (50MM X 50MM APERTURE)
- 4 MODULE EURO FRONTPLATE ACCEPTS 4 EURO MODULE (100MM X 50MM APERTURE)
- 1 & 2 MODULE EURO FRONTPLATES FITTED WITH EARTH STRAP AND 1 EARTH TERMINAL
- 1 AND 2 MODULE EURO BLANKS AVAILABLE
- 4 MODULE EURO FRONTPLATES FITTED WITH EARTH STRAP AND 2 EARTH TERMINALS



# **COMBINATION PLATE**

# STANDARDS AND APPROVALS

Dimension 13A socket outlets comply with BS 1363: Part 2:2016.

Combination plates 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	35mm Mounting Box	
MH4206	870ZIC	875ZIC	
MH4207	870ZIC	875ZIC	



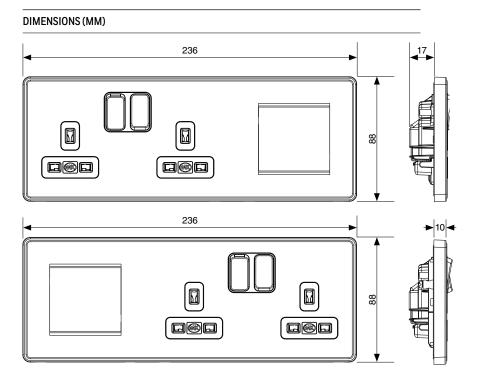
## **DESCRIPTION**

A range of combination plates designed for ease of installation and having all the advantageous design features of the Dimensions range. These combination socket outlets provide interior designers and installers with a stylish and practical wiring device solution.

#### 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
- 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

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

# **GRID SWITCH MODULES**

# STANDARDS AND APPROVALS

All Dimensions switches comply with BS EN 60669-1:1999.

# TECHNICAL SPECIFICATION ELECTRICAL VOLTAGE RATING 250V a.c.

**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** 

 $4 \ x \ 1 mm^2$ 

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

IP4X

MAX. INSTALLATION ALTITUDE

2000 metres

BOX TYPES	
	Flush
1 and 2 gang switches	891ZIC (40mm deep)
3 and 4 gang switches	892ZIC (40mm deep)
6 and 8 gang switches	2 x 893ZIC (40mm deep)







## **DESCRIPTION**

Dimensions Grid Switch Modules require a separate frontplate, when ordering ensure the appropriate module and frontplate is selected.

# **FEATURES**

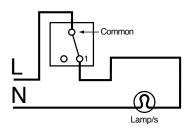
- SWITCH CONTACTS WITH SILVER CONTACTS ON BOTH SURFACES FOR GOOD CONTINUITY
- POSITIVE SWITCH ACTION
- ONLY ONE SIZE OF SCREWDRIVER REQUIRED FOR INSTALLATION
- BACKED OUT AND CAPTIVE TERMINAL SCREWS

# WIRING DEVICES TECHNICAL

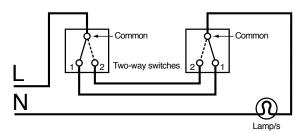
# **GRID SWITCH MODULES**

#### WIRING DIAGRAMS

One-way switching



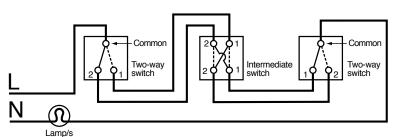
Two-way switching – 2 wire control



Dotted lines show alternative switch positions

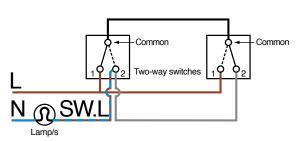
Two-way switching plus intermediate switching

– 2 wire control



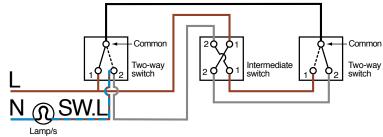
Dotted lines show alternative switch positions

Two-way switching – 3 wire control



Dotted lines show alternative switch positions

Two-way switching plus intermediate switching – 3 wire control



Dotted lines show alternative switch positions

Note: Switches incorporating indicator or locator illumination must be disconnected before carrying out any site installation testing. Terminal positions may alter. The above diagrams are to show wiring layout.

# Inspiration starts here WIRING DEVICES TECHNICAL

# **GRID FRONTPLATES**

# FRONTPLATE DIMENSIONS (MM)

# DO NOT DISTURB / MAKE UP ROOM SWITCHES

# STANDARDS AND APPROVALS

All Dimensions switches comply with BS EN 60669-1:1999.

# **TECHNICAL SPECIFICATION** ELECTRICAL **VOLTAGE RATING** 250V a.c. **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> **PHYSICAL** AMBIENT OPERATING TEMPERATURE -5°C to +40°C **IP RATING** MAX. INSTALLATION ALTITUDE 2000 metres

BOX TYPES		
	Flush	
All switches	861ZIC (25mm deep)	

## **DESCRIPTION**

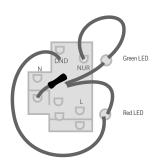
The Dimensions Do Not Disturb / Make Up Room Switches have been developed along with a number of other products for hotels and hospitality venues, offering guests comfort and control.

# **FEATURES**

- 8 STANDARD FINISHES
- 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

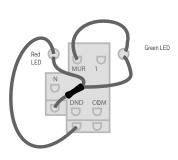
# CONNECTION OF LED INDICATORS

## Room Switch – Inside "Occupancy Selector"



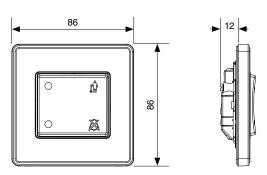
# Corridor Switch - Outside

"Bell Push/Indicator"

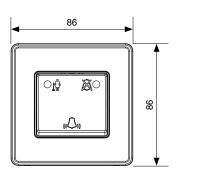


## **DIMENSIONS (MM)**

#### **ROOM SWITCH**



#### **CORRIDOR SWITCH**





# WIRING DEVICES TECHNICAL

# **KEYCARD SWITCH WITH TIME DELAY**

# STANDARDS AND APPROVALS

BS EN 60669-2-1:2004

# 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 MAX. INSTALLATION ALTITUDE 2000 metres TIME DELAY (NON ADJUSTABLE)

вох	BOX TYPES			
	Flush	Flush (for extra wiring space)		
1 Gang	861ZIC (25mm deep)	877ZIC (46mm deep)		

## **DESCRIPTION**

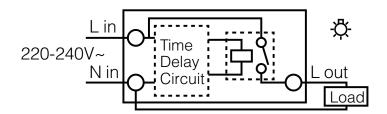
The Dimensions Keycard Switch with Time Delay has been developed along with a number of other products for hotels and hospitality venues, offering guests comfort and control, whilst delivering energy efficiency by avoiding energy waste in unoccupied rooms.

The Keycard Switch has a fixed time delay; once the card is removed guests are not left in the dark.

# **FEATURES**

- 8 STANDARD FINISHES
- 30 SECOND FIXED TIME DELAY

#### WIRING DIAGRAM



# **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

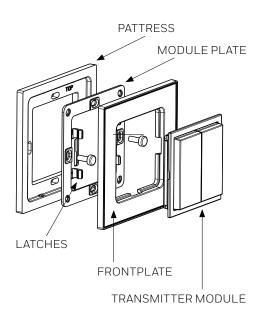
MAX. INSTALLATION ALTITUDE

2000 metres

#### MOUNTING TRANSMITTERS

- ALL TRANSMITTERS CAN BE MOUNTED TO ANY 1 GANG BACK BOX
- ALL TRANSMITTERS CAN BE MOUNTED DIRECTLY TO THE WALL SURFACE

# FRONTPLATE AND MODULE INSTALLATION



## **DESCRIPTION**

The Dimensions Echo™ Transmitters are part of an innovative range of entirely wireless, batteryless and self powered switches. The Dimensions Echo™ Transmitters communicate with Echo™ receivers to switch mains power.

Dimensions Echo $^{\circ}$  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**

- 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

