

### 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<sup>™</sup> 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<sup>™</sup> is an innovative range of entirely wireless, batteryless and self powered switches and in finishes to complement the Metalclad Plus<sup>™</sup> range. Please see page 21 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<sup>™</sup> is ideal for factories, workshops, garages and sheds. White Metalclad Plus<sup>™</sup> is ideal for Schools and Sports Halls.

#### COMPREHENSIVE RANGE

Suits all your needs where hard wearing performance is required.

### FRONTPLATES HAVE SMOOTHLY CHAMFERED EDGES

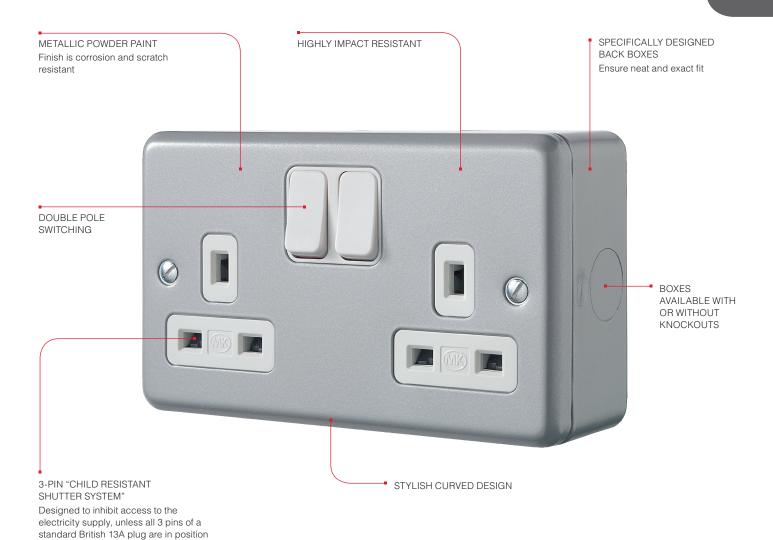
Fits flush with the backbox providing a neat finish.

#### 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.





Funnel entrance to terminals enables positive cable connection.



Outboard rocker sockets are ideal for gloved hands.



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

Clear terminal markings for easy identification.





**Switchsocket Outlets** 2 GANG DP WITH 2 X USB CHARGING PORTS WITH OUTBOARD : DP ROCKERS DUAL EARTH WITH NEONS 13 AMP 13 AMP 1 GANG DP 13 AMP 13 AMP () or O 11 ы н. П 0 0 3 0 0 • 0 ----1 -п 3 9 . 0 0 0 3 0 ---K2477D6ALM . T • 0 0 . ---. 0 8 • -K2977ALM 5 K3077WHI 10 K2943D5ALM K2945ALM 5 K2477ALM 5 K2435ALM 1 1 1 GANG DP WITH 2 GANG DP WITH DUAL 2 GANG DP 1 GANG DP 13A DP KEY 1 GANG DP WITH NEON AND DUAL DUAL EARTH WITHOUT BOX EARTH TERMINALS WITH OUTBOARD **OPERATED SOCKET** TERMINALS WITH INTEGRAL USB ROCKERS AND DUAL EARTH TERMINALS K3046WHI 5 Earth terminal fitted in boxes. K2977D5ALM CHARGING WITHOUT EARTH TERMINALS K2477D6ALM 2 GANG DP 1 1 DIMENSIONS 1 GANG DP WITH DUAL BOX K2945D5ALM WITHOUT BOX 5 1 GANG DP 86 x 146 x 51mm K2943D5WHI EARTH TERMINALS 2 GANG DP WITH NEON, 1 KNOCKOUTS WITH OUTBOARD WITHOUT BOX 2 GANG DP WITH DUAL RED ROCKER AND DUAL 8 x 20mm – Three in top two in bottom sides and one in each end. One in base. EARTH TERMINALS ROCKERS AND DUAL EARTH TERMINALS K2977D6ALM 1 WITH INTEGRAL USB EARTH TERMINALS 1 GANG DP WITH RED K2446ALM 5 MOUNTING BOX CHARGING WITHOUT WITHOUT BOX ROCKER AND DUAL 2 GANG DP K830ALM\* K897ALM (\*without side knockouts) BOX K2945D6ALM EARTH TERMINALS 1 WITH NEONS 2 GANG DP All boxes have a base K2946ALM K2446D6ALM 5 Features 2 USB charging sockets, each capable of supporting 2A charge 1 WITH RED OUTBOARD 2 GANG DP 2 GANG DP BOXES ROCKERS AND DUAL WITH NEONS K2946D5ALM 1 (total of 2A) BS5733: 2010 S 5733:2010 EARTH TERMINALS AND RED ROCKERS 2 GANG DP SOCKET K3045WHI 5 BS 1363-2:1995 WITHOUT BOX MOUNTING BOX 2 GANG DP K897ALM K897WHI K2946D6ALM 1 WITHOUT BOX 2 GANG DP WITH WITH OUTBOARD **RED ROCKERS** ROCKERS AND DUAL EARTH TERMINALS \*without side knockouts) Earth terminal fitted in boxes. All boxes have a base knockout. DIMENSIONS BOXES **1 gang** 86 x 86 x 51mm **2 gang** 86 x 146 x 51mm BS 5733:2010 KNOCKOUTS SOCKET 1 gang  $6 \times 20$ mm – Two in one side and one in each of the other three sides. One in base. 2 gang  $8 \times 20$ mm – Three in top two in bottom 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 and one in each end. One in base SPARE BOXES 1 gang K829ALM\* K899ALM 2 gang K830ALM\* K897ALM double earth facility for use when installations require a high integrity protective connection as specified within BS 7671:2008

226

ric.co.uk 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)



each end

SPARF BOX BS 7288:1990

### Metalclad Plus<sup>™</sup>

#### **Socket Outlets** RCD PROTECTED NON STANDARD ROUND PIN **ROUND PIN** 13 AMP 13 AMP 13 AMP 24. 0 ۲ • 8 0 0 0 0 8 • • • . 1 --10 . 9 0 8 0 ۲ ۲ 0 0 -. . -----П $oldsymbol{O}$ ø 0 0 0 8 -• ٦ 0 **N** K6102ALM 1 K2871ALM 1 K1247ALM 5 **K848ALM** 5 **K841ALM** 5 1 GANG DP WITH 1 GANG DP 1 GANG 1 GANG 1 GANG 10mA ACTIVE CIRCUIT 5A DP CLEAN EARTH FACILITY 2A K850ALM 5 SHUTTERED SHUTTERED K1247D6ALM K6302ALM 1 1 2 GANG K842ALM K2873ALM WITH DUAL EARTH 5 5 1 GANG DP 1 GANG DP 30mA ACTIVE CIRCUIT WITH RED ROCKER AND 1 GANG TERMINALS 1 GANG 15A DP **CLEAN EARTH FACILITY** K6305ALM 5A 1 **K850ALM** has two earth terminals providing a double earth facility when installations require a high integrity SHUTTERED SHUTTERED K1248ALM 1 1 GANG DP K843ALM 30mA PASSIVE CIRCUIT 2 GANG DP WITH 5 Earth terminal fitted in boxes. protective connection as specified within BS 7671:2008.. CLEAN EARTH FACILITY 1 GANG K6231ALM 1 DIMENSIONS K1248D6ALM 15A 2 GANG SP 1 86 x 86 x 51mm DIMENSIONS SHUTTERED 30mA ACTIVE CIRCUIT KNOCKOUTS 2 GANG DP **1 gang** 86 x 86 x 47mm **2 gang** 86 x146 x 47mm 6 x 20mm – Two in one side and one in each of other three sides. One WITH RED ROCKERS AND K6233ALM 1 Earth terminal fitted in box. CLEAN EARTH FACILITY KNOCKOUTS 2 GANG SP in hase DIMENSIONS **1 gang** 6 x 20mm – Two in one side and one in each of other three sides. 30mA PASSIVE CIRCUIT Spare Boxes with and without 86 x 86 x 47mm These products are provided with facilities for 'clean earth' connection and are suitable for non standard knockouts are available. KNOCKOUTS One in base. All boxes have a base knockout. 6 x 20mm – Two in one side and one in each of other three sides. One It is important to ensure that the 2 gang 8 x 20mm – Three in top, two correct control circuit, active or passive, is selected for each application. See page 288 for BS 546:1950 plugs with 'T' shaped earth pin. Earth terminal fitted in boxes. in bottom sides and one in each end. in base. One in base. Spare Boxes with and without Spare Boxes with and without NOTE definition. Only suitable for supply voltage of knockouts are available. A suitable plug for these non standard sockets is 647WHI, see page 240. knockouts are available All boxes have a base knockout. All boxes have a base knockout. BS 546:1950 BS 1363-2:1995 DIMENSIONS DIMENSIONS **1 gang** 86 x 86 x 51mm **2 gang** 86 x 146 x 51mm 4mm KNOCKOUTS KNOCKOUTS 8 x 20mm – Three in top side, two in bottom side, one in base and one in **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

227



Features and Benefits





A secret key-operated switch helps prevent

unauthorised usage

When servicing or

repairing appliances fuse carriers on connection

units can be padlocked

for additional safety

### An optional tamperproof screw on the fuse carrier is particularly useful for appliances in public areas

In-line terminals means

the same length. White

printing gives instant

terminal identification

A simple but effective

cord grip securely

holds the cable in

connection units

that cables can be cut to







Backboxes come with or without side knockouts. All boxes have a central knockout in the base for added on-site flexibility

#### K2271ALM 1 GANG SHUTTERED (NON UK) K2272ALM 2 GANG SHUTTERED (NON UK)

Socket Outlets

127V

(NON UK)

8

II 6

K2271ALM

å

.

۲

15 AMP

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

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 DIMENSIONS KNOCKOUTS 6 x 20m

Connection

Units

FUSED

13 AMP

SWITCHED

I.

D.

(963KOALN

K962AL M

O

0

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.

pago LLO.



	$\cup$	
-		

K3062WH

K3042WHI DP SWITCHED WITHOUT BOX K3062WHI DP SWITCHED WITH NEON WITHOUT BOX

1

5

1

5

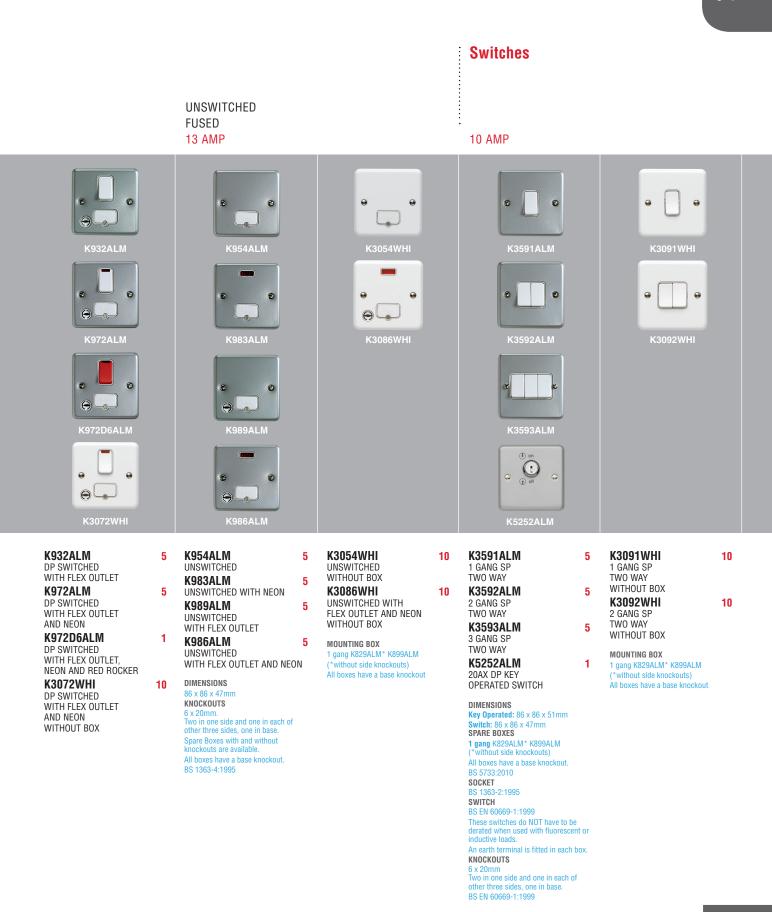
1

10

10

All units are supplied with backboxes (except WHI, D5 products and Blankplates)





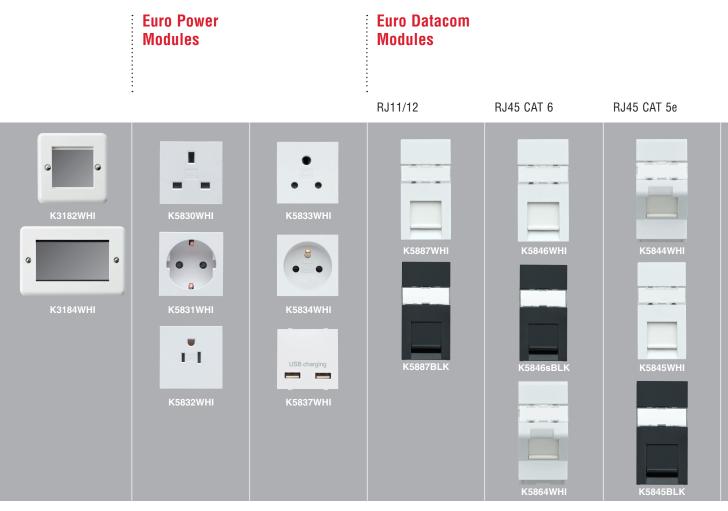
### Metalclad Plus<sup>™</sup>



**Switches** ÷ **DP Switches Triple Pole Euro Data Frontplates** WIDE ROCKERS 32 AMP AND 32 AMP AND 20 AMP **50 AMP** 10 AMP 10 AMP 8 0 0 K5212AI M 0 0 8 0 ø 0 0 0 ---- isolator 3 0 0 8 0 K3781ALM 5 K5212ALM 5 K5240ALM 1 K5116ALM **K181ALM** 5 32A DP SWITCH 32A THREE POLE AND N SWITCH **1 GANG EURO FRONTPLATE** 1 GANG SP DP SWITCH TWO WAY WITH NEON WITH NEON AND ONE MODULE K5232ALM 1 WITH WIDE ROCKER EARTH TERMINAL APERTURE SIZE 25 X 50MM K5230ALM DP SWITCH 1 K3782ALM K2857ALM K182ALM 5 WITH NEON 50A DP SWITCH 5 10A THREE POLE FAN ISOLATOR **1 GANG EURO FRONTPLATE** 2 GANG SP WITH NEON K5242ALM 5 WITH SWITCHLOCK TWO MODULE TWO WAY DP SWITCH Earth terminal fitted in base of box. WITH WIDE ROCKERS AND PADLOCK APERTURE SIZE 50 X 50MM WITH FLEX OUTLET DIMENSIONS K2859ALM K184ALM AND NEON 1 **K5240** 86 x 86 x 65mm **K5230** 147 x 86 x 65mm These switches do NOT have to be 10A THREE POLE FAN ISOLATOR WITHOUT SWITCHLOCK 2 GANG EURO FRONTPLATE K3012WHI derated when used with fluorescent or inductive loads. 10 FOUR MODULE KNOCKOUTS DP SWITCH **K5240** 6 x 20mm. Two in one side and one in each of other three sides, one in base. APERTURE SIZE 100 X 50MM An earth terminal is fitted in each box. WITHOUT BOX K4858 10 DIMENSIONS SWITCHLOCK MOUNTING BOXES Earth terminal fitted in base of box. FOR FAN ISOLATOR K5230 4 x 20mm, 4 x 25mm Mounting Box is not supplied with frontplate. KNOCKOUTS DIMENSIONS SPARE BOX 6 x 20mm. Two in one side and one in each of **K5240** K8901ALM **K5230** K8902ALM K5116 Suitable for flush boxes to BS 4662:2006 and surface boxes to BS 5733:2010 Refer to appropriate 440V max. AC22, 12kW (16HP) & 415V, 3 phase 32A continuous duty. KNOCKOUTS other three sides, one in base 6 x 20mm. Two in one side and one in each of other three sides, one in base. All boxes have a base knockout. Spare Boxes with and without Making capacity is 2000A peak. knockouts are available BS EN 60669-1:1999 module for m nimum box depth. Lockable 'ON' or 'OFF' with MK padlock no K2000. FIXING CENTRES All boxes have a base knockout. BS EN 60669-1:1999 Spare Boxes with and without **1 gang** 60.3mm **2 gang** 120.6mm knockouts are available. K2857 All boxes have a base knockout. BS EN 60669-1:1999 For local isolation of fans with or without timers for repair or routine STANDARDS BS 5733:2010 where applicable DP Switches are not recommended for DIMENSIONS NOTE **K5116** 147 x 86 x 65mm **K2857** 86 x 86 x 47mm switching large banks of PCs. No grid required, modules just clip into place 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

All units are supplied with backboxes (except WHI, D5 products and Blankplates)

BS EN 60947-3:1999 BS EN 60669-2-4 (K2857



- K3182WHI 1 GANG EURO FRONTPLATE TWO MODULE APERTURE SIZE 50 X 50MM
- K3184WHI 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.

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671:2008 for details. 
 K5830WHI
 10

 K5830BLK
 10

 UK 1 GANG
 10

 EURO 2 MODULE
 13A 250V SHUTTERED

 K5831WHI
 10

 K5831BLK
 10

1

1

GERMAN 2P+E 16A 250V SHUTTERED EURO 2 MODULE (NON UK)

K5832WHI K5832BLK AMERICAN 2P+E 15A 127V SHUTTERED EURO 2 MODULE

10

10

(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 K5632 MOUNTING BOX: 35mm 46mm (for extra wiring space) DIMENSIONS

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 U K5837WHI 1 K5837BLK 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)

**K5887WHI** 5 **K5887BLK** 5 RJ11/12 ONE MODULE 25 X 50MM

Suitable for both RJ11 and RJ12 jacks RJ11 4 wire RJ12 Curine

6 Wire MOUNTING BOXES Minimum box depth 25mm FCC68 EN 41003 K5846WHI 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 5¢ ANGLED 0NE MODULE 25 X 50MM K5845WHI 5 K5845BLK 5 RJ45 CAT 5¢ 0NE 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

DIMENSIONS 50 x 50mm

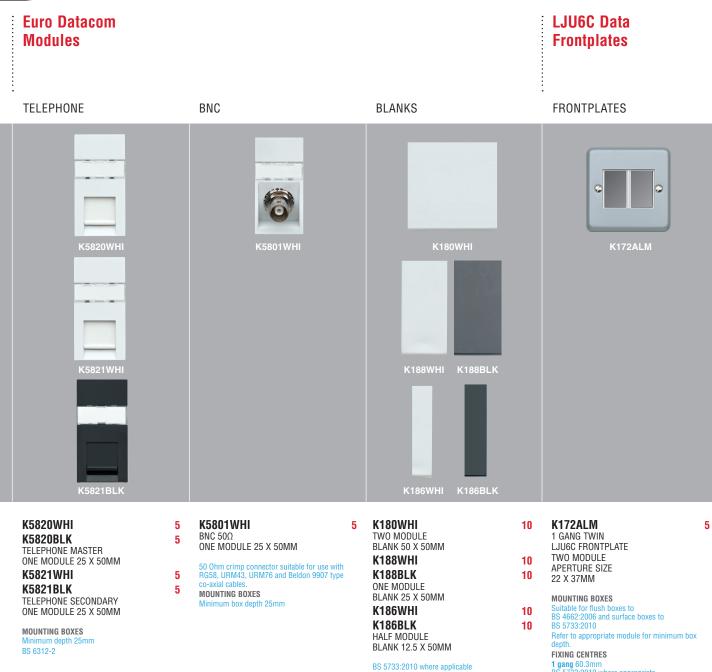
Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max) Allows charging of portable devices via USB 2.0 type A plug. IEC 60950-1 IEC 61000-6-1/3

Logic Plus pages 46-48

For the full range of euro modules see

# Metalclad Plus<sup>™</sup>

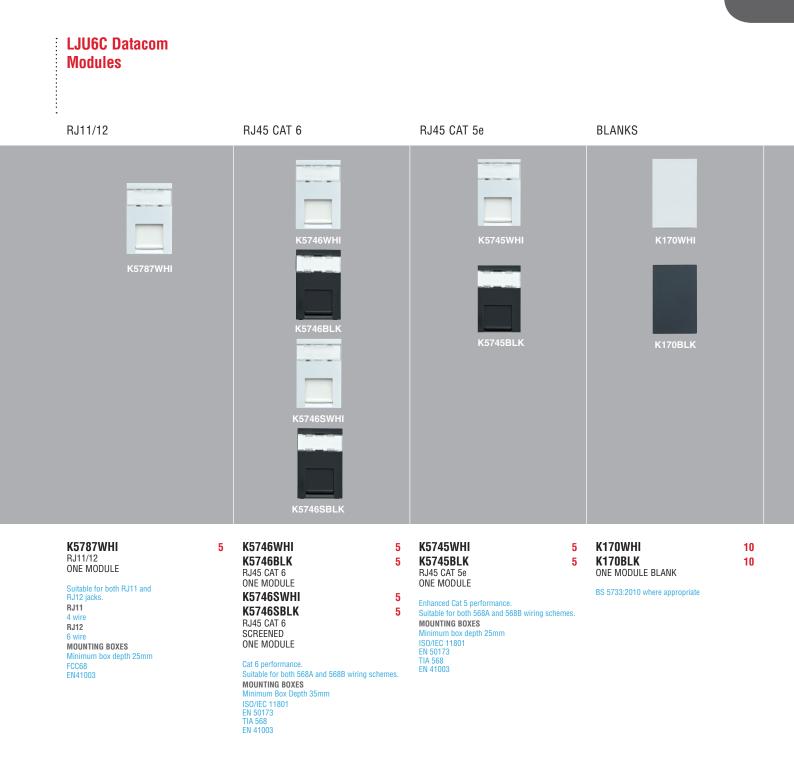
(MK)



**1 gang** 60.3mm BS 5733:2010 where appropriate

NOTE No grid required, modules just clip into place







#### **Blank Plates Boxes** ÷ ÷ **Grid Plus Frontplates** 8 0 8 0 a 0 0 0 0 . 0 0 0 ۲ 0 0 0 • 0 . . K829ALM 5 **K897ALM** 5 K3390ALM 5 K3491ALM 10 K3491WHI 10 1 GANG 1 MODULE 1 MODULE K3390WHI K897WHI 5 5 WITHOUT KNOCKOUTS K3492ALM K3492WHI 2 GANG 1 GANG 10 10 K830ALM 8 X 20MM KNOCKOUTS 5 K3369ALM 2 MODULE 2 MODULE 5 2 GANG K3493ALM K3493WHI 5 5 K3369WHI 5 WITHOUT KNOCKOUTS 3 MODULE 3 MODULE 2 GANG K899ALM 10 K3494ALM K3494WHI 5 5 K899WHI DIMENSIONS 10 4 MODULE 4 MODULE 1 GANG K3390 86 x 86mm K3369 86 x 147mm K3496ALM 1 6 X 20MM KNOCKOUTS 6 MODULE FIXING CENTRES K3390 60.3mm K3369 120.6mm All boxes are fitted with a brass earth terminal and a base knockout. K3498ALM 1 8 MODULE BS 5733:2010 DIMENSIONS K3499ALM 1 Blank plates supplied without **1 gang** 86 x 86 x 38mm **2 gang** 86 x 147 x 38mm backboxes. 9 MODULE These boxes are not suitable for mounting Grid Plus modules or modular data/telecom modules. K3502ALM 1 12 MODULE K3508ALM BS 5733:2010 1 18 MODULE K3514ALM 1 24 MODULE DIMENSIONS

 UIMENSIONS

 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.

Technical Hotline +44 (0)1268 563720

(MK)

Echo<sup>™</sup> is an innovative range of entirely wireless, batteryless and self-powered switches, only available from MK Electric.

### Echo™ Transmitters

1 AND 2 CHANNEL TRANSMITTERS FOR ECHO™



#### 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 permittable 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<sup>™</sup> 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.

For more information on Echo<sup>™</sup>, please see the Echo<sup>™</sup> section page 21.

K3786ALM	
K3786WHI	
1 CHANNEL SWITCH	
TRANSMITTER	
FOR ECH0™	
K3787ALM	
K3787WHI	
2 CHANNEL SWITCH	
TRANSMITTER	
FOR ECHO™	
OPERATING FREQUENCY	
868 3 Mbz	

1 1

868.3 Mhz IP RATING IP2 x D DIMENSIONS 86 x 86mm BS EN 60669-1 BS EN 60669-2-1 ETSI EN 301 489-1+ -3 ETSI EN 300 220-3