

**INGRESS PROTECTED** 

www.mkelectric.co.uk



The award winning Masterseal range has been specifically designed for use in either outdoors or indoors and in areas heavily exposed to dust and splashing water. In the garden, workshop, industry, or on farms, there are situations where a supply of electricity, although potentially dangerous, is essential. Scientifically sealed to IP56 and tested by MK well in excess of British Standards, it will protect you and your electrical supply in the unfriendliest of environments. Masterseal sockets are unique in that they can seal around virtually any standard 13 amp plug, allowing safe connection for any appliance.

### Waterproof

Protection from strong jets of water from any direction, and protection from dust, sawdust and small particles

### **Robust construction**

It will not discolour, crack or fade in UV light (unlike many other plastics)

### **Temperature tolerant**

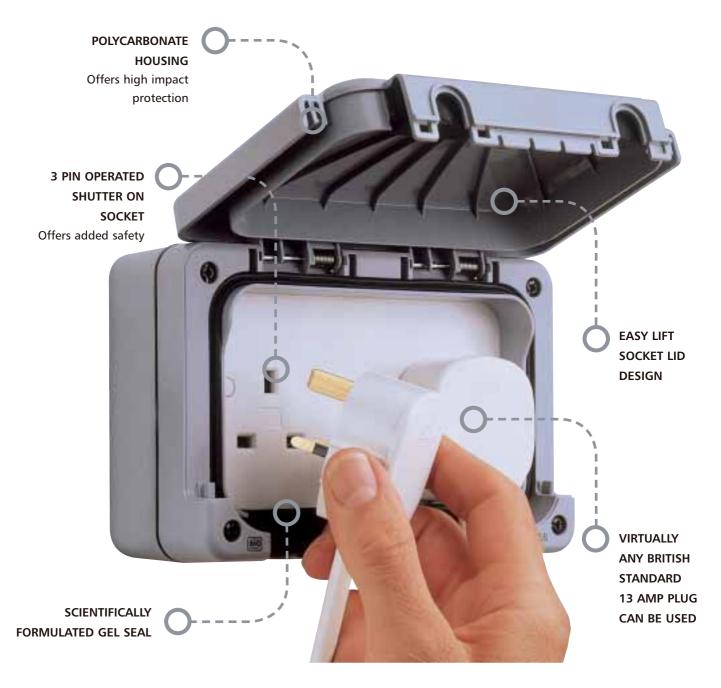
Will maintain operation in extremes of heat and cold

### Impaction protection

The Masterseal range is made with polycarbonate, one of the toughest thermoplastics available today – so tough and durable that it's used in motorcycle helmets and car bumpers



**INGRESS PROTECTED** 



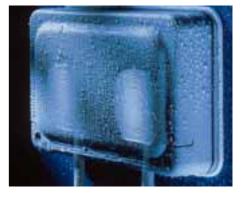
### WHY POLYCARBONATE?

The Masterseal range is made with Polycarbonate, one of the toughest thermoplastics available today – so tough and durable that it's used in motorcycle helmets and car bumpers. It will not discolour, crack or fade in UV light (unlike many other plastics), it has good resistance to most chemicals and will maintain its high resistance to impact in extremes of heat and cold.

Waterproof connection to safeguard home and family



Masterseal's unique design means socket outlets retain their IP56 rating when in use





### **INGRESS PROTECTED**

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Switch Socket Outlets and **Timer Socket Outlet** 

**Socket Outlets** 

**Connection Unit** 

**13 AMP IP56** 

RCD PROTECTED **13 AMP IP56** 

**13 AMP IP56** 

**16 AMP IP56** 

**13 AMP IP56** 



















56482 GRY 56482 WHI

13 AMP DP 2 GANG **SWITCHED** 

1 56485 GRY 56485 WHI

13 AMP SP 1 GANG WITH ELECTRONIC TIMER MODULE **AVAILABLE APRIL 2004** 

Fixing holes are for No.8 woodscrews (not supplied).

Backbox has 5 cable entries, 2 on top and 1 centrally on other 3 sides. Supplied with earth terminals in backbox

DIMENSIONS: 175 x 115 x 80mm BS. 1363 Pt. 2: 1995

IP56 BS EN 60529: 1992

Timer Module meets the requirements of IEC 60 730-1 and IEC 60730-2-7 Standards

56301 GRY 56301 WHI

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1 GANG DP 30mA RATED TRIPPING ACTIVE CONTROL CIRCUIT

56231 GRY 56231 WHI 2 GANG DP

30mA RATED TRIPPING CURRENT ACTIVE CONTROL CIRCUIT

1 56233 GRY 1 56233 WHI

2 GANG DP 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 Sentrysocket has 5 entries. Suitable for supply voltage of 240V a.c. 50Hz

Rotary operated shutter DIMENSIONS:175 x 115 x 80mm BS.1363 Pt.2: 1995. BS.7288: 1990 IP56 BS EN 60529: 1992

IMPORTANT: For explanation of active and passive control circuit please see page 229 under Sentrysocket heading

56480 GRY 56480 WHI

13 AMP 1 GANG UNSWITCHED

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56481 GRY 56481 WHI 13 AMP

2 GANG UNSWITCHED

Fixing holes are for No.8

56481 has 5 entries.

BS.1363 Pt.2: 1995

IP56 BS EN 60529: 1992

DIMENSIONS:

woodscrews (not supplied).

**56480** has 4 x 20mm entries,

1 on top, bottom and each side and is supplied with an earth terminal in the back box.

1 gang: 95 x 95 x 80mm 2 gang: 175 x 115 x 80mm

1 56483 GRY 1 56483 WHI

16 AMP 1 GANG 2P+E UNSWITCHED (NON UK)

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1 56410 GRY 56410 WHI 13 AMP DP 1 GANG

SWITCHED, FUSED

Fixing holes are for No.8 woodscrews (not supplied).

**56483** is for use with plugs having right angled cable exit. It cannot be used with rear entry box (56504).

**DIMENSIONS:** 95 x 95 x 80mm

IFC 60884-1: 2002

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.

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DIMENSIONS: 95 x 95 x 80mm BS 1363 Pt 4·1995 IP56 BS EN 60529: 1992

EDIN VDE 0624-1:1999-09

Masterseal 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 Technical Hotline for assistance +44 (0) 1268 563720



### **INGRESS PROTECTED**

### **Switches**

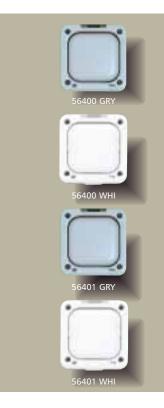
**10 AMP IP56** 

**10 AMP IP56** 

**10 AMP IP56** 

20 AMP **IP56** 

SECRET KEY 20 AMP **IP56** 











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56400 GRY 56400 WHI 10 AMP 1 GANG SP ONE-WAY

56401 GRY 56401 WHI 10 AMP 1 GANG SP TWO-WAY

1 56402 GRY 1 56402 WHI 10 AMP 2 GANG SP ONE-WAY

1 56406 GRY 1 56406 WHI 10 AMP 1 GANG DP ONE-WAY

1 56407 GRY 1 56407 WHI

10 AMP 1 GANG SP TWO-WAY PUSH TO MAKE OR 1 PUSH TO BREAK 1 'BELL'

> 56408 GRY 56408 WHI 10 AMP 1 GANG SP TWO-WAY PUSH TO MAKE OR PUSH TO BREAK 'PRESS'

1 56409 GRY 1 20 AMP 1 GANG DP ONE-WAY 'PRESS'

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56412 GRY 56412 WHI 20 AMP 1 GANG DP ONE-WAY SECRET KEY SWITCH

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56413 GRY 56413 WHI 20 AMP SP TWO-WAY SWITCH +

56411 GRY

56411 WHI

20 AMP 1 GANG

SECRET KEY SWITCH

MARKED 'EMG LTG TEST'

SP TWO-WAY

20 AMP 2 WAY SECRET KEY SWITCH 56414 GRY

56414 WHI 2 GANG MODULAR GRID PLUS **ENCLOSURE\* AVAILABLE JUNE 2004** 

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: 2000

IP56 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.

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: 2000 IP56 to BS EN 60529: 1992 VDF 0632-1A

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: 2000 IP56 to BS EN 60529: 1992

VDF 0632-1A

BS EN 60669-1:2000 IP56 to BS EN 60529: 1992

VDF 0632-1A

BS EN 60669-1:2000 IP56 to BS EN 60529: 1992 VDF 0632-1A

## Masterseal



### **INGRESS PROTECTED**

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Switch Enclosures Switch Modules

Neon Modules

56889 RED

200-250V NEON

BS.5733: 1995

RED

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Photo Electric (Dusk/Dawn)

IP56

10 AMP

20 AMP

IP56











**56420 GRY 56420 WHI**1 GANG FOR USE WITH ANY ONE SWITCH MODULE

56421 GRY
56421 WHI
1 GANG WITH NEON
FOR USE WITH ANY SWITCH

AND ANY NEON MODULE

56422 GRY

56422 WHI

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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 switch and neon modules.

DIMENSIONS: 95 x 95 x 57mm

IP56 to BS EN 60529: 1992

**56881 BLK** 10 AMP SP ONE-WAY

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**56882 BLK** 10 AMP SP TWO-WAY

56883 BLK 10 AMP DP ONE-WAY 10

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20 AMP D ONE-WAY

For use only with Masterseal switch enclosures.

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

BS EN 60669-1: 2000

**56891 BLK** 20 AMP SP ONE-WAY

**56892 BLK** 20 AMP SP TWO-WAY

**56893 BLK** 20 AMP INTERMEDIATE

**56896 BLK** 20 AMP DP

For use only with Masterseal switch enclosures.

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

BS EN 60669-1: 2000

10 56748 GRY

AUTOMATIC SWITCH WITH FIXED AMBIENT LIGHT THRESHOLDS AND OPTIONAL ADJUSTABLE 1

Masterseal photo electric switch will automatically switch on at dusk and off at dawn. Alternatively, an optional user adjustable time period can be used to switch the load OFF before dawn, if required. Suitable for supply voltage of 230V a.c. 50Hz

DIMENSIONS: 95 x 95 x 65mm

NOMINAL LIGHT LEVEL
THRESHOLDS:
25 lux ON, 40 lux OFF
Optional timer adjustable from 1-15
hours (nominal)

RATING: single pole 6 amp resistive 1000W Tungsten GLS 1000W Tungsten Halogen 1200W Fluorescent (without PF correction). 100  $\mu$ f max. load capacitance.

IEC 60669-2-1 IP56 to BS EN.60529: 1992 BS EN.50081-1 BS EN.50082-1

This product is not suitable for use with low energy, compact, Fluorescent lamps.



### **INGRESS PROTECTED**

Data/Telecom **Enclosure Euro Format** 

**Euro Data** Modules

Junction Box

**IP56** 

**TELECOM** 

**DATA** 

**ISDN** 

**IP56** 





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56423 GRY 56423 WHI

1 GANG DATA ENCLOSURE FOR ONE MODULE EURO OUTLET SUPPLIED WITH 2 X HALF MODULE BLANKS

K5820 WHI K5820 BLK BT MASTER ONE MODULE

K5821 WHI K5821 BLK BT SECONDARY

ONE MODULE

5 K5844 WHI 5

RJ45 CAT 5E ANGLED UNSCREENED ONE MODULE

K5887 WHI K5887 BLK 5

RJ11/12 ONE MODULE K5840 WHI K5840 BLK

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ONE MODULE

56506 GRY 56506 WHI JUNCTION BOX WITH FOUR

4-WAY TERMINALS

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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 Fixing notes 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: 95 x 95 x 80mm IP56 to BS EN.60529: 1992

DIMENSIONS: 25 x 50mm BS.6312 Pt2

K5887 Suitable for both RJ11 and RJ12 jacks RJ11: 4 wire RJ12: 6 wire FCC68

R5844 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.

TIA/EIA TSB40A: Cat 5e TIA/EIA 568-A: Cat 5e ISO/IEC11801: Cat 5e

DIMENSIONS:

Incorporates line terminating

**DIMENSIONS:** 25 x 50mm TIA/EIA TSB40A TIA/EIA 568-A ISO/IEC11801

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: BS.6220:1983 IP56 to BS EN.60529

Modular TV/Satellite outlets are also available to fit Euro frontplates. See page 31 for details



### **INGRESS PROTECTED**

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**Rear Entry Back Boxes**  Flush Mounting **Frames** 

Flush Mounting Bezels

**Conduit Entries** 

Accessories











56504 GRY 56504 WHI

1 GANG BOX REAR CONDUIT ENTRY

56505 GRY 56505 WHI

2 GANG BOX REAR CONDUIT ENTRY 56500 GRY 56500 WHI

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1 GANG PLASTER/TILE FLUSH MOUNTING FRAME WITH PROTECTIVE COVER

56501 GRY 56501 WHI

2 GANG PLASTER/TILE FLUSH MOUNTING FRAME WITH PROTECTIVE COVER

56502 GRY 56502 WHI

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1 GANG FLUSH MOUNTING BEZEL FOR USE WITH 56504

56503 GRY 56503 WHI

2 GANG FLUSH MOUNTING BEZEL FOR USE WITH 56505

The Flush adaptors for brick and

cavity walls should be used on vertical surfaces where no additional finishing, such as

Allows flush mounted Masterseal

products to maintain their IP rating.

Can only be used with back entry

Supplied with 4 self tapping screws to fix enclosure to mounting bezel.

Clip-on surround hides mounting

1 gang: 145 x 145 x 41mm 2 gang: 165 x 225 x 41mm

enclosures. See pages TD233-TD234 for installation options.

plastering is required.

**DIMENSIONS:** 

56460 GRY **56460 WHI** ENTRY BLANK

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56461 BLK 56461 WHI

PVC CARLE ENTRY TO PROVIDE DIRECT ENTRY OF POWER CABLE TO THE UNIT VIA THE BOTTOM BOX ENTRY

56462 BLK 56462 WHI

20MM PLAIN CONDUIT ENTRY PUSH FIT ADAPTOR RETWEEN BACK BOX AND 20MM PLAIN CONDUIT

56463 BLK 56463 WHI

20MM THREADED CONDUIT ENTRY PUSH FIT ADAPTOR BETWEEN BACK BOX AND 20MM THREADED CONDUIT

56464 WHI

**BOX COLIPLER** FOR GANGING ONE MASTERSEAL BOX NEXT TO ANOTHER

56837 BLK

REPLACEMENT GEL SEAL FOR SOCKETS

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9933 M20 EARTH LEAD ADAPTOR FOR EARTHING METAL CONDUIT

> 56890 GRN **REPLACEMENT** NEON LOCATOR

5 K9944 5 FLANGE FOR PANEL MOUNTING 1 GANG MASTERSEAL PRODUCTS

For use in rear entry surface mounted situations or for use in conjunction with Flush Mounting Bezels (56502 and 56503).

These products must be used if the cable or conduit enters the Masterseal enclosure from the rear. See pages TD233-234 for installation options.

Fixing holes are for No. 8 woodscrews (not supplied).

### NOTE:

1 gang has no side entries 2 gang has side entries fixed permanently in position.

Earth and loop terminals are provided but not fitted. Supplied with one PVC cable entry List No.56462.

DIMENSIONS: 1 gang: 95 x 95 x 40mm 2 gang: 175 x 115 x 40mm

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 products to maintain their IP rating.

Can be used with side entry or back entry enclosures. See pages TD233-234 for installation options.

DIMENSIONS: 1 gang: 115 x 115 x 34mm 2 gang: 135 x 195 x 34mm

### 56464 GRY

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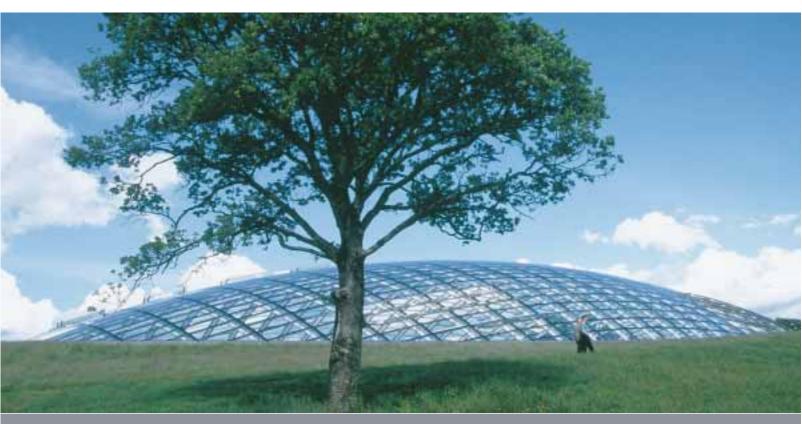
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# Botanical Gardens, Wales



National Botanical Garden of Wales features, as its centrepiece, a real span development. The great glasshouse, the largest of it kind, designed by Norman Foster and Partners, has been nominated for the Stirling Prize building of the year.

The glazing is supported by a complex custom designed aluminium system of glass support. MK's electrical accessories were used throughout the structure complementing not only the design but also the climatic needs of the glasshouse.

The design and construction of the glasshouse required an unprecedented level of co-operation between the architects, engineers and building contractors with regard to knowledge of materials and construction techniques. The project also required an unconventional approach to the generation of instructions for the manufacturers and craftsmen who would make the buildings components. In addition to conventional architectural drawings, a three-dimensional computer model generated by a mathematical database was used. Foster and Partners had already gained some expertise in toroidal geometries from the concrete root structure of the American Air Museum at Duxford, Cambs.

Architect Norman Foster & Partners

Structural Engineer Anthony Hunt & Associates

Contractor Schal International