IP Solutions

Masterseal Plus ™
IP66

Masterseal Compact ™
IP66

Guardian Weathershield ™
IP55

Thrives in the Toughest Conditions.

MK Electric has always been at the forefront of technical innovation, not least in the IP environment. With three new ranges to choose from, there is a product solution for all your ingress protected installation requirements.

The new Masterseal Plus™ range has been tested to levels well in excess of British Standards. Masterseal Plus™ safeguards users in the harshest of environments, employing a patented gel seal for improved protection.

With a superb rating of IP66, Masterseal Plus™ is dust-tight to any ingress, and watertight against high-pressure water jets from any direction.

Where a good degree of ingress protection is required, but not to the high specification of IP66-rated products, Masterseal Compact™ is the ideal solution. Masterseal Compact is rated to IP66, offering some dust ingress protection and protection against high pressure water jets from any direction. It is ideal for use in smaller commercial projects and domestic applications.

Finally, MK Guardian Weathersheild™ – rated IP55 – completes MK Electric's portfolio of IP solutions, and is designed for occasional domestic use such as with garden equipment, providing protection to power supplied in damp or dusty environments.

Masterseal Plus™
IP66

MK Masterseal Compact
IP66

MK Guardian Weathershield
IP55

	Solid Protection	Liquid Protection
Masterseal Plus™ IP66	**Dust Tight.** No Ingress Of Dust. Complete Protection Against Contact.	**Powerful Water Jets.** Water Projected In Powerful Jets Against The Enclosure From Any Direction Shall Have No Harmful Effects.
MK Masterseal Compact™ IP66	**Dust Protected.** No Ingress Of Dust. Complete Protection Against Contact.	**Powerful Water Jets.** Water Projected In Powerful Jets Against The Enclosure From Any Direction Shall Have No Harmful Effects.
Mk Guardian Weathershield™ IP55	**Dust Protected.** Ingress Of Dust Is Not Entirely Prevented, But It Must Not Enter In Sufficient Quantity To Interfere With The Satisfactory Operation Of The Equipment. Complete Protection Against Contact.	**Water Jets.** Water Projected By A Nozzle Against Enclosure From Any Direction Shall Have No Harmful Effects.

MK Electric IP Solutions

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 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 seal 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 new enclosures house selected products from the Logic Plus portfolio – thus offering all the benefits of the Logic Plus range within the new Masterseal Plus™ enclosures.

Masterseal Plus™ is perfectly suited to a range of indoor and outdoor applications including factories, laboratories, swimming pools, commercial kitchens, industrial units, warehouses, clean rooms and more.

features and benefits

IP66
Masterseal Plus™ offers total dust ingress protection, and is protected against high-pressure water jets from any direction.

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 and Environmental Protection
Masterseal Plus™ enclosures are made from recycled polycarbonate, one of the toughest thermoplastics available – incidentally also used in products such as motorcycle helmets. The raw materials are actually waste material collected from other manufacturing plants. This not only diverts material otherwise destined for landfill, but also prevents an equivalent amount of virgin material being produced along with the associated savings in energy, providing a significant reduction in carbon footprints.
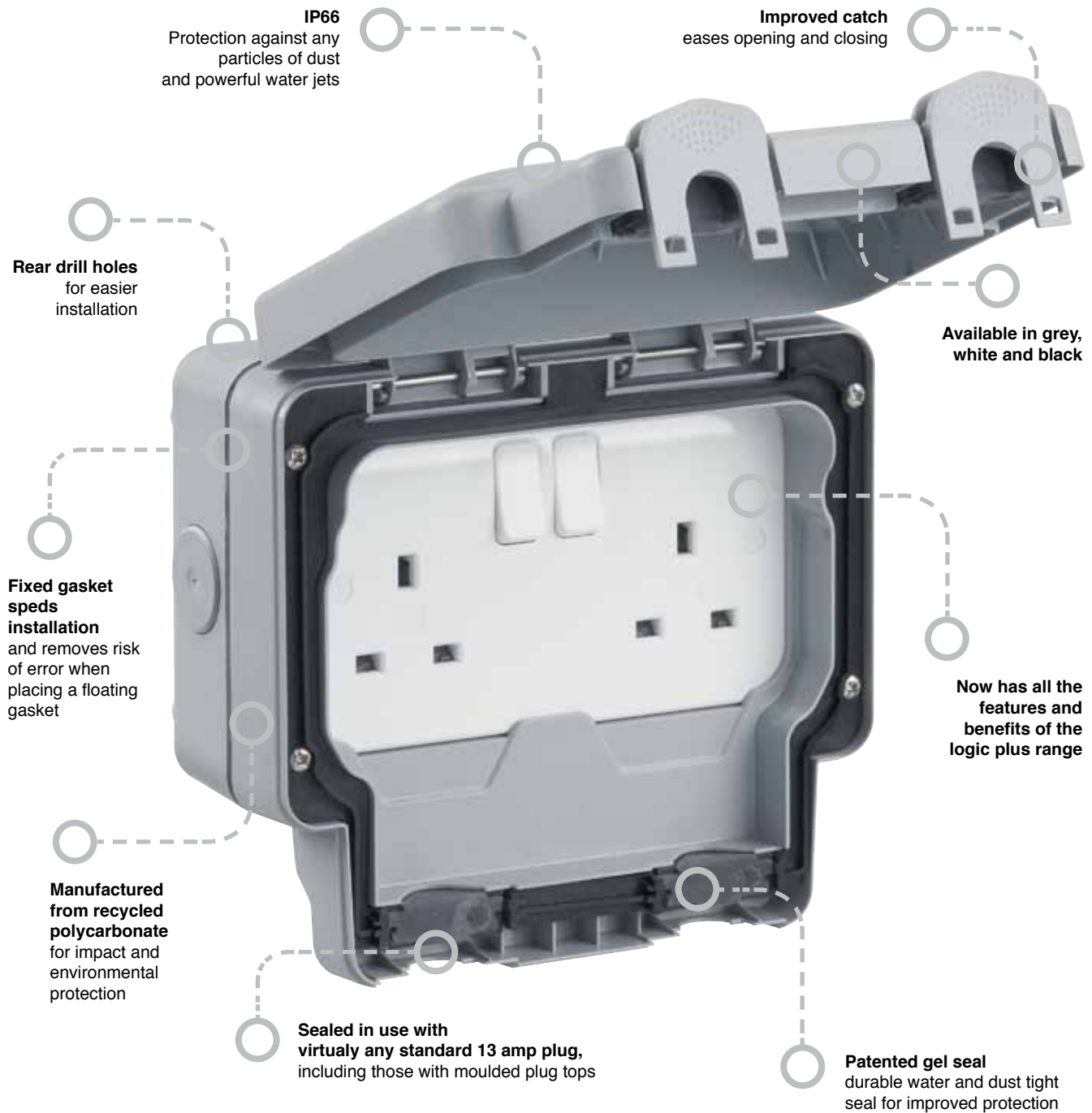
Widest Range
The Masterseal Plus™ range extends to over 90 product variants. The new enclosures house any product from the Logic Plus range, and enclosures and switches are available in Grey, White and Black.

20 Year Guarantee
Masterseal Plus™ is guaranteed for an industry-leading 20 years. (10 years for electronic products)

IP66
Protection against any particles of dust and powerful water jets

Improved catch
eases opening and closing

Rear drill holes
for easier installation

Available in grey, white and black

Fixed gasket speds installation
and removes risk of error when placing a floating gasket

Now has all the features and benefits of the logic plus range

Manufactured from recycled polycarbonate
for impact and environmental protection

Sealed in use with virtualy any standard 13 amp plug,
including those with moulded plug tops

Patented gel seal
durable water and dust tight seal for improved protection

Masterseal Plus™

**Switch Socket 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

K56486GRY	K56485GRY	K56301GRY	K56480GRY	K56483GRY
K56482BLK	K56485WHI	K56231BLK	K56481WHI	K56483WHI
K56488GRY	K56487GRY	K56233WHI	K56481BLK	K56483BLK

K56486GRY	1	**K56485GRY**	1	**K56301GRY**	1	**K56480GRY**	1	**K56483GRY**	1
K56486WHI	1	**K56485WHI**	1	**K56301WHI**	1	**K56480WHI**	1	**K56483WHI**	1
K56486BLK	1	**K56485BLK**	1	**K56301BLK**	1	**K56480BLK**	1	**K56483BLK**	1

13 AMP DP
1 GANG
SWITCHED

13 AMP SP
1 GANG
WITH ELECTRONIC TIMER-MODULE

1 GANG DP
30 mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

13 AMP 1 GANG
UNSWITCHED

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

K56482GRY	1	**K56487GRY**	1	**K56231GRY**	1	**K56481GRY**	1
K56482WHI	1	**K56487WHI**	1	**K56231WHI**	1	**K56481WHI**	1
K56482BLK	1	**K56487BLK**		**K56231BLK**	1	**K56481BLK**	1

13 AMP DP
2 GANG
SWITCHED

13 AMP DP 1 GANG DP
KEY OPERATED SOCKET

2 GANG SP
30 mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

13 AMP 2 GANG
UNSWITCHED

K56488GRY	1	**K56233GRY**	1
K56488WHI	1	**K56233WHI**	1
K56488BLK	1	**K56233BLK**	1

13 AMP DP SWITCHED
2 GANG
NEON
CLEAR COVER

2 GANG SP
30 mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

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
IEC60884-1: 2006
IP66 BS EN 60529: 1992

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 Pt. 2: 1995
IP66 Bs En 60529: 1992

Timer Module Meets The Requirements
Of IEC 60730-1 And IEC 60730-2-7

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
Standard Shutters.
DIMENSIONS:: 157 x 175 x 89mm
BS 7288: 1990
IP66 BS EN 60529: 1992

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: Pt2: 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 Pt.2: 1995
IP66 BS EN 60529: 1992

Masterseal enclosures are manufactured from polycarbonate. This provides an extremely high level of impact resistance. However some chemicals and synthetic oils can harm polycarbonate.

ingress protected | wiring devices

Key Operated Switches	Connection Units	Switches		Grid Plus Enclosures

20 AMP
IP66

13 AMP
IP66

10 AMP
IP66

10 AMP
IP66

20 AMP
IP66

IP56

K56425GRY

K56410WHI

K56400GRY

K56406GRY

K56409GRY

K56414GRY

K56425WHI

K56410BLK

K56401WHI

K56407BLK

K56409WHI

K56425BLK

K56410GRY

K56402BLK

K56408WHI

K56409BLK

K56414WHI

K56414BLK

K56425GRY **1**	K56410GRY **1**	K56400GRY **1**	K56406GRY **1**	K56409GRY **1**	K56414GRY **1**
K56425WHI **1**	K56410WHI **1**	K56400WHI **1**	K56406WHI **1**	K56409WHI **1**	K56414WHI **1**
K56425BLK **1**	K56410BLK **1**	K56400BLK **1**	K56406BLK **1**	K56409BLK **1**	K56414BLK **1**
20 AMP	13 AMP DP	10 AMP 1 GANG	10 AMP 1 GANG	20 AMP 1 GANG	Modular Grid Plus Enclosure
1 GANG	1 GANG	SP ONE-WAY	DP ONE-WAY	DP ONE-WAY	Supplied with 1&2 G Inserts
DP KEY OPERATED SWITCH	SWITCHED, FUSED			'PRESS'	

		K56401GRY **1**	K56407GRY **1**		
		K56401WHI **1**	K56407WHI **1**		
		K56401BLK **1**	K56407BLK **1**		
		10 AMP 1 GANG	10 AMP 1 GANG		
		SP TWO-WAY	SP TWO-WAY		
			PUSH TO MAKE OR		
			PUSH TO BREAK		
			'BELL'		

		K56402GRY **1**	K56408GRY **1**		
		K56402WHI **1**	K56408WHI **1**		
		K56402BLK **1**	K56408BLK **1**		
		10 AMP 2 GANG	10 AMP 1 GANG		
		SP ONE-WAY	SP TWO-WAY		
			PUSH TO MAKE OR		
			PUSH TO BREAK		
			'PRESS'		

Fitted with a 13A fuse link to BS 1362.
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:
1 gang: 157 x 110 x 89mm
BS EN 60669-1: 1999
IP66 BS EN 60529: 1992

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:
157 x 110 x 89mm
BS 1363 Pt.4: 1995
IP66 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

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

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

Masterseal Plus™

Switch Enclosures	Switch Modules		Neon Modules	Data/Telecom Enclosures Euro Format	Euro Data Modules
IP66	10 AMP	20 AMP		IP66	TELECOM

K56420GRY

K56421WHI

K56422BLK

K56422GRY

56881 BLK

56882 BLK

56883 BLK

56891 BLK
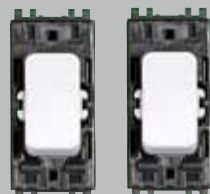
56892 BLK   56893 BLK

56896 BLK

56889 RED

K56423GRY

K56423WHI

K56423BLK

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 MODULE

56881 BLK `10`

56882 BLK `10`

56883 BLK `10`

56891 BLK `10`
20 AMP SP
ONE-WAY

56892 BLK `10`
20 AMP SP
TWO-WAY

56893 BLK `10`
20 AMP
INTERMEDIATE

56896 BLK `10`
20 AMP DP
ONE-WAY

56889 RED `10`
200-250V NEON
RED

K56423GRY `1`
K56423WHI `1`
K56423BLK `1`
1 GANG
DATA ENCLOSURE
FOR 2 MODULE EURO
OUTLET
HALF MODULE BLANKS SOLD
SEPARATELY

K5820 WHI `5`
K5820 BLK `5`
BT MASTER
ONE MODULE

K5821 WHI `5`
K5821 BLK `5`
BT SECONDARY
ONE MODULE

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

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

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:
157 x 110 x 89mm
IP66 to BS EN 60529: 1992

ingress protected | wiring devices

Euro Data Modules	Junction Boxes	Flush Mounting Frames	Flush Mounting Bezels	Conduit Entries	Accessories

DATA   **30 AMP**
                  IP66

K5844WHI

K5887WHI   K5887BLK

K56506GRY

K56506WHI
(COVER ON)

K56506WHI
(COVER OFF)

K56500GRY

56500 WHI

K56501GRY

K56502GRY

56502 WHI

K56503GRY

56460 WHI

56461WHI

56462 WHI

56463 WHI

56464 WHI

56837

9933
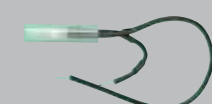
56890 GRN

K9944

K5844WHI 5
RJ45 CAT 5E
ANGLED UNSCREENED
ONE MODULE

K5887WHI 5
K5887BLK 5
RJ11/12
ONE MODULE

K5844
K5887

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
2.5mm2 cables.
DIMENSIONS:
95 x 95 x 65mm
BS 6220: 1983
IP66 to BS EN 60529

K56506GRY 1
K56506WHI 1
K56506BLK 1
JUNCTION BOX
WITH FOUR
4-WAY TERMINALS

K56500GRY 1
K56500WHI 1
56500 GRY
56500 WHI

K56501GRY
~~K56501WHI~~ 1
                1

K56502GRY 1
K56502WHI 1
1 GANG
FLUSH MOUNTING BEZEL
FOR USE WITH 157 X
110MM PRODUCTS

56502 GRY 1
56502 WHI 1
1 GANG
FLUSH MOUNTING BEZEL
FOR USE WITH 95 X 95MM
PRODUCTS

K56503GRY 1
K56503WHI 1
2 GANG
FLUSH MOUNTING BEZE

56460 GRY 5
56460 WHI 5
ENTRY BLANK

56461 BLK 5
56461 WHI 5
PVC CABLE ENTRY
TO PROVIDE DIRECT
ENTRY OF POWER CABLE
TO THE UNIT VIA THE
BOTTOM BOX ENTRY

56462 BLK 5
56462 WHI 5
20MM PLAIN CONDUIT
ENTRY PUSH FIT ADAPTOR
BETWEEN BACK BOX AND
20MM PLAIN CONDUIT

56463 BLK 5
56463 WHI
20MM THREADED
CONDUIT ENTRY PUSH FIT
ADAPTOR BETWEEN
BACK BOX AND 20MM
THREADED CONDUIT

56464 GRY 5
56464 WHI 5
BOX COUPLER
FOR GANGING ONE
MASTERSEAL OR
MASTERSEAL PLUS™
BOX NEXT TO ANOTHER

56837 BLK 5
REPLACEMENT
GEL SEAL
FOR SOCKETS

9933 1
M20 EARTH LEAD
ADAPTOR FOR EARTHING
METAL CONDUIT

56890 GRN 5
REPLACEMENT
NEON LOCATOR

K9944 5
FLANGE FOR
PANEL MOUNTING
1 GANG 95 X 95MM
MODULES

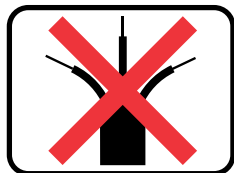# Masterseal Plus™ for Echo

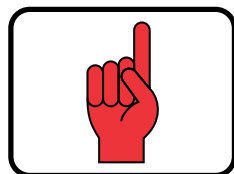| Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches, only available from MK Electric. | 1G/2G Switch Transmitter For Echo | Enclosure For Small Load Receiver For Echo | Switch Receivers For Echo | Accessories For Echo |

WIRELESS

BATTERYLESS

SELF-POWERED

K55400GRY

K55406WHI

K55406BLK

K55000GRY

K5418R

K5420R

K5414R

K5417R

K5419R

Wireless
No wires offers the benefits of almost instant switch installation and total location fleibility, 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 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
1G SWITCH TRANSMITTER FOR ECHO

K55406GRY
K55406WHI
K55406BLK
2G SWITCH TRANSMITTER FOR ECHO

K55000GRY
K55000WHI
K55000BLK
ENCLOSURE FOR USE WITH K5418R

K5418R

K5402R

K5414R
REPEATER

K5417R
ReMOTE CONTROL

K5419R
FIELD STRENGTH INDICATOR

KPAD
ADHESIVE PAD (ASPECT AND

No wires
- Instant switch installation
- Location/relocation flexibility
- Simplifies office 'churn' – less disruption

No batteries
- Low maintentance
- 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

Echo™ Range Needs TRA Approval for RF & is Not Suited For 60Hz Mains Frequency.

range Introduction

features and benefits

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.

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™

Polycarbonate housing offers high impact protection

Switch & unswitched socket outlet

Scientifically formulated gel seal

Easy lift socket lid design

Accommodates virtually any british standard 13 amp plug

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.

ingress protected | wiring devices

Socket Outlets

Switches

13 AMP & 15 AMP
IP66

15 AMP
IP66

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	**86480 GRY**	**86893 GRY**	**86401 GRY**	**86402 GRY**
86486 WHI	**86480 WHI**	**86893 WHI**	**86401 WHI**	**86402 WHI**
13AMP 1 GANG SP SWITCHED	13AMP 1 GANG UNSWITCHED	15AMP 1 GANG SWITCHED	10AX 1 GANG 2 WAY SP SWITCH	10AX 2 GANG 2 WAY SP SWITCH
86486 TC GRY	**86772 GRY**	**86893 TC GRY**	**86401 TC GRY**	**86402 TC GRY**
86486 TC WHI	**86772 WHI**	**86893 TC WHI**	**86401 TC WHI**	**86402 TC WHI**
13AMP 1 GANG SP SWITCHED WITH TRANSLUCENT LID	15AMP 1 GANG UNSWITCHED	15AMP 1 GANG SWITCHED WITH TRANSLUCENT LID	10AX 1 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	10AX 2 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID

Service Module Range (Without Back Box)

SM86486 GRY	**SM86480 GRY**	**SM86893 GRY**	**SM86401 GRY**	**SM86402 GRY**
SM86486 WHI	**SM86480 WHI**	**SM86893 WHI**	**SM86401 WHI**	**SM86402 WHI**
13AMP 1 GANG SP SWITCHED	13AMP 1 GANG SWITCHED	15AMP 1 GANG SWITCHED	10AX 1 GANG 2 WAY SP SWITCH	10AX 2 GANG 2 WAY SP SWITCH
SM86486 TC GRY	**SM86772 GRY**	**SM86893 TC GRY**	**SM86401 TC GRY**	**SM86402 TC GRY**
SM86486 TC WHI	**SM86772 WHI**	**SM86893 TC WHI**	**SM86401 TC WHI**	**SM86402 TC WHI**
13AMP 1 GANG SP SWITCHED WITH TRANSLUCENT LID	15AMP 1 GANG UNSWITCHED	15AMP 1 GANG SWITCHED WITH TRANSLUCENT LID	10AX 1 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	10AX 2 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID

MK Masterseal Compact™

Switches   **Connection Unit**   **Switch Modular**

10 AX
IP66

10 AMP

13 AMP
IP66

20 AMP
IP66

86403 WHI	86407B GRY	86407P WHI	86072 WHI	86423 GRY
86403 TC GRY	86407B TC GRY	86407P TC GRY	86072 TC 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

ingress protected | wiring devices

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*	**86503 GRY***	**86432 GRY***	**86504 GRY***	**86817 GRY**
86431 WHI*	**86503 WHI***	**86432 WHI***	**86504 WHI***	**86817 WHI**
20AX 1 GANG 2 WAY SP SWITCH	20AX 1 GANG 1 WAY DP SWITCH	20AX 2 GANG 2 WAY SP SWITCH	20AX 2 GANG 1 WAY DP SWITCH	1 GANG RJ11 4 WIRE TELEPHONE SOCKET

86431 TC GRY*	**86503 TC GRY***	**86432 TC GRY***	**86504 TC GRY***	**86817 TC GRY**
86431 TC WHI*	**86503 TC WHI***	**86432 TC WHI***	**86504 TC WHI***	**86817 TC WHI**
20AX 1 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	20AX 1 GANG 1 WAY DP SWITCH WITH TRANSLUCENT LID	20AX 2 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	20AX 2 GANG 1 WAY DP SWITCH WITH TRANSLUCENT LID	1 GANG RJ11 4 WIRE TELEPHONE SOCKET

Service Module Range (Without Back Box)

SM86431 GRY*	**SM86503 GRY***	**SM86432 GRY***	**SM86504 GRY***	**SM86817 GRY**
SM 86431 WHI*	**SM86503 WHI***	**SM86432 WHI***	**SM86504 WHI***	**SM86817 WHI**
20AX 1 GANG 2 WAY SP SWITCH	20AX 1 GANG 1 WAY DP SWITCH	20AX 2 GANG 2 WAY SP SWITCH	20AX 2 GANG 1 WAY DP SWITCH	1 GANG RJ11 4 WIRE TELEPHONE SOCKET

SM86431 TC GRY*	**SM86503 TC GRY***	**SM86432 TC GRY***	**SM86504 TC GRY***	**SM86817 TC GRY**
SM86431 TC WHI*	**SM86503 TC WHI***	**SM86432 TC WHI***	**SM86504 TC WHI***	**SM86817 TC WHI**
20AX 1 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	20AX 1 GANG 1 WAY DP SWITCH WITH TRANSLUCENT LID	20AX 2 GANG 2 WAY SP SWITCH WITH TRANSLUCENT LID	20AX 2 GANG 1 WAY DP SWITCH WITH TRANSLUCENT LID	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

ingress protected | wiring devices

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 essencial in wet environments.

features and 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™

IP55
Some dust ingress
protection, plus protection
against low pressure water
jets from any direction

Clear lid

**Robust and easy
to install**

**5 Year
guarantee**

1　　2　　3　　4

Stopper

tested and complies with IEC 60670 and BS EN 60529/IEC 60529.
dimensions: 120 X 98 X 80mm

Cover

Guardian Weathershield
IP55

GWS 1

Surface Box

Surface Box
IP55

GWS 1B
MK Guardian Weathershield
Surface Box

Guardian Weathershield™

Polycarbonate Chemical Resistance Table

Key:
▲ Resistant
● Limited resistance
■ Not resistant

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	10	▲
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		■

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 (80ºC)		●
Wax, melted		Not tested
Xylene		■

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 per socket outlet

Terminal capacity:
Live, neutral & earth
3 x 2.5mm^2
3 x 4mm^2
2 x 6mm^2 (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.

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:

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Features

- IP66 protected to BS EN60529: 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 plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Impact resistance equivalent to 1 500g object falling from a height of 40cm
- 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
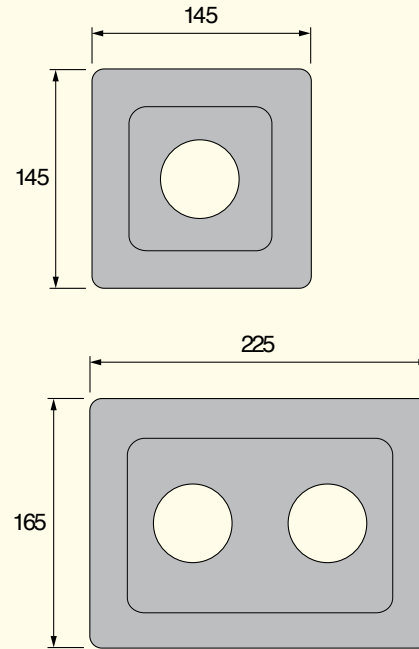- Products are available in grey, black and white

Dimensions (mm)

1 gang / 2 gang with fixing dimensions
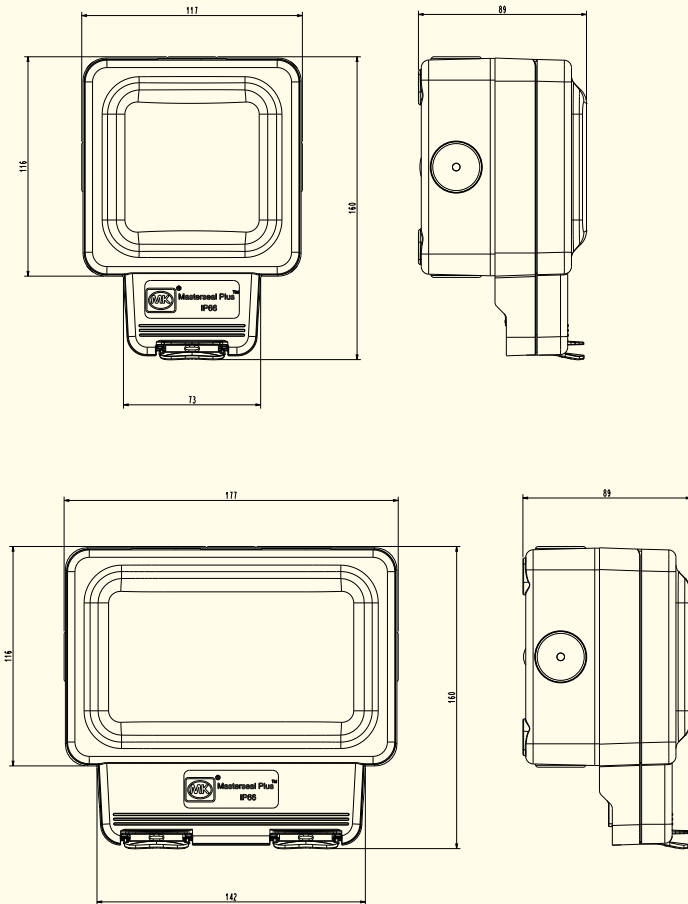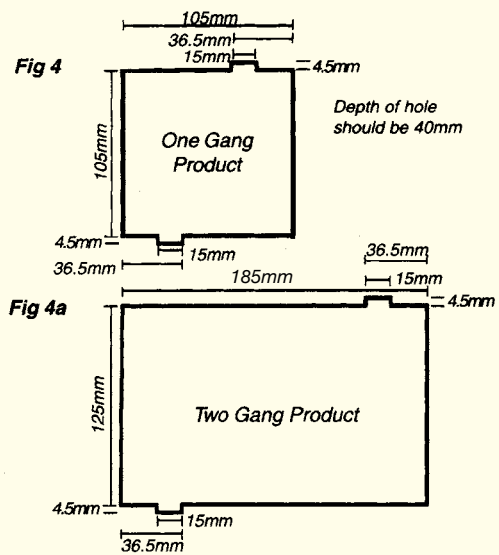

Flush Mounting Bezels

Flush Mounting Frames

Fig 4

One Gang Product

Depth of hole should be 40mm

Fig 4a

Two Gang Product

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 2.5mm²
	3 x 4 mm²
	2 x 6 mm²

Physical

Ambient operating temperature range: 0ºC to +40ºC
IP rating: IP66
Max. installation altitude: 2000 metres

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
- Impact resistance – all Masterseal Plus products have impact resistance equivalent to a 500g object falling from a height of 400m

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.

Timer module

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.
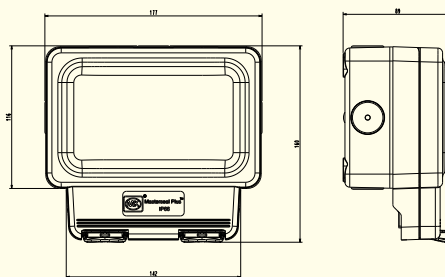
Boxes

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.
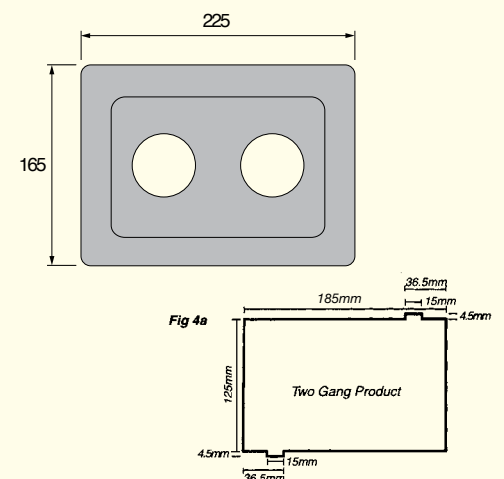
IP66 Protection

Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water. The Masterseal Plus IP66 rating breakdown is as follows:

* When in doubt, please use an MK 13A plug

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Dimensions (mm)

Flush Mounting Bezel

Fig 4a
Two Gang Product

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:
3 x 4mm^2

Physical

Ambient operating temperature:
0°C to +40°C

IP rating:
IP66

Max. installation altitude:
2000 metres

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 sensitive

Description

Sentrysocket provides a high level of protection for portable equipment when used in damp environments or outdoors.

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.

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.

Fixing Dimensions

16A 2P+E Socket Outlet (Non UK)

Standards and approvals

Complies with IEC 60884-1: 2006

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
16A

Terminal capacity:
Live, neutral & earth
4 x 1.5mm^2
2 x 2.5mm^2
1 x 4mm^2

Physical

Ambient operating temperature:
0°C to +40°C
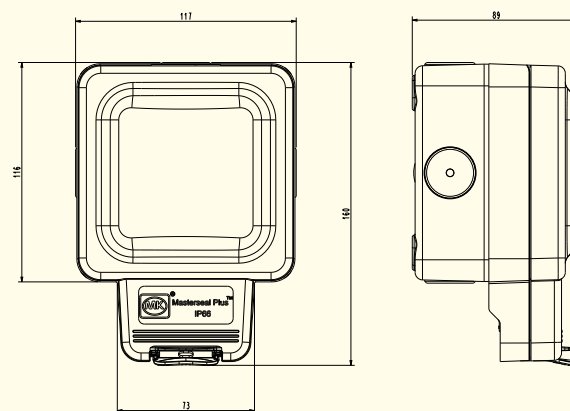(not to exceed an average of more than 25°C in any
24 hour period)

IP rating:
IP66

Max. installation altitude:
2000 metres

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Masterseal 16A 2P + E German socket outlet is suitable for surface mounting only.

Dimensions (mm)

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 6mm² stranded
                     3 x 4mm²
                     3 x 2.5mm²
                     3 x 1.5mm²

Load terminals: 1 x 1.5mm²

Physical

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:
IP66

Max. installation altitude:
2000 metres

Features

- IP66 protected to BS EN60529: 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 plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Screw fitted fuse carrier
- Fuse carrier lockable in open position
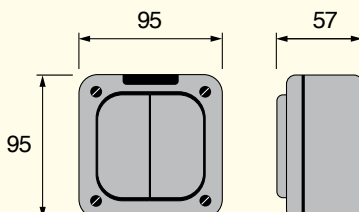- Captive fuse carrier

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.

IP66 Protection
Each digit in the IP (Ingress Protection code) rating denotes resistance to dust and water. The Masterseal IP66 rating breakdown as is follows:

Impact Resistance

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

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.

Dimensions (mm)

Installation

Masterseal Plus connection units can be wall or bench mounted. Do not use on a trailing lead.

Masterseal Plus™ Technical

Switches

Standards and approvals

Switches and enclosures comply with BS EN 60669-1: 2000 and are IP66 for BS EN 60529: 1992.

20A Switch modules comply with BS EN 60669-1: 2000.

10A Switch modules comply with BS EN 60669-1: 2000.

All products comply with or allow compliance with BS 7671: 2008.

Technical specification

Electrical

Voltage rating:
250V a.c., 50 Hz

Current rating:
10 or 20 amps – no derating when used on fluorescent or inductive loads.

Load type:
No resistriction

Physical

Ambient operating temperature:
0°C to +40°C

IP rating:
IP66

Max. installation altitude:
2000 metres

Features

- IP66 protected to BS EN60529: 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 plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Large, easy to use rocker switches
- Wide range of switch modules and accessories make Masterseal versatile
- Switch modules snap into position

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 is easy to install and the large rocker switches and clip in modules make it easy to use, even when wearing heavy gloves.
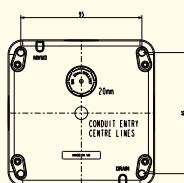
IP66 Protection
Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water. The Masterseal IP66 rating breakdown is as follows:

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Dimensions (mm)

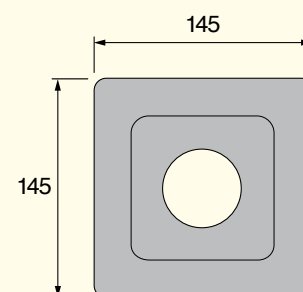95   57

95

Fixing dimensions

Impact Resistance
All Masterseal products have an impact resistance equivalent to a 500g object falling from a height of 40cm.
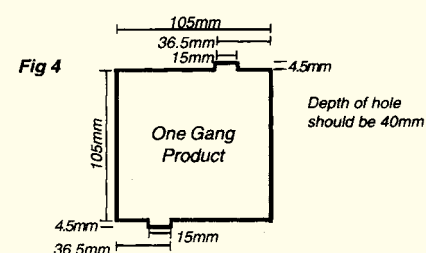
Boxes
Rear entry back boxes are supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502). These boxes must also be used if cable orconduit enters the enclosure from the rear.

Flush Mounting Bezel

145

145

Flush Mounting Frame

Fig 4

105mm
36.5mm
15mm
4.5mm

Depth of hole should be 40mm

One Gang Product

105mm

4.5mm
36.5mm

15mm

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.

Figure 1   **Fixing dimensions**

77.5

26.25

Conduit
Entry
Centre Lines

52.5

38.7

Masterseal Plus™ Technical
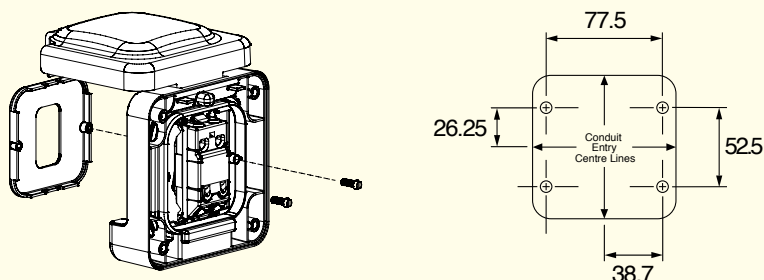
Euro Enclosure and Telephone and Data Modules

Standards and approvals

Telephone sockets K5820 and K5821 comply with the following:
BS 6312: 2.2, OFTEL Approval NS/G/23/L/100005.

K5844/K5845/K5845s comply with:
BS EN 50173, IEC 11801, TIA/EIA 568A and TIA/EIA TSB40A.

K5887 complies with FCC68.

Technical specification

Installation tools required IDC Connectors (telephone & RJ45 outlets)

Electrical

Cable types:
Telephone: CW1311, CW1293, CW1308, CW1316

No. of cables per termination:
Telephone: 2
RJ11/12: 1
RJ45: 1

Termination type: IDC

Physical

Temperature range:
Ambient air 0°C to +40°C

IP rating: IP66 (enclosure)

Max. installation altitude: 2000 metres

Features

- IP66 data and telecoms protection
- Meet all relevant BS, OFTEL and cabling standards
- Interchangeable modules clip into enclosure
- Can be specified for all applications
- Impact resistance – all Masterseal Plus products have impact resistance equivalent to a 500g object falling from a height of 400m

MODULE DIMENSIONS(mm)

25 x 50

IP66

Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

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.

Installation tools required IDC Connectors (telephone & RJ45 outlets)

MK insertion tool List No. 400 or 22630.
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.

BT Wiring Scheme

1 GREEN / white
2 BLUE / white
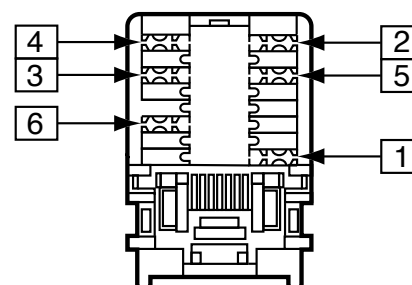3 ORANGE / white
4 WHITE / orange
5 WHITE / blue
6 WHITE / green

Note: Main wire colour is shown in capitals
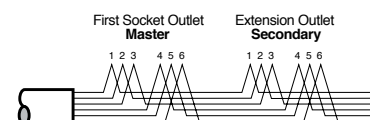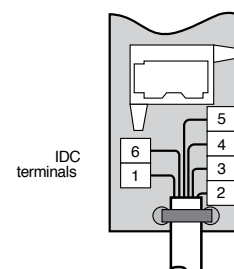
RJ11/12 Wiring Scheme

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

FOR RJ45 WIRING DIAGRAM, PLEASE REFER TO LOGIC PLUS TECHNICAL SECTION

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 SalesService Department.

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. Please note; the colour codes used for rigid cabling in the UK since April 2004 and in all other areas of the EU, are as follows;
BROWN = terminals marked 'L'
BLUE = terminals marked 'N'
GREEN / YELLOW = terminals marked '⏚'.
The colour codes used prior to April 2004 were;
RED = terminals marked 'L'
BLACK = terminals marked 'N'
GREEN / YELLOW = terminals marked '⏚'.

8. PVC Cable Entry (see Service Items) must only be used at the bottom cable entry of the enclosure.
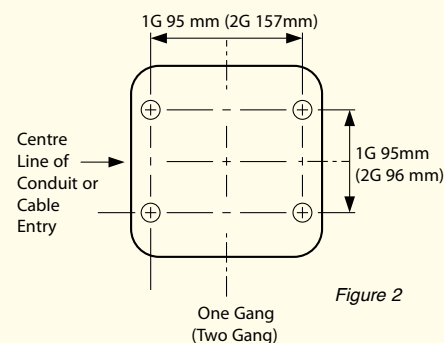
Instruction
CAUTION
Do not allow paint or wood preservative to come into contact with the product. The product can be safely mounted on painted surfaces or surfaces treated with wood preservative when the paint or wood preservative is completely dry.

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.

1G 95 mm (2G 157mm)
Centre Line of Conduit or Cable Entry
1G 95mm (2G 96 mm)
One Gang (Two Gang)
Figure 2

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 Egaweld™ Plus. Refer to Figure 4.


Conduit Entry
Entry Blank
Drill Out Feature
Drain Hole
5 mm Drill Bit
Mounting Box
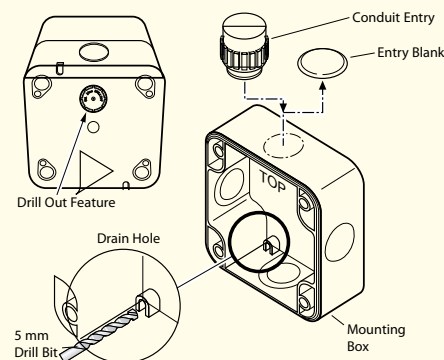
9. For instructions on how to wire the front plate of telephone and data products see the instruction leaflets supplied with the appropriate module

Conduit
Sealant
Conduit Entry
No 8 Wood Screw
Mounting Box
Drain Hole
Figure 4
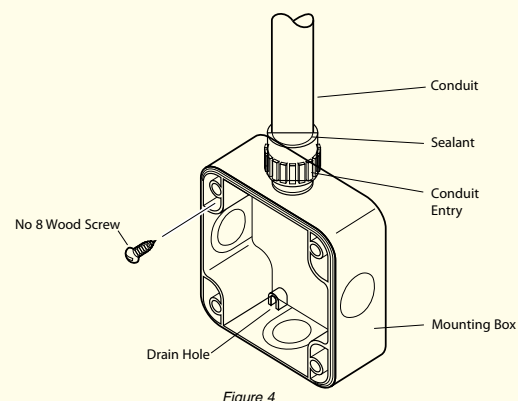
10. Before wiring and fitting the front plate, position the seal on the front plate. Ensure the holes are aligned and seal is aligned with the ribs on the mounting box and the cables are threaded through the seal and screws are fully tightened.

11. Wire and fit the front plate. Ensure the seal is correctly located and the cables are not trapped or pinched.

Figure 5
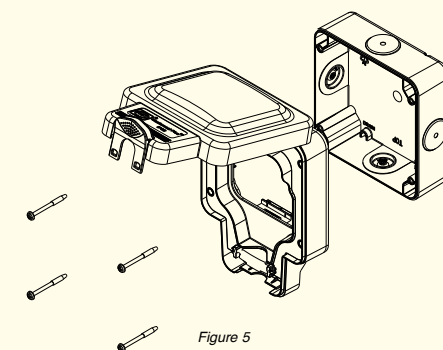
WHEN INSTALLING CONNECTION UNITS USING THE FRONT FLEXIBLE

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.

Terminal screws must be securely tightened. Pull on each cable to ensure that the terminal screw has securely fixed the conductor. Notes:

Testing:

Test the completed installation in accordance with the latest edition of the IEE 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.

CABLE SEAL CAPSULE REPLACEMENT

1. Note the orientation of the cable seal capsules in the lid and front plate.

2. Carefully remove the two cable seal capsules with a flat bladed screwdriver and discard. Refer to Figure 8.

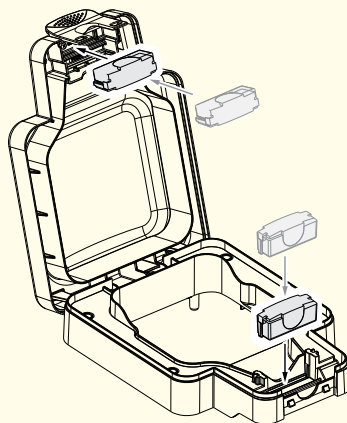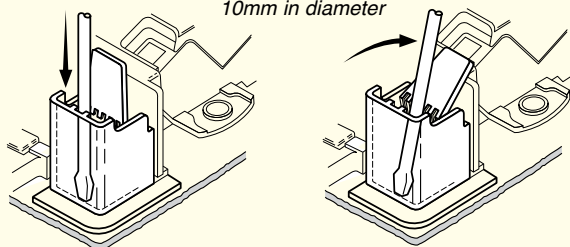3. Install the new cable seal capsules orientated as noted on removal.

Figure 8

Pre-stressing the front cable clamp for cables greater than 10mm in diameter
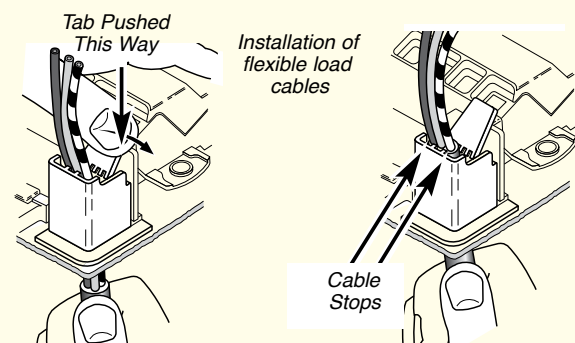

Figure 6a   Figure 6b

Tab Pushed This Way   Installation of flexible load cables

Cable Stops
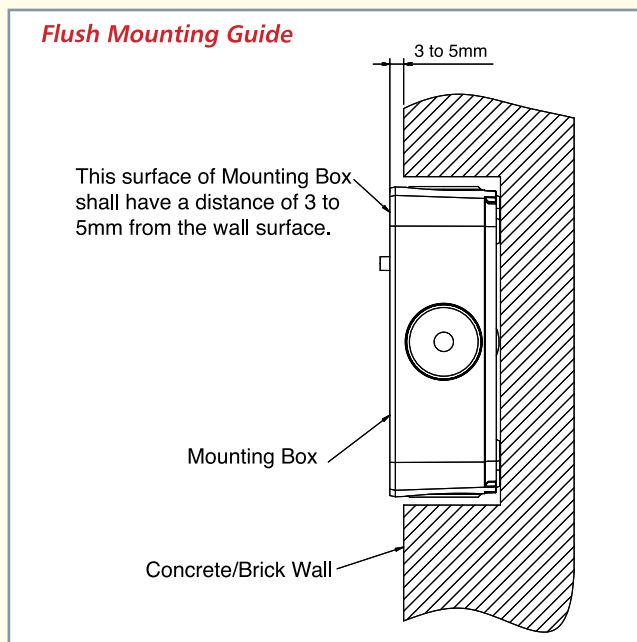
Figure 7a   Figure 7b
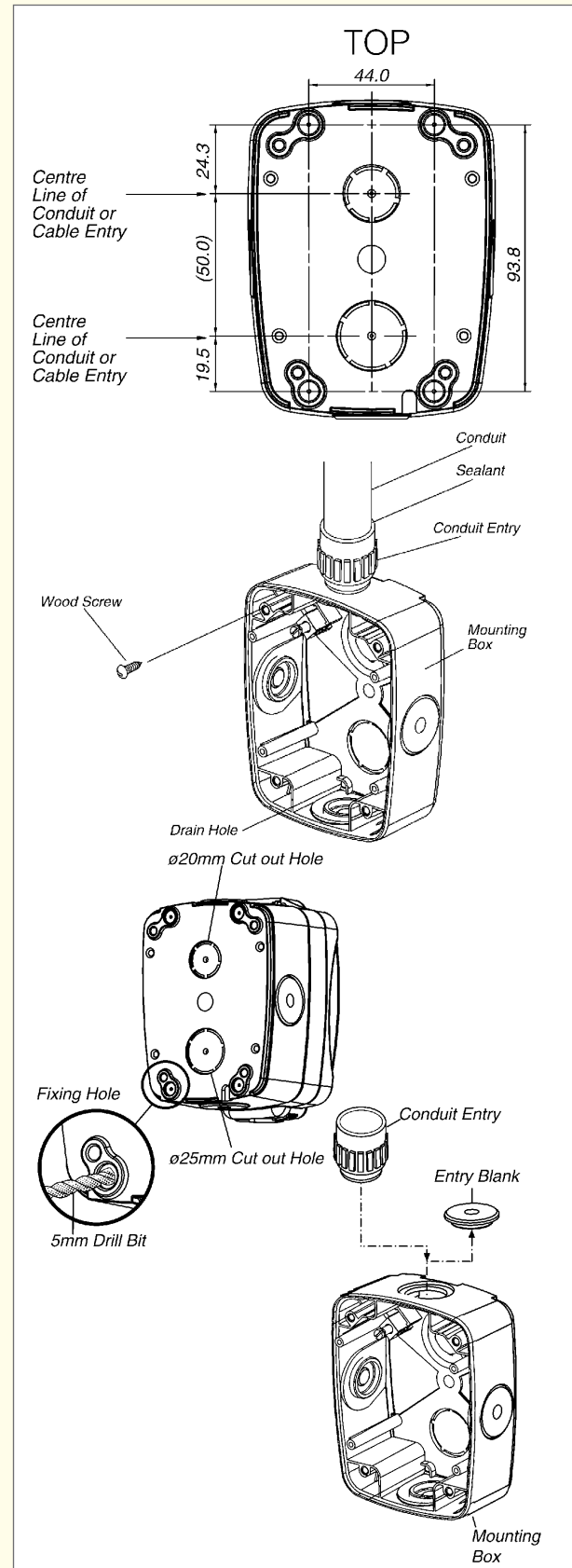
Product Range Features
- Surface mounted and flush mounted products and associated service items are available.
- If flush mounting is intended, the conduit cable entry shall be installed from the rear of the mounting box.
- Suitable for indoor and outdoor use wherever dirt and moisture protection is 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.

Installation Guide

Flush Mounting Guide

3 to 5mm

This surface of Mounting Box shall have a distance of 3 to 5mm from the wall surface.

Mounting Box

Concrete/Brick Wall

- 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.

TOP

44.0

24.3

(50.0)

19.5

93.8

Centre Line of Conduit or Cable Entry

Centre Line of Conduit or Cable Entry

Conduit

Sealant

Conduit Entry

Wood Screw

Mounting Box

Drain Hole

ø20mm Cut out Hole

Fixing Hole

Conduit Entry

ø25mm Cut out Hole

Entry Blank

5mm Drill Bit

Mounting Box

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 MastersealTM Compact product.

1. The MastersealTM 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.

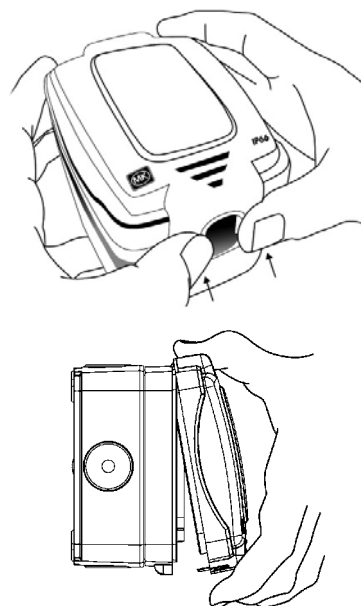Wire and fit the front plate. Ensure the seal is correctly located and no cables are trapped.

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.

Box Seal

Mounting Box

Front Plate Assembly

Fixing Screw
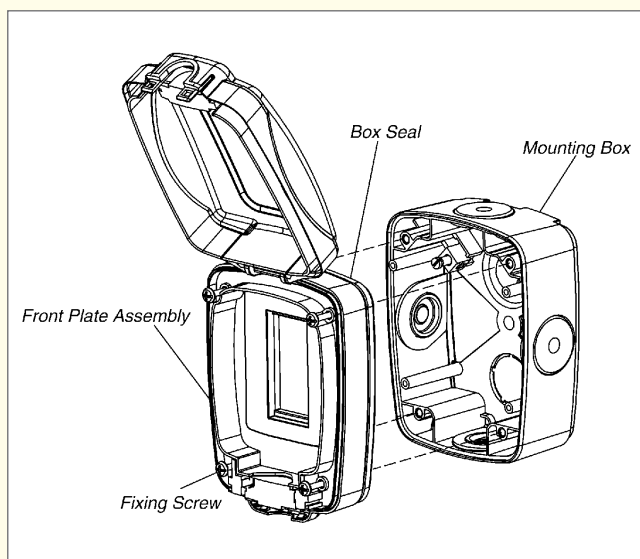
User Guide

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

MK ELECTRIC (MIDDLE EAST)

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