



Technical Hotline
+44 (0)1268 563720

Masterseal Plus™ Technical

WIRING DEVICES
INGRESS PROTECTED
IP66

13A Connection Units

Standards and approvals

All Masterseal Plus™ Connection Units comply with BS 1363 Part 4:1995. All units are fitted with a 13A fuse link to BS 1362.

TECHNICAL SPECIFICATION

ELECTRICAL

VOLTAGE RATING
250V a.c.

CURRENT RATING
Connection units – 13 amp

TERMINAL CAPACITY
Supply terminal
2 x 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

IP RATING
IP66

MAX. INSTALLATION ALTITUDE
2000 metres



Description

Masterseal Plus™ connection units are specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the range is sealed to IP66 against dust, water and is impact resistant and will completely protect and provide a safe connection to any appliance.

FEATURES

- IP66 protected to BS EN 60529:1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Improved catch eases opening and closing during use
- Manufactured from polycarbonate for impact protection
- Screw fitted fuse carrier
- Fuse carrier lockable in open position
- Captive fuse carrier
- 3mm minimum switch contact gap
- Double pole switching
- Moulded 'on' indicator flash on switches will not rub off

Impact Resistance

All Masterseal Plus™ products have an impact resistance equivalent to a 500g object falling from a height of 40cm.

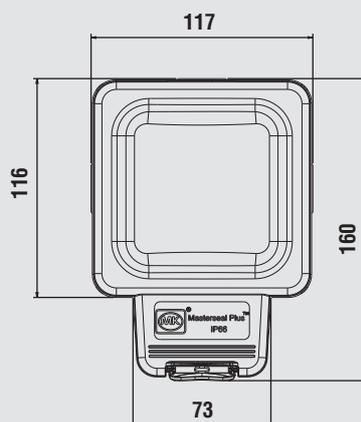
Boxes

Rear entry back boxes are supplied for 'tamper proof' surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502). These boxes must also be used if cable or conduit enters the enclosure from the rear.

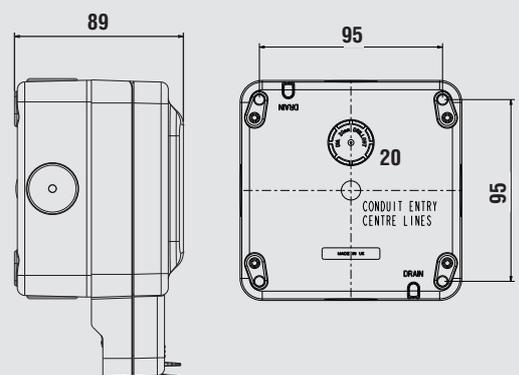
Installation

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

Dimensions (mm)



Fixing Dimensions



Masterseal Plus™ Technical

Installation

Notes

1. The enclosure is made from polycarbonate which is a highly durable material, and ideal for most environments. However, if installing in areas where creosote, some chemicals, synthetic oils and harsh cleaners are used, seek advice from MK Technical Sales Service Department or refer to the table on page 552.
2. The enclosure must be mounted on a flat, vertical surface that is free from grease, dirt and loose material.
3. If the conduit cable entry is from the top or sides the lower drain hole in the mounting box must be drilled out using a 5mm diameter drill bit. This will allow any condensation formed in the conduit system to drain out of the unit.

NOTE: opening the drain hole will reduce the IP rating; therefore ensure that jetted water is not directed at the unit.

4. The drain hole should not be drilled out if the enclosure is to be installed in an excessively dusty environment. If the drain hole is not drilled out, only the bottom cable entry must be used.
5. If conduit is used for bottom cable entry, a 5 mm diameter drain hole needs to be drilled in the lowest point of the conduit run.
6. If wiring directly to the enclosure without conduit and the installation is outdoors, ensure that a cable specified for outside use is used.
7. PVC Cable Entry (see Service Items) must only be used at the bottom cable entry of the enclosure.

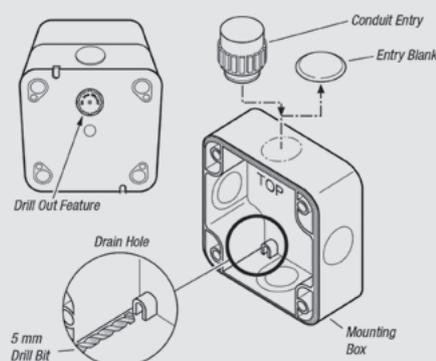
NOTE: If using box coupler 56464 to join boxes use a suitable sealant to ensure full IP protection is maintained.

Instructions

CAUTION

Do not allow paint or wood preservative to come into contact with the product. The product can be safely mounted on painted surfaces or surfaces treated with wood preservative when the paint or wood preservative is completely dry.

1. Read the safety instructions.
2. Mark the position of the fixing holes for the mounting box.
3. Drill holes and fit wall plugs suitable for a No. 8 wood screw.
4. Prior to fitting the mounting box to the wall, drill out the drain hole if required (see Installation Note 3). File out the complete drain hole profile. Take care not to damage the small internal wall.
5. Carefully remove the cable entry blanks, or drill out the rear cable entry, as required and fit conduit entry (see Service Items).
6. Secure the mounting box to wall with four No. 8 wood screws. Position drain hole at bottom left hand corner.
7. Align and install conduit or cable entry as required.
8. Seal the conduit and conduit entry with a non setting conduit sealant such as EWPLUS. Refer to Figure 4.



9. For instructions on how to wire the front plate of telephone and data products see the instruction leaflets supplied with the appropriate module.

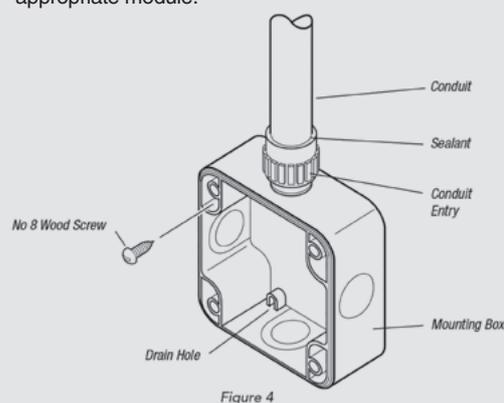
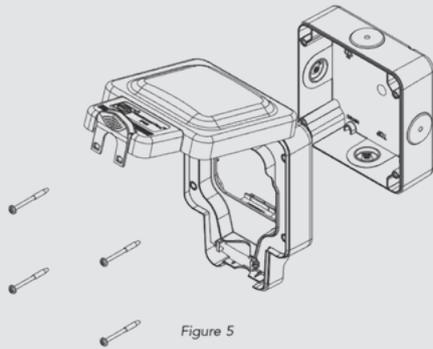


Figure 4

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.

Installation

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



When installing connection units using the front flexible cable clamp

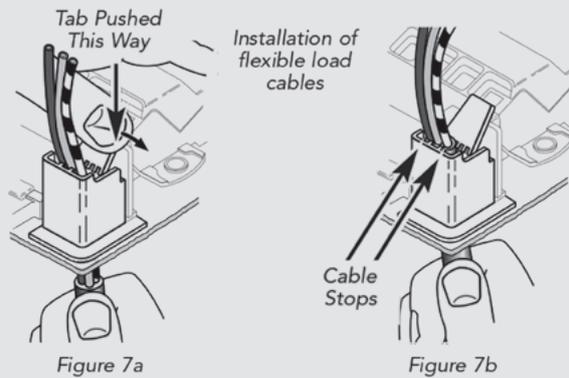
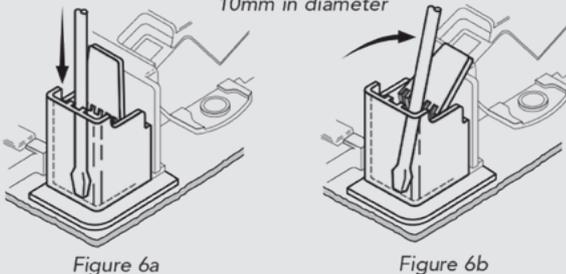
1. Strip back the outer sheath on the appliance flexible LOAD cable and trim wires to 55mm in length. Do not trim the insulation on the three individual cables for the moment.
2. When using cables of 10mm or more in diameter, it is necessary to pre-stress the cable clamp before attempting to load the cable.
3. To pre-stress the clamp insert a flat bladed screwdriver into the cord grip as shown in fig. 6a and flex the clamping jaw open until it touches the grey base moulding fig. 6b. Then remove the screwdriver.

IMPORTANT: The clamp must not be re-used for cables below 6mm diameter after pre-stressing.

4. Cables below 10mm diameter do not need the cable clamp pre-stressed and the installation from this point is the same for all products.
5. To assist pushing the load cable through the front of the product, ease the clamping jaw pressure by holding the product securely in one hand and pushing the tab firmly with your thumb in the direction shown in fig. 7a.
6. Continue pushing the cable through the clamp until the outer sheath reaches the cable stops. See fig. 7b. The jaws must clamp on the outer sheath.
7. Carefully strip back the insulation on all three cables to expose 10mm of the conductor.
8. Ensure all conductors are connected to the appropriate terminals.

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

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



Testing

Test the completed installation in accordance with the latest edition of the IET wiring regulations (BS 7671).

Service and Maintenance

CLEANING

1. The exterior of the product must only be cleaned with a solution of mild detergent (e.g. washing up liquid) and warm water.