

INSTALLATION INSTRUCTIONS

MA4000 Series

*For more information please contact your local MTL office
or visit our web site at www.mtlsurge.com*

The Americas: +1 800 835 7075
UK: +44 (0)1582 723633
Singapore: +65 6 487 7887

The Netherlands: +31 (0)481 450250
Italy: +39 (0)2 6180 2011
Australia: +61 (0)8 9455 2994
India: +91 (0)44 450 1660

This installation guide is applicable to the following MTL Surge Technologies branded products:
MA4020-F-024-1-D-R MA4020-F-048-1-D-R MA4020-F-110-1-D-R MA4020-F-230-1-D-R

The MA4000 product range attenuates voltage and current spikes from all sources that are commonly experienced in industrial environments. The products are specifically designed to safely redirect damaging spikes to earth therefore protecting any sensitive electronics located locally.

The MA4000 enclosure can readily be mounted using the four fixing points provided on the enclosure. Flying leads are provided for easy connection to the power supply cable, along with remote monitoring wires.

Where required, the remote monitoring wires can be utilised to provide indication on the status of the MA4000 unit(s). A short circuit indicates that the unit is fully operational, whereas an open circuit connection provides indication that the MA4000 device requires replacing.

There are currently four variants in the MA4000 range:
24Vdc 48Vdc 110Vac 230Vac

The MA4000 range is certified for use in hazardous areas, see data sheet and unit labeling for details.

SPECIAL CONDITIONS OF USE

- WARNING: These devices must be installed by competent, authorised personnel. Isolate circuit before connecting/disconnecting ac/dc power source.
- The flying leads must be suitably protected against mechanical damage and terminated in a suitable facility for the utilised protection concept.
- ELECTROSTATIC HAZARD WARNING: Do not rub with a dry cloth or clean with solvents.
- The MA4000 range of products are factory sealed.

Positioning

The MA4000 range should be mounted close to the equipment it is protecting. It should be bonded directly to the equipment with as short a length of cable as possible.

Avoid large loops and sharp bends in the wire. Cut the wire as short as possible when connecting the MA4000 and connect the wires in the following manner:

	AC Power Applications	DC Power Applications
Brown	Live	+ power supply
Blue	Neutral	- power supply
Green / Yellow	Earth	Earth
Black	Monitoring 1	Monitoring 1
Grey	Monitoring 2	Monitoring 2

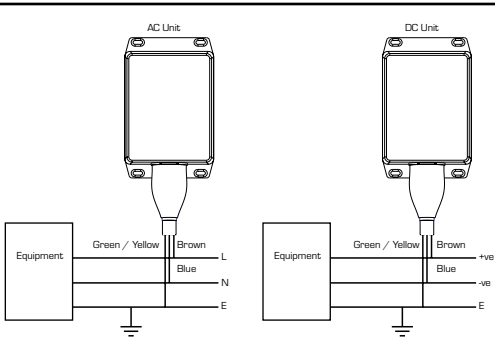


Figure 1 Connection

Mounting

The MA4000 range should ideally be mounted using the four holes provided and with the cable exiting from the bottom (figure 2).

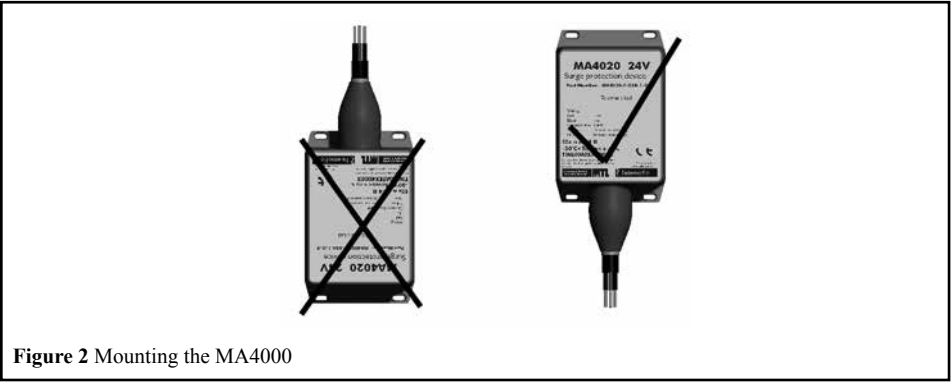


Figure 2 Mounting the MA4000

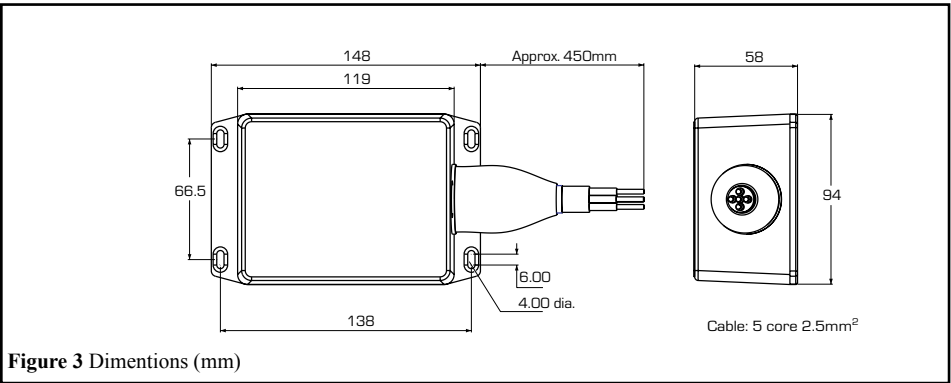


Figure 3 Dimentions (mm)

Weight

1 Kg

Supply voltage

MA4020-024 24Vdc MA4020-048 48Vdc MA4020-110 110Vac MA4020-230 230Vac

Line frequency

MA4020-024dc MA4020-048dc MA4020-110dc to 60Hz MA4020-230dc to 60Hz

Fusing

Although the MA4000 range have temperature protection devices fitted it is important that external fusing is fitted to interrupt the maximum fault current which the supply can deliver under fault conditions. The chosen fuse should be of a HBC (high breaking capacity) or HRC (high rupture capacity) type.

Remote monitoring wires

Remote monitoring wires are provided as an optional way of knowing the status of the MA4000 unit. These wires have a closed contact which will open to indicate that the protection provided by the MA4000 unit is no longer present. The remote monitoring lines should be fused using a 250Vac, 2A rated fuse to protect the remote contact inside the unit.

Maintenance

This product is not a repairable unit, if the product fails it must be replaced.

The MA4000 unit requires no maintenance as there are no user serviceable parts. However where the remote monitoring wires are not being fully utilised a maintenance plan may be advisable to check the status of the protectors.