

# MTL SD Modular range (Plug module)

## Installation guide



## Installation

**IMPORTANT** - These devices are suitable for use in hazardous area circuits as described in IEC/EN60079-14. **Because of their intended safety function they must be removed when performing a 500V insulation test.**

This section describes the installation, substitution or replacement of the plug-in module. The following guidelines should be adopted during this process. (See Figure 1)

- Lift the retention tag on the base unit carefully to allow the plug module to be inserted.
- Check the orientation of the plug module before inserting it into the base unit.
- Do not attempt to force the plug module into the base - check its orientation.
- Ensure the plug module is fully seated in the base unit.
- Close the retention tag and apply even pressure until it locks into place.

To remove a plug module:

- Lift the retention tag on the base unit.
- Use a suitable screwdriver to lever the module out of the base - see Figure 4 - until it can be gripped with fingers for removal.

**Note:** when replacing a plug module, check the module removed has an Eaton logo in the top left hand corner of the product. If not, then it is recommended to replace the SD M base and module with the Eaton branded REV 2 version.



If your module looks like this, then it is OK to replace the plug in module.



If your module looks like this, then we recommend you upgrade both the base and plug in module with the Eaton branded version.

## Identification tags

The retention tag used to cover the top of the individual MTL SD Modular plug module is supplied fitted with an adhesive label that identifies the specific plug-in module fitted. The labels are also supplied in separate sheets for pre-printing by the user.

To fit a retention tag (see also Figure 2):

- Tilt the retention tag so that one side of the hinge can be engaged (1), then rotate over the top of the hinge to engage the other side (2).

- Close the retention tag and apply even pressure until it locks into place.

## Replaceable fuses/disconnects

Certain plug-in modules have replaceable fuses (when specified) to protect the MTL SD Modular device and its associated circuitry against wiring errors or circuit faults that could occur during operation. These fuses can also act as “disconnects”, providing a useful mechanism for breaking the circuit between the protected area and the field equipment during commissioning, maintenance or fault finding.

If fuses are not required, “zero-ohm” links are available to provide disconnects. If no form of fuse or disconnect is specified, the fuse/link opening is fitted with a blanking plug.

The fuses and disconnects are colour-coded plastic items, and replacements are available in packs of 5 with the part numbers shown in the following table.

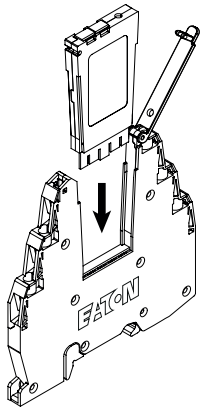
Fuse rating/disconnect	Package colour	Part number
250mA	Yellow	SD-F25
50mA	Blue	RFA7050
Zero ohm link	Purple	RLA7000

To replace a fuse - see Figure 3:

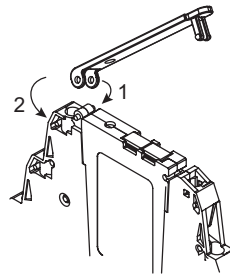
- Raise the latched end of the retention tag and pivot it upwards to reveal the top of the plug-in module.
- While applying a little pressure to the top of the plug module (to prevent it from being lifted) use the tip of a small screwdriver to gently lever the fuse package upwards until it can be gripped between two fingers.
- If the fuse is pulled upwards a little, a slight resistance is felt – this is the “disconnect” position. Use this position to isolate protected and field equipment during commissioning, maintenance and fault-finding procedures.
- Pull further to withdraw the fuse package completely.
- Insert the replacement fuse and press down firmly, until the top of the package is level with the top of the base unit; or re-establish the connection by pressing the fuse down in a similar manner.
- Rotate the retention tag and carefully clip it back into place.

**Note:**

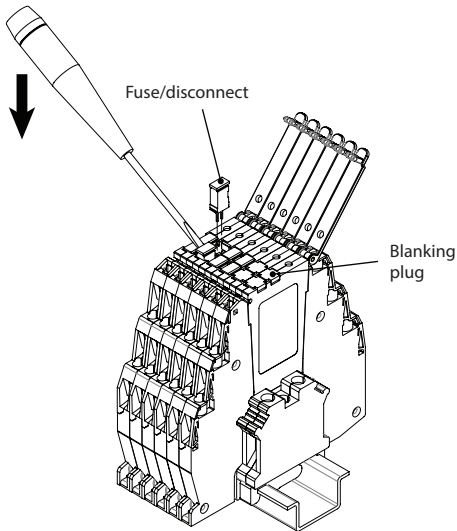
*The replacement fuses are non-polarised and can be inserted either way.*



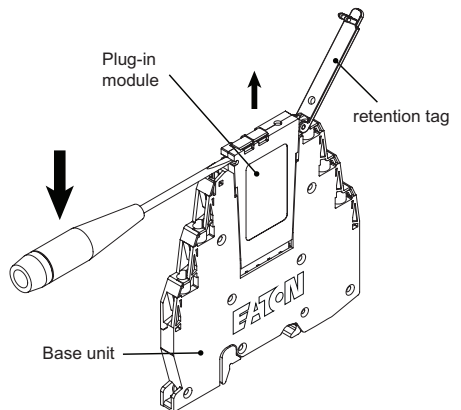
**Figure 1: Plug module insertion**



**Figure 2: Fitting retention tag**



**Figure 3: Fuse/disconnect removal**



**Figure 4: Plug module removal**

## MTL SD Modular ATEX and IECEx information

The Essential Health and Safety Requirements (Annex II) of the EU Directive 94/9/EC [the ATEX Directive - safety of apparatus] and the IECEx Scheme requires that the installation manual of all equipment used in hazardous areas shall contain certain information. This guide is included to ensure that this requirement is met. It complements the information presented in this document and does not conflict with that information. It is only relevant to those locations where the ATEX and IECEx directives are applicable.

### 1 General

- In common with all other electrical apparatus installed in hazardous areas, this apparatus must only be installed, operated and maintained by competent personnel. Such personnel shall have undergone training, including instruction on the various types of protection and installation practices, the relevant rules and regulations, and on the general principles of area classification. Appropriate refresher training shall be given on a regular basis. [See clause 4.2 of EN 60079-17].
- The apparatus has been designed and manufactured to satisfy the "essential health and safety requirements" of Annex II of the Directive.
- This apparatus has been designed to meet the requirements of I.S. electrical apparatus in accordance with EN 90079-11 and EN 60079-0 and is normally mounted in the hazardous area.
- This apparatus requires additional protection for use in dust environments.

### 2 Installation

- The installation should comply with the appropriate European, national and local regulations, which may include reference to the IEC code of practice IEC 60079-14. In addition particular industries or end users may have specific requirements relating to the safety of their installations and these requirements should also be met. For the majority of installations the Directive 1999/92/EC [the ATEX Directive - safety of installations] is also applicable.
- The apparatus must not be subjected to mechanical and thermal stresses in excess of those permitted in the certification documentation, this manual and the product specification. If necessary the product must be protected by an enclosure to prevent mechanical damage.
- The apparatus must not be installed in a position where it may be attacked by aggressive substances and must be protected from excessive dust, moisture and other contaminants by an enclosure.

- This apparatus is I.S. electrical apparatus and is normally mounted in a hazardous area. It meets the requirements of Category 1 apparatus and may be installed in a Zone 0 location providing that the relevant installation conditions are met.

### 3 Inspection and maintenance

- Inspection and maintenance should be carried out in accordance with European, national and local regulations which may refer to the IEC standard IEC 60079-17. In addition specific industries or end users may have specific requirements which should also be met.
- If the outer enclosure of the apparatus needs to be cleaned, this should be done with a cloth lightly moistened by a dilute mixture of detergent in water.

### 4 Special Conditions for Safe Use

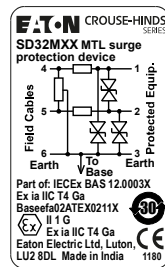
- The plastic enclosure may present an electrostatic risk and must not be rubbed in service.
- The range of SDBE-B\*\* Series Surge Protection Devices will not meet the 500V insulation requirements to earth; therefore suitable precautions must be taken when installing the apparatus.

### 5 Repair

This product cannot be repaired by the user and must be replaced with an equivalent certified product.

### 6 Marking

Each certified product variant is marked in compliance with the Directive and CE marked with the Notified Body Identification Number. This information applies to products manufactured during or after the year 2012.



Example of label markings

For more information please contact your local office for Eaton's MTL product range or visit...

[www.mtl-inst.com](http://www.mtl-inst.com)



**Eaton Electric Limited,**  
Great Marlings, Butterfield, Luton  
Beds, LU2 8DL, UK  
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283  
E-mail: [mtlenquiry@eaton.com](mailto:mtlenquiry@eaton.com)  
[www.mtl-inst.com](http://www.mtl-inst.com)

© 2017 Eaton  
All Rights Reserved  
Publication No. INS 801-753 Rev 1 240317  
March 2017

**EUROPE (EMEA):**  
+44 (0)1582 723633  
[mtlenquiry@eaton.com](mailto:mtlenquiry@eaton.com)

**THE AMERICAS:**  
+1 800 835 7075  
[mtl-us-info@eaton.com](mailto:mtl-us-info@eaton.com)

**ASIA-PACIFIC:**  
+65 6645 9864 / 9865  
[sales.mtlisng@eaton.com](mailto:sales.mtlisng@eaton.com)

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.