



Installation & Maintenance Manual for FO Splice Boxes

Specifications

Types

FXLS2*.FO* - FO Splice Box fitted with fibre splice tray(s) (FXL SS316L enclosure)
 GR.TFO* - FO Splice Box fitted with fibre splice tray(s) (GR GRP enclosure)
 SR.TFO* - FO Splice Box fitted with fibre splice tray(s) (SR SS316L enclosure)

Hazardous Area Information

ATEX certificate numbers:

CML16ATEX3009X (FXL), CML 17ATEX3255X (GR) or CML 20ATEX3156X (SR)

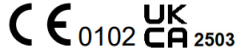
IECEX certificate numbers:

IECEX CML 16.0008X (FXL), IECEX CML 17.0144 X (GR) or IECEX CML 20.0094X (SR)

UKEX certificate numbers:

CML 22UKEX2550X (FXL), CML 21UKEX3896X (GR), CML 21UKEX3892X (SR)

CE numbers:



Certification coding for ATEX/IECEX/UKEX:

Ⓢ II 2 GD

Ex op pr IIC T6, T5 Gb

Ex tb IIIC Db T80°C, T95°C

Ambient temperature range:

-40°C to +55°C as standard (optional -55°C to +55°C)

IP Rating

IP 66

Frequency range:

10MHz – 10GHz

Mechanical Information

FXLS2*.FO*

Material & finish: 316L, electropolished

Enclosure cover screw torque: 2Nm

GR.TFO.*

Material & finish: Glass Fibre Reinforced Polyester, textured as moulded

Enclosure cover screw torque: 3.5Nm

SR.TFO.*

Material & finish: 316L, brushed

Enclosure cover screw torque: 3.5Nm

Entry thread form: M20 clearance holes

Conformity

EN 60079-0: 2018, EN 60079-28: 2015, EN 60079-31: 2014, EN 60529, DIN 47662

FO Splice Tray Component:**ATEX certificate number:**

Baseefa14ATEX0368U

IECEX certificate number:

IECEX BAS 14.0169U

Minimum internal bend radius:

35mm

Optical fibre quantity:

6 with 1 splice protector holder, 12 with 2 splice protector holders

Optical fibre diameter:

0.9 or 1.1mm

Installation

To minimise the risk of ignition by electrical apparatus in hazardous areas efficient installation, inspection and maintenance of apparatus and systems is essential and the work should be carried out by suitably trained personnel in accordance with the prevailing code of practice.

General remarks:

1. The enclosure should be mounted via the fixing points that are provided. The enclosure may be used as a template when marking fixing points, alternatively, the dimensions of the fixing centres are provided in the associated datasheet. Expanding bolts should be used when mounting on concrete, or suitably sized bolts, nuts and anti-vibration washers when mounting to a steel framework.
2. Only fusion splices may be stored within the splice tray.
3. The fibre optics may only be mounted with the supplied splice holders and heat-shrink splice protectors.
4. The splice tray must be securely mounted using the provided mounting stud.

Fibre splicing procedure:

1. Remove the cable insulation and multifibre loose buffers using a suitable tool.
2. Fasten the multifibre to the lower part of the splice tray using cable ties as required (detailed in the options suggested overleaf).
3. Make optical fibre splices in accordance with the instructions of the optical fibre splicing machine.
4. Lay the optical fibres inside the splice cassette in accordance with 60079-14.
5. Place the splice protector into the splice protector holder.
6. Repeat for the remaining optical fibres.
7. Make sure that the optical fibres are firmly secured within the splice tray.
8. Close the lid to the upper splice tray.
9. Cable entries should be made only with suitably approved Ex eb, tb glands noting that this equipment is suitable for use with gas group IIC. IP rating of glands should be suitable for the intended area of installation.
10. All unused entries should be fitted with suitably approved Ex eb, tb stopping plugs or blanking plugs.
11. Once the enclosure cover is fitted, ensure that all fasteners are fully tightened.

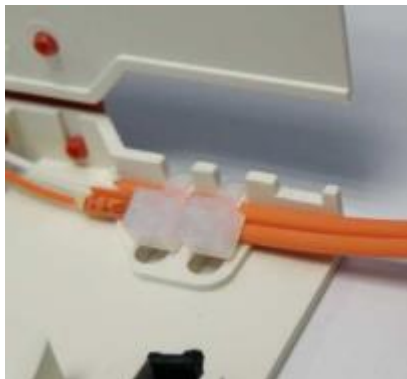


Image relevant to point 2.

Typical Fibre Installations

Cassette assembly without individual strain relief:



Cassette assembly with up to two optional individual strain relief:



Optional fibre entry / exit points:



Maintenance

Electrical apparatus installed in hazardous locations has design features that make it operationally safe under normal conditions. In order to ensure that the apparatus remains serviceable the following points should be attended to on a periodical basis. The period between inspections is not fixed, but should be adjusted to suit the environmental conditions where the equipment is situated. An initial inspection after 12 months of use is suggested.

1. Ensure that all fasteners are present.
2. Ensure that the enclosure is not damaged or distorted so as to prevent proper functioning of the gaskets.
3. Ensure that the enclosure is not corroded such as to affect its IP rating.
4. Ensure that all entry devices are in good condition and securely tightened.
5. Ensure that the certification label is present and legible
6. Ensure all optical fibres are held securely in place.
7. Check splice tray for damage. If damaged it must be replaced, repairs are not permitted.
8. Ensure that any modifications that have been performed are in accordance with the previous section, making reference to the certification if necessary.
9. With the cover refitted, ensure that all fasteners are fully tightened.

Special Conditions for safe Use

1. Connected optical bundles must be sufficiently supported within the equipment to prevent strain on the individual fibres as they enter the component.
2. For more information please refer to the appropriate certificate listed on page 1.
3. All documentation downloadable from www.pepperl-fuchs.com.