

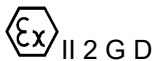


EU Type Examination Certificate CML 17ATEX3023U Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Component **FXL*2*, XL*2*, SL*2, FS*, S* and LCS* Ranges of Enclosures**
- 3 Manufacturer **Pepperl+Fuchs GmbH**
- 4 Address **Lilienthalstrasse 200
68307 Mannheim
Germany**
- 5 The component is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 The 'U' suffix after the certificate number indicates that the component is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-31:2014
- 10 The equipment shall be marked with the following:



II 2 G D

Ex eb IIC Gb

Ex tb IIIC Db



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11 Description

The SL range of enclosures are provided with a bolt on cover and are designated either SLM when manufactured from mild steel or SLS when manufactured from stainless steel. There is no provision for gland plates and the walls are provided with plain holes for cable entries.

Designation	Dimensions (mm) Length x width x height
SL*1	110 x 110 x 65
SL*2	120 x 120 x 80
SL*3	150 x 120 x 80
SL*4	150 x 150 x 90
SL*5	190 x 150 x 90
SL*6	190 x 190 x 100
LCS1	96 X 110 X 85.5
LCS2	136 X 110 X 85.5
LCS3/4	216 X 110 X 85.5

The XL range of enclosures are provided with a hinged cover and are either designated XLM when manufactured from mild steel or XLS when manufactured from stainless steel. All sizes can be provided with gland plates. The use of a gasket on the lid and gland plates provides the size XL*1 to XL*10D enclosures with an ingress protection rating of IP66. The XL*11 enclosures have an ingress protection rating of IP54. The FXL enclosures are similar to the XL enclosures having a different sealing arrangement of the cover, which adds 15mm to their depth.

Designation	Dimensions (mm) Length x width x height	Designation	Dimensions (mm) Length x width x height
XL*1/FXL*1	229 x 152 x 130	XL*7/FXL*7	500 X 350 X 150
XL*2/FXL*2	260 x 260 x 150	XL*7D/FXL*7D	500 X 350 X 200
XL*2D/FXL*2D	260 x 260 x 200	XL*8/FXL*8	620 X 450 X 150
XL*3/FXL*3	306 x 306 x 150	XL*8D/FXL*8D	620 X 450 X 200
XL*3D/FXL*3D	306 x 306 x 200	XL*9/FXL*9	762 X 508 X 150
XL*4/FXL*4	380 x 260 x 150	XL*9D/FXL*9D	762 X 508 X 200
XL*4D/FXL*4D	380 x 260 x 150	XL*10/FXL*10	914 X 610 X 200
XL*5/FXL*5	458 X 382 X 150	XL*10D/FXL*10D	914 X 610 X 300
XL*5D/FXL*5D	458 X 382 X 200	XL*11/FXL*11	1177 X 777 X 210
XL*6/FXL*6	480 X 480 X 150	XL*11D/FXL*11D	1171 X 777 X 300
XL*6D/FXL*6D	480 X 480 X 200	Special typecode is: XL*.HH.WW.DD.2.* FXL*.HH.WW.DD.2.*	To a maximum of: 2000 mm x 1500 mm x 600 mm



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Designation	Dimensions (mm) Length x width x height	Designation	Dimensions (mm) Length x width x height
FS01B	230 X 200 X 145	S11	230 X 300 X 130
FS02B	250 X 270 X 165	S12	230 X 300 X 130
FS03B	250 X 310 X 165	S13	306 X 306 X 165
FS04B	300 X 340 X 165	S14	458 X 350 X 165
FS05B	350 X 430 X 215	S20	380 X 380 X 215
FS05C	550 X 430 X 215	S30	400 X 480 X 215
FS06B	400 X 515 X 215	S35	350 X 700 X 225
FS06C	730 X 515 X 315	S40	400 X 600 X 225
FS07A	260 X 555 X 225	S60	600 X 600 X 225
FS07B	400 X 555 X 225	S80	800 X 800 X 315
FS08B	450 X 660 X 315	S100	1000 X 800 X 315
FS08C	750 X 660 X 315		
FS09B	600 X 910 X 315		

A range of flange adaptors allows the enclosures to be close coupled to suitable Ex d or Ex e enclosures.

The flange adapters consist of welded 316L stainless steel plates forming a rectangular shape with a recessed section on each side in which silicone gaskets sit. The gaskets are fixed into the recess with adhesive. There are several holes through the gasket and the recessed section for the passage of fastening screws. The gaskets are intended to be in contact with the external wall of an increased safety or flameproof enclosure to allow passage of cables/connections between the two enclosures. This allows for close coupling of the enclosures, while maintaining the level of protection. The flange adapters are intended to be secured to both enclosures with the use of stainless-steel fastening screws and a stainless-steel securing nut or threaded hole/rivnut in the enclosure wall, depending on the type of enclosure. There are two types of flange adapter, Type A and Type B. Type A allows the two enclosures to be mounted directly adjacent to each other, while Type B allows for separation of the enclosure if required due to the enclosure shape, or to meet clearance requirements from the flamepaths of an Ex d enclosure. The Type B adapter may have one side which is angled up to 2° in relation to the other side, in order to fit an enclosure with an angled wall. There is a 6 mm clearance hole or M6 welded stud provided to allow for internal earthing of the adapters.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	12 Feb 2018	R1961A/00	Issue of Prime Certificate
1	07 Mar 2019	R12226A/00	Transfer of Certificate to CML BV

Note: Drawings that describe the equipment or component are listed in the Annex.



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13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

14 Schedule of Limitations

The following conditions relate to safe installation and/or use of the equipment.

- ii. The FXL*2*, XL*2*, SL*2, FS*, S* and LCS* Ranges of enclosures have the following service temperature ranges. When assessed as part of equipment, these temperatures shall not be exceeded.
 - 40°C to +40°C XL/FX:*** (neoprene gasket)
 - 50°C to +120°C XL/FXL***S (silicone gaskets)
- iii. The XL*11/FXL*11 and XL*11D/FXL*11D type enclosures shall not be used for dust applications
- iv. When the flange adapters are installed against the wall of a flameproof enclosure, a 3 mm minimum wall thickness at the base of the threaded holes used for securing the flange adapters shall be maintained. A minimum of one free thread at the base of the hole, when no washer is fitted, shall also be maintained. The introduction of these threaded holes to the flameproof enclosure wall shall be shown not to affect the flameproof properties of the enclosure.
- v. Any associated enclosure to which the flange adapters are mounted, including flameproof enclosures, shall be capable of preventing dust or water ingress into the increased safety enclosure to the level IP64.
- vi. The torque applied to the flange adapter fastening arrangements shall be at least 2 Nm.
- vii. The gaskets on both sides of the flange adapter shall sit flat against the enclosures and the enclosures shall support the full area of the flange adapter and gaskets
- viii. Where the wall of an associated enclosure to which the flange adapter is mounted is angled in relation to the wall of the increased safety enclosure, an appropriately angled flange adapter shall be selected so that the gasket sits flat on the associated enclosure.
- ix. When the flange adapters are installed against the wall of a flameproof enclosure, the minimum required clearance from flanged joints defined in IEC 60079-14 shall be maintained, taking into account the gas group of the flameproof enclosure.
- x. The internal earth tab/stud of the flange adapters shall be suitably bonded to the internal earth of the equipment enclosure. The connection facilities to the tab/stud shall meet the relevant requirements for earthing detailed in IEC 60079-0.
- xi. Relative movement between the enclosures shall be prevented by mounting the coupled enclosures on a frame, or some other method of preventing strain on the flange adapters and fasteners.
- xii. The gaskets have been shown to form an effective seal on an epoxy powder coated enclosure surface. Any other paint/coating on any enclosure to which the flange adapters may be fitted shall allow for equally effective sealing against the gasket.



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- xiii. The flange adapters shall be mounted to an enclosure which is made of aluminium, cast iron, cast stainless steel, sheet steel or sheet stainless steel
- xiv. When the flange adapters are installed against the wall of a flameproof enclosure, the flameproof enclosure shall be completely segregated from the increased safety enclosure by suitable flameproof entry devices.



Certificate Annex

Certificate Number CML 17ATEX3023U
Equipment FXL*2*, XL*2*, SL*2, FS*, S* and LCS* Ranges of Enclosures
Manufacturer Pepperl+Fuchs GmbH

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
16-1363CM-04	1 of 12	-	09 Feb 2018	FXL/XL/SL general assembly & sizes
16-1363CM-04	2 of 12	-	09 Feb 2018	FXL/XL/SL internal / external earth arrangement
16-1363CM-04	3 of 12	-	09 Feb 2018	XL cover sealing details
16-1363CM-04	4 of 12	-	09 Feb 2018	FXL/XL glandplate earth stud
16-1363CM-04	5 of 12	-	09 Feb 2018	XL alternative hinge arrangement
16-1363CM-04	6 of 12	-	09 Feb 2018	FXL enclosure detail
16-1363CM-04	7 of 12	-	09 Feb 2018	FXL enclosure fitted with double bit lock
16-1363CM-04	8 of 12	-	09 Feb 2018	FXL/XL/SL enclosure fitted with window
16-1363CM-04	9 of 12	-	09 Feb 2018	FXL/XL/SL enclosure fitted with AK terminals
16-1363CM-04	10 of 12	-	09 Feb 2018	FXL enclosure flanged to Ex d/e enclosure
16-1363CM-04	11 of 12	-	09 Feb 2018	Type A connecting flange
16-1363CM-04	12 of 12	-	09 Feb 2018	Type B connecting flange
16-1363CM-10	1 of 1	-	09 Feb 2018	FXL/XL/SL label details

Issue 2

None.