

UK Type Examination Certificate CML 21UKEX3892X Issue 1

United Kingdom Conformity Assessment

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **SR Terminal Box**
- 3 Manufacturer **Pepperl+Fuchs SE**
- 4 Address **Lilienthalstrasse 200
68307 Mannheim
Germany**

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this equipment 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 Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 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 IEC 60079-0:2018

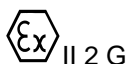
EN IEC 60079-7:2015/A1:2018

EN 60079-11:2012

EN 60079-28:2015

IEC 60079-31:2022

- 10 The equipment shall be marked with the following:



Ex eb IIC T* Gb

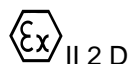
Ex ia IIC T* Gb

Ex op pr IIC T* Gb

*T6/T80°C Ta = -60°C to +40°C

*T5/T95°C Ta = -60°C to +55°C

*T4/T130°C Ta = -60°C to +90°C



Ex tb IIIC T* Db

Other values possible according to the limitations within the schedule drawings.





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11 Description

The SR Terminal Box is a range of increased safety fabricated steel enclosures with a base and mechanically fixed cover with optional hinges. The range utilises the Ex Component certified Pepperl+Fuchs SR enclosures covered under certificate numbers IECEx CML 20.0076U and CML 20ATEX3118U.

The SR Terminal Box is populated with DIN rail mounted, increased safety Ex component certified terminals, their number and orientation being subject to pre-determined limitations. The SR Terminal Box may also be used for connecting intrinsically safe circuits.

In addition, the SR Terminal Box may be fitted with an Ex component certified fibre optic splice tray(s).

For cable entry, the terminal boxes may be provided with clearance holes, as required, in the top, bottom, left, right or back faces, or alternatively via glandplates. An internal/external earth stud may be provided.

The enclosures may be flanged to each other to create one larger enclosure with an allowed dissipation corresponding to the new larger dimensions and they may be flanged to separately certified Ex d enclosures. A method for calculating the required reduction in allowed dissipated power to account for any heating from the neighbouring Ex d enclosures is described in this certificate.

The enclosures are available in a range of standard sizes as shown in Table 1 below, other sizes allowed by the enclosure component approvals are also allowed and their maximum power dissipation may be calculated according to the rules in the schedule drawings

Design options

Enclosure type	H (mm)	W (mm)	D (mm)
LRS / SRS.10.11.09	96	110	85.5
LRS / SRS.14.11.09	136	110	85.5
LRS / SRS.18.11.09	176	110	85.5
LRS / SRS.22.11.09	216	110	85.5
SRS.15.15.09	150	150	90
SRS.15.19.09	150	190	90
SRS.19.19.10	190	190	100
SRM.26.26.09	260	260	87
SRM.26.26.16	260	260	160
SRM.26.26.22	260	260	220
SRM.23.30.16	230	300	160
SRM.19.38.16	190	380	160
SRM.31.31.09	310	310	87
SRM.31.31.16	310	310	160
SRM.31.31.22	310	310	220
SRM.38.38.16	380	380	160
SRM.38.38.22	380	380	220
SRM.38.48.09	380	480	87



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SRM.38.48.16	380	480	160
SRM.38.48.22	380	480	220
SRL.48.48.16	480	480	160
SRL.48.48.22	480	480	220
SRL.40.60.22	400	600	220
SRL.38.76.16	380	760	160
SRL.48.76.16	480	760	160
SRL.48.76.22	480	760	220
SRL.60.60.26	600	600	260
SRX.90.60.30	900	600	300
SRX.80.80.30	800	800	300
SRX.100.80.30	1000	800	300
SRX.130.80.30	1300	800	300
SRX.120.120.30	1200	1200	300

Table 1

Maximum Dissipated Power for T6/T5/T4 Ta = 40°C/55°C/90°C

Enclosure type	Power (W)			
	Ta(°C)	T6/T80°C	T5/T95°C	T4/T130°C
LRS / SRS.10.11.09	40	5.5	8.7	11.8
LRS / SRS.10.11.09	55	-	5.5	11.8
LRS / SRS.10.11.09	90	-	-	5.5
LRS / SRS.14.11.09	40	6.4	10.1	13.7
LRS / SRS.14.11.09	55	-	6.4	13.7
LRS / SRS.14.11.09	90	-	-	6.4
LRS / SRS.18.11.09	40	7.3	11.5	15.6
LRS / SRS.18.11.09	55	-	7.3	15.6
LRS / SRS.18.11.09	90	-	-	7.3
LRS / SRS.22.11.09	40	8.2	12.9	17.5
LRS / SRS.22.11.09	55	-	8.2	17.5
LRS / SRS.22.11.09	90	-	-	8.2
SRS.15.15.09	40	7.7	12.1	16.5
SRS.15.15.09	55	-	7.7	16.5
SRS.15.15.09	90	-	-	7.7
SRS.15.19.09	40	8.6	13.6	18.4
SRS.15.19.09	55	-	8.6	18.4
SRS.15.19.09	90	-	-	8.6
SRS.19.19.10	40	10.2	16.1	21.8
SRS.19.19.10	55	-	10.2	21.8
SRS.19.19.10	90	-	-	10.2
SRM.26.26.09	40	14.4	22.7	30.7
SRM.26.26.09	55	-	14.4	30.7
SRM.26.26.09	90	-	-	14.4



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Enclosure type	Power (W)			
	Ta(°C)	T6/T80°C	T5/T95°C	T4/T130°C
SRM.26.26.16	40	17.7	27.8	37.8
SRM.26.26.16	55	-	17.7	37.8
SRM.26.26.16	90	-	-	17.7
SRM.26.26.22	40	20.4	32.1	43.5
SRM.26.26.22	55	-	20.4	43.5
SRM.26.26.22	90	-	-	20.4
SRM.23.30.16	40	17.7	27.8	37.8
SRM.23.30.16	55	-	17.7	37.8
SRM.23.30.16	90	-	-	17.7
SRM.19.38.16	40	18	28.3	38.4
SRM.19.38.16	55	-	18	38.4
SRM.19.38.16	90	-	-	18
SRM.31.31.09	40	12.1	23.9	35.5
SRM.31.31.09	55	-	12.1	35.5
SRM.31.31.09	90	-	-	12.1
SRM.31.31.16	40	15.6	30.8	45.8
SRM.31.31.16	55	-	15.6	45.8
SRM.31.31.16	90	-	-	15.6
SRM.31.31.22	40	18.5	36.5	54.3
SRM.31.31.22	55	-	18.5	54.3
SRM.31.31.22	90	-	-	18.5
SRM.38.38.16	40	22.3	44	65.4
SRM.38.38.16	55	-	22.3	65.4
SRM.38.38.16	90	-	-	22.3
SRM.38.38.22	40	25.8	50.9	75.6
SRM.38.38.22	55	-	25.8	75.6
SRM.38.38.22	90	-	-	25.8
SRM.38.48.09	40	22.4	44.2	65.7
SRM.38.48.09	55	-	22.4	65.7
SRM.38.48.09	90	-	-	22.4
SRM.38.48.16	40	27.1	53.4	79.5
SRM.38.48.16	55	-	27.1	79.5
SRM.38.48.16	90	-	-	27.1
SRM.38.48.22	40	30.9	60.9	90.6
SRM.38.48.22	55	-	30.9	90.6
SRM.38.48.22	90	-	-	30.9
SRL.48.48.16	40	33.6	66.2	98.5
SRL.48.48.16	55	-	33.6	98.5
SRL.48.48.16	90	-	-	33.6
SRL.48.48.22	40	38.1	75.1	111.7
SRL.48.48.22	55	-	38.1	111.7



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Enclosure type	Power (W)			
	Ta(°C)	T6/T80°C	T5/T95°C	T4/T130°C
SRL.48.48.22	90	-	-	38.1
SRL.40.60.22	40	38.6	76.1	113.1
SRL.40.60.22	55	-	38.6	113.1
SRL.40.60.22	90	-	-	38.6
SRL.38.76.16	40	40.3	79.4	118.1
SRL.38.76.16	55	-	40.3	118.1
SRL.38.76.16	90	-	-	40.3
SRL.48.76.16	40	49.8	98.2	146
SRL.48.76.16	55	-	49.8	146
SRL.48.76.16	90	-	-	49.8
SRL.48.76.22	40	55.1	108.6	161.5
SRL.48.76.22	55	-	55.1	161.5
SRL.48.76.22	90	-	-	55.1
SRL.60.60.26	40	59.2	116.7	173.5
SRL.60.60.26	55	-	59.2	173.5
SRL.60.60.26	90	-	-	59.2
SRX.90.60.30	40	90.6	178.5	265.5
SRX.90.60.30	55	-	90.6	265.5
SRX.90.60.30	90	-	-	90.6
SRX.80.80.30	40	100.9	198.8	295.7
SRX.80.80.30	55	-	100.9	295.7
SRX.80.80.30	90	-	-	100.9
SRX.100.80.30	40	123.5	243.3	361.9
SRX.100.80.30	55	-	123.5	361.9
SRX.100.80.30	90	-	-	123.5
SRX.130.80.30	40	157.5	310.3	461.5
SRX.130.80.30	55	-	157.5	461.5
SRX.130.80.30	90	-	-	157.5
SRX.120.120.30	40	201.7	397.4	591
SRX.120.120.30	55	-	201.7	591
SRX.120.120.30	90	-	-	201.7

Table 2

Variation 1:

This variation introduced the following modifications:

- i. To assess the thermal effects of various mounting configurations
- ii. To update to the latest version of standard: IEC 60079-31:2022 Ed 3.0



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12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	16 Aug 2021	R14112AK-00	Issue of the prime certificate. CML 20ATEX3156X, Issue 0 is attached and shall be referred to in conjunction with this certificate.
1	03 Nov 2023	R16151A/00	Introduction of Variation 1

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

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 of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The manufacture shall ensure that all restrictions or Schedules of Limitations of component certified parts are adhered to.
- iii. The SR Terminal Box are to be designed in accordance with general electrical safety standards e.g., IEC 61439.
- iv. Where multiple enclosures are mounted together, instructions described in the manufacturer's drawings shall be followed.

14 Specific Conditions of Use

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

- i. The torque applied to the cover securing fasteners shall be at least 3 Nm.
- ii. When fitted with the fibre optic splice tray, the fibre cables shall be sufficiently supported to prevent strain and their minimum bend radius shall be observed with all unused fibre connectors having dust covers fitted.

Certificate Annex

Certificate Number CML 21UKEX3892X
Equipment SR Terminal Box
Manufacturer Pepperl+Fuchs SE



The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to attached certificate CML 21UKEX3892X, Issue 0. In addition to the drawings listed on CML 21UKEX3892X, Issue 0, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
16-1555CM-10	1 to 2	0	16 Aug 2021	Additional Marking Requirements for UKCA

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Drawing No	Sheets	Rev	Approved date	Title
16-1649CM-00	1 of 3	00	31 Oct 2023	Ex d/e flanged panel thermal calculation
16-1649CM-00	2 of 3	00	31 Oct 2023	Ex e flanged panel area calculation
16-1649CM-00	3 of 3	00	31 Oct 2023	Ex d/e flanged panel thermal calculation.