

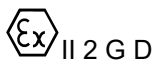


EU Type Examination Certificate CML 20ATEX3235X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **GRDC/GRDE-4200 Earthing System Series**
- 3 Manufacturer **Cortem S.p.A**
- 4 Address **Via Aquileia 10,
34070 Villesse,
Gorizia,
Italy**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout, 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 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 If an 'X' suffix appears after the certificate number, it indicates that the equipment 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 IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015+A1:2018
EN 60079-11:2012 EN 60079-18:2015+A1:2017 EN 60079-31:2014
- 10 The equipment shall be marked with the following:



Ex db eb mb [ia Ga] IIC T6/T5/T4* Gb

Ex tb [ia Da] IIIC T85°C Db

* For ambient range and T-class information, refer to the description in section 11.





11 Description

The GRDE-4200 Earthing System Series is a range of grounding systems for use both indoor and outdoor, rated up to 240 Vac. There are six models in the range. The models differ in enclosure material, enclosure size and quantity of components fitted. There are three enclosure materials in the range: aluminium (GRDE-4200 and GRDE-4200/2); polyester (GRDE-4200/P and GRDE-4200/2P); stainless steel (GRDE-4200/SS and GRDE-4200/2SS). There are two sizes of enclosure per material with the '1/2' or '1/2*' models being the larger.

A special model, the GRDC-4200 uses the grounding logic LCZ-4200C which, in addition to detecting resistance, can also measure the capacitance between the device clamp and the earth.

The equipment comprises a separately certified enclosure fitted with a separately certified signalling light and separately certified control operator both mounted through the cover, separately certified cable glands and separately certified plugs mounted through the bottom wall. The enclosure contains separately certified terminal blocks and separately certified grounding control logic.

The smaller enclosures have two signalling lights, one control operator, three entry devices (cable gland/blanking plugs), one control logic and one terminal block. The larger enclosures have four signalling lights, two control operators, six entry devices (cable gland/blanking plugs), two control logics and two terminal blocks.

All models in the series may be wall-mounted, mounted onto a transportable frame or directly to a tanker. All models may be supplied with metallic cover hinges and internal and external earth/equipotential bonding studs as detailed in the enclosure certificate. Non-electrical, simple metallic earthing brackets may be fitted to the sides of the enclosure to support the earthing cable and clamp when not in use. When wall-mounted the equipment is intended for use with a manual cable reel type; the cable reels have not been assessed as part of this approval and it does not fall under the scope of this certification.

The ambient temperatures and temperature class options are detailed in the table below:

Model	Maximum ambient temperature			
	Ta = +40°C	Ta = +50°C	Ta = +55°C	Ta = +60°C
GRDE-4200	T6 (+85°C)	T6 (+85°C)	T5 (+85°C)	T5 (+85°C)
GRDC-4200	T6 (+85°C)	T5 (+85°C)	T5 (+85°C)	T4 (+85°C)

The minimum ambient for all types is -40°C.

Variation 1

This variation introduced the following modifications:

- i. Addition of a new model, the GRDC-4200.
- ii. Expanded ambient temperature and temperature class options.
- iii. Additional conditions of manufacture.



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12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 Nov 2020	R13428A/00	Issue of Prime certificate
1	10 Aug 2022	R15240A/00	Introduction of Variation 1

Note: Drawings that describe the equipment or component 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 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.
- ii. Equipment must undergo a dielectric strength test between the terminals and earth in accordance with EN 60079-7 and EN 60079-11.
- iii. Cable glands suitable for an ambient temperature range of at least -40°C to +70°C shall be fitted.
- iv. Not all encapsulant options of the component with certificate number CML 20ATEX3168U are suitable for T4. Refer to document 'Technical Note A4-7823, Rev. 0' to determine the suitability of the applied encapsulant for T4.

14 Specific Conditions of Use (Special Conditions)

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

- i. Risk of electrostatic charge, clean only with a damp cloth or antistatic product (see instructions).
- ii. Do not transport when energised.

Certificate Annex

Certificate Number CML 20ATEX3235X
Equipment GRDC/GRDE-4200 Earthing System Series
Manufacturer Cortem S.p.A



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

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
A3-7541	1 of 5	0	26/11/2020	GRDE-4200 aluminium versions components and labelling
A3-7541	2 of 5	0	26/11/2020	GRDE-4200 aluminium & polyester resin versions components and labelling
A3-7541	3 of 5	0	26/11/2020	GRDE-4200 polyester resin & stainless-steel versions components and labelling
A3-7541	4 of 5	0	26/11/2020	GRDE-4200/2 stainless steel version components and accessories permitted
A3-7541	4 of 5	0	26/11/2020	GRDE-4200 examples of mounting
A4-7543	1 to 6	0	26/11/2020	Technical notes

Issue 1

Drawing No.	Sheets	Rev	Approved /issued date	Title
A3-7541	1 of 5	1	10 Aug 2022	GRDE-4200 aluminium versions components and labelling
A3-7541	2 of 5	1	10 Aug 2022	GRDE-4200 aluminium & polyester resin versions components and labelling
A3-7541	3 of 5	1	10 Aug 2022	GRDE-4200 polyester resin & stainless-steel versions components and labelling
A3-7541	4 of 5	1	10 Aug 2022	GRDE-4200/2 stainless steel version components and accessories permitted
A3-7541	5 of 5	1	10 Aug 2022	GRDE-4200 examples of mounting
A3-7859	1 of 3	0	10 Aug 2022	GRDC-4200 aluminium versions components and labelling
A3-7859	2 of 3	0	10 Aug 2022	GRDC-4200 polyester resin versions components and labelling
A3-7859	3 of 3	0	10 Aug 2022	GRDC-4200 stainless steel version components and labelling
A4-7824	1 to 7	0	10 Aug 2022	Technical Note