



## EU Type Examination Certificate CML 20ATEX3203 Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **FSX Self-Regulating Heating Cable**
- 3 Manufacturer **Flexelec S.A.**
- 4 Address **10 Rue des Frères Lumière,  
Z.A. du Bois Rond,  
69 720, Saint Bonnet De Mure,  
France**
- 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 60079-30-1:2017

- 10 The equipment shall be marked with the following:

 II 2 GD

Ex 60079-30-1 IIC T3 Gb<sup>1</sup>

Ex 60079-30-1 IIIC T200°C Db<sup>1</sup>

IP67

Withstand temp range: -40°C to +225°C

<sup>1</sup> Products rated up to 75 W/m and 277 V max

<sup>2</sup> Products rated above 75 W/m and for nominally rated 230 V products powered up to a maximum of 277 V

 II 2 GD

Ex 60079-30-1 IIC T2 Gb<sup>2</sup>

Ex 60079-30-1 IIIC T300°C Db<sup>2</sup>



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## 11 Description

The FSX Self-regulating Heating Cable comprises two parallel buswires housed within a semi-conductive self-limiting matrix. The semi-conductive self-limiting matrix is covered with a fluoropolymer insulation jacket which is then protected by an aluminium sheath or a metallic braid of either tinned copper or nickel-plated copper. An optional outer jacket of MFA, PFA or Silicone can be specified. The cables are rated at up to 100 W/m and 277 V.

The cable is intended to be cut to length on site and the equipment is designed to be connected to a supply by means of suitable certified cable entries and junction boxes (i.e. Ex e or Ex d) in accordance with the manufacturer's installation instructions. Termination can be made using any suitably certified type termination kit which fully isolate, insulate and seal the conductive cores.

Description	Temperature
Max. continuous exposure temperature (Power ON)	225°C
Max. permissible exposure temperature (Power OFF)	225°C
Minimum installation temperature	-40°C

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	13 Jan 2021	R13439A/00	Issue of Prime Certificate

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. An electric strength test of 2 U+1000V rms shall be applied between the conductors and the outer braid or sheath as appropriate for 60 seconds in accordance with the requirements of EN 60079-30-1:2017, clause 5.1.2.
- ii. When fitted, an electric strength test of the polymeric sheath (over jacket) used for corrosion resistance shall be carried out in accordance with the requirements of EN 60079-30-1:2017, clause 5.2.1.
- iii. The manufacturer shall verify the output rating for each cable manufactured in accordance with the requirements of EN 60079-30-1:2017, clause 5.2.2.
- iv. The manufacturer shall demonstrate, through their quality program, the thermal safety of the trace heating cable with respect to time in accordance with the requirements of EN 60079-30-1:2017, clause 5.1.12.

## 14 Specific Conditions of Use (Special Conditions)

None.

## Certificate Annex

**Certificate Number** CML 20ATEX3203  
**Equipment** FSX Self-regulating Heating Cable  
**Manufacturer** Flexelec S.A.



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

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
CD-16-A3-FSX	1 to 3	5	13 Jan 2021	FLEXELEC Trade Agent Markings FSX
CD-16-A4	1 of 1	5	13 Jan 2021	LIST AND MARKING OF SELF-LIMITING CABLES ATEX – TA MARKINGS