



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CML 20.0129** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-01-13

Applicant: **Flexelec S.A.**
10 Rue des Freres Lumiere
Z.A. du Bois Rond
St Bonnet de Mure 69720
France

Equipment: **FSX Self-Regulating Heating Cable**

Optional accessory:

Type of Protection: **Trace Heating "Ex 60079-30-1"**

Marking: Ex 60079-30-1 IIC T3 Gb¹
Ex 60079-30-1 IIIC T200°C Db¹
Ex 60079-30-1 IIC T2 Gb²
Ex 60079-30-1 IIIC T300°C Db²
IP67
Withstand Temperature Range: -40°C to +225°C
¹ Products rated up to 75 W/m and 277 V max
² Products rated above 75 W/m and for nominally rated 230 V products powered up to a maximum of 277 V

Approved for issue on behalf of the IECEx
Certification Body:

S. Roubedakis

Position:

Technical Manager

Signature:
(for printed version)

Date:

2021-01-13

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Flexelec S.A.**
10 Rue des Freres Lumiere
Z.A. du Bois Rond
St Bonnet de Mure 69720
France

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

**IEC/IEEE
60079-30-1:2015** Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
Edition:1.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/CML/ExTR20.0176/00](#)

Quality Assessment Report:

[GB/SIR/QAR11.0002/06](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

Refer to Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[IECEx CML 20.0129 Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML 20.0129 Issue 0
Applicant: Flexelec S.A.
Apparatus: FSX Self-regulating Heating Cable



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

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 IEC/IEEE 60079-30-1:2015 Ed. 1, 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 IEC/IEEE 60079-30-1:2015 Ed. 1, clause 5.2.1.
- iii. The manufacturer shall verify the output rating for each cable manufactured in accordance with the requirements of IEC/IEEE 60079-30-1:2015 Ed. 1, 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 IEC/IEEE 60079-30-1:2015 Ed. 1, clause 5.1.12.

Specific Conditions of Use

None.

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