



# 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](http://www.iecex.com)

Certificate No.: **IECEx CML 20.0130** 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: **FST Self-Regulating Heating Cable**

Optional accessory:

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

Marking: Ex 60079-30-1 IIC T6 Gb<sup>1</sup>

Ex 60079-30-1 IIIC T85°C Db<sup>1</sup>

Ex 60079-30-1 IIC T4 Gb<sup>2</sup>

Ex 60079-30-1 IIIC T135°C Db<sup>2</sup>

IP67

*Withstand Temperature Range: -40°C to +85°C*

<sup>1</sup> Products rated up to 40 W/m and for nominally rated 230 V products up to 31 W/m powered up to a maximum 277 V

<sup>2</sup> Products rated above 40 W/m and for nominally rated 230 V products above 31 W/m 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

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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  
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**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 FST 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 thermoplastic 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 TPE, PE, PVDF, MFA, or PFA can be specified. The cables are rated at up to 50 W/m and 277 V.

Refer to Annex for full description and Conditions of Manufacture.

**SPECIFIC CONDITIONS OF USE: NO**

## **Annex:**

[IECEx CML 20.0130 Iss. 0 Certificate Annex.pdf](#)

**Annexe to:** IECEx CML 19.0130 Issue 0  
**Applicant:** Flexelec S.A.  
**Apparatus:** FST Self-regulating Heating Cable



## Description

The FST 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 thermoplastic 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 TPE, PE, PVDF, MFA, or PFA can be specified. The cables are rated at up to 50 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)	85°C
Max. permissible exposure temperature (Power OFF)	85°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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