



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx SIR 12.0054

issue No.: 0

Certificate history: \_\_\_\_\_

Status: **Current**

Date of Issue: 2012-05-22

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Applicant: **Heat Trace Limited**  
Meres Edge  
Chester Road  
Helsby  
Frodsham WA6 0DT  
**United Kingdom**

Electrical Apparatus: **FS+ Self-Regulating Heating Tape**  
*Optional accessory:*


Type of Protection: **Electrical resistance trace heating Dust Protection by Enclosure**

Marking: Applicable for products rated up to 75 W/m and 230 Vmax  
Ex e IIC T3 Gb  
Ex tb IIIC T200°C Db IP67  
Applicable for products rated above 75 W/m and for nominally rated 230 V products powered up to a maximum 277 V  
Ex e IIC T2 Gb  
Ex tb IIIC T300°C Db IP67

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:  
(for printed version)

  
\_\_\_\_\_  
2012-05-22

Date:

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**SIRA Certification Service**  
Rake Lane  
Eccleston  
Chester  
CH4 9JN  
United Kingdom

**sira**  
CERTIFICATION



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Manufacturer: **Heat Trace Limited**  
Meres Edge  
Chester Road  
Helsby  
Frodsham WA6 0DT  
United Kingdom

**Manufacturing location(s):**

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 electrical apparatus 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:

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-30-1 : 2007-01</b> Edition: 1	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
<b>IEC 60079-31 : 2008</b> Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*This Certificate does not indicate compliance with electrical 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/SIR/ExTR12.0121/00](#)

Quality Assessment Report:

[GB/SIR/QAR11.0008/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The FS+ 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 Silicone 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 up to 75 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 suitably 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 termination kits suitably certified, by a Notified Body, for the purpose.

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

Refer to EQUIPMENT (Continued) for Conditions of Manufacture.

### CONDITIONS OF CERTIFICATION: NO

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## EQUIPMENT(continued):

### Conditions of manufacture

The Manufacturer shall comply with the following:

1. An electric strength test of  $\sqrt{2} U + 1000$  V rms shall be applied between the conductors and the outer braid or jacket as appropriate for 60 seconds as required by clause 5.1.2 of IEC 60079-30-1:2007.
2. When fitted, an electric strength test of the polymeric sheath (overjacket) used for corrosion resistance shall be carried out in accordance with the requirements of IEC 60079-30-1:2007 clause 5.2.1.
3. The manufacturer shall verify the output rating for each cable manufactured in accordance with IEC 60079-30-1-2007 clause 5.2.2.
4. The manufacturer shall demonstrate, through their quality program, the thermal safety of the trace heating cable with respect to time as per IEC 60079-30-1:2007 clause 5.1.12.