



EU Type Examination Certificate CML 19ATEX3378 Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **FreezStop Regular/FailSafe Regular (FSR) Self-Regulating Heating Cable**
- 3 Manufacturer **Heat Trace Limited**
- 4 Address **Mere's Edge,
Chester Road, Helsby,
Frodsham, Cheshire,
WA6 0DJ,
United Kingdom**

- 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, Hoogoorddreef 15, Amsterdam, 1101 BA, 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.

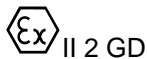
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the 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 60079-30-1:2007

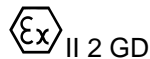
EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex e IIC T6 Gb¹

Ex tb IIIC T85°C Db¹



Ex e IIC T4 Gb²

Ex tb IIIC T135°C Db²

IP67

Withstand temp range: -40°C to +85°C

¹ 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

² 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



**CML 19ATEX3378
Issue 0**

11 Description

The FreezStop Regular/FailSafe Regular (FSR) 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 the Heat Trace termination kits approved under CML 19ATEX3390U and CML 19ATEX3391U or 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 |

12 Certificate history and evaluation reports

| Issue | Date | Associated report | Notes |
|-------|-------------|-------------------|----------------------------|
| 0 | 09 Dec 2019 | R12696A/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 + 1000 V rms shall be applied between the conductors and the outer braid or sheath as appropriate for 60 seconds as required by clause 5.1.2 of EN 60079-30-1:2007.
- ii. 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 60079-30-1:2007 clause 5.2.1.
- iii. The manufacturer shall verify the output rating for each cable manufactured in accordance with EN 60079-30-1:2007 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 as per EN 60079-30-1:2007 clause 5.1.12.

14 Specific Conditions of Use (Special Conditions)

None.

Certificate Annex

Certificate Number CML 19ATEX3378
Equipment FreezStop Regular/FailSafe Regular (FSR) Self-Regulating Heating Cable
Manufacturer Heat Trace Limited



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

Issue 0

| Drawing No | Sheets | Rev | Approved date | Title |
|----------------|--------|-----|---------------|---|
| HC2750/C | 1 of 1 | 9 | 09 Dec 2019 | Certification Drawing for FreezStop Regular |
| FSR Markings | 1 of 2 | 0 | 09 Dec 2019 | FSR Heating Cable – ATEX and IECEx Markings |
| FSR Markings | 2 of 2 | 0 | 09 Dec 2019 | FSR Heating Cable – ATEX and IECEx Markings |
| FSR Drum Label | 1 of 1 | 0 | 09 Dec 2019 | Cable Drum Label – For Cable Type FSR |
| HTML-05/C | 1 of 1 | 0 | 09 Dec 2019 | Certification Drawing for FSR Marking Label |
| HTML-06/C | 1 of 1 | 0 | 09 Dec 2019 | FSR ATEX & IECEx Label |