



## EU Type Examination Certificate CML 19ATEX3377 Issue 3

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Freezstop Super/FailSafe Super (FSS) and Freezstop Aviation (FSA) Self-Regulating Heating Cable**
- 3 Manufacturer **Heat Trace Limited** **Heat Trace Hitech Co., Ltd**
- 4 Address
 

<b>Mere's Edge, Chester Road, Helsby, Frodsham, Cheshire, WA6 0DJ, United Kingdom</b>	<b>Cromwell Road, Bredbury, Stockport, SK6 2RF, United Kingdom</b>	<b>Unit 9 Southside, Bredbury Industrial Estate, Bredbury, Stockport, SK6 2SP, United Kingdom</b>	<b>527-54, Daegotbuk-ro, Daegot- myeon Gimpo-si, Gyeonggi-do, 10028, Republic of Korea</b>
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- 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



II 2 GD

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

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

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

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

IP67

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



*L. A. Brisk*



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## 11 Description

The FreezStop Super/Failsafe Super (FSS) and FreezStop Aviation (FSA) 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. 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 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.

### Variation 1

This variation introduced the following changes:

- i. To update the standard reference from EN 60079-30-1:2007 to EN 60079-30-1:2017 and to update the equipment marking accordingly.

### Variation 2

This variation introduced the following changes:

- i. Introduction of alternative braid options with new product references
- ii. Correction from previous assessment to include additional manufacturing locations
- iii. Typographical correction to the product description

### Variation 3

- i. To Assess and permit a change to the sizes of the optional outer jackets.
- ii. To recognise a change to the trademark.

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	09 Dec 2019	R12696A/00	Issue of Prime Certificate
1	19 May 2020	R13195A/00	Introduction of Variation 1
2	29 Jun 2022	R15271A/00	Introduction of Variation 2
3	21 Sep 2022	R15715A/00	Introduction of Variation 3

Note: Drawings that describe the equipment or component are listed in the Annex.



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### **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 19ATEX3377  
**Equipment** Freezstop Super/FailSafe Super (FSS) and Freezstop Aviation (FSA) 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
HC3500/C	1 of 1	9	09 Dec 2019	Certification Drawing for FreezStop Super
FSS Markings	1 of 2	0	09 Dec 2019	FSS Heating Cable – ATEX and IECEx Markings
FSS Markings	2 of 2	0	09 Dec 2019	FSS Heating Cable – ATEX and IECEx Markings
FSS Drum Label	1 of 1	0	09 Dec 2019	Cable Drum Label – For Cable Type FSS
HTML-03/C	1 of 1	0	09 Dec 2019	Certification Drawing for FSS Marking Label
HTML-04/C	1 of 1	0	09 Dec 2019	FSS ATEX & IECEx Label

### Issue 1

Drawing No	Sheets	Rev	Approved date	Title
FSS Markings	1 of 2	1	19 May 2020	FSS Heating Cable – ATEX and IECEx Markings
FSS Markings	2 of 2	1	19 May 2020	FSS Heating Cable – ATEX and IECEx Markings
HTML-03/C	1 of 1	1	19 May 2020	Certification Drawing for FSS Marking Label
HTML-04/C	1 of 1	1	19 May 2020	FSS ATEX & IECEx Label

### Issue 2

Drawing No	Sheets	Rev	Approved date	Title
HC3500/C	1 of 1	11	28 Jun 2022	Certification for Freezstop Super/ Failsafe Super
FSS Markings	1 to 5	2	28 Jun 2022	FSS Heating Cable- ATEX and IECEx markings

## Certificate Annex

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**Manufacturer** Heat Trace Limited



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Drawing No.	Sheets	Rev	Approved date	Title
HC3500/C	1 of 1	12	21 Sep 2022	Certification for Freezstop Super/ Failsafe Super
FSS Markings	1 of 5	4	21 Sep 2022	FSS Heating cable – ATEX, IECEx and UKEX Markings
FSS Markings	2 of 5	4	21 Sep 2022	FSS Heating cable – ATEX, IECEx and UKEX Markings
FSS Markings	3 of 5	4	21 Sep 2022	FSS Heating cable – ATEX, IECEx and UKEX Markings
FSS Markings	4 of 5	4	21 Sep 2022	FSS Heating cable – ATEX, IECEx and UKEX Markings
FSS Markings	5 of 5	4	21 Sep 2022	FSS Heating cable – ATEX, IECEx and UKEX Markings
FSS Drum Label	1 of 1	2	21 Sep 2022	Drum Cable Label – For Cable Type FSS
HTML-03/C	1 of 1	4	21 Sep 2022	Certification Drawing for FSS Marking Label
HTML-04/C	1 of 1	4	21 Sep 2022	FSS ATEX, IECEx & UKEX Label
HTML-K-03/C	1 of 1	2	21 Sep 2022	Korea Certification Drawing for FSS Marking Label
HTML-K-04/C	1 of 1	2	21 Sep 2022	Korea FSS ATEX, IECEx & UKEX Label