



EU Type Examination Certificate CML 19ATEX3385 Issue 3

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

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

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Ex 60079-30-1 IIC T3 Gb¹

Ex 60079-30-1 IIC T2 Gb²

Ex 60079-30-1 IIIC T200°C Db¹

Ex 60079-30-1 IIIC T300°C Db²

IP67

Withstand temp range: -40°C to +250°C

¹ Products rated up to and including 75 W/m and 277 V max

² Products rated above 75 W/m and for nominally rated 230 V products powered to a maximum 277 V





CML 19ATEX3385
Issue 3

11 Description

The FreezStop Ultimo/FailSafe Ultimo (FSU) 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 90 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)	250°C
Max. permissible exposure temperature (Power OFF)	250°C
T- Rating	T3 up to and including 75 W/m
	T2 above 75 W/m
Minimum installation temperature	-40°C

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

This variation introduced the following changes:

- i. Alteration to the sizes of the optional outer jackets
- ii. Introduction of new 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	31 Aug 2022	R15685A/00	Introduction of Variation 3

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



CML 19ATEX3385
Issue 3

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 19ATEX3385

Equipment FreezStop Ultimo/FailSafe Ultimo (FSU) 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
HC3400/C	1 of 1	11	09 Dec 2019	Certification Drawing for FreezStop/FailSafe Ultimo
FSU Markings	1 of 2	2	09 Dec 2019	FSU Heating Cable – ATEX and IECEx Markings
FSU Markings	2 of 2	2	09 Dec 2019	FSU Heating Cable – ATEX and IECEx Markings
FSU Drum Label	1 of 1	1	09 Dec 2019	Cable Drum Label – For Cable Type FSU
HTML-07/C	1 of 1	0	09 Dec 2019	Certification Drawing for FSU Marking Label
HTML-08/C	1 of 1	0	09 Dec 2019	FSU ATEX & IECEx Label

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
FSU Markings	1 of 2	3	19 May 2020	FSU Heating Cable – ATEX and IECEx Markings
FSU Markings	2 of 2	3	19 May 2020	FSU Heating Cable – ATEX and IECEx Markings
HTML-07/C	1 of 1	1	19 May 2020	Certification Drawing for FSU Marking Label
HTML-08/C	1 of 1	1	19 May 2020	FSU ATEX & IECEx Label

Issue 2

Drawing No	Sheets	Rev	Approved date	Title
HC3400/C	1 of 1	13	28 Jun 2022	Certification Drawing for Freezstop/Failsafe Ultimo
FSU Markings	1 to 5	4	28 Jun 2022	FSU Heating Cable- ATEX and IECEx Markings

Issue 3

Drawing No.	Sheets	Rev	Approved date	Title
HC3400/C	1 of 1	14	31 Aug 2022	Certification Drawing for Freezstop /Failsafe Ultimo
FSU Drum Label	1 of 1	3	31 Aug 2022	Drum Cable Label- For Cable Type FSU

Certificate Annex

Certificate Number CML 19ATEX3385

Equipment FreezStop Ultimo/FailSafe Ultimo (FSU) Self-Regulating Heating Cable

Manufacturer Heat Trace Limited



FSU Markings	1 of 5	6	31 Aug 2022	FSU Heating Cable- ATEX and IECEx markings
FSU Markings	2 of 5	6	31 Aug 2022	FSU Heating Cable- ATEX and IECEx markings
FSU Markings	3 of 5	6	31 Aug 2022	FSU Heating Cable- ATEX and IECEx markings
FSU Markings	4 of 5	6	31 Aug 2022	FSU Heating Cable- ATEX and IECEx markings
FSU Markings	5 of 5	6	31 Aug 2022	FSU Heating Cable- ATEX and IECEx markings
HTML-07/C	1 of 1	4	31 Aug 2022	Certification drawing for FSU marking label
HTML-08/C	1 of 1	4	31 Aug 2022	FSU ATEX & IECEx Label
HTML-K-07/C	1 of 1	1	31 Aug 2022	Korea certification drawing for FSU marking label
HTML-K-08/C	1 of 1	2	31 Aug 2022	Korea FSU ATEX & IECEx Label