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

Certificate No.: **IECEx CML 19.0127**

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Certificate history:
Issue 2 (2021-05-10)
Issue 1 (2020-05-19)
Issue 0 (2019-12-09)

Status: **Current**

Issue No: 3

Date of Issue: 2022-06-28

Applicant: **Heat Trace Limited**
Mere's Edge
Chester Road
Helsby
Cheshire
Helsby WA6 0DJ
United Kingdom

Equipment: **FreezStop/FailSafe Low Voltage Wide (FLVw) Self-Regulating Heating Cable**

Optional accessory:

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

Marking:

Ex 60079-30-1 IIC T6 Gb[1]
Ex 60079-30-1 IIIC T85°C Db[1]
Ex 60079-30-1 IIC T4 Gb[2]
Ex 60079-30-1 IIIC T135°C Db[2]

IP67

Withstand temp range: -40°C to +85°C

[1] *Cables with a rating less than 40 W/m used up to 30 V max*
[2] *Cables with a rating above 40 W/m used at up to 30 V max*

Approved for issue on behalf of the IECEx Certification Body: **L A Brisk**

Position: **Certification Officer**

Signature: (for printed version)

Date: (for printed version) 2022-06-28

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 www.iecex.com or use of this QR Code.

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:
Heat Trace Limited
Mere's Edge
Chester Road
Helsby
Cheshire
Helsby WA6 0DJ
United Kingdom

Manufacturing locations:

Heat Trace Limited
Mere's Edge
Chester Road
Helsby
Cheshire
Helsby WA6 0DJ
United Kingdom

Heat Trace Limited
Cromwell Road
Bredbury
Stockport, SK6 2RF
United Kingdom

Heat Trace Limited
Unit 9 Southside
Bredbury Industrial Estate
Bredbury
Stockport SK6 2SP
United Kingdom

See following pages for more 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC/IEEE 60079-30-1:2015 Edition:1.0	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements

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 Reports:

GB/CML/ExTR19.0146/00
GB/CML/ExTR20.0122/00
GB/CML/ExTR21.0067/00
GB/CML/ExTR22.0087/00

Quality Assessment Reports:

GB/CML/QAR19.0027/04
GB/CML/QAR20.0028/01

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The FreezStop/FailSafe Low Voltage (FLVw) 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. 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 30 V.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1

This issue introduced the following changes:

1. To update the standard references from IEC 600790-30-1:2007 Ed. 1 to IEC/IEEE 60079-30-1:2015 Ed. 1 and to update the equipment marking accordingly.

Issue 2

This issue introduced the following changes:

1. To recognise an additional manufacturing location.

Issue 3

This issue introduced the following changes:

1. Introduction of alternative braid options with new product references
2. Correction from previous assessment to include additional manufacturing locations
3. Typographical correction to the product description

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Additional manufacturing locations:

Heat Trace Hitech Co., Ltd
527-54, Daegotbuk-ro, Daegot-myeon
Gimpo-si
Gyeonggi-do 10028
Korea, Republic of

Annex:

Certificate Annex IECEx CML19.0127 Iss. 3_1.pdf

Annexe to:	**IECEx CML 19.0127 Issue 3**
Applicant:	**FreezStop/FailSafe Low Voltage Wide (FLVw) Self-Regulating Heating Cable**
Apparatus:	**Heat Trace Limited**

Description

The FreezStop/FailSafe Low Voltage (FLVw) 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. 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 30 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

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. An electric strength test of 500 V 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 IEC/IEEE 60079-30-1: 2015 Ed.1 clause 5.1.2.

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 IEC/IEEE 60079-30-1: 2015 Ed.1 clause 5.2.1.

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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