



EU Type Examination Certificate CML 18ATEX3379X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **HTS1FAR-A Series Resistance Round Longline (LLR / Longline R)**

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 60079-0:2018 EN 60079-30-1:2017

The equipment shall be marked with the following:

10 The equipment shall be marked with the following:

Ex II 2 GD

Ex 60079-30-1 IIC T\* Gb

Ex 60079-30-1 IIC T\*\*\*°C Db

IP67

\* & \*\* Refer to Description for temperature class/assigned maximum surface temperature options.

Maximum withstand temperature  $T_p = 230^\circ\text{C}$ . Minimum ambient defined in Section 14.





CML 15ATEX3379X  
Issue 0

## 11 Description

The Longline Round (LLR) is a series of round electric resistance heating cables for long cross-country pipelines. The LLR have an aluminium core, silicone rubber insulations, aluminium sheath and optional non-metallic outer jackets (MFA, PFA, TPE, PVDF or Silicone). The series is rated for a voltage of up to 1,500 V a.c. single-phase and 2,500 V a.c. three-phase.

The series offers cables differing in core diameter from 2.0 mm to 6.0 mm.

Product Type	Conductor Size (mm)	Conductor Resistance (OHM/KM @ 20°C)
HTS1FAR-A 3.1	2.0	8.784 (+/- 5%)
HTS1FAR-A 7.1	3.0	4.014 (+/- 5%)
HTS1FAR-A 12.6	4.0	2.214 (+/- 5%)
HTS1FAR-A 19.6	5.0	1.514 (+/- 5%)
HTS1FAR-A 28.3	6.0	1.010 (+/- 5%)

The cables are permitted for a maximum temperature of 230°C and supplied in line with customer's specific application. They are to be installed directly on to pipeline under insulation in accordance with the manufacturer's installation instructions.

The cables should be supplied/installed with consideration to the maximum pipe/workpiece temperatures below:

Product Type	Nominal Output (W/m)	Maximum Permissible Workpiece Temperatures (°C)					
		T6 T85°C	T5 T100°C	T4 T135°C	T3 T200°C	T2 T300°C	T1 T450°C
HTS1FAR-A 3.1	10	34	51	98	190	225	225
	20		12	49	166	215	215
	30			6	110	164	164
	40				64	129	129
HTS1FAR-A 7.1	10	42	59	101	185	226	226
	20		5	60	154	199	199
	30			26	115	167	167
	40				79	139	139
HTS1FAR-A 12.6	10	39	59	106	186	226	226
	20		3	67	171	204	204
	30			20	133	185	185
	40				101	160	160
	50				64	131	131
HTS1FAR-A 19.6	10	41	61	107	187	226	226
	20		9	71	171	205	205
	30			26	137	188	188
	40				106	164	164
	50				72	137	137
HTS1FAR-A 28.3	10	46	65	110	188	226	226
	20		24	79	173	207	207
	30				43	146	196
	40				6	120	173
	50				92	150	150



CML 15ATEX3379X  
Issue 0

The Longline Round (LLR) may be spliced or terminated with the use of the LLRS or HLRS splice, certificate numbers CML 18ATEX3377U.

The ATEX Certified Longline Round (LLR) electric resistance heating cables may also be terminated with the use of the ABTECH Limited MJB Range of Junction Boxes, certified under Sira 99ATEX3176.

The Longline Round (LLR) has the following temperature limitations:

Without LLRS/HLRS	With LLRS or HLRS fitted
Maximum withstand temperature (Tp): 230°C	Maximum withstand temperature (Tp): 90°C
Minimum ambient temperature: -60°C	Minimum ambient temperature: -40°C
Minimum installation temperature: -40°C;	Minimum installation temperature: -40°C

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	16 May 2019	R12079B/00	Report for the prime certificate issue

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.

- 13.1 The primary electrical insulating jacket and the outer braid or jacket shall withstand a dry-spark test, as required by Clause 5.2.1 of EN 60079-30-1.
- 13.2 An electric strength test of the polymeric sheath (outer jacket) used for corrosion resistance shall be carried out in accordance with the requirements of EN 60079-30-1:2017 Clause 5.2.1.
- 13.3 The manufacturer shall verify the output rating for each cable manufactured in accordance with EN 60079-30-1:2017 clause 5.2.2.
- 13.4 The manufacturer shall demonstrate, through their quality programme, the thermal safety of the trace heating cable with respect to time.
- 13.5 A copy of this certificate shall be provided with the equipment or made available on request.
- 13.6 Each unit shall be marked with the temperature class and assigned maximum surface temperature appropriate to the maximum permissible workpiece temperature, as defined on this certificate.
- 13.7 The product incorporates separately certified parts; the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- 13.8 The manufacturer shall provide the end-user and/or installer with an appropriate copy of the ATEX certificate and Instructions Manual for the separately certified parts fitted onto the equipment.



CML 15ATEX3379X  
Issue 0

#### 14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

14.1 The equipment comprises previously certified parts; the user and/or installer shall install and commission the equipment taking into account any restrictions or specific conditions of use that are applicable to the previously certified devices/parts that are fitted to the equipment.



## Certificate Annex

**Certificate Number** CML 18ATEX3379X  
**Equipment** LONGLINE Round (LLR)  
**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
HC4510/C	1 of 1	9	16/05/2019	Certification Drawing for Longline Round (LLR) 3.1mm <sup>2</sup> - 28.3mm <sup>2</sup>
HC4512/C	1 of 1	6	16/05/2019	Certification Drawing for Cable Marking Round Longline
LLR DRUM LABEL	1 of 1	1	16/05/2019	Drum Cable Label – for Cable Type LLR
LLR-01/C	1 of 1	2	16/05/2019	Certification Drawing For LLR Marking Label
LLR-04/C	1 of 1	3	16/05/2019	LLR ATEX & IECEx LABEL
TK/HTS1FAR/C	1 of 1	0	16/05/2019	Termination GA for LLR HTS1FAR Via a Cable Gland (e or d)