

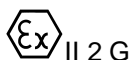
UK Type Examination Certificate CML 22UKEX3407 Issue 1**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **BPL-AL Parallel Resistance Heating Cables Type 27-5875-***
- 3 Manufacturer **Bartec GmbH**
- 4 Address **Max-Eyth-Str. 16,
97980 Bad Mergentheim,
Germany**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 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:



Ex 60079-30-1 IIC T6...T1 Gb
Ex 60079-30-1 IIIC T85°C...T450°C Db
IP67
Withstand temp range: -40°C to +500°C





11 Description

The BPL-AL Parallel Resistance Heating Cables Type 27-5875-* are constant power trace heating cables that are used to protect against freezing or maintain temperatures. The cables are rated at up to 200 W/m on a supply voltage up to 277 V. They comprise two insulated parallel bus wires, around which is wrapped a layer of mica and the glass insulation tape. A resistance wire is spiralled over the core, which is notched at intervals so that the resistance wire connects to the bus wire underneath. A further layer of mica and glass tape insulation is extruded over the top of the resistance wire. The insulation is covered with an aluminium outer jacket, and can have a further, optional, chemical resistant outer jacket.

The heating cables are cut to length to form a unit that is terminated at each end with a seal kit. The equipment is designed to be connected to a supply by means of suitable certified cable entries and junction boxes in accordance with the manufacturer's installation instructions. Additional earthing of the outer jacket may also be achieved by the use of a P clip arrangement. The minimum installation temperature of the heating cables is -40°C. The maximum surface temperature is dependent on the maximum permissible workpiece temperature as shown in the following tables.

Table A (*)		Maximum permissible workpiece temperature					
Maximum surface temperature:		T6	T5	T4	T3	T2	T1
Product type	Nominal output (W/m)	85°C	100°C	135°C	200°C	300°C	450°C
BPL-AL	10	34	50	100	188	290	340
	15	-	36	71	160	289	350
	30	-	11	28	100	246	323
	50	-	-	-	39	178	276
	100	-	-	-	-	48	140
	150	-	-	-	-	-	36
	200	-	-	-	-	-	7

Table A: Stabilised design system or Protective System

The heating cable meet the requirements for degree of protection IP67.

Type Code:

Type no.	27	-	5	8	7	*	-	*	*	*	*	/	*	*	*	*
Key no.	A		B	C	D	E		F	G	H	I		J	K	L	M

<u>Key no.</u>	<u>Code Number for:</u>	<u>Variations:</u>	<u>Descriptions</u>
A	General code number Heating	27	
B	Installation material	5	
C	Heating Cable	8	



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D	Parallel Resistance Heating Cable HTL	7	
E	Bus Wire	5	3mm ²
F	Nominal voltage	1 2	120 V 230 V / 277 V
G, H, I	Power Output	e.g. 015 030 150	15 W/m 30 W/m 150 W/m
J	Construction	7	Material insulation and installation wire
K, L, M	Customer Number		Without influence of the explosion safety

Variation 1

Following changes have been included as part of this variation

- i. correct typographical errors on the stamped approved drawing

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 Jan 2023	R15500A/00	Issue of the prime certificate.
1	29 June 2023	R15500A/01	Issue of the variation 1.

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

13 Conditions of Manufacture

The following are conditions of manufacture:

- i. An electric strength test of $2 U + 1000$ V rms shall be applied between the conductors and the outer, metallic braid/jacket as appropriate for 60 seconds as required by clause 5.1.2 of EN 60079-30-1.
- 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 clause 5.2.1.
- iii. The manufacturer shall verify the output rating for each cable manufactured in accordance with EN 60079-30-1 clause 5.2.2

14 Specific Conditions of Use

None.

Certificate Annex

Certificate Number CML 22UKEX3407
Equipment BPL-AL Parallel Resistance Heating Cables Type 27-5875-*
Manufacturer Bartec GmbH



The following documents describe the equipment defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
21-5875-650002	1 to 2	-	26 Jan 2023	Heating cable BPL-AL Drum-Label
21-5785-650001	1 of 1	A	26 Jan 2023	Heating cable BPL-AL Marking

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Drawing No	Sheets	Rev	Approved date	Title
21-5875-650002	1 to 2	B	29 June 2023	Heating cable BPL-AL Drum-Label
21-5785-650001	1 of 1	B	29 June 2023	Heating cable BPL-AL Marking