



EU-TYPE EXAMINATION CERTIFICATE

- 1
- 2 Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014
- 3 EU-Type Examination Certificate Number: **CSANe 24ATEX1086X** Issue: **0**
- 4 Equipment: **BPL-AL System, 27-1P1*** Refer to Schedule for Designations
- 5 Manufacturer: **BARTEC Benke GmbH**
- 6 Address: **Schulstrasse 30
94239 Gotteszell
Germany**
- 7 This product and any acceptable variation thereto, is specified in the schedule to this certificate and the documents therein referred to.
- 8 CSA Group Netherlands B.V., Notified Body No. 2813 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 item 16.2.
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0: 2018 EN IEC 60079-7: 2015+ A1: 2018 EN 60079-31: 2014
EN 60079-30-1: 2017
- Where additional criteria beyond those given here have been used, they are listed in item 18 in the Schedule.
- 10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed in item 17 of this certificate.
- 11 This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product, these are not covered by this certificate.
- 12 The marking of the product shall include the following (additional marking is provided in the Schedule as a part of item 15, if applicable):



II 2GD
Ex 60079-30-1 eb IIC T6...T1* Gb
Ex 60079-30-1 tb IIIC T85°C ...T450°C# Db
Ta = -40°C...+55°C

For rated voltage and power, T-Class T* and maximum surface temperature T# see heating system design documentation.

Signed: M Halliwell 
Title: Senior Director of Operations
Date: 23 October 2025



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SCHEDULE

14 EU-Type Examination Certificate Number: CSANe 24ATEX1086X Issue: 0

15 Description:

The Designations are as follows:

27 - 1 P 1 S - * * * 7 / 0 1 0 *
 A B C D E F G H I J K L M

Note: the "/" is not part of the type code.

Designation	Explanation	Value	Explanation
A	Product Group	27	Trace heating
B	Product Identifier	1	Parallel trace heating system
C		P	
D	Trace Heater	1	Type BPL
E	Temperature Limitation	S C	Product classification / stabilised design Controlled design, with separately certified limiter and sensor
F	Custom		The Designations relate to coding associated with customer designations etc. and does not affect the construction or certification.
G	Limiter	0 1 2	None, stabilised design only Separately certified electronic limiter Separately certified mechanical limiter
H	Sensor for Limiter	0 1 2	None, stabilised design only Separately certified sensor Capillary tube on mechanical limiter
I	Rated Voltage	1 7	100Vac/dc...120Vac/dc 208Vac/dc...277Vac/dc
J,K,L	Rated power output at +10°C	010 015 030 050 070 100 150 200	10 W/m (3 W/ft) 15 W/m (5 W/ft) 30 W/m (10 W/ft) 50 W/m (15 W/ft) 70 W/m (20 W/ft) 100 W/m (30 W/ft) 150 W/m (45 W/ft) 200 W/m (60 W/ft)
M	Custom		The Designations relate to coding associated with customer designations etc. and does not affect the construction or certification.

The BPL System 27-1P1* is a Trace Heating system utilising increased safety, resistance trace heating and dust ignition protection concepts. The equipment comprises of an Ex enclosure, fitting with Ex terminals (for earthing and power), trace heater and Ex end termination. The enclosure can accommodate 1 or 3 trace heaters, with the trace heaters fitted via Ex cable glands.



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The trace heater is Parallel Constant Wattage, with the system rating specified as 120Vac / 277Vac, 10...200W/m.

The system is IP64 rated.

Refer to Design Guide, 21-1P10-6D0001/-7D0001 for full configuration details.

The following Ex items are critical to the Type of Protection provided by the equipment:

Ex Device	Certificate	Manufacturer	Marking	Standards
Terminal Blocks	KEMA 01ATEX2260U Issue 7 Or KEMA 00ATEX2129U Issue 7	PHOENIX CONTACT GmbH & Co. KG	Ex II 2GD Ex eb IIC Gb -60°C to +110°C.	EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 +A1: 2018
Terminal Blocks	DEMKO 15 ATEX 1467U Issue 3	Weidmuller Interface GmbH & Co. KG	Ex II 2GD Ex eb IIC Gb -60°C to +110°C.	EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 +A1: 2018
Polyester Housing	IBExU21ATEX10009U Issue 0	Bartec – F.N. S.R.L	Ex II 2G Ex II 2D Ex eb IIC Gb Ex tb IIIC Db -55°C to +100°C.	EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 +A1: 2018 EN 60079-31: 2014
Power Supply and End Termination	CML 22ATEX 3403U Issue 0	Bartec GmbH	Ex II 2GD Ex 60079-30-1 IIC Gb Ex 60079-30-1 IIIC Db IP67 Refer to description for service temperature ranges	EN IEC 60079-0: 2018 EN 60079-30-1: 2017
Resistance Heating Cable	CML 22ATEX3402 Issue 1	Bartec GmbH	Ex II 2GD 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 Max 277V, up to 200 W/m	EN IEC 60079-0: 2018 EN 60079-30-1: 2017



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Ex Device	Certificate	Manufacturer	Marking	Standards
Cable Gland (listed under Installation Enclosure)	DEKRA 21ATEX0118X Issue 0	Bartec GmbH	Ex II 2G Ex II 2D Ex II 2G Ex II 2D Ex eb IIC Gb Ex tb IIIC Db -55°C to +180°C (grommet) -200°C to +260°C (O-Ring)	EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 +A1: 2018 EN 60079-31 : 2014
Cable Gland (for Trace Heating Cable)	DEKRA 18ATEX0056X Issue 0	Bartec GmbH	Ex II 2G Ex II 2D Ex eb IIC Gb Ex tb IIIC Db -55°C to +180°C (grommet) -55°C to +140°C (O-Ring)	EN IEC 60079-0: 2018 EN IEC 60079-7: 2015 +A1: 2018 EN 60079-31 : 2014

16 Drawings and documents:

16.1 Technical documents:

Refer to Certificate Annex.

16.2 Associated reports and certificate history:

Issue	Date	Report number	Comment
0	23 October 2025	R80186931A	The release of the prime certificate.

17 Specific conditions of use (denoted by "X" after the certificate number):

- 17.1 When the trace heating cable is installed on a workpiece that has a temperature above 190°C, the termination devices shall be positioned outside the insulation, and the user/installer shall ensure that they are not exposed to UV radiation.
- 17.2 The end user shall ensure that a Suitably Certified, Ex Equipment Cable Gland is used as part of the supply cable installation.
- 17.3 The equipment shall be installed such that the Trace Heating cables leave the enclosure vertically downwards.
- 17.4 Supply cables and power cable entry glands shall be selected per manufacturer's installation instructions for appropriate conductor size and temperature range.
- 17.5 The end user shall ensure that the workpiece temperature does not exceed 350°C (energized) and 500°C (unenergized).



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17.6 The Temperature Limiter required for Controlled Design must be Ex Certified against the requirements of EN 60079-30-1: 2017 Clause 4.5.3. The limiter shall be suitably rated based on the temperature requirements of the BPL-System, which can be found in the Design Guide (Instruction Manual 21-1P10-6D0001/-7D0001).

18 **Essential health and safety requirements of Annex II (EHSRs):**

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 **Remarks and additional information:**

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 **Conditions of manufacture:**

19.1.1 The equipment covered by this certificate incorporates previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA of any modifications of the devices that may impinge upon the explosive safety design of their products.

Certificate	Ex Device
KEMA 00ATEX2129U issue 7	Terminal Blocks
KEMA 01ATEX2260U issue 7	Terminal Blocks
DEMKO 15ATEX 1267U issue 4	Terminal Blocks
IBExU21ATEX1009U issue 0	Polyester Housing
CML 22ATEX3403U issue 0	Power Supply and End Termination
CML 22ATEX3402 issue 1	Resistance Heating Cable
DEKRA 21ATEX0118X issue 0	Cable Gland (listed under Installation Enclosure)
DEKRA 18ATEX0056X issue 0	Cable Gland

19.1.2 The combination of Terminals and End plates must be as follows:

Terminals	End Plates
Weidmuller	Weidmuller
Phoenix Contact	Phoenix Contact

19.1.3 The Equipment is to undergo Routine testing for the following items:

A. Trace Heater:

- i. An electric strength test of 2U + 1000V 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.

B. Terminals:

- i. A Dielectric Strength Test of 2U + 1000V rms between the conductors as per Clause 6.1 of IEC 60079-7, for 60 seconds (when internal wiring is applied by the manufacturer).



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Certificate Annexe

Document History

Issue – 0

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
21-1P10-650001	1 to 2	0	17 Oct 25	BPL-AL System
21-1P10-650002	1 to 5	0	17 Oct 25	Junction box PBS 310, PBM 310
21-1P10-650003	1 of 1	a	17 Oct 25	BPL Power Termination
21-1P10-650004	1 to 2	A	17 Oct 25	Type label for BPL-AL-System
21-59G0-650006	1 of 1	A	17 Oct 25	Silicone Seal

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