

Translation

# EU-Type Examination Certificate Supplement 2

Equipment intended for use in potentially explosive atmospheres  
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 13 ATEX E 040 X**

Product: **Heizsystem PLEXO TCS type 27-1100-\*\*\*\*/\*\*\*\***

Manufacturer: **BARTEC GmbH**

Address: **Max-Eyth-Str. 16, 97980 Bad Mergentheim, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 13 ATEX E 040 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, 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 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 Report No. BVS PP 13.2149 EU.


The Essential Health and Safety Requirements are assured in consideration of:

<b>EN IEC 60079-0:2018</b>	<b>General requirements</b>
<b>EN IEC 60079-7:2015 + A1:2018</b>	<b>Increased Safety "e"</b>
<b>EN 60079-30-1:2017</b>	<b>Resistance trace heating</b>
<b>EN 60079-31:2014</b>	<b>Protection by Enclosure "t"</b>

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex eb 60079-30-1 IIC T6 ... T3 Gb**  
**II 2D Ex tb 60079-30-1 IIIC T80°C ... T170°C Db**

DEKRA Testing and Certification GmbH  
Bochum, 2020-05-04

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**  
 14 **EU-Type Examination Certificate**

**BVS 13 ATEX E 040 X  
 Supplement 2**

15 **Product description**

15.1 **Subject and type**

Heating system PLE XO TCS type 27-1 100-<sup>\*1)\*2)\*3)\*</sup>/\*\*\*\*

- 1) Rated voltage
  - 0: 110 V up to 120 V
  - 1: 208 V up to 254 V
- 2) Heating Cable series
  - 1: PSB Heating Cable series, type 07-5853-\*\*\*\*
  - 2: MSB Heating Cable series, type 07-5854-\*\*\*\*
- 3) Connection system
  - P: PLE XO Tape Connector, with following variations

Function	Type	Sealing range
PLE XO Supply Cable connection	27-59P1-1010/****	9 ≤ D ≤ 10 mm
	27-59P1-2010/****	10 ≤ D ≤ 12 mm
	27-59P1-3010/****	12 ≤ D ≤ 14 mm
	27-59P1-4010/****	14 ≤ D ≤ 16 mm
PLE XO Heating Cable connection	27-59P2-0110/****	Heating Cables (see <sup>2)</sup> )
PLE XO End termination	27-59P3-0010/****	Heating Cables (see <sup>2)</sup> )

15.2 **Description**

The heating system PLE XO TCS Type 27-1100-\*\*\*\*/\*\*\*\* serves as a stationary heating device and consists of separately certified heating cable series (Type PSB or MSB) in conjunction with the PLE XO Tape Connector Type 27-59P<sup>\*-\*\*\*\*/\*\*\*\*</sup>

The PLE XO Tape Connector Type 27-59P<sup>\*-\*\*\*\*/\*\*\*\*</sup> can be used in following different versions:

- Connection supply cable and heating cable (Type 27-59P1-\*\*\*\*/\*\*\*\*)
- Connection of heating cables (Type 27-59P2-\*\*\*\*/\*\*\*\*)
- End termination of heating cables (Type 27-59P3-\*\*\*\*/\*\*\*\*)

The complete heating system is based on the type of protection Increased Safety "eb" and Protected by Enclosure "tb". Furthermore, the heating system meets the requirements of EN/IEC 60079-30-1 Electrical resistance trace heating.

**Reason for the supplement:**

- Update of the standards EN IEC 60079-0: 2018 and EN 60079-30-1:2017
- Removal of heating cable types PSBL type 07-5852-\*\*\*\* and HSB type 07-5855-\*\*\*\*
- Change of ambient temperature ranges

## 15.3 Parameters

Type	Heating system PLEXO TCS Type 27-1100- *1**/**** (with PSB Heating cable)	Heating system PLEXO TCS Type 27-1100- *2**/**** (with MSB Heating cable)	PLEXO Tape Connector Type 27-59P*_*****/****
Rated voltage	Max. 254 V	Max. 254 V	320 V (for insulation)
Ambient temperature range	$-55\text{ °C} \leq T_a \leq +65\text{ °C}$ (T5/T6)	$-60\text{ °C} \leq T_a \leq +110\text{ °C}$ (T3) $-60\text{ °C} \leq T_a \leq +70\text{ °C}$ (T4)	---
Temperature range supply cable	Minimum +80 °C (T5)  Minimum +75 °C (T6)	Minimum +125 °C (T3)  Minimum +95 °C (T4)	---
Max. fuse (type C)	32 A	32 A	---
Withstand temperature range	---	---	$-60\text{ °C} \leq T \leq +160\text{ °C}$
IP protection	IP65	IP65	IP65
Rated connecting capacity range	0.5 mm <sup>2</sup> – 4 mm <sup>2</sup>	0.5 mm <sup>2</sup> – 4 mm <sup>2</sup>	0.5 mm <sup>2</sup> – 4 mm <sup>2</sup>
Sealing range supply cable	9 mm ≤ D ≤ 16 mm	9 mm ≤ D ≤ 16 mm	9 mm ≤ D ≤ 16 mm

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## 17 Special Conditions for Use

- The classification of the temperature class of the PLEXO TCS Heating System is done from the operator depending on the used heating cable. The ambient temperature range of PLEXO TCS Heating System depends also of the used heating cable. This information is recorded on the operator side in accordance with the specifications in the operating instructions / acceptance report. The documentation must be kept secure.
- When used in TT and TN systems a residual current device according to EN 60079-30-1, clause 4.4 point c1) shall be installed.  
When used in IT systems an insulation monitoring device according to EN 60079-30-1, clause 4.4 point c2) shall be used.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH  
Bochum, 2020-05-04  
BVS-Ret/Mu A 20200171

  
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Managing Director