

CERTIFICATE

(1) EU-Type Examination

(2) **Component intended for use on/in equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 19ATEX0028U** Issue Number: **2**

(4) Product: **Thermostat "KELVIN", Types BHT*-SC-PR1-*.***

(5) Manufacturer: **Barksdale GmbH**

(6) Address: **Dorn-Assenheimer Str. 27, 61203 Reichelsheim, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 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 confidential test report number NL/DEK/ExTR19.0020/02.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 + A11 : 2024
EN 60079-11 : 2012
EN 60079-30-1 : 2017

EN 60079-7 : 2015 + A1 : 2018 + A11 : 2024
EN 60079-18 : 2015 + A1 : 2017

except in respect of those requirements listed at item 18 of the Schedule.

(10) The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) 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.

(12) The marking of the product shall include the following:



II 2 G Ex eb mb [ib] [60079-30-1] IIC Gb
II (2) D [Ex ib 60079-30-1 Db] IIIC

Date of certification: 17 April 2025

DEKRA Certification B.V.

R. Schuller
Certification Manager

Page 1/3



Throughout this document, a point is used as the decimal separator.

© Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 19ATEX0028U**

Issue No. 2

(15) **Description**

The Thermostat, Types BHT*-SC-PR1-*-* is an electronic temperature measuring/monitoring and controlling device, specially designed for electrical trace heating units. It is intended to be installed in an enclosure with one or more suitable types of protection per EN 60079-0.

The Thermostat comprises terminals in type of protection Ex eb for its power supply, for a heater relay, optionally for an alarm relay and for communication. Terminals in type of protection Ex ib are provided for a three-wire RTD temperature sensor. The electronics are partially encapsulated providing type of protection Ex mb in combination with type of protection Ex ib.

Full specifications of the separately certified parts used are provided in report no. NL/DEK/ExTR19.0020/02.

For setting up key features of the Thermostat one or more of the following features are provided depending on the model code:

- Modbus data communication for setting up as well as for communication
- Bluetooth communication
- Dial and LED interface

Versions without rotary (dial) switches have a fixed temperature set point configured in the factory.

For programming and monitoring purpose, the local user interface comprises a Bluetooth wireless communication port and an LED is provided in the intrinsically safe electronics. This allows local regular configuration of the equipment without the need to open the enclosure of the final application. Care shall be taken that the Bluetooth programming device is approved and suitable for use in the environment where the temperature controller is being located at that time.

Remote programming and monitoring is possible utilizing the Modbus data communication terminals in type of protection Ex eb.

The Thermostat, Type BHTC-SC-PR1-*-* , complies with the requirements for temperature control devices as specified in EN-IEC/IEEE 60079-30-1 for trace heating located in environments requiring EPL Gb or Db.

The Thermostat, Type BHTL-SC-PR1-*-* , complies with the requirements for temperature limiting devices as specified in EN-IEC/IEEE 60079-30-1 for trace heating located in environments requiring EPL Gb or Db.

For nomenclature, electrical data and thermal data see the attached Annex 1 to Report NL/DEK/ExTR19.0020/02.

Installation instructions

The manufacturers instructions shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/DEK/ExTR19.0020/02.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 19ATEX0028U**

Issue No. 2

(17) **Schedule of Limitations**

1. The Thermostat shall be mounted in an enclosure in accordance with installation drawing 926-1549 or 926-1550, that provides a degree of protection of at least IP65 in accordance with EN 60079-0 and EN 60529.
Mounting shall be in such a way that the Thermostat is not susceptible to UV light.
2. The intrinsically safe terminals and (if applicable) field wiring shall be separated from all non-intrinsically safe conductors including earth/frame, per EN 60079-11.
3. Thermostats Types BHT*-SC-PR1-*-L* (with LED interface) have a component surface temperature of maximum 150 °C when considering a local service temperature as well as the application of faults per EN 60079-11.
4. The user of the temperature limiting function of the Thermostat, Type BHTL-SC-PR1-*-L* shall demonstrate his ability to predict the offset (ΔT_{offset}) between the trace heating sheath temperature and the Thermostat's set point in accordance with clause 4.5.3.1 of EN 60079-30-1 : 2017.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR19.0020/02.