



(1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 04 ATEX 2113 X



(4) Equipment: Cable thermostat KTE-m, type 27-6B11-24**/***** and type 27-6B11-22**/*****

(5) Manufacturer: Bartec GmbH

(6) Address: Max-Eyth-Straße 16, 97980 Bad Mergentheim, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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 PTB Ex 04-24238 .

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

EN 50014:1997 + A1 + A2

EN 50028:1987

EN 50281-1-1:1998

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

II 2 G EEx m II T6, T5, T4, T3 and

II 2 D IP 65 T 80 °C, T 95 °C, T 130 °C, T 195 °C

Zertifizierungsstelle Explosionsschutz

Braunschweig, November 9, 2004

By order:

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor



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(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 2113 X

(15) Description of equipment

The cable thermostat is used to control the temperature inside of protective cases and protective housings or also of e.g. electrical trace heatings of thermally insulated pipings. The cable thermostat of type 27-6B11-24**/***** is installed as a feeder to an electrical, Ex-protected heating. The cable thermostat of type 27-6B11-22**/***** is only provided with an open ended cable and therefore shall be connected in series to an electrical heating source inside of an Ex-terminal box.

Technical data

Rated voltage U_e	up to 230 V
Rated current I_e	10 A
Referred to utilization category	AC-1 AC-3

Others than the above mentioned rated values are permissible according to the relevant regulations, provided that the making and breaking capacities are maintained. These values are specified by the manufacturer depending on operating mode, utilization category, etc.

Contact set	1 break contact or 1 make contact
Switching capacity	2000 W
Rated cross section	3 x 1,0 mm ²

(16) Test report PTB Ex 04-24238

(17) Special conditions for safe use

1. A fuse, 16 A, in accordance with DIN 41571 or IEC 60127 shall be connected in series to each cable thermostat as short-circuit protection. This fuse may be accommodated in the associated supply unit or shall be connected in series separately. The rated voltage of the fuse shall be as high as or higher than the rated voltage specified for the cable thermostat. The breaking capacity of the fuse link shall be as high as or higher than the prospective maximum short-circuit current at the place of installation (usually 1500 A).
2. The range of the ambient temperature of the cable thermostat shall not exceed the limits of -50 °C and +80 °C.
3. The cable thermostat and its connecting cable (open ended cable) shall be installed as such, that it is sufficiently protected against mechanical damage.
4. When connection is carried out in the hazardous area, the connecting cable of the cable thermostat shall be connected inside a housing which corresponds to an acknowledged type of protection according to EN 50014, clause 1.2.

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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

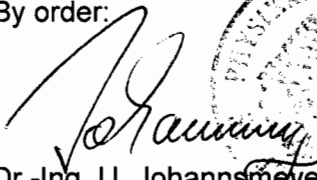
- 5. The quality of the connecting cable shall comply with the thermal requirements of the field of application.
- 6. Equipotential bonding or grounding respectively shall be guaranteed by mounting the cable thermostat in the complete system.
- 7. The cable thermostats shall always be mounted into an additional housing which has passed the tests mentioned in clause 5.1 and 5.2 of EN 50028:1987.

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

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