



(1) **EU-TYPE-EXAMINATION CERTIFICATE**
(Translation)

(2) Equipment or Protective Systems Intended for Use in
Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 02 ATEX 1041 X

Issue: 01

(4) Product: Heater type CP ***THERM D * * * xxx T* ***

(5) Manufacturer: INTERTEC-Hess GmbH

(6) Address: Raffineriestraße 8, 93333 Neustadt/Donau, Deutschland

(7) This product and any acceptable variation thereto is 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 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 Test Report PTB Ex 18-17122.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to 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:



II 2 G Ex db IIC T6, T5, T4, T3



II 2 D Ex tb IIIC T85 °C, T100 °C, T135 °C, T200 °C

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, January 7, 2019


Dr.-Ing. D. Markus
Direktor und Professor



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EU-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.

(13)

SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 02 ATEX 1041 X, Issue: 01**

(15) Description of Product

The heater type CP ***THERM D * * * xxx T* *** in the type of protection Flameproof Enclosure "db" and Protection by Enclosure "tb" is used for heating switch and control housings by convection and for direct heating of e.g. valves.

The heater consists of the body made of metal, alternatively with fins, the cartridge, optional thermostat used as an alarm device, the - separately certified - cable gland and the connection lead.

The heaters can optionally be provided with an - separately certified - external thermostat type TS *** or TAI***, which is integrated into the connection lead.

The temperature class is determined by the manufacturer by a routine test.

Technical data

Rated voltage	max. 250 V
Admissible operating voltage	max. 275 V
Rated current	max. 10 A
Rated power	max. 700 W
Ambient temperature range	-60 °C to +60 °C
Service temperature range	-60 °C to +180 °C
Temperature classes	T6, T5, T4, T3
Ingress protection	IP66, IP68 (1 bar, 30 min)
Impact energy	Heater: 20 J Cable gland: 10 J
Overpressure	Heater: 16.20 bar (1620 kPa)

Nomenclature

CP	***THERM	D	*	*	*	xxx	T*	***
1	2	3	4	5	6	7	8	9

1) CP = Types with **Constant heating Power**

2) Profile

*** = name of the heating block for conduction heating.

Other types with fins, company- or customer specific name, i.e. VARITHERM, SLIMTHERM

3) Version

B = Pressure screw version ATEX/IECEx + NRTL

C = Version according to NEC/CC (CSA C US)

D = European version (ATEX(IECEx))

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SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 02 ATEX 1041 X, Issue: 01

4) Version

- = Basic version
- A = Version according to NEC/CEC (CSA C US)
- B = Brazilian version
- C = Chinese version
- D = Indian version
- E = Korean version
- N = General Purpose, not explosion proof

5) Size

- K = Core block \geq 90 mm, Cartridge \geq 55 mm
- L = Core block \geq 105 mm, Cartridge \geq 55 mm
- M = Core block \geq 120 mm, Cartridge \geq 95 mm
- N = Core block \geq 155 mm, Cartridge \geq 95 mm
- O = Core block \geq 170 mm, Cartridge \geq 135 mm
- P = Core block \geq 220 mm, Cartridge \geq 160 mm
- R = Core block \geq 220 mm, Cartridge \geq 175 mm
- S = Core block \geq 220 mm, Cartridge \geq 215 mm
- T = Core block \geq 290 mm, Cartridge \geq 255 mm
- U = Core block \geq 330 mm, Cartridge \geq 295 mm

6) Material

- A = Heater block made from aluminum
- S = Heater block made from stainless steel

7) xxx = Power in watts

8) Temperature class

- T6 = Temperature class T6
- T5 = Temperature class T5
- T4 = Temperature class T4
- T3 = Temperature class T3

9) Different Variants

- xxx = at VARITHERM and MINITHERM: height of the fins in mm
- TSxx = with thermostat TS (PTB 03 ATEX 2027 X) in the connection cable
- TAIxx = with thermostat TAI (PTB 03 ATEX 1136 X) in the connection cable
- AM = with alarm sensor
- HI = With integrated temperature sensor
- X = Special or customer specific type
- SF = Single finned
- DF = Double finned
- BF = Block finned
- M = Pressure screw with 1/2" NPT male thread
- M20 = Pressure screw with M20 male thread
- M20L = Pressure screw with M20 (long version)
- F = Pressure screw with 1/2" NPT female thread
- F16 = Pressure screw with M16 female thread
- S = on customer request

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 02 ATEX 1041 X, Issue: 01

Modifications

- 1) New test according to the standards EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014.
- 2) The type designation is changed to Type CP ***THERM D * * *xxx T* ***. The nomenclature is revised.
- 3) The heater and the cable gland are tested with an impact energy of 20 J (heater) and 10 J (cable gland).
- 4) The heater is tested with an overpressure of 16.20 bar (1620 kPa).

(16) Test Report PTB Ex 18-17122

(17) Specific conditions of use

1. The connecting lead shall be installed to provide for permanent wiring and adequate protection against mechanical damage.
2. If connection is made in the potentially explosive area, the connecting lead shall be connected by means of an enclosure that meets the requirements of a type of protection specified in EN IEC 60079-0, section 1. Installation shall be made with due regard to the maximum permissible temperatures of neighbouring components.

(18) Essential health and safety requirements

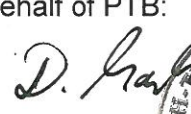
Met by compliance with the aforementioned standards.

The Standard EN IEC 60079-0:2018 is not yet listed as harmonized European Standard in the Official Journal of the European Community. Compliance with the essential safety and health requirements of Directive 2014/34/EU shall, however, be ensured, as the Standard EN IEC 60079-0:2018 has a safety level at least equivalent to the harmonized predecessor Standard EN 60079-0:2012.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

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