



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx PTB 07.0052X issue No.:1

Status: **Current**

Certificate history:
Issue No. 1 (2013-8-21)
Issue No. 0 (2007-7-31)

Date of Issue: **2013-08-21** Page 1 of 6

Applicant: **INTERTEC-Hess GmbH**
Raffineriestraße 8
93333 Neustadt/Donau
Germany

Electrical Apparatus: **Heater type CP ...Therm D ... T...**
Optional accessory:

Type of Protection: **Flameproof Enclosures "d", Protection by enclosure "t"**

Marking: Ex db IIC T6, T5, T4, T3
Ex tb IIIC T85°C, T100°C, T135°C, T200°C

Approved for issue on behalf of the IECEx
Certification Body:

Dr.-Ing. U. Klausmeyer

Position:

Head of Department "Flame Transmission Processes"

Signature:
(for printed version)


30. AUG. 2013

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





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Manufacturer: **INTERTEC-Hess GmbH**
Raffineriestraße 8
93333 Neustadt/Donau
Germany

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
DE/PTB/ExTR07.0051/01

Quality Assessment Report:
DE/PTB/QAR07.0005/02



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of equipment

The heater type CP ...THERM D ... T... is used in zone 1 and also in areas in which a potentially explosive atmosphere as a mixture of dust and air can occasionally form for heating switch and control cubicles by convection and for direct heating of valves etc.

CONDITIONS OF CERTIFICATION: YES as shown below:

Special conditions for safe 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 IEC 60079-0, section 1.
3. Installation shall be made with due regard to the maximum permissible temperatures of neighbouring components.
4. The maximum admissible ambient temperature, the self-heating rate and, if required, the thermal conduction (medium) shall be considered in determining the operating temperature (max. 180°C).
5. Additional conditions for alternate use of thermostats see concerning test certificate. They have to be separately certified to the same standards.
6. Special conditions for some connecting cables have to be included in the operating manual and have to be noticed by the installer.
7. If used in dust-ex-areas the concerning requirements of IEC 60079-14, of 60079-17 and 60079-19 have to be considered.
8. The manufacturer's operating manual shall be observed.



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EQUIPMENT(continued):

Description of equipment

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

The temperature class is defined on the basis of a thermal routine test. All heater versions will be subjected to a thermal routine test. The temperature class will be defined by the manufacturer.

In determining the hot spot, the following will be considered:

- the maximum ambient temperature
- the maximum voltage, and
- the position and the mounting bore holes (if necessary).

The results of the thermal routine test may be transferred to identical types of construction. For series-produced heaters, adequate alternative measurements (e.g. resistance/amperage measurement, determination of characteristic curve and similar parameters) will be made. Results will be documented.

The competence of the company is confirmed: it has been PTB audited; examples of thermal tests are documented.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

1. Change of temperature ranges
 - ambient temperature -60 ... +60°C
 - service temperature -60 ... +180°C
2. Additional temperature classes T5 or T6
3. Certification to the actual standards
4. Change of marking

Remark: alternate temperature switch is no more part of the heater, it's separated.



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Additional information:

Technical data

Rated voltage

max. 250 V

Admissible operating voltage

max. 265 V

Rated current

max. 10 A

Ambient temperatures

-60 ... +60 °C

Operating temperatures (rated service)

-60 ... +180 °C

Mounting position

optional (with ribs: vertical)

Temperature classes

T6, T5, T4 or T3