



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.:	IECEx IBE 12.0002X	Page 1 of 3	<u>Certificate history:</u>
Status:	Current	Issue No: 0	
Date of Issue:	2012-09-06		
Applicant:	eltherm production GmbH Ernst-Heinkel-Str. 6-10 57299 Burbach Germany		
Equipment:	Pt 100 Temperature Sensor series ELTF-PTEEx.1 to ELTF-PTEEx.4		
Optional accessory:			
Type of Protection:	Increased safety "e"; Protection by enclosure "tb"		
Marking:	Ex e IIC T6 ... T2 Gb Ex tb III C TX Db		

Approved for issue on behalf of the IECEx
Certification Body:

Prof. Dr. Tammo Redeker

Position:

Head of Certification Body

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Certification Body
Fuchsmühlenweg 7
09599 Freiberg
Germany





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Manufacturer: **eltherm production GmbH**
Ernst-Heinkel-Str. 6-10
57299 Burbach
Germany

Manufacturing
locations:

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 equipment 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 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-31:2008 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
Edition:1

IEC 60079-7:2006 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

This Certificate **does not** indicate compliance with 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/IBE/ExTR12.0002/00

Quality Assessment Report:

FR/INE/QAR12.0007/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Temperature sensors of series ELTF-PTE_x are intended for use in potentially explosive atmospheres. They consist of a measuring resistor inside of a metallic protection pipe and a shielded sensor cable grouted with the protection pipe. The measuring resistor is casted and placed in the pipe by means of heat-conduction paste. The connection is carried out with a separate, certified Ex terminal compartment.

Technical data:

Operating temperature range

-45 °C up to +235 °C

Maximum permitted operating temperature:

T6 ≤ 80 °C

T5 ≤ 95 °C

T4 ≤ 130 °C

T3 ≤ 195 °C

T2 ≤ 235 °C

The maximum surface temperature TX corresponds to the operating temperature.

Max. measuring voltage

1.3 V at use in T6 and T5

1.5 V at use in T4

1.7 V at use in T3 and T2

Max. measuring current

10 mA

Temperature sensor

Pt100 acc. to IEC 60751

Degree of protection

IP 65 acc. to IEC 60529

SPECIFIC CONDITIONS OF USE: YES as shown below:

The maximum permissible operating temperatures for the respective temperature class are 5 K lower than the maximum surface temperatures mentioned under clause 5.3.2.2 in the IEC 60079-0 (10 K lower when two measuring resistances are used simultaneously in ELTF PTE_x.3 or ELTF PTE_x.4).

The maximum permissible operating temperatures for the respective temperature class must not be exceeded.

The sensor cable has to be installed fixed and mechanically protected to ensure the low risk of mechanical danger.

In accordance with IEC 60079:0 the temperature sensors ELTF-PTE_x.1 and ELTF-PTE_x.3 must be installed and operated mechanically protected to ensure the low risk of mechanical danger.