



# 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](http://www.iecex.com)

Certificate No.: **IECEx IBE 11.0001U** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 1 [Issue 0 \(2011-01-24\)](#)  
Date of Issue: 2015-02-10  
Applicant: **EPHY-MESS GmbH**  
Berta-Cramer-Ring 1  
65205 Wiesbaden  
Germany  
Equipment: **Temperature sensor type M-xx/DSH**  
Optional accessory:  
Type of Protection: **Intrinsic safety "i"**  
Marking: Ex ia IIC

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](http://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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Page 2 of 4

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Manufacturer: **EPHY-MESS GmbH**  
Berta-Cramer-Ring 1  
65205 Wiesbaden  
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 60079-0:2004](#) Electrical apparatus for explosive gas atmospheres - Part 0: General requirements  
Edition:4.0

[IEC 60079-11:2006](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:5

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/ExTR10.0014/00](#)

Quality Assessment Report:

[DE/IBE/QAR15.0001/00](#)



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Certificate No.: **IECEx IBE 11.0001U**

Page 3 of 4

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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The temperature sensors are used for the temperature control in electrical machines by means of a passive resistance sensor. There are two construction types:

Design V1 insulated with two layers PTFE-shrinking hoses

Design V2 additional cast in ceramic sleeve

The supply line is tightly attached. It may be connected only to intrinsic safety supply devices.

**The electrical maximum values and the specifications of the operating instruction have to be kept for the installation and operation of the temperature sensor.**

## Technical Data

Operating temperature / measuring range from -50 °C up to +180 °C

Material platinum / nickel

## **Supply and signal circuit**

Type of protection intrinsic safety Ex ia IIC

Maximum voltage  $U_i \leq 60$  V DC

Maximum current  $I_i \leq 25$  mA

Maximum power  $P_i \leq 76$  mW

Internal capacitance, inductance  $C_i, L_i$  negligible

Circuitry in 2; 3 or 4-line circuit

Testing voltage 3 kV 50 Hz, 1 min

**SPECIFIC CONDITIONS OF USE: NO**



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Page 4 of 4

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

New QAR added.