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 19.0012X**	Page 1 of 4	
Status:	**Current**	Issue No: 1	
Date of Issue:	2023-05-31		

Applicant: **EPHY-MESS GmbH**
Berta-Cramer-Ring 1
65205 Wiesbaden
Germany

Equipment: **Temperature sensor PR-SPA-EX-MH**

Optional accessory:

Type of Protection: **Increased safety "e", Intrinsic safety "i", Protection by enclosure "t"**

Marking:

Ex eb IIC T6...T3 Gb

Ex tb IIIC T80 °C...T185 °C Db

Ex ia IIC T6...T3 Gb

Ex ia IIIC T80 °C...T185 °C Db

$-60\ °C \le T_a \le 180\ °C$ (maximum values)

Approved for issue on behalf of the IECEx
Certification Body:

Dr.-Ing. Peter Cimalla

Position:

Deputy Head of department 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
Fuchsmühlenweg 7
09599 Freiberg
Germany

IECEx Certificate of Conformity

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 60079-0:2017   Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011   Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013   Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017   Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Reports:

DE/IBE/ExTR17.0033/00   DE/IBE/ExTR17.0033/01

Quality Assessment Report:

DE/IBE/QAR15.0001/05

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The temperature sensors of the type PR-SPA-EX-MH were developed especially for the installation in (blind) hole drillings at electric motors (generators), gears or other electric machines. The temperature sensor is designed on the basis of a passive resistor or thermocouple or other which is installed in a stainless steel tube. The temperature is converted into an electrical quantity (voltage, resistance) at a measuring point. A permanently connected cable is fed out the metal tube for the electrical connection. Intrinsically safe versions can also be equipped with a connector plug. Bimetal switches may be used in versions which comply with the requirements of intrinsic safety "ia" or protection by enclosure "t".

The sensors are designed for use in hazardous areas requiring EPL Gb or Db equipment.

Technical data:

Ambient temperature range:	-60 °C ... +180 °C (maximum values, depending on the sensor used)
Maximum process temperature:	+180 °C
Degree of protection:	at least IP64

Parameters		Ex e, Ex t	Ex i [*]
Maximum voltage	class A	U_n = 17 V DC	U_i = 17 V DC
	class B	U_n = 25 V DC	U_i = 25 V DC
Maximum current	class A	I_n = 55 mA	I_i = 55 mA
	class B	I_n = 80 mA	I_i = 80 mA
Maximum power	class A	P_n = 1 W	P_i = 1 W
	class B	P_n = 2 W	P_i = 2 W
Internal capacitance			C_i = negligible
Internal inductance			L_i = negligible

[*] source with linear characteristic

SPECIFIC CONDITIONS OF USE: YES as shown below:
The sensors shall be installed protected against mechanical load. Sharp bending as well as mechanical stress concentrated to small spots of the sensor shall be avoided.

The permitted media temperature depends on the maximum permitted input power, the temperature class assigned and the ambient temperature range. The minimum ambient temperature is limited by the components used. Further information are mentioned in the manual.

The cable ends shall be connected to suitable terminals as fixed installation or outside of explosive atmosphere.

The supply unit shall provide a connector which corresponds to the method of connection of the thermometer (2-, 3- or 4-wire connection). It is to be considered that the electrical values are not exceeded.

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Versions including bimetal switch may also be carried out in type of protection "t".