|  | TM   | IECEx Certificate<br>of Conformity           |                      |  |  |  |
|--|--|--|----------------------|--|--|--|
| INTERNATIONAL ELECTROTECHNICAL COMMISSION<br>IEC Certification System for Explosive Atmospheres<br>for rules and details of the IECEx Scheme visit www.iecex.com<br>Ex COMPONENT CERTIFICATE   |  |  |                      |  |  |  |
| Certificate No.:   | IECEx IBE 20.0001U   | Page 1 of 3                                  | Certificate history: |  |  |  |
| Status:  | Current  | Issue No: 0                                  |                      |  |  |  |
| Date of Issue:   | 2020-03-06   |  |                      |  |  |  |
| Applicant:   | EPHY MESS GmbH<br>Berta-Cramer-Ring 1<br>65205 Wiesbaden-Delkenheim<br>Germany |  |                      |  |  |  |
| Ex Component:  | Electric Band Heater PR-HEI-EX-SSH   |  |                      |  |  |  |
| This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).   |  |  |                      |  |  |  |
| Type of Protection:  | Ex eb  |  |                      |  |  |  |
| Marking:   | Ex eb IIC Gb   |  |                      |  |  |  |
|  |  |  |                      |  |  |  |
| Approved for issue of<br>Certification Body:   | n behalf of the IECEx  | Alexander Henker                             |                      |  |  |  |
| Position:  |  | Deputy Head of department Certification Body |                      |  |  |  |
| Signature:<br>(for printed version)  |  | 1. Henle<br>2020 - 03-06                     |                      |  |  |  |
| Date:  |  | 2020 -03-06                                  |                      |  |  |  |
| <ol> <li>This certificate and schedule may only be reproduced in full.</li> <li>This certificate is not transferable and remains the property of the issuing body.</li> <li>The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.</li> </ol> |  |  |                      |  |  |  |
| Certificate issued<br>IBExU Institut fü<br>Fuchsmühlenwe<br>09599 Freiberg<br>Germany  | r Sicherheitstechnik GmbH  | IBE  | χU                   |  |  |  |



## IECEx Certificate of Conformity

Certificate No.: **IECEx IBE 20.0001U** Page 2 of 3 Issue No: 0 2020-03-06 Date of issue: **EPHY MESS GmbH** Manufacturer: Berta-Cramer-Ring 1 65205 Wiesbaden-Delkenheim Germany Additional 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 60079-7:2017 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 Report: DE/IBE/ExTR20.0003/00 Quality Assessment Report:

DE/IBE/QAR15.0001/02



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Ex Component(s) covered by this certificate is described below:

The heating element consists of a glass fibre carrier body, which is spirally wrapped around the heating conductor.

The electric band heater PR-HEI-EX-SSH is suited for fixed installation on the windings (usually winding heads) of electric motors / generators in order to protect them thermally against condensation water.

The Electric Band Heater PR-HEI-EX-SSH is not of a self-limiting design.

| Electrical values                          |                           |  |   |  |
|--|---------------------------|--|---|--|
| Operating voltage                          |                           | 115 V AC/ 230 V AC   |   |  |
| Heat output                                |                           | 8 W 200 W (is determined depending on the variant)   |   |  |
| Heat output per wire                       |                           | $\leq$ 25 W/m (determined according to the variant)  |   |  |
| Rated service temperature range            |                           | -60 $^\circ\text{C}$ +180 $^\circ\text{C}$ - Sum of max. ambient temperature, self-heating and external heat |   |  |
| Max. permissible current                   |                           | is determined according to the variant   |   |  |
| Mechanical values                          |                           |  |   |  |
| Min. bending radius of heating cable       |                           | $\geq$ 10 mm (not valid for end pieces)  |   |  |
| Tensile strength<br>( wire / heating cord) |                           | ≤ 25 N   |   |  |
| Dimensions                                 |                           | •  |   |  |
| Heating cable                              | Height                    |  | min. 9.5 mm   |  |
|  | Width:                    |  | min. 2.5 mm   |  |
|  | Length:                   |  | depends on the capacity and according to<br>customer requirements |  |
| Supply line                                | Design:                   |  | single strands, flat ribbon or hose line                          |  |
|  | Construction/ insulation: |  | Cu-tinned - FEP   |  |
|  | Cross section:            |  | $> 1 \text{ mm}^2$  |  |

## SCHEDULE OF LIMITATIONS:

The Electric Band Heater PR-HEI-EX-SSH has to be installed in a separate certified enclosure with a degree of protection of min. IP54 according to IEC 60079-0. The end caps of the heater must be under compound.

The rated service temperature range of -60 °C to +180 °C must be considered.

The electrical connection must comply with IEC 60079-7 when installed.