



[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Components intended for use on / in an equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU20ATEX1014 U** | Issue 0

[4] Product: **Electric Band Heater**
Type: PR-HEI-EX-SSH

[5] Manufacturer: EPHY-MESS GmbH

[6] Address: Berta-Cramer-Ring 1
65205 Wiesbaden
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-17-3-0171.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "U" is placed after the certificate number, it indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 2G Ex eb IIC Gb**

IBExU Institut für Sicherheitstechnik GmbH
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By order

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Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2020-03-06

[13] **Schedule**

[14] **Certificate number IBExU20ATEX1014 U | Issue 0**

[15] **Description of product**

The Electric Band Heater PR-HEI-EX-SSH is a resistance heating element based on NiCr or CuNi resistance cables. The heating element consists of a glass fibre carrier body, which is spirally wrapped around the heating conductor. It is covered with a silicone protective coating to ensure adequate moisture protection. The cold lead ends are protected against moisture by means of an inner adhesive shrink tube and a silicone coating. The heating element is fixed connected to the supply line and can optionally be covered with a layer of glass fibre tube as a mechanical protective insulation. The single resistor wires are connected by the cold lead ends and thereby connected in series.

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 dimensions of the standstill heater are designed so small that it can be applied directly to the winding wires. After installation on the winding head, the heating elements can be included in the normal impregnation process and are thus also moisture protected.

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

Technical data:

Electrical values

Operating voltage	115V AC / 230 V AC
Heat output	8 W ... 200 W (is determined depending on the variant)
Heat output per wire	≤ 25 W/m (determined according to the variant)
Rated service temperature range	-60 °C ... +180 °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	≥ 10 mm (not valid for end pieces)
Tensile strength (wire / heating cord)	≤ 25 N

Dimensions

Heating cable	Height	min. 9.5 mm
	Width:	min. 2.5 mm
	Length:	depends on the power and according to customer requirements
Supply line	Design:	single strands, flat ribbon or hose line
	Construction/ insulation:	Cu-tinned - FEP
	Cross section:	≥ 1 mm ²

[16] **Test report**

The test results are recorded in the confidential test report IB-17-3-0171 of 2020-03-06.

The test documents are part of the test report and they are listed there.

Summary of the test results

The Electric Band Heater type PR-HEI-EX-SSH meets the requirements of explosion protection for Ex components of group II, category 2G in ignition protection type increased safety.

[17] Specific conditions of use

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 EN 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 EN IEC 60079-7 when installed.

[18] Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: none

[19] Drawings and Documents

The documents are listed in the test report.

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