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**Component intended for use on / in a Product or Protective System intended for use in
Potentially Explosive Atmospheres
UK SI 2016:1107 (as amended) - Schedule 3A Part 1**

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Type Examination Certificate No. **IBExU23UKEX0014U | issue 00**

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Component: **Electric Band Heater
Type PR-HEI-EX-SSH**

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Manufacturer: **EPHY-MESS GmbH**

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Address: **Berta-Cramer-Ring 1
Wiesbaden · 65205
Germany**

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This component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

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IBExU UK Ltd., Approved Body number 8522, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UK SI 2016:1107 (as amended), certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential test report **IB1730171-00**, dated 2020-03-06.

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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 section 18 of the schedule to this certificate.

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The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for a product or protective system. This partial certification may be used as the basis for certification of a product of protective system.

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This UK Type Examination Certificate relates only to the design and construction of the specified component. Further requirements of the Regulations apply to the manufacturing process and supply of this component. These are not covered by this certificate.

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The marking of the component shall include the following:



II 2G Ex eb IIC Gb

2023-11-17

Date of initial issue

2023-11-17

Date of issue

N/A

Expiry date

**IBExU UK Ltd.
Bristol Road South · Regus Park House
Birmingham · B45 9AH
United Kingdom**



Philip Randall | Head of Certification Body

15 Description of Component

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 ... 200W (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 No. (associated with this certificate issue)

IB1730171-00, dated 2020-03-06

17 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 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 (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and documents

DOCUMENT TITLE	DOCUMENT NUMBER	REVISION	RELEASE DATE
Test documents over-view	TDO_IB1730171-00	00	2020-03-06