



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

[2] for non-electrical products of equipment-groups I and II,  
equipment-categories M2 and 2 plus products of equipment-category 3

[3] Type examination certificate number **IBExU12ATEXB026 X** | Issue 1

[4] Product: **Temperature sensor**  
Type: UQ 0035-\*\*\*\* Rüster, UQ 0038-\*\*\*\* Rüster and UQ 0043-\*\*\*\* Rüster

[5] Manufacturer: Paul Rüster & Co. GmbH

[6] Address: Dorfplatz 11  
14532 Stahnsdorf  
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 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in the confidential test report IB-23-3-0138.

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

[10] If the sign "X" or "U" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] This type examination certificate relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured or supplied.

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

**II 3 G Ex ec IIC T4...T3 Gc X**

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

- Stamp -

Freiberg, 2024-02-12

[13] **Schedule**

[14] **Certificate number IBExU12ATEXB026 X | Issue 1**

[15] **Description of product**

The temperature sensors serve for controlling gas turbines, machines or similar devices. The thermocouple is inside a metallic protective pipe. The electrical connection is carried out either by means of connection head or plug connectors

Technical data:

- Rated voltage:  $\leq 50 \text{ mV}$
- Rated current:  $\leq 5 \mu\text{A}$
- Thermocouples: type K, N (acc. to IEC 60584)
- Measuring temperature range:  $-40 \text{ }^\circ\text{C}$  up to  $+1000 \text{ }^\circ\text{C}$
- ambient temperature range:  $-40 \text{ }^\circ\text{C}$  up to  $+90 \text{ }^\circ\text{C}/+125 \text{ }^\circ\text{C}$   
(connector, type UQ 0043-\*\*\* Rüster)  
 $-40 \text{ }^\circ\text{C}/-15 \text{ }^\circ\text{C}$  up to  $+150 \text{ }^\circ\text{C}$  (connection head,  
types UQ 0035-\*\*\*\* Rüster, UQ 0038-\*\*\*\* Rüster)

*Variations compared to Type Examination Certificate:*

*Variation 1*

The temperature sensors comply with the requirements of current standards, thus the marking has been changed.

*Variation 2*

Versions with alternative connection heads have been assessed.

*Variation 3*

Type UQ 0034 is no longer used.

[16] **Test report**

The test results are recorded in the confidential test report IB-23-3-0138 of 2024-01-30. The test documents are part of the test report and they are listed there.

*Summary of the test results*

The temperature sensors further fulfil the requirements of explosion protection for electrical equipment of group II and category 3 G in type of protection increased safety "ec".

[17] **Specific conditions of use**

- A continuous equipotential bonding has to be maintained after installation the temperature sensor.
- When using the plug-in connectors, the instructions in the operating manual must be observed.
- The connection cable must be installed mechanically protected and must be suitable for the maximum ambient temperature.
- Only suitable and conformity assessed cable glands are permitted for use.
- Unused openings must be closed with suitable and conformity assessed blanking elements.
- The permissible ambient temperature range and the assignment of the temperature class are specified in the operating instructions.
- The reduced dielectric strength of the sensors must be observed in accordance with the operating instructions.

- The temperature sensor may also be used as simple apparatus in accordance with EN 60079-11 in intrinsically safe circuits for potentially explosive atmospheres that require equipment of category 2 G or 3 G. The verification of intrinsic safety must be conducted in accordance with EN 60079-14. In this context, the reduced dielectric strength of the temperature sensor as specified in the operating instructions must be observed.

**[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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