

[1] **TYPE EXAMINATION CERTIFICATE**
(Translation)



[2] **for electrical equipment of Equipment Group II, Category 3**

[3] Type Examination Certificate Number: **IBExU12ATEXB026 X**

[4] Equipment: **Temperature sensor**
Type UQ 0034 Rüster ... UQ 0043 Rüster

[5] Manufacturer: **Paul Rüster & Co. GmbH**

[6] Address: **Dorfplatz 11**
14532 Stahnsdorf
Germany

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified in the schedule to this type examination certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH certifies that the equipment mentioned in [4] has been found to comply with the essential health and safety requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the directive.
The test results are recorded in the test report IB-12-3-289 of 29 November 2012.

[9] Compliance with the essential health and safety requirements has been assured by compliance with EN 60079-0:2009 and EN 60079-15:2010.

[10] If the sign „X“ is placed after the certificate number and the marking in [12], it indicates that the equipment is subject to special conditions for safe use specified in [17] in the schedule to this type examination certificate and in the operating instruction.

[11] This type examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

II 3G Ex nA IIC T4 Gc X

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0) 3731 3805-0 - 📠 +49 (0) 3731 23650

Freiberg, 29 November 2012

By order

(Dr. Wagner)

IBExU

Institut für Sicherheitstechnik GmbH
An-Institut der TU-Bergakademie Freiberg
Fuchsmühlenweg 7
09599 Freiberg/Sachsen
Tel. (0 37 31) 38 05-0 • Fax 2 36 50

- Stamp -

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.

Schedule

[13] **Schedule**

[14] **to the Type Examination Certificate IBExU12ATEXB026 X**

[15] **Description**

The temperature sensor serves for monitoring gas turbines. The thermocouple is situated within a metal protective tube. The electrical connection is made by means of a connection head or plug-in connector outside the hazardous area.

The temperature sensor can be operated according to EN 60079-11, clause 5.7 as simple electrical power source also in an intrinsically safe circuit in type of protection 'ic'.

Technical data

Rated voltage: < 50 mV

Rated current: < 5µA

Measuring range: max. 800 °C

Ambient temperature range: -40 °C up to +125/+150 °C
(Connection)

[16] **Test report**

The test results are recorded in the test report IB-12-3-289. The test documents are part of the test report and are listed there.

Summary of the test results:

The temperature sensors fulfil the requirements of the explosion protection for electrical apparatus of equipment group II and category 3G in type of protection 'nA'.

[17] **Special conditions for safe use**

The reduced insulating properties have to be taken into account in accordance with the operating manual. A continuous equipotential bonding must be ensured at the installation of the temperature sensors. The connecting cable has to be laid in a protected way.

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9])

By order

Freiberg, 29 November 2012



(Dr. Wagner)