



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx IBE 10.0004X issue No.:3  
Status: **Current**  
Date of Issue: **2012-09-18** Page 1 of 4

Certificate history:  
Issue No. 3 (2012-9-18)  
Issue No. 2 (2011-7-11)  
Issue No. 1 (2011-3-3)  
Issue No. 0 (2010-6-4)

Applicant: **PHOENIX CONTACT GmbH & Co. KG**  
Flachsmarktstraße 8  
32825 Blomberg  
Germany

Electrical Apparatus: **Temperature Transducer MACX MCR-EX-T-UI(REL)-UP(-SP)**  
*Optional accessory:*

Type of Protection: **Intrinsic Safety; Type 'n'**

Marking: **[Ex ia Ga] IIC  
[Ex ia Da] IIIC  
Ex nA nC ic IIC T4 Gc**

*Approved for issue on behalf of the IECEx  
Certification Body:*

Prof. Dr. Tammo Redeker

*Position:*

Head of Certification Body

*Signature:  
(for printed version)*

*Date:*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**IBExU Institut für Sicherheitstechnik GmbH**  
Certification Body  
Fuchsmühlenweg 7  
09599 Freiberg  
Germany



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Manufacturer: **PHOENIX CONTACT ELECTRONICS GmbH**  
Dringenauer Straße 30  
31812 Bad Pyrmont  
Germany

Manufacturing location(s):

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 electrical apparatus 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:

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011-06</b> Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*This Certificate **does not** indicate compliance with electrical 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/ExTR10.0005/00](#)  
[DE/IBE/ExTR10.0005/03](#)

[DE/IBE/ExTR10.0005/01](#)

[DE/IBE/ExTR10.0005/02](#)

### Quality Assessment Report:

[NL/DEK/QAR11.0009/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The temperature transducers MACX MCR-EX-T-UI(REL)-UP(-SP) are used for measuring temperatures by using different temperature sensing elements or low voltages up to 1000 mV in hazardous areas up to zone 0 and to transfer the measuring results as a normalized current or voltage signal into the safe area. Additional one or more switching contacts are available on the non intrinsically safe output side of the transducer. The intrinsically safe input circuit of the transducer is safe galvanically separated up to 375 V<sub>peak</sub> from the output and the supply circuit. The device is an associated apparatus having an input circuit of the protection type Intrinsically Safety of category ia. The device may be operated in zone 2, if it is installed in a separate certified enclosure, which is suitable for this area (see General remarks). A customized connector in the front of the module serves for special configuration or display tasks. This connection is energy limited in protection type ic and can be used in zone 2.  
For module designation, technical data see the annex.

### CONDITIONS OF CERTIFICATION: YES as shown below:

#### Special conditions for safe use in zone 2:

1. The Temperature Transducer MACX MCR-EX-T-UI(REL)-UP(-SP) has to be installed in zone 2 within a certified enclosure fulfilling the requirements of IEC 60079-15 in protection category at least IP 54 according to IEC 60529.
2. Connecting and disconnecting of not intrinsically safe circuits are not allowed in energized state of the Temperature Transducer MACX MCR-EX-T-UI(REL)-UP(-SP).
3. Only appropriate devices from PHOENIX CONTACT may be connected at the configuration interface in zone 2.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Replacement of QAR and using of current standard editions.  
Modification on the layout and in the parts list without effects on the explosion protection.