



# 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 TUN 11.0033X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2011-09-30** Page 1 of 3

Applicant: **BARTEC GmbH**  
Max-Eyth-Str. 16  
97980 Bad Mergentheim  
Germany

Electrical Apparatus: **Bus interface 8 analogues out type 17-6583-.6\*\*/\*\*\*\***  
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **[Ex ia Ga] IIC**  
**[Ex ia Ga] IIB**  
**[Ex ia Da] IIIC**  
**[Ex ia Da] IIIB**

Approved for issue on behalf of the IECEx  
Certification Body:

Karl-Heinz Schwedt

Position:

Head of the IECEx certification body

Signature:  
(for printed version)

Date:

2011-09-30

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.

Certificate issued by:

**TÜV NORD CERT GmbH**  
Hanover Office  
Am TÜV 1  
30519 Hannover  
Germany





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Manufacturer: **BARTEC GmbH**  
Max-Eyth-Str. 16  
97980 Bad Mergentheim  
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 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-11 : 2006</b> Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 61241-11 : 2005</b> Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'ID'

*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/TUN/ExTR11.0033/00

##### Quality Assessment Report:

DE/TUN/QAR06.0017/02



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## Schedule

### EQUIPMENT:

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

The device is an associated apparatus which provides a safe galvanically separation of intrinsically safe and non-intrinsically safe circuits.

For technical data see attachment.

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

The device has to be erected in such a way, that a degree of protection of at least IP20 according to IEC 60529 is reached.

Technical data

The permissible temperature range is -25 °C to + 85 °C.

Supply circuit 1 (connections X4.23 X4.24)	U = 20 ... 30 V d.c. P = 1.8 W Um = 253 V
Supply circuit 2 (connections X4.19 X4.20)	U = 20 ... 30 V d.c. P = 5.7 W Um = 253 V
PA (connection X4.22)	For the connection to the potential equalisation
Signal circuit (connections X1.1... X1.16)	In type of protection [Ex ia] IIC / IIB resp. [Ex iaD] IIIC / IIIB U <sub>o</sub> = 21.4 V I <sub>o</sub> = 93.9 mA P <sub>o</sub> = 503 mW Characteristic line: linear
Maximum permissible external inductance for IIC resp. IIIC	L <sub>o</sub> = 3.4 mH
Maximum permissible external inductance for IIB resp. IIIB	L <sub>o</sub> = 13.9 mH
Maximum permissible external capacitance for IIC resp. IIIC	C <sub>o</sub> = 176 nF
Maximum permissible external capacitance for IIB resp. IIIB	C <sub>o</sub> = 1.2 μF
Effective internal inductance and capacitance	C <sub>i</sub> = negligibly small L <sub>i</sub> = negligibly small
Interface circuits (connections X4.1...X4.14 X9.1...X9.11 X9.16...X9.20 X3.1...X3.7 X4.16...X4.17)	U ≤ 30 V d.c. Um = 253 V