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

Certificate No.:	IECEx IBE 12.0021	issue No.:1	Certificate history: Issue No. 1 (2013-8-9) Issue No. 0 (2012-9-19)
Status:	**Current**		
Date of Issue:	**2013-08-09**	Page 1 of 5	

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

Electrical Apparatus: **RS485-Profibuscoupler, -repeater type 17-6583-3***/****
Optional accessory:

Type of Protection: **Intrinsic safety "ib"**

Marking: **[Ex ib Gb] IIC**
[Ex ib Db] IIIC

Approved for issue on behalf of the IECEx Certification Body: Prof. Dr. Tammo Redeker

Position: Head of Certification Body

Signature:
(for printed version)

Date: 2013-08-09

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

IBExU

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Manufacturer: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Additional 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:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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/ExTR12.0019/00 DE/IBE/ExTR12.0019/01

Quality Assessment Report:

DE/TUN/QAR06.0017/04

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Schedule

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

The RS485-Profibus coupler / RS485-Profibus repeater are associated apparatus intended for the use outside of hazardous areas. The apparatus provides intrinsically safe circuits to be connected outside of hazardous areas with other apparatus located in hazardous areas of zone 1. The RS485-Profibus coupler / RS485-Profibus repeater may be used only outside of hazardous areas and only in a housing required for protection class IP20.
The PROFIBUS couplers and PROFIBUS repeaters are used for the separation or generation of new segments, converting the RS485 typical line structure into an open and flexible tree structure. Downstream stations can be coupled to and decoupled from the superior bus system in a non-reactive and break/short-circuit tolerant manner, even during running bus operation. The apparatus provides terminals for 1 Master and for 4 Slaves.

Type designation

RS485-Profibus Coupler	17-6583-3K**/****
RS485-Profibus Repeater	17-6583-3R**/****

CONDITIONS OF CERTIFICATION: NO

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EQUIPMENT(continued):

Technical data

Ambient temperature range		-25 °C to 65 °C
Degree of protection of the enclosure		IP 20
Power supply circuit	Terminals	X2, X3 and X4
Supply voltage range	U_B	20 ... 30 V DC
Supply current	I_B	120 mA
Supply current (4 channels)		approx.. 70 mA
Supply current (2 channels)		approx.. 60 mA
Supply current (1 channel)		approx.. 50 mA
max. r.m.s. AC or DC voltage	U_m	253 V
Signal input circuit	Terminals	X1 and X5
max. rated voltage	U_B	9 V
max. rated current	I_B	50 mA
max. r.m.s. AC or DC voltage	U_m	253 V
Intrinsically safe data- and supply circuits, signal output circuit	Terminals	X7, X8, X9, X10, X11, X12, X13, X14
Type of protection		[Ex ib Gb] IIC, [Ex ib Db] IIIC
Maximum output voltage	U_o	4.2 V DC
Maximum output current	I_o	142.4 mA
Maximum output power	P_o	130.6 mW
Maximum external capacitance	C_o	100 µF (L_o = 0 mH)
Maximum external inductance	L_o	1.3 mH

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

Extension of lower limit of ambient temperature range