IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx TUN 11.0033X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2017-03-14) Issue 0 (2011-09-30)
Date of Issue:	2025-01-31		
Applicant:	**BARTEC GmbH** Max-Eyth-Str. 16 97980 Bad Mergentheim **Germany**		
Equipment:	**Bus interface 8 Analog out type 17-6583-*6**/**** **		
Optional accessory:			
Type of Protection:	**Intrinsic Safety**		
Marking:	[Ex ia Ga] IIB [Ex ia Ga] IIC [Ex ia Da] IIIC		

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

Position: **Head of IECEx Certification Body**

Signature:
(for printed version)

Date:
(for printed version)

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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 www.iecex.com or use of this QR Code.

Certificate issued by:

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

IECEx Certificate of Conformity

Certificate No.: **IECEx TUN 11.0033X**

Date of issue: 2025-01-31

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

Manufacturing locations: **BARTEC GmbH**
Max-Eyth-Str. 16
97980 Bad Mergentheim
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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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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

This Certificate **does not** indicate compliance with 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 Reports:

DE/TUN/ExTR11.0033/01 DE/TUN/ExTR11.0033/02

Quality Assessment Report:

DE/TUN/QAR06.0017/14

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

The Bus interface 8 analogues out type 17-6583-*6**/**** used for the safe galvanic isolation of the intrinsically safe signal circuits from the non-intrinsically safe supply circuits, from the non-intrinsically safe Interface circuits.

The Bus interface 8 analogues out type 17-6583-*6**/**** located outside of the hazardous explosive area.

The intrinsically safe signal circuits are safely galvanically isolated from the non-intrinsically safe circuits up to a voltage of 375 V and the intrinsically signal safe circuits are connected with one another galvanically.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The equipment has to be erected in such a way, that a degree of protection of at least IP20 according to IEC 60529 is reached. The installation into enclosure shall be carried out in such a way that the ambient temperature during the use is not exceeded.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
See Attachment IECEx TUN 11.0033X issue Nr. 2 for details.

Annex:

Attachment IECEx TUN 11.0033X issue Nr. 2_1.pdf

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Product:

The Bus interface 8 analogues out type 17-6583-*6**/**** used for the safe galvanic isolation of the intrinsically safe signal circuits from the non-intrinsically safe supply circuits, from the non-intrinsically safe Interface circuits.
The Bus interface 8 analogues out type 17-6583-*6**/**** located outside of the hazardous explosive area.
The intrinsically safe signal circuits are safely galvanically isolated from the non-intrinsically safe circuits up to a voltage of 375 V and the intrinsically signal safe circuits are connected with one another galvanically.

Type code:

Type no.	**1**	**7**	**-**	**6**	**5**	**8**	**3**	**-**	*****	**6**	*****	*****	**/**	*****	*****	*****	*****
Code no.	**A**	**B**		**C**	**D**	**E**	**F**		**G**	**H**	**I**	**J**		**K**	**L**	**M**	**N**

Code	***Code for***	***Variations***	***Description***
A, B	Product sector	17	Electronical device
C	Product group	6	Transmitter / Bus module
D	Operating place	5	Location outside the hazardous area, Associated equipment
E	Type of device	8	Euro board / board module
F	Design	3	Bus module / board device
G	Bus version	1	Interbus
		3	Profibus
H	Device version	6	8 Analog out
I - N	Number or letter for characteristics without influence on the explosion protection		

Thermal Data:
Ambient temperature range: -25 °C ≤ T_a ≤ +85 °C

Electrical data:

Supply circuit (Connection X4.23 (L-; 0V), X4.24 (L+; 24V)	Only for the connection to a non-intrinsically safe circuit with following maximum values: U = 20 to 30 VDC, ca 1.8 W U_m = 253 V
Supply circuit 2 (connection X4.19 (U-; 0V), X4.20 (U+; 24V))	Only for the connection to a non-intrinsically safe circuit with following maximum values: U = 20 to 30 VDC, ca 5.7 W U_m = 253 V

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PA (Connection X4.21, X4.22)	For connection to the potential equalization
Interface circuit (for type 17-6583-36**/****) (connection X4.1 (B) and X4.2 (A) or X4.5 (B) and X4.6 (A) or X4.8 (B) and X4.9 (A))	Only for the connection to a non-intrinsically safe circuit with following maximum values: U ≤ 30 VDC U_m = 253 V

The shield of the bus line is connected to X4.3 and X4.4. The connections X4.16 and X4.17 are either bridged or not occupied.

Interface circuits (for type 17-6583-16**/****) (connection X4.1 to X4.5 and X4.7 to X4.11)	Only for the connection to a non-intrinsically safe circuit with following maximum values: U ≤ 30 VDC U_m = 253 V

The shield of the bus line is connected to X4.6 and X4.12. The connections X4.16 and X4.17 resp. X4.13 and X4.14 are either bridged or not occupied.

Output signal circuit (connections X1.1 to X1.16)	In type of protection intrinsic safety Ex ia IIC resp. IIB resp. IIIC with following maximum values per circuit: U_o = 21.4 V I_o = 93.9 mA P_o = 503 mW Characteristic line: linear

The maximum permissible values for the external capacitance C_o and the inductance L_o are listed in the following table and only apply for the single occurrence of the capacitance C_o or the inductance L_o:

	Ex ia IIC		**Ex ia IIB Ex ia IIIC**
L_o [mH]	3.4	L_o [mH]	13.9
C_o [µF]	0.176	C_o [µF]	1.2

For the simultaneous occurrence of external C_o and inductance L_o, the maximum permissible values for the external inductance L_o and the external capacitance C_o have to be taken from the following table:

Ex ia IIC	L_o [mH]	3.4	1.0	0.5	0.2	0.1	0.05
	C_o [nF]	92	96	110	140	179	179
Ex ia IIB Ex ia IIIC	L_o [mH]	17	10	0.5	0.2	0.1	0.05
	C_o [µF]	0.48	0.67	0.73	0.89	1.1	1.22

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Details of Change:

– Proof of conformity of the Bus Interface 8 Analog out type 17-6583-*6**/**** to the current version of the IEC standard IEC 60079-0:2017. The conformity to the IEC 60079-11:2011 has been already proofed in the previous issue 01. Additionally, the marking, the type code and the electrical parameters have been adjusted.

<table>
<tr><th>IECEx TUN 11.0033X Issue No: 1</th><th>IECEx TUN 11.0033X Issue No: 2</th></tr>
<tr><td>[Ex ia Ga] IIC/IIB
[Ex ia Da] IIIC/IIIB</td><td>[Ex ia Ga] IIC
[Ex ia Ga] IIB
[Ex ia Da] IIIC</td></tr>
<tr><td>
<table>
<tr><td>Type no.</td><td>17</td><td>-</td><td>6</td><td>5</td><td>8</td><td>3</td><td>-</td><td>*</td><td>6</td><td>*</td><td>*</td><td>/</td><td>*</td><td>*</td><td>*</td><td>*</td></tr>
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<tr><td>Supply circuits 1 and 2
U_N = 24 VDC (max. 30 VDC)</td><td>Supply circuits 1 and 2
U = 20 bis 30 VDC</td></tr>
<tr><td colspan="2">The rated output power on supply circuit 2 of IECEx TUN 11.0033X Issue No: 2 is corrected to approx. 5.7 W instead of 60 W in accordance with EU-Type Examination Certificate TÜV 99 ATEX 1426 X issue 00 (in German).</td></tr>
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Special Conditions for Safe Use / ~~Notes for Erection~~:

The equipment has to be erected in such a way, that a degree of protection of at least IP20 according to IEC 60529 is reached. The installation into enclosure shall be carried out in such a way that the ambient temperature during the use is not exceeded.