



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 11.0028X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2017-06-09\)](#)
[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 4 x RTD in Ex i type 17-6583-*7**/******
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)

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 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 11.0028X**

Page 2 of 4

Date of issue: 2025-01-31

Issue No: 2

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

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

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/ExTR11.0028/01](#)

[DE/TUN/ExTR11.0028/02](#)

Quality Assessment Report:

[DE/TUN/QAR06.0017/15](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX TUN 11.0028X**

Page 3 of 4

Date of issue: 2025-01-31

Issue No: 2

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Bus Interface 4 x RTD in Ex i type 17-6583-*7**/**** is used for the galvanic separation of intrinsically safe circuits that may be lead in hazardous areas that require category 1 to 3 equipment.

The device has to be installed outside of the hazardous area.

The output signal circuits are safely galvanically separated among each other up to 30 V and from all other circuits up a to a peak value of the nominal voltage of 375 V.

For eletrical and technical data see Attachment to IECEx TUN 11.0028X issue No.2.

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.



IECEX Certificate of Conformity

Certificate No.: **IECEX TUN 11.0028X**

Page 4 of 4

Date of issue: 2025-01-31

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

See Attachment IECEx TUN 11.0028X issue Nr. 2 for details.

Annex:

[Attachment IECEx TUN 11.0028 issue Nr. 2 .pdf](#)

Page 1 of 3
Attachment to IECEx TUN 11.0028 X issue No.: 2

Product:

The Bus Interface 4 x RTD in Ex i type 17-6583-7**/**** is used for the galvanic separation of intrinsically safe circuits that may be lead in hazardous areas that require category 1 to 3 equipment.

The device has to be installed outside of the hazardous area.

The output signal circuits are safely galvanically separated among each other up to 30 V and from all other circuits up a to a peak value of the nominal voltage of 375 V.

Type code:

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

<u>Code</u>	<u>Code for</u>	<u>Variations</u>	<u>Description</u>
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	Number or letter for characteristics without influence on the explosion protection		
H	Device version	7	4 x RTD in
I - N	Number or letter for characteristics without influence on the explosion protection		

Thermal Data:

Ambient temperature range: $-25\text{ °C} \leq T_a \leq +80\text{ °C}$

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
U_m = 253 V

PA
(Connection X4.21, X4.22)

For connection to the potential equalization

Interface circuit
(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_N = 5 VDC
U_m = 253 V

Page 2 of 3
Attachment to IECEx TUN 11.0028 X issue No.: 2

The shield of the bus line is connected to X4.3 and X4.4.

Output signal circuit
(connections X1.1 to X1.12)

In type of protection intrinsic safety Ex ia IIC resp. IIB resp. IIIC
with following maximum values per circuit:

$U_o = 7.2 \text{ V}$
 $I_o = 6 \text{ mA}$
 $P_o = 11 \text{ mW}$
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]	600	L_o [mH]	1000
C_o [µF]	13.5	C_o [µF]	240

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]	100	25	10	1	0.1	0.01	0.002
	C_o [µF]	0.99	1.1	1.3	1.9	3.4	7.6	13.5
Ex ia IIB Ex ia IIIC	L_o [mH]	100	50	10	1	0.1	0.01	0.002
	C_o [µF]	4.9	5.7	6.6	11	20	60	240

Page 3 of 3
Attachment to IECEx TUN 11.0028 X issue No.: 2

Details of Change:

- Proof of conformity of the Bus Interface 4 x RTD in Ex i type 17-6583-*7**/**** 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 and the type code have been adjusted.

IECEx TUN 11.0028X Issue No: 1		IECEx TUN 11.0028X Issue No: 2																																																																					
[Ex ia Ga] IIC/IIB [Ex ia Da] IIIC/IIIB		[Ex ia Ga] IIC [Ex ia Ga] IIB [Ex ia Da] IIIC																																																																					
Type no. 17 - 6 5 8 3 - * 7 * * / * * * * * Code no. A B C D E F G H I J K L M		Type no. 1 7 - 6 5 8 3 - * 7 * * / * * * * * Code no. A B C D E F G H I J K L M N																																																																					
<table border="1"> <thead> <tr> <th>Code</th> <th>Code for:</th> <th>Variation:</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Product sector</td> <td>17</td> <td>Electronical device</td> </tr> <tr> <td>B</td> <td>Product group</td> <td>6</td> <td>Transmitter / Bus module</td> </tr> <tr> <td>C</td> <td>Operating place</td> <td>5</td> <td>Location outside the hazardous area, Associated equipment</td> </tr> <tr> <td>D</td> <td>Type of device</td> <td>8</td> <td>Euro board / board module</td> </tr> <tr> <td>E</td> <td>Design</td> <td>3</td> <td>Bus module / board device</td> </tr> <tr> <td>G</td> <td>Device version</td> <td>7</td> <td>4 x RTD in</td> </tr> <tr> <td>F H - M</td> <td>Number and letter for characteristics without influence to the explosion protection</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Code	Code for:	Variation:	Description	A	Product sector	17	Electronical device	B	Product group	6	Transmitter / Bus module	C	Operating place	5	Location outside the hazardous area, Associated equipment	D	Type of device	8	Euro board / board module	E	Design	3	Bus module / board device	G	Device version	7	4 x RTD in	F H - M	Number and letter for characteristics without influence to the explosion protection	-	-		<table border="1"> <thead> <tr> <th>Code</th> <th>Code for</th> <th>Variations</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>A, B</td> <td>Product sector</td> <td>17</td> <td>Electronical device</td> </tr> <tr> <td>C</td> <td>Product group</td> <td>6</td> <td>Transmitter / Bus module</td> </tr> <tr> <td>D</td> <td>Operating place</td> <td>5</td> <td>Location outside the hazardous area, Associated equipment</td> </tr> <tr> <td>E</td> <td>Type of device</td> <td>8</td> <td>Euro board / board module</td> </tr> <tr> <td>F</td> <td>Design</td> <td>3</td> <td>Bus module / board device</td> </tr> <tr> <td>G</td> <td>Number or letter for characteristics without influence on the explosion protection</td> <td></td> <td></td> </tr> <tr> <td>H</td> <td>Device version</td> <td>7</td> <td>4 x RTD in</td> </tr> <tr> <td>I - N</td> <td>Number or letter for characteristics without influence on the explosion protection</td> <td></td> <td></td> </tr> </tbody> </table>	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	Number or letter for characteristics without influence on the explosion protection			H	Device version	7	4 x RTD in	I - N	Number or letter for characteristics without influence on the explosion protection			
Code	Code for:	Variation:	Description																																																																				
A	Product sector	17	Electronical device																																																																				
B	Product group	6	Transmitter / Bus module																																																																				
C	Operating place	5	Location outside the hazardous area, Associated equipment																																																																				
D	Type of device	8	Euro board / board module																																																																				
E	Design	3	Bus module / board device																																																																				
G	Device version	7	4 x RTD in																																																																				
F H - M	Number and letter for characteristics without influence to the explosion protection	-	-																																																																				
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	Number or letter for characteristics without influence on the explosion protection																																																																						
H	Device version	7	4 x RTD in																																																																				
I - N	Number or letter for characteristics without influence on the explosion protection																																																																						

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.