



Translation

(1) **EU-Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** TÜV 01 ATEX 1668 X **Issue:** 01

(4) for the product: Bus Interface 4 x RTD in Ex I type 17-6583-*7**/****

(5) of the manufacturer: **BARTEC GmbH**

(6) Address: Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Order number: 8003062991

Date of issue: See signature

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential ATEX Assessment Report No. 23 203 357320.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018/AC:2020-02

EN 60079-11:2012

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:

 II (1) G [Ex ia Ga] IIC II (1) G [Ex ia Ga] IIB II (1) D [Ex ia Da] IIIC

TÜV NORD CERT GmbH, Am TÜV 1, 45307 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate TÜV 01 ATEX 1668 X Issue 01**

(15) **Description of 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:

$U = 20\text{ to }30\text{ VDC, ca. }4.5\text{ W}$
 $U_m = 253\text{ V}$

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:

$U_N = 5\text{ VDC}$
 $U_m = 253\text{ V}$

Schedule to EU-Type Examination Certificate TÜV 01 ATEX 1724 X Issue 01

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 V
 I_o = 6 mA
 P_o = 11 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

(16) Drawings and documents are listed in the ATEX Assessment Report No. 23 203 357320.

(17) Specific Conditions for Use

The equipment has to be erected in such a way, that a degree of protection of at least IP20 according to EN 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.

(18) Essential Health and Safety Requirements

No additional ones.

- End of EU-Type Examination Certificate -