

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 20 ATEX 265822 X **issue:** 00
- (4) for the product: Strain gauge transmitter type IMX12-SG10-1U-1UI-0/\*\*\*\*\*/\*\*
- (5) of the manufacturer: Hans Turck GmbH & Co. KG
- (6) Address: Witzlebenstraße 7  
45472 Mülheim an der Ruhr  
Germany
- Order number: 8003016817
- Date of issue: 2020-05-11

- (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. 20 203 265822.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018                      EN 60079-11:2012                      EN 60079-7:2015
- 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) D [Ex ia Da] IIIC  
II 3 (1) G Ex ec [ia Ga] IIC T4 Gc, II 3 G (1) D Ex ec [ia IIIC Da] IIC T4 Gc

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 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

The head of the notified body

  
Roder

Hanover office, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 20 ATEX 265822 X issue 00**

(15) Description of product

The Strain gauge transmitter type IMX12-SG10-1U-1UI-0/\*\*\*\*\*/\*\* is used for the supply of an intrinsically safe strain gauge in the hazardous area, for the evaluation of the analogue signal of the strain gauge and for the transmission of the non-intrinsically safe signals into the non-hazardous area.

It is also used for the safe galvanic separation between the intrinsically safe circuit and all non-intrinsically safe circuits.

The permissible ambient temperature range is -25°C ... 70°C.

Electrical data

Supply circuit ..... U = 10 ... 30 V d. c., ≤3 W  
(X11-contacts 15[+], 16[-]) U<sub>m</sub> = 253 V a. c. / d. c.

Analogue output 1, parametrizable ..... 0/4 ... 20 mA current interface  
(X14-contacts 9, 10) Passive mode control of connected voltage source  
0 ... 5 V voltage interface  
U<sub>m</sub> = 253 V a. c. / d. c.

Analogue output 2  
(X13-contacts 11[+], 12[-] ..... Supply voltage 5 ... 15 V  
X12-contacts 13[+], 14[-]) Voltage of strain gauge  
U<sub>m</sub> = 253 V a. c. / d. c.

Measuring circuit ..... in type of protection  
(Measuring input: Intrinsic Safety Ex ia IIC/IIB resp. Ex ia IIIC  
X23-contacts 5[+], 6 [-] Maximum values:  
Supply: U<sub>o</sub> = 13.7 V  
X24-contacts 7[+], 8[-]) I<sub>o</sub> = 76 mA  
P<sub>o</sub> = 261 mW  
Characteristic line: linear  
Effective internal capacitance: 36.4 nF  
Effective internal inductance: 10 µH

Table 1

Ex ia	IIC			IIB		
max. permissible external inductance	5 mH	2 mH	1 mH	10 mH	5 mH	1 mH
max. permissible external capacitance	0.27 µF	0.42 µF	0.53 µF	2.3 µF	2.9 µF	4.5 µF

The maximum values of the table 1 are also allowed to be used up to the permissible limits as concentrated capacitances and as concentrated inductances.

**Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 265822 X issue 00**

Table 2

Ex ia	IIC	IIB
max. permissible external inductance	8.3 mH	47 mH
max. permissible external capacitance	0.75 $\mu$ F	4.8 $\mu$ F

The maximum values of the table 2 are only allowed to be used up to the permissible limits as cable reactances.

Tables 1 and 2:

The values for IIB and for IIC are also permissible for explosive dust atmospheres.

The intrinsically safe circuit is safely galvanically separated from the non intrinsically safe circuits up to the peak value of the voltage of 375 V.

(16) Drawings and documents are listed in the ATEX Assessment Report No. 20 203 265822

(17) Specific Conditions for Use (only for zone 2 applications)

1. According to EN/IEC 60079-7:2015, section 4.10.1, the following is valid for this apparatus:  
The apparatus has to be mounted in a housing tested according to EN/IEC 60079-0, that meets the requirements of degree of protection IP54.  
The apparatus may be installed in an area of not more than pollution degree 2.
2. The connecting and disconnecting of energized non intrinsically safe circuits is only permitted, if no explosion hazardous atmosphere is available.

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -