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 14 ATEX 149780 X** **issue:** 00

(4) for the product: Solenoid driver type IMX(K)12-DO**-**-**-**/24VDC/**

(5) of the manufacturer: Hans Turck GmbH & Co. KG

(6) Address: Witzlebenstraße 7
45472 Mülheim an der Ruhr
Germany

Order number: 8000483838

Date of issue: 2018-05-29

(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. 18 203 220881.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013 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
See also schedule of TÜV 14 ATEX 149780 X issue 00

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

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(13) **S C H E D U L E**

(14) **EU-Type Examination Certificate No. TÜV 14 ATEX 149780 X issue 00**

(15) Description of product

The solenoid driver type IMX(K)12-DO**-**-**-**/*****/** is used for the supply of intrinsic safe passive two-poles (e. g. solenoid valves, illuminated circuit diagrams, light emitting diodes, two wire transmitters) as well as for the safe galvanic separation of the intrinsically safe circuits and the non intrinsically safe circuits.

The device is executed with 1 or 2 channels.

The device in the version "K" is executed with 1 channel.

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

Changes:

For the IMX12-DO**-**-**-**/24VDC/**, 1 new pc board resp. 1 new type is available:
- IMXK12-DO**-1U-1U-**/24VDC/**

The changes concern
- the new version with 1 channel; no changes regarding the protection principle of the electrical circuitries performed
- the housing construction
- the contact designation (electrical data)

Additional permissible marking
II (1) G [Ex ia] IIC
II (1) D [Ex ia] IIIC

II 3 (1) G Ex ec [ia] IIC T4

II 3 G (1) D Ex ec [ia IIIC Da] IIC T4 Gc

II 3 G (1) D Ex ec [ia IIIC] IIC T4

Electrical data

Supply circuit ..... (X11-contacts 15[+], 16[-] or X30-contacts 4[+], 5[-] "K" version: X11-contacts 7[+], 8[-])	U = 10 ... 30 V d. c., ≤3.5 W U_m = 253 V a. c. / d. c.
Input circuits ..... (X14-contacts 9[+], 10[-] X13-contacts 11[+], 12[-] "K" version: X12-contacts 5[+], 6[-])	0-signal: U = 0...5 V d. c. 1-signal: U = 10...30 V d. c. U_m = 253 V a. c. / d. c.
Failure signal output ..... (X30-contacts 1, 2)	U = 30 V d. c., 100 mA; potential free contact U_m = 253 V a. c. / d. c.

Schedule to EU-Type Examination Certificate No. TÜV 14 ATEX 149780 X issue 00

Output circuits	in type of protection
(X24-contacts 7[+], 8[-]	Intrinsic Safety Ex ia IIC/IIB resp. Ex ia IIIC
X23-contacts 5[+], 6[-]	Maximum values per channel:
"K" version:	U_o = 27.3 V
X22-contacts 3[+], 4[-])	I_o = 68.4 mA
	U_e = 26.2 V
	I_e = 15.1 mA
	P_o = 576 mW
	Characteristic line: angular
	The effective internal capacitance and inductance is negligibly small.

Ex ia	IIC			IIB		
max. permissible external inductance	0.94 mH	0.4 mH	0.2 mH	10 mH	2 mH	0.5 mH
max. permissible external capacitance	0.057 µF	0.078 µF	0.088 µF	0.26 µF	0.31 µF	0.45 µF

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

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

The intrinsically safe output circuits are 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. 18 203 220881

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

1. According to 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 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 -