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 18 ATEX 195739 X** **Issue:** 02

(4) for the product: Transmitter-power supply type IMC-AIA-11Ex-i/*** resp. type IMC-AIA01-11Ex-i/24VDC

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

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

Order number: 8003063050

Date of issue: See date of 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 357395.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018/AC:2020-02 **EN IEC 60079-7:2015/A1:2018**
EN 60079-11:2012 **EN 60079-31:2014**

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:

See “Type code and Marking”

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

The deputy of the head of the notified body

TÜVNORD Digital unterschrieben von Drews Anke Datum: 2024.04.30 12:14:57 +02'00'

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

(14) **EU-Type Examination Certificate No. TÜV 18 ATEX 195739 X Issue 02**

(15) **Description of product:**
The transmitter-power supply type IMC-AIA-11Ex-i/*** resp. type IMC-AIA01-11Ex-i/24VDC is used for the supply of apparatus in the explosion hazardous area and for the safe galvanic separation of the intrinsically safe measuring signals and the non-intrinsically safe output signals.

Type code and Marking:

IMC-AIA-11Ex-i/***	II (1) G [Ex ia Ga] IIB or II (1) D [Ex ia Da] IIIC or II 3 (1) G Ex ec [ia IIB Ga] IIC T4 Gc or II 3 (1) D Ex tc [ia IIIC Da] IIIB T80 °C Dc

IMC-AIA01-11Ex-i/24VDC	II (1) G [Ex ia Ga] IIC or II (1) D [Ex ia Da] IIIC or II 3 (1) G Ex ec [ia Ga] IIC T4 Gc or II 3 (1) D Ex tc [ia IIIC Da] IIIB T80 °C Dc

Electrical data:

IMC-AIA-11Ex-i/*

Supply and signal circuit IMC-AIA-11Ex-i/L (Connection X2; Pins 2[+], 4[-])	For the connection to non-intrinsically safe circuits with following maximum values: U_N = 24 V d.c. (max. 30 V d.c.), I = 4…20 mA U_m = 253 V a.c.
Supply and signal circuit IMC-AIA-11Ex-i/24V (Connection X2; Signal circuit: Pins 2[+], 4[-] supply circuit: Pins 1[+], 3[-])	For the connection to non-intrinsically safe circuits with following maximum values: U_N = 24 V d.c. (max. 30 V d.c.), I = 4…20 mA U_m = 253 V a.c.
Supply circuit IMC-AIA-11Ex-i/L and IMC-AIA-11Ex-i/24V (Connection X1; Socket 1[+], 2[-])	In type of protection Intrinsic Safety Ex ia IIB or IIIC with following maximum values: U_o = 21.8 V I_o = 64.5 mA P_o = 1.13 W Characteristic line: trapezoidal Effective internal capacitance C_i = 11 nF Effective internal inductance L_i is negligibly small.

Schedule to EU-Type Examination Certificate No. TÜV 18 ATEX 195739 X Issue 02

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 IIB/IIIC	L_o [mH]	3.4	2	0.5	0.2	0.1
	C_o [µF]	0.41	0.51	0.82	1.08	1.14

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

IMC-AIA01-11Ex-i/24VDC

Supply and signal circuit (Connection X2; Signal circuit: Pins 2[+], 4[-] supply circuit: Pins 1[+], 3[-])	For the connection to non-intrinsically safe circuits with following maximum values: U_N = 24 V d.c. (max. 30 V d.c.), I = 4…20 mA U_m = 253 V a.c.
Supply circuit (Connection X1; Socket 1[+], 2[-])	In type of protection Intrinsic Safety Ex ia IIC or IIIC with following maximum values: U_o = 23.2 V I_o = 63.6 mA P_o = 773 mW Characteristic line: trapezförmig Effective internal capacitance C_i = 11 nF Effective internal inductance L_i is negligibly small.

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]	0.94	0.5	0.2	0.1
	C_o [nF]	57	77	109	127

Ex ia IIIC	L_o [mH]	1.4	1	0.2	0.1
	C_o [nF]	519	589	989	999

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

Thermal data:
Permissible ambient temperature range during operation: -25 °C ≤ Ta ≤ +70 °C

(16) Drawings and documents are listed in the ATEX Assessment Report No. 23 203 357395

(17) **Specific Conditions for Use:**

1. For applications that require EPL Gc and EPL Dc: The connecting and disconnecting of the non-intrinsically safe circuit is not permitted when live.
2. For applications that require EPL Gc and EPL Dc: The metallic protective housing has to be connected to the equipotential bonding and to be safely screwed to a solid basement with the provided screws resp. with screws according to the manufacturer's operating instructions.
3. For applications that require EPL Gc and EPL Dc: The transmitter-power supply type IMC-AIA-11Ex-i/*** resp. type IMC-AIA01-11Ex-i/24VDC has to be protected from UV radiation.
4. For applications that require EPL Dc: The transmitter-power supply type IMC-AIA-11Ex-i/*** resp. type IMC-AIA01-11Ex-i/24VDC has to be protected from prolific charge generating mechanisms.

(18) **Essential Health and Safety Requirements:**
No additional ones.

- End of EU-Type Examination Certificate -