



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 ULD 20.0001X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2020-02-27)

Status: **Current** Issue No: 1

Date of Issue: 2021-01-25

Applicant: **Hans Turck GmbH & Co KG**
Witzlebenstraße 7, 45472 Mülheim an der Ruhr
Germany

Equipment: **HMI touch panel and HMI/Gateway/PLC, TX700 Series**

Optional accessory: TX700 series may utilize the following Optional Accessory: Model TX-UMTS-Ex. The Accessory Module is installed using an expansion port at the rear cover of the HMI. The module is secured to the rear cover by two fasteners and one or two screws. The TX-UMTS-Ex module is a Wireless Modem - UMTS/GSM.

Type of Protection: **Non-sparking "nA", Enclosure "tc"**

Marking: Ex nA IIC T5...T4 Gc
Ex tc IIIC T95°C Dc
-20°C ≤ Tamb ≤ +60°C or
0°C ≤ Tamb ≤ +50°C

The relation between maximum ambient temperature and the assigned temperature class is as follows:
Maximum ambient temperature range -20°C up to 60°C: Temperature Class T4
Maximum ambient temperature range 0°C up to 50°C: Temperature Class T5

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2021-01-25

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:

UL International DEMKO A/S
Borupvang 5A
DK-2750 Ballerup
Denmark





IECEx Certificate of Conformity

Certificate No.: **IECEx ULD 20.0001X**

Page 2 of 4

Date of issue: 2021-01-25

Issue No: 1

Manufacturer: **Hans Turck GmbH & Co KG**
Witzlebenstraße 7, 45472 Mülheim an der Ruhr
Germany

Additional
manufacturing
locations:

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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:

[DK/ULD/ExTR20.0001/00](#)

[DK/ULD/ExTR20.0001/01](#)

Quality Assessment Report:

[DE/PTB/QAR06.0013/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx ULD 20.0001X**

Page 3 of 4

Date of issue: 2021-01-25

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TX700 Series are Human Machine Interfaces (HMIs) with a touch screen display. They are intended to be panel-mounted and only the front face has been investigated as the enclosure and IP66 rating minimum in accordance with IEC 60079-0. All models are to be powered by a Class 2 or limited power supply (LPS).

Only models TX707 and TX710 may be followed by HB (TX707HB and TX710HB), that identifies a different display with higher readability, and different Adaptor board, but less power consumption than already certified TX721.

TX700 (S, D or Q) series are Human Machine Interfaces (HMIs), Gateway or PLC similar in construction to TX700(HB) series, but instead of touch screen display is provided with a solid front cover and are intended to be mounted within a suitable Ex certified panel. All models are to be powered by a Class 2 or limited power supply (LPS).

TX700 series may utilize the following Optional Accessory: Model TX-UMTS-Ex, covered under this report.

The Accessory Module is installed using an expansion port at the rear cover of the HMI. The module is secured to the rear cover by two fasteners and one or two screws.

The TX-UMTS-Ex module is a Wireless Modem - UMTS/GSM.

The accessory module mentioned above is intended to be mounted only with the appropriate main unit covered by this certificate and is not to be used separately.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Only use the device in an area of not more than pollution degree 2 as defined in IEC 60664-1.
- Install the device in an enclosure with a protection class of at least IP54 in accordance with IEC 60079-0.
- When used in Zone 22: Install the device in a housing of protection class IP6X in accordance with IEC 60079-0.
- Only disconnect and connect circuits when no voltage is applied.
- Avoid layers of dust on the graphic panel which may cause the accumulation of static charges.
- Provide transient protection which is not exceeding 140% of the peak rated voltage at the supply terminals to the equipment
- Ambient temperature and Temperature Class – see instructions



IECEx Certificate of Conformity

Certificate No.: **IECEx ULD 20.0001X**

Page 4 of 4

Date of issue: 2021-01-25

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Additional models added.

Annex:

[Annex to IECEx ULD 20.0001X Issue 1.pdf](#)



IECEX Certificate of Conformity

Certificate No.: IECEX ULD 20.0001X

Issue No.: 1

Page 1 of 3

TYPE DESIGNATION

Nomenclature:

TX7	**	P3CV01
I	II	III

Where:

- I – Product model name:
TX7 – TX700 Series
- II- Display touchscreen model:
05 - TFT color 5" widescreen display touchscreen
07 - TFT color 7" widescreen display touchscreen
10 - TFT color 10.1" widescreen display touchscreen
15 - TFT color 15.6" widescreen display touchscreen
21 - TFT color 21.5" widescreen display touchscreen
- III- Null - No special features
HB- Different Adaptor Board and Display (only for models TX707HB and TX710HB)

TX700	***
I	II

- I- Product model name:
TX700 – TX700 series
- II- Cover Dimension:
TX700S - 5" solid front cover
TX700D - 7" solid front cover
TX700Q - 7" solid front cover with Quad Core CPU and increased RAM and Flash



IECEx Certificate of Conformity

Certificate No.: IECEx ULD 20.0001X

Issue No.: 1

Page 2 of 3

PARAMETERS RELATING TO THE SAFETY

Electrical ratings:

Model Type	Power supply voltage	Current consumption
TX705-P3CV01	24 Vdc, Class 2	0.6 A at 24Vdc (max)
TX707-P3CV01	24 Vdc, Class 2	0.7 A at 24Vdc (max)
TX707HB-P3CV01	24 Vdc, Class 2	0.7 A at 24Vdc (max)
TX710-P3CV01	24 Vdc, Class 2	1.0 A at 24Vdc (max)
TX710HB-P3CV01	24 Vdc, Class 2	1.0 A at 24Vdc (max)
TX715-P3CV01	24 Vdc, Class 2	1.2 A at 24Vdc (max)
TX721-P3CV01	24 Vdc, Class 2	1.7 A at 24Vdc (max)
TX700S-P3WV01	24 Vdc, Class 2	0.35 A at 24Vdc (max)
TX700D-P3WV01	24 Vdc, Class 2	0.5 A at 24Vdc (max)
TX700Q-P3WV01	24 Vdc, Class 2	0.55 A at 24Vdc (max)

Accessory modules type (24Vdc powered from Operator Interface Terminal):

- TX-UMTS-Ex: 2 x Digital Inputs (12÷30 Vdc, 3mA); 2 x Digital Outputs (12 - 30 Vdc, 0.5A).

Ingress protection: IP66 (face of HMI TX700 series to mounting panel only)

Rated ambient temperature range: $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$.

The relation between maximum ambient temperature and the assigned temperature class is as follow:

Maximum ambient temperature range	Temperature Class
-20°C up to 60°C	T4
0°C up to 50°C	T5



IECEx Certificate of Conformity

Certificate No.: IECEx ULD 20.0001X

Issue No.: 1

Page 3 of 3

MARKING

Marking has to be readable and indelible; it has to include the following indications:

Label for Model TX707 used as an example for all TX700 series.

TURCK	TX707-P3CV01 24V 0.70A, Class 2 Ident-No. 100002030
V.: 121112A09800157 S.N.: AA 00012MF 123456789AA A2003	DATA MATRIX
	IND. CONT. EQ also listed for IND. CONT. EQ FOR HAZ. LOC. CLASS I DIV 2 - GROUPS A, B, C, D
Operating Temperature Code T5...T4 0°C ≤ Tamb ≤ +50°C or -20°C ≤ Tamb ≤ +60°C For Use on a Flat Surface of a Type 12, 4X Enclosure	
Hans Turck GmbH & Co. KG Witzlebenstr. 7 D-45472 Mülheim a. d. Ruhr www.turck.com	
	DEMKO 20 ATEX 2333X II 3G Ex nA IIC T5...T4 Gc II 3D Ex tc IIC T95°C Dc
IECEx: IECEx ULD 20.0001X Ex nA IIC T5...T4 Gc Ex tc IIC T95°C Dc	

TURCK			
Hans Turck GmbH & Co. KG Witzlebenstr. 7 D-45472 Mülheim a. d. Ruhr www.turck.com			
			This product contains a battery. Dispose of the battery according to local regulations.
TX707-P3CV01		DATA MATRIX	
Ident-No. 100002030			
V.: 121112A09800157 S.N.: AA00012MF 123456789AA			
			MADE IN ITALY
			A2003

Label for Model TX-UMTS-Ex accessory

TURCK	TX-UMTS-EX Ident-No. 100017422
V.: xxxxxxxxxxxxxxxxx S.N.: AA 000 xxx123456789AA 2009	DATA MATRIX
Hans Turck GmbH & Co. KG Witzlebenstr. 7 D-45472 Mülheim a. d. Ruhr www.turck.com	

TURCK	
Hans Turck GmbH & Co. KG Witzlebenstr. 7 D-45472 Mülheim a. d. Ruhr www.turck.com	
TX-UMTS-EX	DATA MATRIX
Ident-No. 100017422	
V.: xxxxxxxxxxxxxxxxx S.N.: AA000xxx123456789AA	
MADE IN ITALY	
2009	