



# 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](http://www.iecex.com)

Certificate No.: **IECEX TUN 20.0010X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-08-04

Applicant: **Hans Turck GmbH & Co KG**  
Witzlebenstrasse 7  
45472 Mülheim  
Germany

Equipment: **Block I/O modules type TB\*\*-L\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBIL-M1-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBEN-S\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*)**

Optional accessory:

Type of Protection: **Increased Safety "e", Equipment dust ignition protection by enclosure "t"**

Marking: Ex ec IIC T4 Gc  
Ex tc IIIC T115 °C Dc

Approved for issue on behalf of the IECEx  
Certification Body:

**Thomas Heinen**

Position:

**Deputy Head of IECEx Certification Body**

Signature:  
(for printed version)

Date:

2020-08-04

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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**TÜV NORD CERT GmbH**  
Hanover Office  
Am TÜV 1, 30519 Hannover  
Germany





# IECEX Certificate of Conformity

Certificate No.: **IECEX TUN 20.0010X**

Page 2 of 3

Date of issue: 2020-08-04

Issue No: 0

Manufacturer: **Hans Turck GmbH & Co KG**  
Witzlebenstrasse 7  
45472 Mülheim  
Germany

Additional manufacturing locations: **Werner TURCK GmbH & Co. KG**  
Goethestraße 7  
58553 Halver  
Germany

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 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

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

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

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 Report:

DE/TUN/ExTR20.0012/00

Quality Assessment Reports:

DE/PTB/QAR06.0012/04

DE/PTB/QAR06.0013/05



# IECEX Certificate of Conformity

Certificate No.: **IECEX TUN 20.0010X**

Page 3 of 3

Date of issue: 2020-08-04

Issue No: 0

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Block I/O modules type TB\*\*-L\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBIL-M1-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBEN-S\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*)

are used for factory automation and are prepared for fieldbus PROFIBUS-DP, CANopen, Modbus TCP, Ethernet/IP™ and PROFINET. The IP67-modules are for use in harsh environments have glass-fiber reinforced plastic housings and metal-connectors, are fully potted, vibration and shock-proof.

The permissible ambient temperature range is -25 °C ... +60 °C.

See attachment for details.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The apparatus may be installed in an area of not more than pollution degree 2.
2. The connecting and disconnecting of energized circuits and the operation of switches is only permitted, if no explosion hazardous atmosphere is available.
3. The metallic protective cover must be connected to the potential equalization in the explosion hazardous area.
4. The installation of the apparatus must not be performed in areas with critical influence of UV light.
5. The equipment has to be installed in such a way, that, under normal conditions of use, dangers from electrostatic charges are avoided.
6. All plug connectors have to be installed; not used connectors have to be protected with blind plugs.

## Annex:

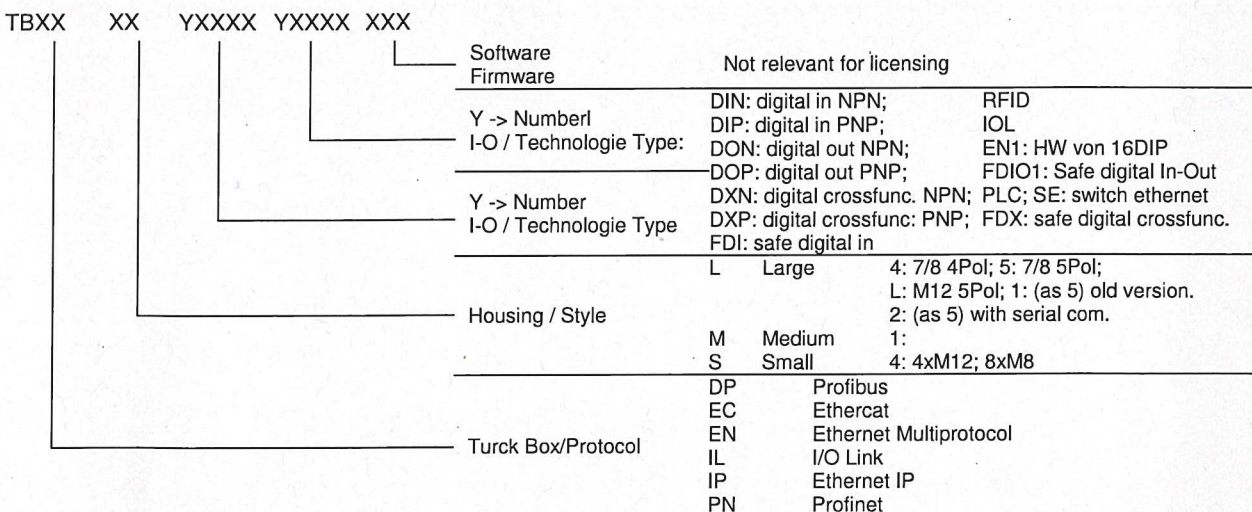
[\\_attachment\\_TUN 20.0010X\\_TBxx modules.pdf](#)

Product:

The Block I/O modules type TB\*\*-L\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBIL-M1-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*), TBEN-S\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*) are used for factory automation and are prepared for fieldbus PROFIBUS-DP, CANopen, Modbus TCP, Ethernet/IP™ and PROFINET. The IP67-modules are for use in harsh environments have glass-fiber reinforced plastic housings and metal-connectors, are fully potted, vibration and shock-proof.

The permissible ambient temperature range is -25°C ... +60°C.

Type designation:



Electrical data

TB\*\*-L\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*):

P-switching:

$U_n = 24 \text{ VDC} \pm 10 \%$

$I_{max}$  (total per module) = 9 A

$I_{max} = 1.5 \text{ A}$  (per output) DI(P), DOP, DX(P), RFID, IOL, PLC, SE

The electrical data for the Safety-Modules have to be taken from the data sheet

N-switching:

$U_n = 24 \text{ VDC} \pm 10 \%$

$I_{max}$  (total per module) = 9 A

$I_{max} = 1.0 \text{ A}$  (per output) DIN, DON, DXN

TBIL-M1-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*):

$U_n = 24 \text{ VDC}$

$I_{max}$  (total per module) = 4 A

$I_{max}$  (per channel DIP, DOP, DXP) = 0.5 A;

for TBIL-M1-16DXP-B variant:  $I_{max}$  (per connector) = 1.5 A

TBEN-S\*-Y\*\*\*\*-(Y\*\*\*\*)-(\*\*\*)

with digital I/Os:

$U_n = 24$  VDC

$I_{max}$  (total per module) = 5.5 A

$I_{max}$  (per output) for DIP, DOP, DXP, RFID, IOL = 0.5 A

with analog I/Os:

$I_{max}$  (total per module) = 5.5A

$I_{max}$  (C0-C3 Supply of sensors or actuators per connector) = 1 A

Special conditions for safe use

1. The equipment may be installed in an area of not more than pollution degree 2.
2. The connecting and disconnecting of all energized electrical circuits and the operation of switches is only permitted, if no explosion hazardous atmosphere is available.
3. The metallic protective cover must be connected to the potential equalization in the explosion hazardous area.
4. The installation of the apparatus must not be performed in areas with critical influence of UV light.
5. The equipment has to be installed in such a way, that, under normal conditions of use, dangers from electrostatic charges are avoided.
6. All plug connectors have to be installed; not used connectors have to be protected with blind plugs.