



Translation

(1) Statement of Conformity

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Statement of Conformity Number:** **TÜV 20 ATEX 264795 X** **Issue:** **03**

(4) for the product: Block I/O modules type
TB**-L*-(Y)****(-Y****)(****)
TBIL-M1-(Y)****(-Y****)(****)
TB**-S*-(Y)****(-Y****)(****)

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

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

Order number: 8003049290

Date of issue: See signature date

(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) TÜV NORD CERT GmbH certifies that the essential health and safety requirements for the design and construction of this product for use in potentially explosive atmospheres in accordance with Annex II of the Directive have been met.

The examination and test results are recorded in the confidential Assessment Report No. 23 214 330379.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018/A11:2024 EN 60079-7:2015/A11:2024 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 statement of conformity relates only to the design, examination and tests of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this Statement of Conformity.

(12) The marking of the product shall include the following:



II 3 G Ex ec IIC T4 Gc or
II 3 D Ex tc IIIC T115 °C Dc

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 head of the notified body

(13) SCHEDULE

(14) Statement of Conformity TÜV 20 ATEX 264795 X

Issue 03

(15) Description of product

The Block I/O modules type TB**-L*-(Y)****(-Y****)(*****), TBIL-M1-(Y)****(-Y****)(*****), and TB**-S*-(Y)****(-Y****)(*****), are used for factory automation and are prepared for fieldbus PROFIBUS-DP, CANopen, Modbus TCP, Ethernet/IP™, PROFINET and Ethercat. 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.

Type designation:

TBXX	-XX	-(Y)XXXX	(-YXXXX)	(XXXXX)	
					Software Firmware
					Nicht Zulassungsrelevant
					Y -> Anzahl I-O / Technologie Typ:
					DIN: digital in NPN; RFID
					DIP: digital in PNP; IOL
					DON: digital out NPN; EN1: HW von 16DIP
					DOP: digital out PNP; FDIO1: Safe digital In-Out
					DXN: digital crossfunc. NPN; PLC;SE:switch ethernet
					DXP: digital crossfunc: PNP; FDX: safe digital
					crossfunc.
					FDI: safe digital in
					AO,AI: analog
					Gehäuse / Ausführung
					L Large 4: 7/8 4Pol; 5: 7/8 5Pol;
					L: M12 5Pol; 1: (wie 5) alt;
					2: (wie 5) mit serieller Kom.
					M Medium 1: 1x IO-Link M12 8 x E/A M12
					S Small 1: 8xM8; 2: 4xM12
					Turck Box/Protokoll
					DP Profibus
					EC Ethercat
					EN Ethernet Multiprotokoll
					IL I/O Link
					IP Ethernet IP
					PN Profinet

The type code for qualified confectioned cables to ensure the tightness of the housing are:

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1. 7/8" and M12 power supply cable:

Grip Body					Cable Length		Wildcard Extension Cable		Cable Quality
R	K	M	4	3	-	5M	-	RSM	/
a	b	c	d	e		f		g	h
a	R					straight			Alignment
	W					angled			
b	K					Female			Design
	S					Male			
c	M		7/8"			Nickel-plated brass			Coupling nut
	MV					Stainless steel			
	P		M12			Plastic housing			Housing
	S					Shielded			
d	4		7/8"			4-pin, 4-wire			Pins and wires
	5					5-pin, 5-wire			
	46		M12			4 × 16 AWG 1.5 mm ²			
	44					4 × 14 AWG 2.5 mm ²			
	56					5 × 16 AWG 1.5 mm ²			
	54					5 × 14 AWG 2.5 mm ²			
e	3		7/8"			Serial number			Coding
	2								
	PLA		M12			Power designation, L-Coded, Design			
f	...M					...m			Cable Length [m]
g	blank					Connection cable			Cable Type
	RSM43					Extension cable (Example) Grip Body			
h						blank			Standard

2. Ethernet M12 cable:

Grip Body					Wildcard Extension Cable		Cable Quality		Cable Length
R	S	S	*	D	-	*	-	4422	/
a	b	c	d	e		f		g	h
a	R					straight			Alignment
	W					angled			
b	S					Male			Design
c	S					Shield auf Coupling nut			Shield
d	blank					Standard			Flansch Design
e	D					D-codiert			Coding
	X					X-codiert			
f	blank					Connection cable			Cable type
	WSSD					Extension cable (Example) Grip Body			
g	4422					44...PUR green			Cable Quality
						84...PUR green			
						88...PUR green			
h	...M					...m			Cable Length [m]

3. PROFIBUS M12 cable:

Grip Body					Wildcard Extension Cable		Cable type/-qualität		Cable Length
R	S	S	W	V	-	*	-	451	/
a	b	c	d	e		f		g	h
a	R					straight			Alignment
	W					angled			
b	S					Male			Design
	K					Female			
c	S					Shield auf Coupling nut			Shield
d	W					B-codiert			Coding
e	blank					Nickel-plated brass			Coding
	V					Stainless steel			
f	blank					Connection cable			Cable type
	WSSD					Extension cable (Example) Grip Body			
g	451					451 PROFIBUS-DP PUR, qualified for drag chain use			Cable type/-qualität
h	...M					...m			Cable Length [m]

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4. RFID M12 cable:

Grip Body			Cable Length		Wildcard Extension Cable		Cable Quality	
R	K	4.5T	-	5M	-	RS4.5T	/	S2503
a	b	c		d		e		f
a	R	W	straight angled				Alignment	
b	K	S	Female Male				Design	
c	4.5T		5-pin				Pole	
d	...M		...m				Cable Length [m]	
e	blank RS4.5T		Connection cable Extension cable (Example) Grip Body				Cable type	
f	S2500 S2503		PUR, yellow qualified for drag chain use PUR, black qualified for drag chain use				Cable Quality	

5. Sensor M12 cable:

Grip Body						Cable Length		Wildcard Extension Cable		Cable Quality	
R	S	S	V	4.4	T	-	5m	-	*	/	TXL
a	b	c	d	e	f		g		h		i
a	R	W	straight angled				Alignment				
b	S	K	Male Female				Design				
c	C	S	Standard Shield auf Coupling nut Hygienic design (incl. Stainless steel nut)				Housing				
d	blank V		Messing, vernickelt Stainless steel				Coupling nut				
e	4.4 4.5		4-pin, 4-wire 5-pin, 5-wire				Pins and wires				
f	T		Sleeve				Design				
g	...M		...m				Cable Length [m]				
h	blank RWSC4.4T		Connection cable Extension cable (Example) Grip Body				Cable type				
i	TXL		PUR, black, halogen-free				Cable Quality				

6. M8 cable:

Grip Body						Cable Length		Wildcard Extension Cable		Cable Quality	
P	K	G	S	3	M	-	5m	-	*	/	TXL
a	b	c	d	e	f		g		h		i
a	P		M8/Ø 8 mm				Connector				
b	S	K	Male Female				Design				
c	G	W	straight angled				Alignment				
d	blank V H S		Nickel-plated brass Stainless steel Hygienic design (incl. Stainless steel nut) Nut, Nickel-plated brass, shielded				Coupling nut				
e	3 4		3-pin, 3-wire 4-pin, 4-wire				Pins and wires				
f	M		Metric				Lock				
g	...M		...m				Cable Length [m]				
h	blank PSR4M		Connection cable Extension cable (Example) Grip Body				Cable type				
i	TXL		TXL PUR, black, halogen-free TXG PUR, gray, halogen-free TXO PUR, orange, halogen-free TXY PUR, yellow, halogen-free				Cable Quality				

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7. Ethernet M8 cable:

Grip Body							Wildcard Extension Cable			Cable Quality			Cable Length	
P	S	G	*	3	M	-	*		-	4422		/	5M	
a	b	c	d	e	f		g			h			i	
a	P					M8/Ø 8 mm							Connector	
b	S					Male							Design	
c	G W					straight angled							Alignment	
d	blank V H S					Nickel-plated brass Stainless steel Hygienic design (incl. Stainless steel nut) Nut, Nickel-plated brass, shielded							Coupling nut	
e	3 4					3-pin, 3-wire 4-pin, 4-wire							Pins and wires	
f	M					Metric							Lock	
g	blank PSG3M					Connection cable Extension cable (Example) Grip Body							Cable type	
h	4422					44...PUR green 84...PUR green 88...PUR green							Cable Quality	
i	...M					...m							Cable Length [m]	

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****)(****):

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

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

TB**-S*-(Y)****(-Y****)(****)

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

with digital I/Os:

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

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Thermal data:

The permissible ambient temperature range in operation: -25 °C...+60 °C

(16) Drawings and documents are listed in the Assessment Report No. 23 214 330379

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

1. For EPL Gc, the block I/O modules type TB**-L*-(Y)****(-Y****)(****) may be installed in an area of not more than pollution degree 2 according to IEC 60664-1.
2. The connection and disconnection of all live electrical circuits and the operation of switches is only permitted during installation, for maintenance or repair purposes if there is no potentially explosive atmosphere.
After setting the switches of the IP_address of the block I/O modules of type TB**-L*-(Y)****(-Y****)(****), the service window must be closed again in order to comply with the IP protection.
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.

(18) **Essential Health and Safety Requirements:**

No additional ones.

- End of Statement of Conformity -