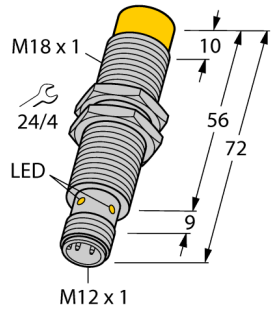
BL ident®

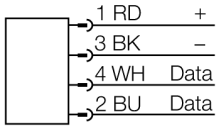
Read/Write Head
TN-EM18WD-H1147-EX

Industrial Automation

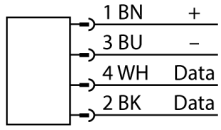


- **Threaded barrel, M18 x 1**
- **Stainless steel, 1.4404**
- **Front cap made of liquid crystal polymer**
- **High protection class IP69K, for harsh environments**
- **Special double-lip seal**
- **Protection against all common acid and alkaline cleaning agents**
- **For the food industry**
- **Laser engraved label, permanently legible**

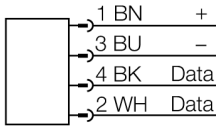
…/S2503 Connectors



Connector …/S2500



Connector …/S2501



Type designation	TN-EM18WD-H1147-EX
Ident-No.	7030382
Mounting conditions	Non-flush
Ambient temperature	-25…+70 °C For explosion hazardous areas see instruction leaflet
Storage temperature	For explosion hazardous areas see instruction leaflet
Device marking	Ⓔx II 3G Ex nA II T4 Gc II 3D Ex t IIIB T135°C Dc
Approval acc. to	TURCK Ex-10005M X
Operating voltage	10…30 VDC
DC rated operational current	≤ 75 mA
inrush current	700 mA For: 1 ms
Data transfer	inductive coupling
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693
Read/Write distance max.	45 mm
Output function	4-wire, Read/Write
Suitable for bus mode on TBEN-*	no
Design	Threaded barrel, M18 × 1
Dimensions	72 mm
Housing diameter	18 mm
Housing material	Stainless steel, V4A (1.4404)
Active area material	Plastic, LCP
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68/IP69K
MTTF	391 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED green
Included in delivery	SC-M12/3GD
Packaging unit	1
Remark to product	ATEX

Functional principle

The HF read/write heads operating at a frequency of 13.56 MHz form a transmission zone the size of which (0…500 mm) varies, depending on the combination of read/write head and data carrier.

The read/write distances mentioned here only represent standard values measured under laboratory conditions.

The read/write distances of the data carriers for mounting in metal TW-R**-M(MF) were determined in metal.

Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

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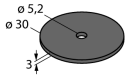
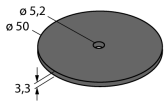
Data carrier

Dimensions	Type designation Ident - no.	Read-write distance Recommend-ed (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum dis-tance between two read-write heads [mm]
	**TW-R16-B128-EX** 7030241	10	17	14	7	54
	**TW-R20-B128-EX** 7030242 **TW-R20-K2-EX** 7030245	8 5	15 12	12 16	6 8	54 54
	**TW-R30-B128-EX** 7030243 **TW-R30-K2-EX** 7030246	8 6	17 14	22 18	11 9	54 54
	**TW-R50-B128-EX** 7030244 **TW-R50-K2-EX** 7030247	20 12	41 30	70 60	35 30	54 54

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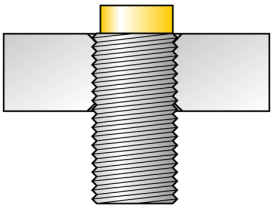
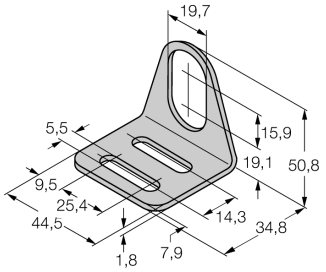
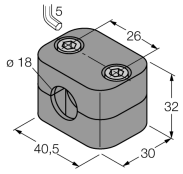
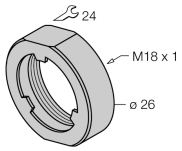
Mounting instructions

Diameter active area B	Ø 18
Width active area B	18

non-flush mounting



Accessories

Type code	Ident-No.	Description	
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	
PN-M18	6905310	Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)	

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Operating manual

Intended use

This device fulfills the directive 94/9/EC and is suited for use in explosion hazardous areas according to EN60079-0, -15 and-31.

For use in explosion hazardous areas conform to classification

II 3 G and II 3 D (Group II, Category 3 G, electrical equipment for gaseous atmospheres and category 3 D, electrical equipment for dust atmospheres).

Marking (see device or technical data sheet)

Ex II 3G and Ex nA II T4 Gc acc. to EN60079-0:2009 and EN60079-15:2005 and Ex II 3D Ex t IIIB T135°C Dc acc. to EN60079-31:2009

Local admissible ambient temperature

-25…+70 °C

Installation / Commissioning

These devices may only be installed, connected and operated by trained and qualified staff. Qualified staff must have knowledge of protection classes, directives and regulations concerning electrical equipment designed for use in explosion hazardous areas and if necessary, of the regulations applicable to safety-related systems.
Please verify that the classification and the marking on the device comply with the actual application conditions.

Installation and mounting instructions

In Category 3D applications: The dust must not be conductive.

Special conditions for safe operation

Special conditions indicated with the X in the approval should be observed to ensure safe operation.
Do not connect or disconnect the plug connection or cable under voltage. When used in dust explosive hazarous areas, the plug connection has to be secured with an additional safety clip in such a way that it can only be removed with a tool.
Please attach a warning label permanently in an appropriate fashion in close proximity to the plug-in connection with the following inscription: Nicht unter Spannung trennen / Do not separate when energized.
The device must be protected against any kind of mechanical damage.
The read/write head should be protected against ultraviolet light. External measures must be taken for the supply circuit to prevent the rated voltage being exceeded by transient disturbances of more than 40%.

service / maintenance

Repairs are not possible. The approval expires if the device is repaired or modified by a person other than the manufacturer. The most important data from the approval are listed.

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