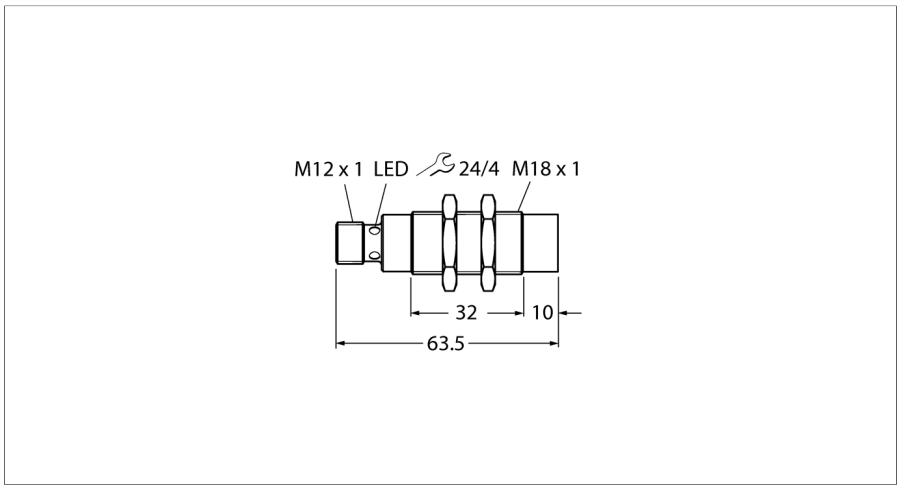
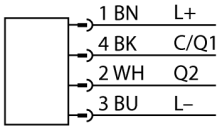
HF Read/Write Head
IO-Link
TN-M18-IOL-H1141



- **Threaded barrel, M18 x 1**
- **Chrome-plated brass**
- **Process value in 32 bit IO-Link telegram**
- **M12 × 1 male connector, 4-pin**

Pin Assignment



Type	TN-M18-IOL-H1141
ID	100000974
Electrical data	
Operating voltage U_B	11…32 VDC
DC rated operating current I_e	≤ 50 mA
inrush current	700 For: 1
Data transfer	Inductive coupling
Technology	HF RFID
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693 NFC Typ 5
Read/Write distance max.	36 mm
Wire break/reverse polarity protection	yes
Output function	4-wire, Read/Write, IO-Link
Interface	IO-Link
Fieldbus Protocol	IO-Link
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25…+70 °C
Design	Threaded barrel, M18 x 1
Dimensions	63.5 mm
Housing diameter	18 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT, yellow
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Connector, M12 × 1
MTTF	acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Included in delivery	Accessories
Packaging unit	1

Functional principle

The HF read/write devices 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 device and tag used.

The read/write distances mentioned here only represent standard values measured under laboratory conditions, free from any influences caused by surrounding materials.

The read/write distances of the tags 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 on-the-fly reading and writing!

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HF Read/Write Head
IO-Link
TN-M18-IOL-H1141

IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Programming	IO-Link, PACTware, parameterization tag
Communication mode	COM 2 (38.4 kBaud)
Process data width	32 bit
Minimum cycle time	14.4 ms
Function pin 4	IO-Link
Transmission rate	26.5 kbps

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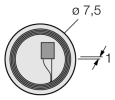
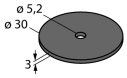
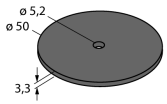
HF Read/Write Head
IO-Link
TN-M18-IOL-H1141

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-R7.5-B128** 7030231	7	14	16	8	36
	**TW-R16-B128** 6900501 **TW-R16-K2** 7030410	10 10	22 20	28 24	14 12	36 36
	**TW-R20-B128** 6900502 **TW-R20-B320** 100005244 **TW-R20-K2** 6900505	6 6 10	16 16 20	20 20 24	10 10 12	36 36 36
	**TW-R30-B128** 6900503 **TW-R30-B320** 100005245 **TW-R30-K2** 6900506	14 14 10	30 30 24	44 44 32	22 22 16	36 36 36
	**TW-R50-B128** 6900504 **TW-R50-B320** 100005246 **TW-R50-K2** 6900507	11 11 16	32 32 36	52 52 48	26 26 24	36 36 36

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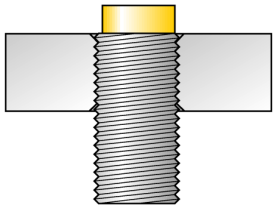
Mounting instructions

Diameter active area B	Ø 18

non-flush mounting



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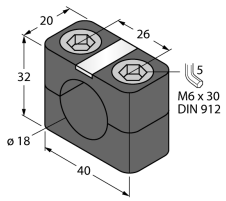
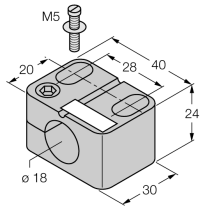
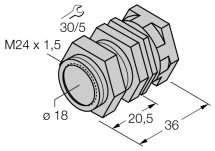
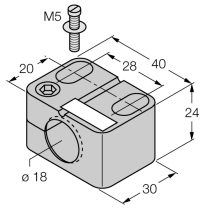
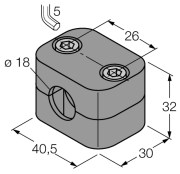
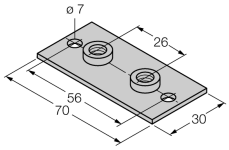
Accessories

Type code	Ident-No.		Dimension drawing
BSN 18	69472	Mounting clamp for threaded barrel sensors; material: PA66-GF	
BST-18N	6947215	Mounting clamp for threaded barrel sensors, without dead-stop; material: PA6	
QM-18	6945102	Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.	
BST-18B	6947214	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	
BSS-18	6901320	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	
BSS-SPV2	6901316	Weld-on plate for BSS mounting brackets	

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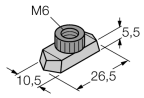
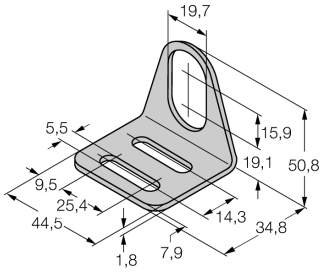
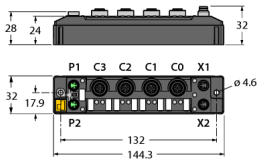
Accessories

Type code	Ident-No.		Dimension drawing
BSS-TSM 2 pcs	6901323	DIN rail nut for BSS and BSM mounting clips, for mounting on DIN rails	
MW-18	6945004	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	
TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A	

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