

Pin Assignment



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.

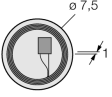
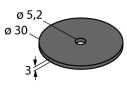
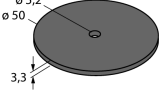
The read/write distances of the data carriers for mounting in metal TW-R**-M(MF) were determined in metal.

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!

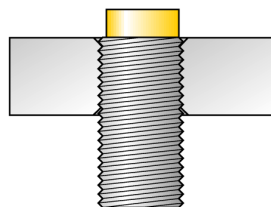
Type designation	TN-M18-IOL-H1141
Ident-No.	100000974
Electrical data	
Operating voltage	11...32 VDC
DC rated operational current	≤ 50 mA
inrush current	700 mA For: 1 ms
Data transfer	Inductive coupling
Technology	HF (13.56 MHz)
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693
Read/Write distance max.	36 mm
Wire breakage/Reverse polarity protection	yes
Output function	4-wire, Read/Write, IO-Link
Interface	IO-Link
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25...+70 °C
Design	Threaded barrel, M18 × 1
Dimensions	63.5 mm
Housing diameter	18 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Connector, M12 × 1
MTTF	391 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Included in delivery	Accessories
Packaging unit	1
IO-Link specification	Specified acc. to version 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

Data carrier

Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
	TW-R7.5-B128 7030231	7	14	16	8	36
	TW-R16-B128 6900501	10	22	28	14	36
	TW-R16-K2 7030410	10	20	24	12	36
	TW-R20-B128 6900502	6	16	20	10	36
	TW-R20-B320 100005244	6	16	20	10	36
	TW-R20-K2 6900505	10	20	24	12	36
	TW-R30-B128 6900503	14	30	44	22	36
	TW-R30-B320 100005245	14	30	44	22	36
	TW-R30-K2 6900506	10	24	32	16	36
	TW-R50-B128 6900504	11	32	52	26	36
	TW-R50-B320 100005246	11	32	52	26	36
	TW-R50-K2 6900507	16	36	48	24	36

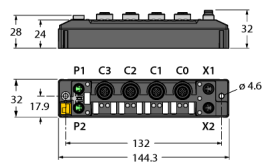
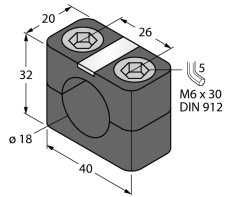
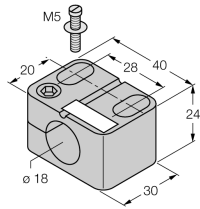
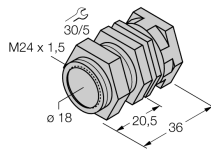
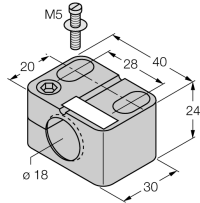
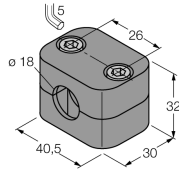
Mounting instructions

Diameter active area B	Ø 18
Width active area B	18



non-flush mounting

Accessories

Type code	Ident-No.	Description	Dimension drawing
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	
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 x 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	

Accessories

Type code	Ident-No.	Description	Dimension drawing
BSS-SPV2	6901316	Weld-on plate for BSS mounting brackets	
BSS-TSM 2 pcs	6901323	DIN rail nut for BSS mounting clamps, for mounting on DIN rails	
MW-18	6945004	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	
RKC4.4T-2-RSC4.4T/ TXL	6625608	Extension cable, M12 female, straight, 4-pin to M12 male, straight, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval; other cable lengths and qualities available, see www.turck.com	