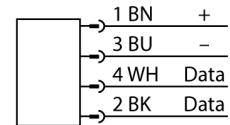


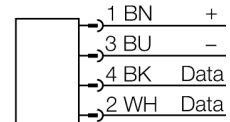
.../S2503 Connectors



Connector .../S2500



Connector .../S2501



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.

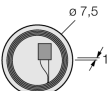
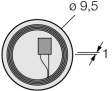
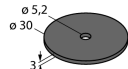
The read/write distances of the data carriers for mounting in metal TW-R**-M(MF) were determined in metal.

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

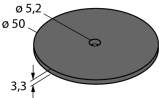
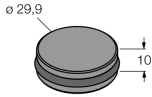
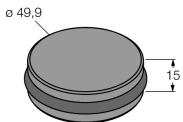
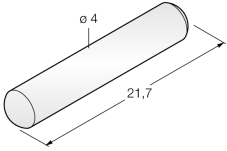
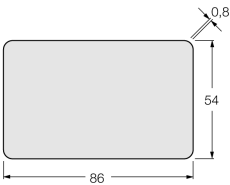
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TN-M18-H1147/C53
Ident-No.	7030728
Electrical data	
Operating voltage	10...30 VDC
DC rated operational current	≤ 75 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.	45 mm
Output function	4-wire, Read/Write
Suitable for bus mode to TBEN-*	Yes
Interface	Connection only via Turck system components
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25...+70 °C
Design	Threaded barrel, M18 × 1
Dimensions	72 mm
Housing diameter	18 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
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
Packaging unit	1

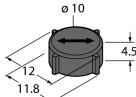
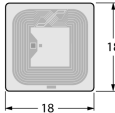
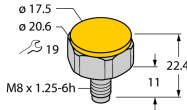
Data carrier

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	8	16	20	10	54
	7030231					
	TW-R9.5-B128	9	18	22	11	54
	7030252	9	20	23	11	54
	TW-R9.5-K2					
	7030558					
	TW-R16-B128	12	23	26	13	54
	6900501					
	TW-R20-B128	10	22	26	13	54
	6900502	10	22	26	13	54
	TW-R20-B320					
	100005244	12	20	24	12	54
	TW-R20-K2					
	6900505					
	TW-R30-B128	10	25	34	17	54
	6900503	10	25	34	17	54
	TW-R30-B320					
	100005245	16	31	32	16	54
	TW-R30-K2					
	6900506					

Data carrier

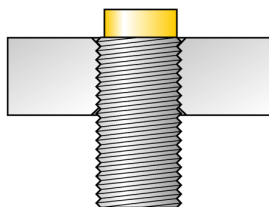
Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommend-ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
	TW-R50-B128 6900504	20	41	70	35	54
	TW-R50-B320 100005246	20	41	70	35	54
	TW-R50-K2 6900507	12	30	60	30	54
	TW-R30-M-B128 7030210	6	14	16	8	54
	TW-R30-M-K2 7030206	6	13	10	5	54
	TW-R50-M-B128 7030209	10	22	22	11	54
	TW-R50-M-K2 7030229	10	22	32	16	54
	TW-R4-22-B128 7030237	5	13	20	10	54
	TW-L86-54-C-B128 6900479	15	39	74	37	54

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]	
	TW-R10-M-B146	5	12	14	7	54
	7030545					
	TW-R12-M-B146	5	12	14	7	54
	7030500					
	TW-L18-18-F-B128	15	30	29	14	54
	7030634					
	TW-BS8x1.25-19-K2	7	15	18	9	54
	7030638					

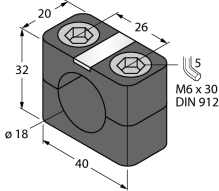
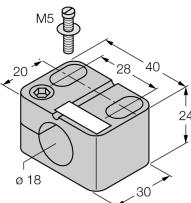
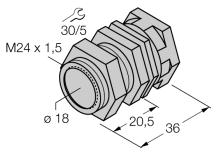
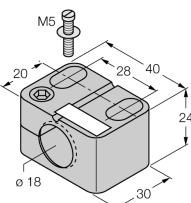
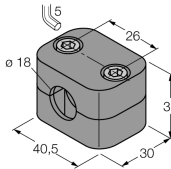
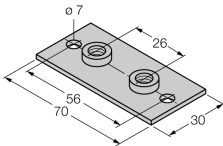
Mounting instructions

Diameter active area B	Ø 18
Width active area B	18



non-flush mounting

Accessories

Type code	Ident-No.	Description	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 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	
BSS-SPV2	6901316	Weld-on plate for BSS mounting brackets	

Accessories

Type code	Ident-No.	Description	Dimension drawing
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)	
RSE57-TR2/RFID	6934908	Terminating resistor to build an RFID line topology	
VT2-FKM5-FKM5-FSM5	6930573	T-splitter to build an RFID line topology	
VB2-FKM5-FSM5.205-FSM5.305/S2550	6936821	Y-splitter for re-powering a supply voltage for the RFID bus topology	
RK4.5T-2-RS4.5T/S2503	7030331	RFID cable	