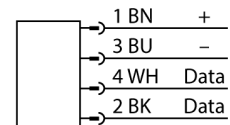


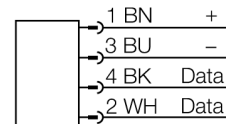
.../S2503 Connectors



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.

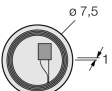
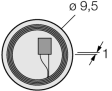
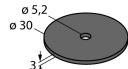
The read/write distances of the data carriers for mounting in metal TW-R**-M(MF) were determined in metal.

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

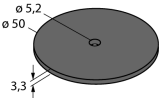
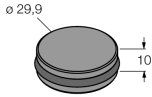
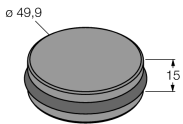
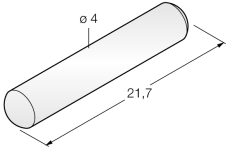
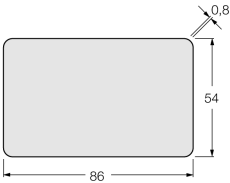
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TN-EM18WD-H1147
Ident-No.	7030223
Remark to product	Wash-Down (IP69K)
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
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	Stainless steel, V4A (1.4404)
Active area material	Plastic, LCP
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
Electrical connection	Connector, M12 × 1
MTTF	391 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Packaging unit	1

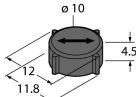
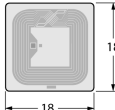
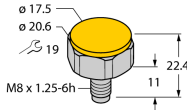
Data carrier

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

Data carrier

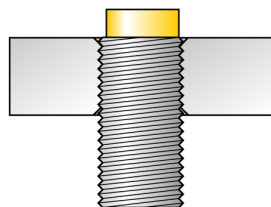
Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
	TW-R50-B128 6900504	20	41	70	35	54
	TW-R50-B320 100005246	20	41	70	35	54
	TW-R50-K2 6900507	12	30	60	30	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 [mm]
	Ident - no.	Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	
	TW-R10-M-B146 7030545	5	12	14	7	54
	TW-R12-M-B146 7030500	5	12	14	7	54
	TW-L18-18-F-B128 7030634	15	30	29	14	54
	TW-BS8x1.25-19-K2 7030638	7	15	18	9	54

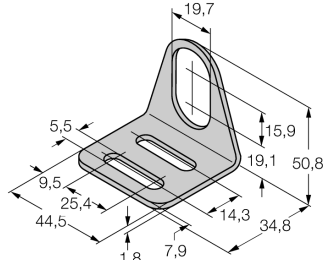
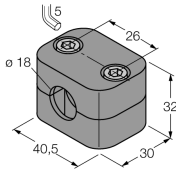
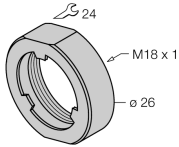
Mounting instructions

Diameter active area B	Ø 18
Width active area B	18



non-flush mounting

Accessories

Type code	Ident-No.	Description	Dimension drawing
MW-18	6945004	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	 A 3D perspective drawing of a U-shaped mounting bracket. Dimensions are: top flange width 19.7, height 15.9, base width 44.5, base thickness 1.8, mounting hole diameter 5.5, distance from base to hole 9.5, distance between holes 25.4, distance from hole to side edge 14.3, side flange width 19.1, side flange height 50.8, and side flange thickness 7.9.
BSS-18	6901320	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	 A 3D perspective drawing of a rectangular mounting clamp. Dimensions are: top width 26, height 32, front width 40.5, side width 30, and a circular hole with diameter 18. A small tab on the top has a width of 5.
PN-M18	6905310	Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)	 A 3D perspective drawing of a ring-shaped protective nut. Dimensions are: outer diameter 24, inner diameter 26, and thread specification M18 x 1.