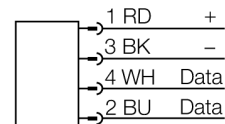
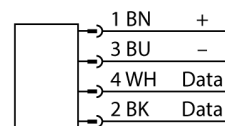


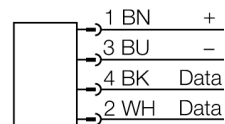
.../S2503 Connectors



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.

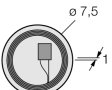
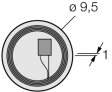


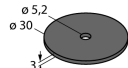
Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

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

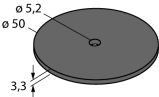

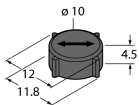
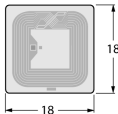
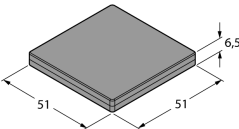
Type designation	TNSLR-Q80WD-H1147
Ident-No.	7030418
Remark to product	Wash-Down (IP69K), very long range
Electrical data	
Operating voltage	19.2...28.8 VDC
DC rated operational current	≤ 90 mA
inrush current	1200 mA For: 1 ms
Data transfer	Inductive coupling
Technology	HF (13.56 MHz)
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693
Read/Write distance max.	280 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	Rectangular, Q80WD
Dimensions	102x 83x 40mm
Housing material	Plastic, Black
Active area material	Plastic, PPS-GF30, black
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
Electrical connection	Connector, M12 × 1
Power-on indication	LED, Green
Diagnostic display	Functional description of the orange range-restricted LED: If the read/write head is supplied with voltage, it briefly checks to see whether its resonance frequency is affected by surrounding metal. If this is the case, the resonant circuit off-tunes its frequency to reach again the (optimum) resonance frequency. However, this is only possible within a certain range. If too much metal is in the environment, the read/write head cannot re-tune or the surrounding metal takes too much energy from the field and due to the reduced range the communication between the read/write head and the tag (data carrier) is cut off (the orange range-restricted-LED lights up). If the LED is off, this does not mean conversely, that no reduction in range occurs. The lit LED is rather an indication of too much metal in the environment and a greatly reduced range (about 50% less).
Packaging unit	1

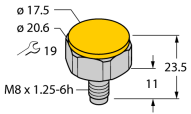
Data carrier

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 7030231	48	95	104	52	450
	TW-R9.5-B128 7030252	50	100	106	53	450
	TW-R9.5-K2 7030558	48	97	106	53	450
	TW-R16-B128 6900501	75	146	144	72	450
	TW-R16-K2 7030410	48	97	106	53	450
	TW-R20-B128 6900502	74	140	140	70	450
	TW-R20-K2 6900505	68	130	132	66	450
	TW-R30-B128 6900503	110	186	176	88	450
	TW-R30-K2 6900506	74	138	136	68	450

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	134	240	228	114	450
	TW-R50-K2 6900507	120	218	208	104	450
	TW-R10-M-B146 7030545	25	52	80	40	450
	TW-R12-M-B146 7030500	28	55	86	43	450
	TW-L18-18-F-B128 7030634	73	136	132	76	450
	TW-Q51WH-HT-B128 7030661	145	260	250	125	450

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-BS8X1.25-19-K9/C55	23	56	72	36	450
	100000368					