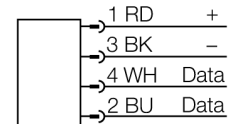
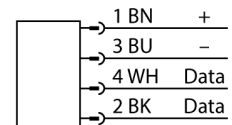


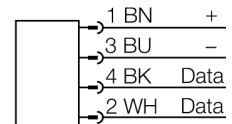
.../S2503 Connectors



Connector .../S2500



Connector .../S2501



Type designation	TNSLR-Q42TWD-H1147
Ident-No.	7030424
Remark to product	Wash-Down (IP69K), very long ranges
Electrical data	
Operating voltage	19.2...28.8 VDC
DC rated operational current	≤ 110 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.	215 mm
Output function	4-wire, Read/Write
Interface	Connection only via Turck system components

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.

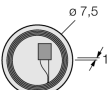
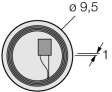


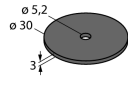
Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

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

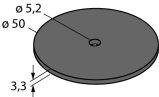
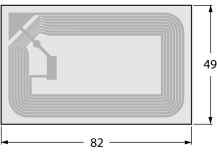
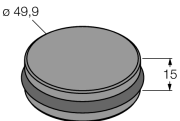

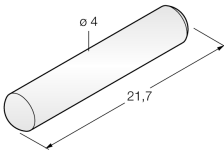
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25...+70 °C
Design	Rectangular, Q42
Dimensions	67.7x 42.5x 42.5mm
Housing material	Plastic, PA12-GF30, Black
Active area material	Plastic, black
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K
Electrical connection	Connector, M12 × 1
MTTF	201 years acc. to SN 29500 (Ed. 99) 40 °C
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
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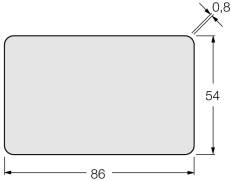
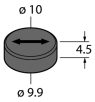
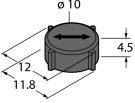
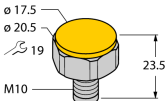
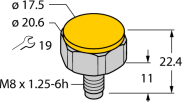
Data carrier

Dimensions	Type designation Ident - no.	Read-write distance		Transfer zone		Minimum distance between two read-write heads [mm]
		Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	
	TW-R7.5-B128 7030231	20	41	60	30	240
	TW-R9.5-B128 7030252 TW-R9.5-K2 7030558	22 36	45 70	66 74	33 37	240 240
	TW-R16-B128 6900501	50	85	90	45	240
	TW-R20-B128 6900502 TW-R20-K2 6900505	50 40	88 75	92 84	47 42	240 240
	TW-R30-B128 6900503 TW-R30-K2 6900506	60 60	115 98	116 104	58 52	240 240

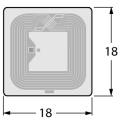
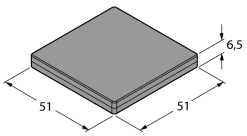
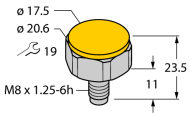
Data carrier

Dimensions	Type designation Ident - no.	Read-write distance		Transfer zone		Minimum distance between two read-write heads [mm]
		Recommend-ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	
	TW-R50-B128 6900504 TW-R50-K2 6900507	80	165	168	84	240
		90	144	150	75	240
	TW-L80-50-P-B128 7030389	76	142	144	72	240
	TW-R50-M-B128 7030209 TW-R50-M-K2 7030229	35	58	64	32	240
		30	58	76	38	240
	TW-R80-M-B128 7030207 TW-R80-M-K2 7030205	50	90	90	45	240
		35	78	80	40	240
	TW-R4-22-B128 7030237	40	73	86	43	240

Data carrier

Dimensions	Type designation Ident - no.	Read-write distance		Transfer zone		Minimum distance between two read-write heads [mm]
		Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	
	TW-L86-54-C-B128 6900479	120	215	214	107	240
	TW-R10-M-B146 7030545	20	42	75	37	240
	TW-R12-M-B146 7030500	22	44	77	38	240
	TW-BS10X1.5-19-K2 6901380	20	42	44	22	240
	TW-BS8X1.25-19-K2 7030638	20	42	44	22	240

Data carrier

Dimensions	Type designation Ident - no.	Read-write distance		Transfer zone		Minimum distance between two read-write heads [mm]
		Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	
	TW-L18-18-F-B128 7030634	55	103	100	50	240
	TW-Q51WH-HT-B128 7030661	108	194	192	96	240
	TW-BS8X1.25-19-K9/C55 100000368	23	45	46	23	240