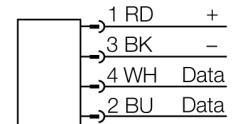
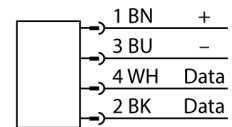


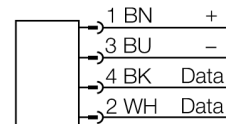
.../S2503 Connectors



Connector .../S2500



Connector .../S2501



<b>Type designation</b>	TB-M30-H1147
Ident-No.	7030003
<b>Electrical data</b>	&#x0020;
Operating voltage	10...30 VDC
DC rated operational current	≤ 80 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
<b>Mechanical data</b>	&#x0020;
Mounting conditions	Flush
Ambient temperature	-25...+70 °C
Design	Threaded barrel, M30 × 1.5
Dimensions	62 mm
Housing diameter	30 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
<b>Packaging unit</b>	1

**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.

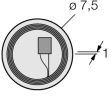
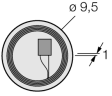
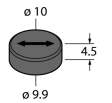
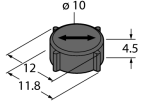
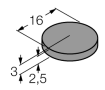
The read/write distances mentioned here only represent standard values measured under laboratory conditions.

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


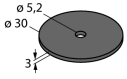
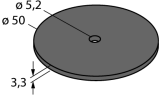
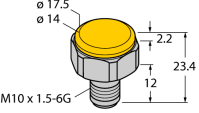
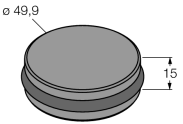
Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

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

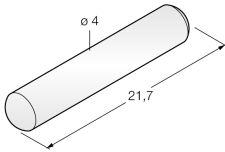
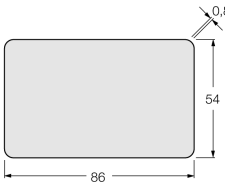
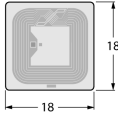
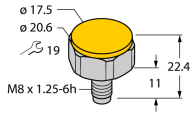
Data carrier

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]	
	<b>TW-R7.5-B128</b> 7030231	8	18	20	10	90
	<b>TW-R9.5-B128</b> 7030252 <b>TW-R9.5-K2</b> 7030558	9	20	22	11	90
	<b>TW-R10-M-B146</b> 7030545	7	15	18	9	90
	<b>TW-R12-M-B146</b> 7030500	7	17	30	15	90
	<b>TW-R16-B128</b> 6900501	12	23	20	10	90

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]	
	<b>TW-R20-B128</b> 6900502	15	27	20	10	90
	<b>TW-R20-B320</b> 100005244	15	27	20	10	90
	<b>TW-R20-K2</b> 6900505	15	22	20	10	90
	<b>TW-R30-B128</b> 6900503	13	30	32	16	90
	<b>TW-R30-B320</b> 100005245	13	30	32	16	90
	<b>TW-R30-K2</b> 6900506	15	27	32	16	90
	<b>TW-R50-B128</b> 6900504	20	43	46	23	90
	<b>TW-R50-B320</b> 100005246	20	43	46	23	90
	<b>TW-R50-K2</b> 6900507	15	33	36	18	90
	<b>TW-BS10X1.5-19-K2</b> 6901380	6	15	21	10	90
	<b>TW-BD10X1.5-19-K2</b> 6901381	10	20	22	11	90
	<b>TW-R50-M-B128</b> 7030209	15	27	22	11	90
	<b>TW-R50-M-K2</b> 7030229	10	21	26	13	90

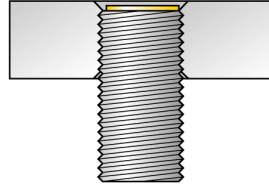
Data carrier

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]	
	<b>TW-R4-22-B128</b> 7030237	5	16	22	11	90
	<b>TW-L86-54-C-B128</b> 6900479	20	45	80	40	90
	<b>TW-L18-18-F-B128</b> 7030634	16	29	16	8	90
	<b>TW-BS8x1.25-19-K2</b> 7030638	6	15	21	10	90

**Mounting instructions**

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Diameter active area B	Ø 30
Width active area B	30



flush mounting

## Accessories

Type code	Ident-No.	Description	Dimension drawing
BST-30B	6947216	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	
BST-30N	6947217	Mounting clamp for threaded barrel sensors, without dead-stop; material: PA6	
QM-30	6945103	Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.	
BSS-30	6901319	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	
BSS-TSM 2 pcs	6901323	DIN rail nut for BSS mounting clamps, for mounting on DIN rails	
MW-30	6945005	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	