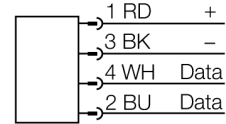
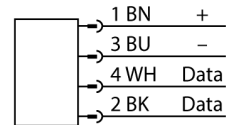


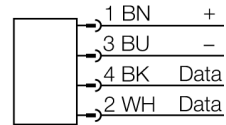
**.../S2503 Connectors**



**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.

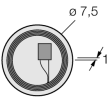
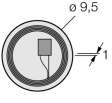
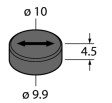
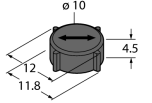
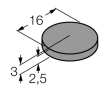
The read/write distances of the data carriers for mounting in metal TW-R\*\*-M(MF) were determined in metal.

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


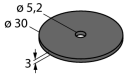
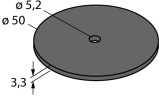
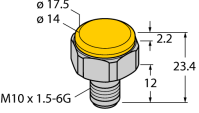
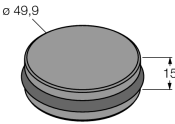
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

<b>Type designation</b>	TN-M30-H1147/C53
Ident-No.	7030730
<b>Electrical data</b>	&#x0020;
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.	77 mm
Output function	4-wire, Read/Write
Suitable for bus mode to TBEN-*	Yes
Interface	Connection only via Turck system components
<b>Mechanical data</b>	&#x0020;
Mounting conditions	Non-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

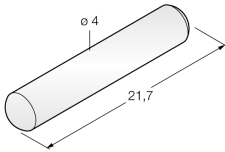
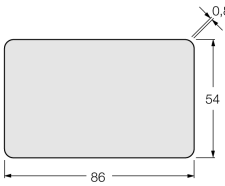
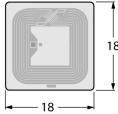
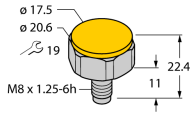
Data carrier

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	10	30	28	14	90
	<b>TW-R9.5-B128</b> 7030252 <b>TW-R9.5-K2</b> 7030558	11 14	33 29	31 28	15 14	90 90
	<b>TW-R10-M-B146</b> 7030545 <b>TW-R10-M-K2</b> 100002368	7 7	17 17	30 30	15 15	90 90
	<b>TW-R12-M-B146</b> 7030500	7	17	30	15	90
	<b>TW-R16-B128</b> 6900501	20	38	44	22	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	22	40	34	17	90
	<b>TW-R20-B320</b> 100005244	22	40	34	17	90
	<b>TW-R20-K2</b> 6900505	17	31	32	16	90
	<b>TW-R30-B128</b> 6900503	22	43	56	28	90
	<b>TW-R30-B320</b> 100005245	22	43	56	28	90
	<b>TW-R30-K2</b> 6900506	23	42	50	25	90
	<b>TW-R50-B128</b> 6900504	40	72	76	38	90
	<b>TW-R50-B320</b> 100005246	40	72	76	38	90
	<b>TW-R50-K2</b> 6900507	30	58	76	38	90
	<b>TW-BS10X1.5-19-B128</b> 6901380	8	20	22	11	90
	<b>TW-BD10X1.5-19-B128</b> 6901381	14	29	30	15	90
	<b>TW-R50-M-B128</b> 7030209	20	36	34	17	90
	<b>TW-R50-M-K2</b> 7030229	15	30	32	16	90

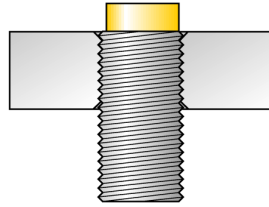
Data carrier

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	10	28	38	18	90
	<b>TW-L86-54-C-B128</b> 6900479	30	77	92	46	90
	<b>TW-L18-18-F-B128</b> 7030634	22	41	41	20	90
	<b>TW-BS8x1.25-19-K2</b> 7030638	8	20	22	11	90

**Mounting instructions**

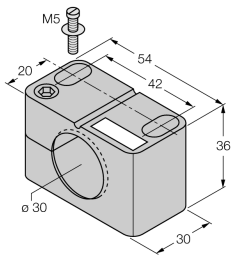
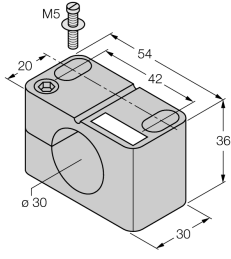
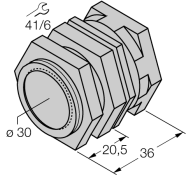
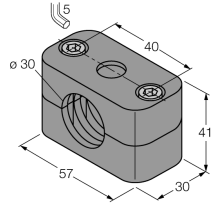
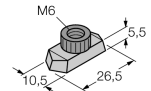
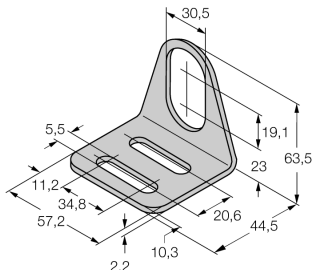
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Diameter active area B	Ø 30
Width active area B	30



non-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)	

**Accessories**

Type code	Ident-No.	Description	Dimension drawing
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	