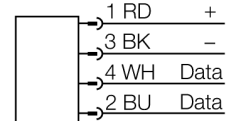
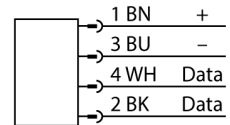


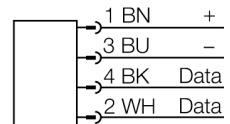
.../S2503 Connectors



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.

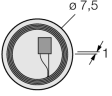
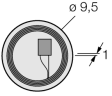


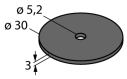
The read/write distances of the data carriers for mounting in metal TW-R**-M(MF) were determined in metal.

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

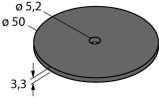
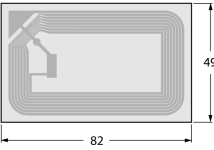
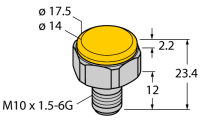
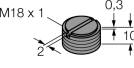
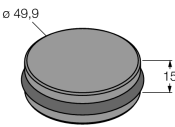
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TN-CK40-H1147/C53
Ident-No.	7030732
Electrical data	
Operating voltage	10...30 VDC
DC rated operational current	≤ 80 mA
inrush current	1000 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.	115 mm
Output function	4-wire, Read/Write
Suitable for bus mode to TBEN-*	Yes
Interface	Connection only via Turck system components
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25...+70 °C
Design	Rectangular, CK40
Dimensions	65x 40x 40mm
Housing diameter	40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30, yellow
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Connector, M12 × 1
MTTF	248 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Included in delivery	BS4-CK40
Packaging unit	1

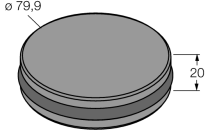
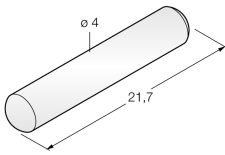
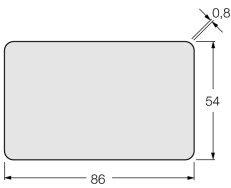
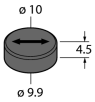
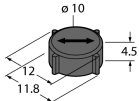
Data carrier

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-R7.5-B128 7030231	13	30	42	21	120
		TW-R9.5-B128 7030252	14	33	46	23
TW-R9.5-K2 7030558		18	38	42	21	120
	TW-R16-B128 6900501	28	50	54	27	120
	TW-R20-B128 6900502	30	50	50	25	120
	TW-R20-K2 6900505	22	40	36	18	120
	TW-R30-B128 6900503	30	53	62	31	120
	TW-R30-K2 6900506	30	55	56	28	120

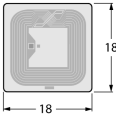
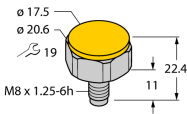
Data carrier

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	45 38	85 81	96 82	48 41	120 120
	TW-L80-50-P-B128 7030389	42	81	93	46	120
	TW-BS10X1.5-19-K2 6901380 TW-BD10X1.5-19-K2 6901381	8 20	23 39	30 44	15 22	120 120
	TW-SPP18X1-B128 6901062	15	34	46	23	120
	TW-R50-M-B128 7030209 TW-R50-M-K2 7030229	23 15	46 37	48 46	24 23	120 120
						

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-R80-M-B128 7030207	25	53	68	34	120
	TW-R80-M-K2 7030205	15	47	54	27	120
	TW-R4-22-B128 7030237	20	40	50	25	120
	TW-L86-54-C-B128 6900479	60	115	132	66	120
	TW-R10-M-B146 7030545	7	18	30	15	120
	TW-R12-M-B146 7030500	7	18	30	15	120

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	29	56	52	26	120
	TW-BS8x1.25-19-K2 7030638	8	23	30	15	120

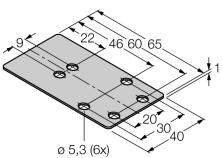
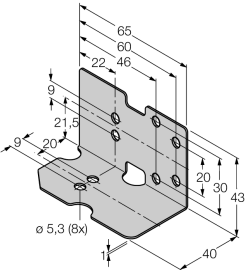
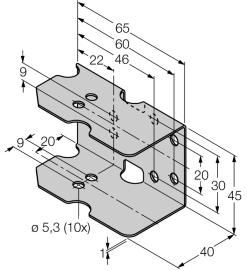
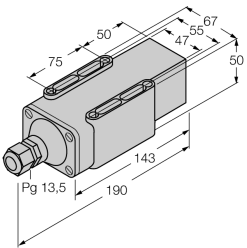
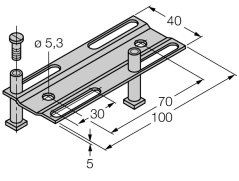
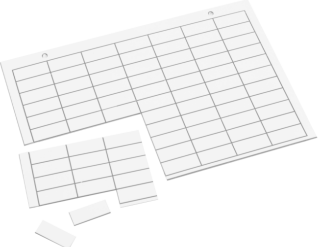
Mounting instructions

Diameter active area B	Ø 40
Width active area B	40

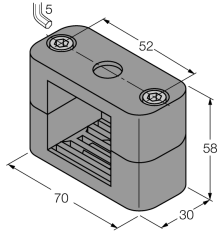
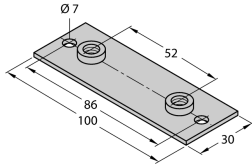
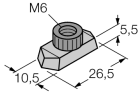
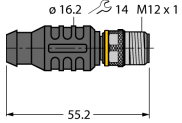
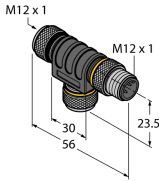


This figure illustrates an example of operating a read/write head in a compact multiprotocol I/O module TBEN-S*-2RFID-* or TBEN-L*-4RFID-* in a line topology

Accessories

Type code	Ident-No.	Description	Dimension drawing
MF-CK40-1S	6900481	Protective frame (one side) rectangular CK40	
MF-CK40-2S	6900482	Protective frame (angle) for rectangular CK40	
MF-CK40-3S	6900483	Protective frame (U profile) CK40	
SG40	69500	Protective housing; housing material: PA (per UL94/V-2); cover: PBT-GF30; for harsh environments; protection degree IP68, 5 m w.g.	
Adjusting bar JS 025/037	69429	Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301	
BST-BS	6947220	Label for BST mounting clamps	

Accessories

Type code	Ident-No.	Description	Dimension drawing
BSS-CP40	6901318	Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene	
BSS-SPV5	6901324	Weld-on plate for BSS mounting brackets	
BSS-TSM 2 pcs	6901323	DIN rail nut for BSS mounting clamps, for mounting on DIN rails	
T-CK40-T-FC	A5202		Kein Maßbild vorhanden/ No dimension drawing available
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	

Accessories

Type code	Ident-No.	Description	Dimension drawing
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	