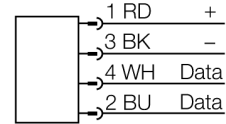
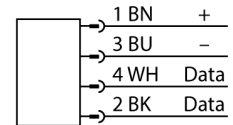


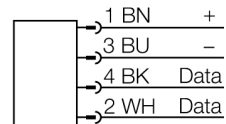
**.../S2503 Connectors**



**Connector .../S2500**



**Connector .../S2501**



<b>Type designation</b>	TB-Q08-0.15-RS4.47T/C53
Ident-No.	7030778
<b>Remark to product</b>	ultraflat design
<b>Electrical data</b>	&#x0020;
Operating voltage	10...30 VDC
DC rated operational current	≤ 30 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.	30 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	Flush, flush mountable
Ambient temperature	-25...+70 °C
Design	Rectangular, Q08
Dimensions	32x 20x 8mm
Housing material	GD-Zn
Active area material	Plastic, PA12-GF30, yellow
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Cable with connector, M12 × 1
Cable quality	0.15 m
MTTF	391 years acc. to SN 29500 (Ed. 99) 40 °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.

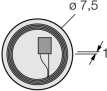
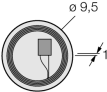


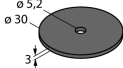
The read/write distances mentioned here only represent standard values measured under laboratory conditions.

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

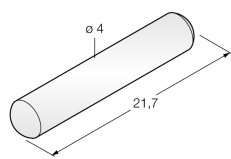
Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

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

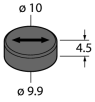
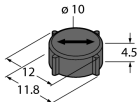
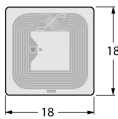
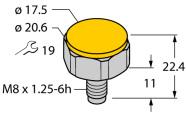
Data carrier

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	14	16	8	54
	<b>TW-R9.5-B128</b> 7030252 <b>TW-R9.5-K2</b> 7030558	9 5	15 12	18 13	9 6	54 54
	<b>TW-R16-B128</b> 6900501	10	17	14	7	54
	<b>TW-R20-B128</b> 6900502 <b>TW-R20-K2</b> 6900505	8 5	15 12	12 16	6 8	54 54
	<b>TW-R30-B128</b> 6900503 <b>TW-R30-K2</b> 6900506	8 6	17 14	22 18	11 9	54 54

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-BD10x1.5-19-K2</b> 6901381	6	14	16	8	54
	<b>TW-R30-M-B128</b> 7030210  <b>TW-R30-M-K2</b> 7030206	8 7	12 10	16 18	8 9	54 54
	<b>TW-R50-M-B128</b> 7030209  <b>TW-R50-M-K2</b> 7030229	8 7	18 15	22 24	11 12	54 54
	<b>TW-R4-22-B128</b> 7030237	3	9	12	6	54
	<b>TW-L86-54-C-B128</b> 6900479	10	21	70	35	54

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-R10-M-B146</b> 7030545	5	7	7	3	54
	<b>TW-R12-M-B146</b> 7030500	5	7	7	3	54
	<b>TW-L18-18-F-B128</b> 7030634	7	13	14	7	54
	<b>TW-BS8x1.25-19-K2</b> 7030638	5	10	13	6	54

**Mounting instructions****Width active area B**

19



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
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	