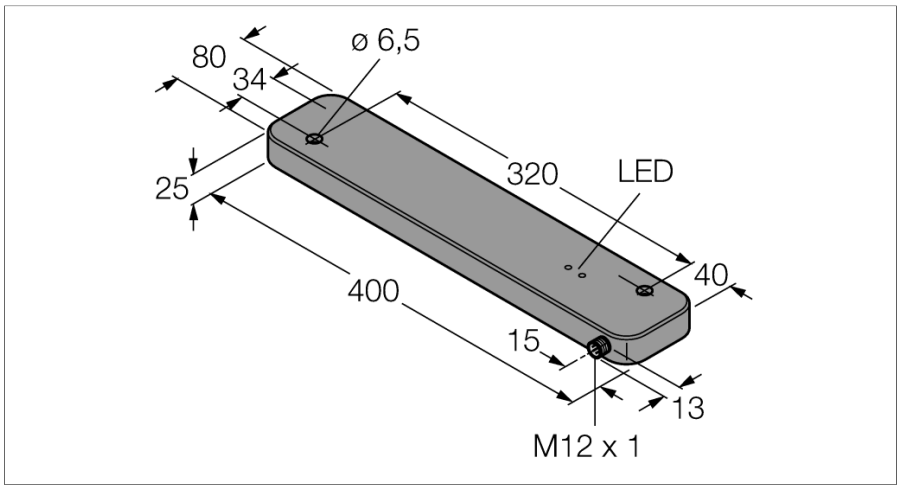
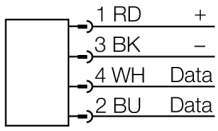
BL ident®

Read/write Head
TNLR-Q80L400-H1147L

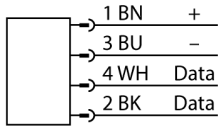


Type designation	TNLR-Q80L400-H1147L
Ident-No.	7030234
Remark to product	For roller conveyors (vertical or horizontal orientation)
Electrical data	
Operating voltage	19.2…28.8 VDC
DC rated operational current	≤ 230 mA
inrush current	1200 mA For: 1 ms
Data transfer	Inductive coupling
Technology	HF (13.56 MHz)
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693
Read/Write distance max.	345 mm
Output function	4-wire, Read/Write
Interface	Connection only via Turck system components

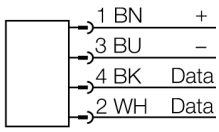
…/S2503 Connectors



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!

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Mechanical data	
Mounting conditions	Non-flush, flush mountable
Ambient temperature	-25…+70 °C
Design	Rectangular, Q80L400
Dimensions	400x 80x 25mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, black
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Connector, M12 × 1
MTTF	121 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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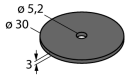
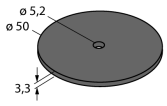
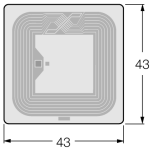
Data carrier

Dimensions	Type designation Ident - no.	Read-write distance Recommend-ed (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum dis-tance between two read-write heads [mm]
	**TW-R16-B128** 6900501	50	95	74	205	240
	**TW-R20-B128** 6900502 **TW-R20-K2** 6900505	60 15	102 64	86 70	202 195	240 240
	**TW-R30-B128** 6900503 **TW-R30-K2** 6900506	90 70	152 122	132 100	217 208	240 240
	**TW-R50-B128** 6900504 **TW-R50-K2** 6900507	150 120	256 216	230 190	242 233	240 240
	**TW-L49-46-F-B128** 7030390	74	176	149	197	240

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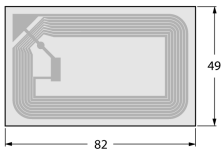
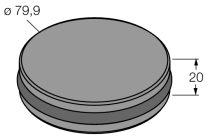
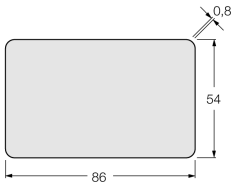
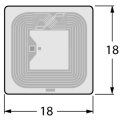
Data carrier

Dimensions	Type designation Ident - no.	Read-write distance Recommended (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum distance between two read-write heads [mm]
	**TW-L80-50-P-B128** 7030389	136	229	204	207	240
	**TW-R80-M-B128** 7030207	40	77	56	199	240
	TW-R80-M-K2 7030205	30	77	64	195	240
	**TW-L86-54-C-B128** 6900479	200	345	306	242	240
	**TW-L18-18-F-B128** 7030634	60	128	116	58	240

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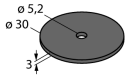
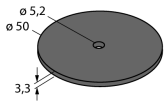
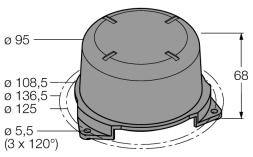
Data carrier longitudinal approach

Dimensions	Type designation Ident - no.	Read-write distance Recommend-ed (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum dis-tance between two read-write heads [mm]
	**TW-R16-B128** 6900501	30	95	410	37	240
	**TW-R20-B128** 6900502 **TW-R20-K2** 6900505	40 30	102 64	404 390	43 35	240 240
	**TW-R30-B128** 6900503 **TW-R30-K2** 6900506	60 50	152 122	434 416	66 50	240 240
	**TW-R50-B128** 6900504 **TW-R50-K2** 6900507	100 90	256 216	484 466	115 95	240 240
	**TW-R50-90-HT-B128** 1542326 **TW-R50-90-HT-K2** 1542329	70 60	226 186	484 466	115 95	240 240

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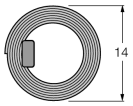
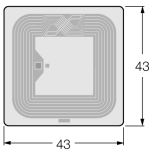
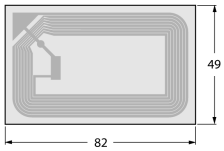
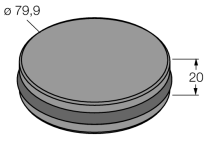
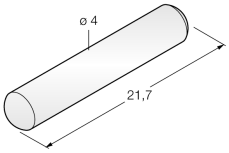
Data carrier longitudinal approach

Dimensions	Type designation Ident - no.	Read-write distance Recommend-ed (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum dis-tance between two read-write heads [mm]
	**TW-I14-B128** 6900526	30	95	410	37	240
	**TW-L49-46-F-B128** 7030390	68	176	394	74	240
	**TW-L80-50-P-B128** 7030389	85	229	414	102	240
	**TW-R80-M-B128** 7030207 **TW-R80-M-K2** 7030205	30 30	77 68	398 390	28 32	240 240
	**TW-R4-22-B128** 7030237	20	80	368	34	240

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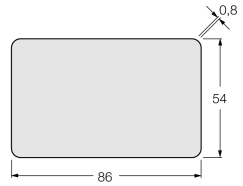
Data carrier longitudinal approach

Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommended (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
	**TW-L86-54-C-B128** 6900479	120	360	484	153	240

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