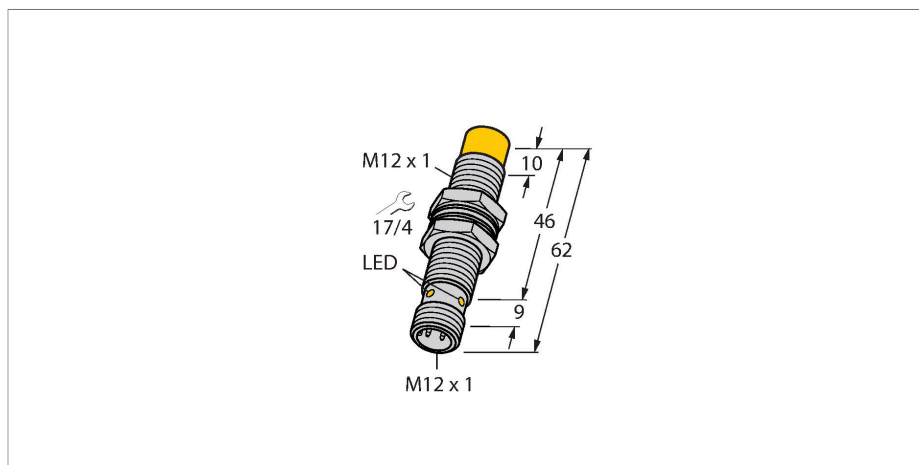


# TN-M12-H1147

## HF Read/Write Head



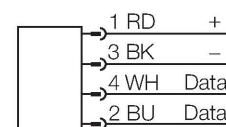
### Technical data

Type	TN-M12-H1147
ID	100003026
Approvals	CE FCC IC MIC UL
<b>Electrical data</b>	
Operating voltage	10...30 VDC
DC rated operational current	≤ 50 mA
inrush current	700 mA For: 1 ms
Data transfer	Inductive coupling
Technology	HF RFID
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693 NFC Typ 5
Read/Write distance max.	37 mm
Output function	4-wire, Read/Write
<b>Mechanical data</b>	
Mounting conditions	Non-flush
Ambient temperature	-25...+70 °C
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing diameter	Ø 12 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Vibration resistance	55 Hz (1 mm)

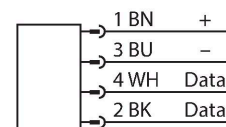
### Features

- M12 × 1 threaded barrel
- Long version
- Chrome-plated brass
- Powered and operated only via connection to BL ident interface module
- M12 × 1 connector, connection only via BL ident extension cable

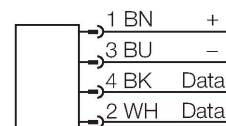
### .../S2503 Connectors



### Connector .../S2500



### Connector .../S2501



## Technical data

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
Packaging unit	1

## Functional principle

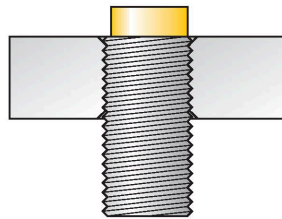
The HF read/write devices operating at a frequency of 13.56 MHz form a transmission zone, the size of which (0...500 mm) varies depending on the combination of read/write device and tag used.

The read/write distances mentioned here only represent standard values measured under laboratory conditions, free from any influences caused by surrounding materials.

The read/write distances of the tags 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 on-the-fly reading and writing!

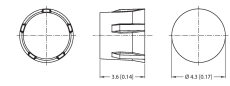
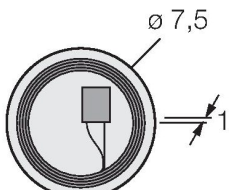
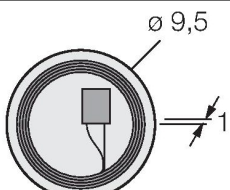
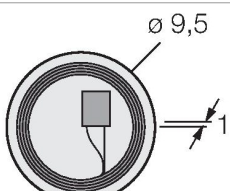
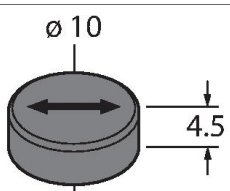
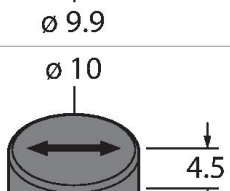
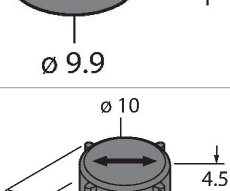
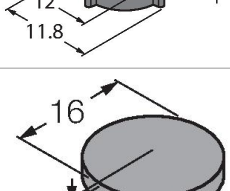
## Mounting instructions/Description

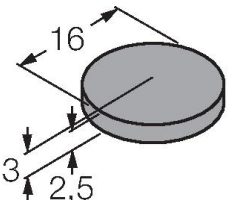
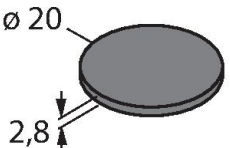
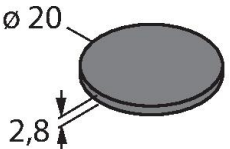
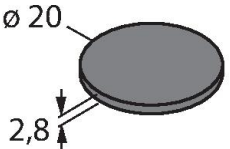
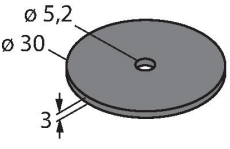
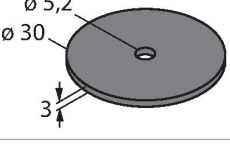
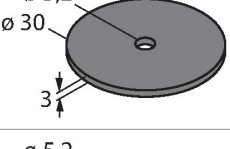
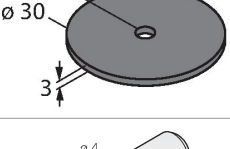
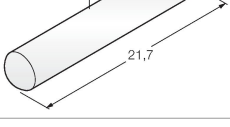
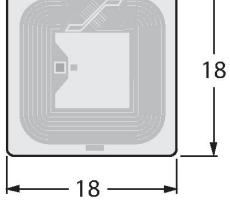


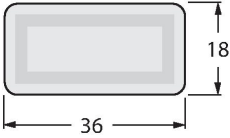
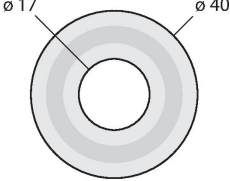
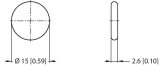
Diameter active area B      Ø 12 mm

recessed mounting

LED	Color	Status	Meaning
1	OFF	OFF	Operating voltage switched off
	GREEN	ON	Operating voltage switched on
	GREEN	FLASHING (1 Hz)	HF field switched off
	GREEN	FLASHING (2 Hz)	Tag in detection range

Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads [mm]
		Ident - no.	Recommended (mm)	max. [mm]	length max. [mm]	
	<b>TW-R4-3-M-B320-10PCS</b> 100013771	1	1	7	3	36
	<b>TW-R7.5-B128</b> 7030231	8	16	16	8	36
	<b>TW-R9.5-B128</b> 7030252	9	17	18	9	36
	<b>TW-R9.5-K2</b> 7030558	9	17	16	8	36
	<b>TW-R10-M-B146</b> 7030545	3	9	20	10	36
	<b>TW-R10-M-K2</b> 100002368	3	9	20	10	36
	<b>TW-R12-M-B146</b> 7030500	3	9	20	10	36
	<b>TW-R16-B128</b> 6900501	12	22	26	13	36

	<b>TW-R16-K2</b> 7030410	0	0	0	0	36
	<b>TW-R20-B128</b> 6900502	10	20	24	12	36
	<b>TW-R20-B320</b> 100005244	11	22	22	11	36
	<b>TW-R20-K2</b> 6900505	10	21	20	10	36
	<b>TW-R30-B128</b> 6900503	13	29	30	15	36
	<b>TW-R30-B320</b> 100005245	13	30	30	15	36
	<b>TW-R30-K2</b> 6900506	12	29	29	14	36
	<b>TW-R30-K9</b> 7030565	11	25	28	14	36
	<b>TW-R4-22-B128</b> 7030237	5	13	22	11	36
	<b>TW-L18-18-F-B128</b> 7030634	12	22	24	12	36

	<p><b>TW-L36-18-F-B320-100PCS</b> 100025059</p>	12	26	36	18	36
	<p><b>TW-L40-P-B128-100PCS</b> 7030658</p>	17	37	44	22	36
	<p><b>TW-R15-B320</b> 100047102</p>	12	22	24	12	36