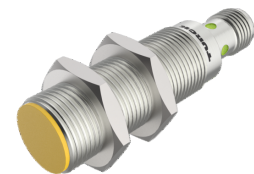
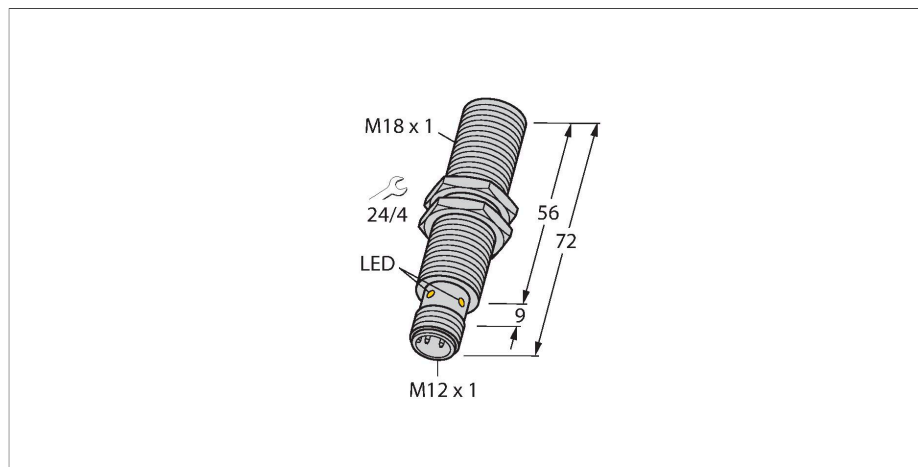


# TB-M18-H1147

## HF Read/Write Head



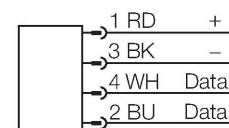
### Technical data

Type	TB-M18-H1147
ID	7030001
Approvals	CE UKCA UL
Radio approvals	EU/RED: Europe UK SI 2017/1206: United Kingdom FCC: USA IC: Canada MIC: Japan
<b>Electrical data</b>	
Operating voltage	10...30 VDC
DC rated operational current	≤ 80 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.	30 mm
Output function	4-wire, Read/Write
<b>Mechanical data</b>	
Mounting conditions	Flush
Ambient temperature	-25...+70 °C
Design	Threaded barrel, M18 x 1
Dimensions	72 mm
Housing diameter	Ø 18 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Vibration resistance	55 Hz (1 mm)

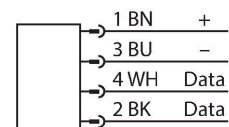
### Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Powered and operated solely via BLident interface module
- M12 × 1 male, connection only via BL ident extension cable

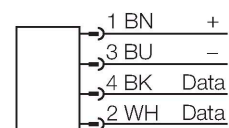
### .../S2503 Connectors



### .../S2500 Connectors



### .../S2501 Connectors



### 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.

## Technical data

Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	M12 × 1
MTTF	391 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Packaging unit	1

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

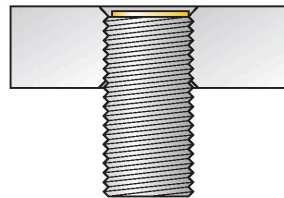
The read/write distances of the tags for mounting in metal TW-R\*\*-(MF) were determined in metal.

Attainable distances may vary by up to 30 % due to component tolerances, mounting location in the application, ambient conditions and the effect of materials (especially metal).

Testing of the application under real operating conditions is therefore essential, especially with on-the-fly reading and writing!

The Turck HF RFID system operates on the air interface in accordance with the radio and protocol standard ISO15693. ISO compliant tags may support other chip-specific commands and functions that are not described in this standard and that are not supported by our system.

## Mounting instructions/Description

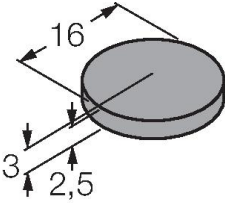
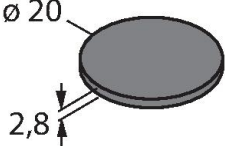
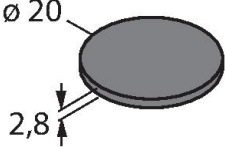
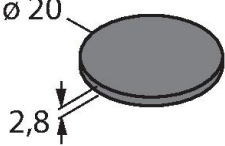
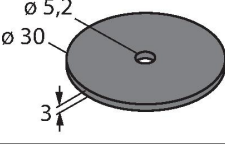
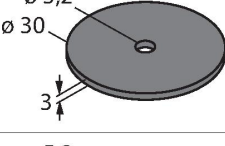
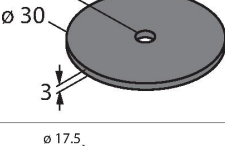
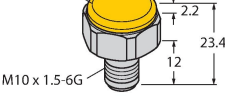
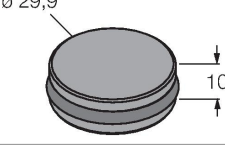
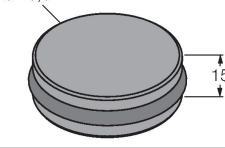
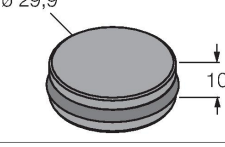


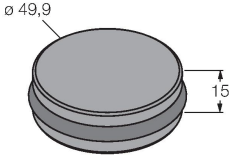
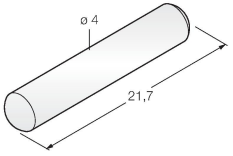
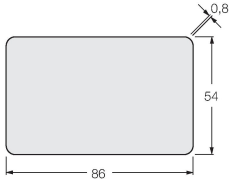
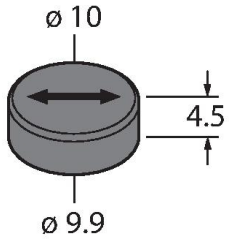
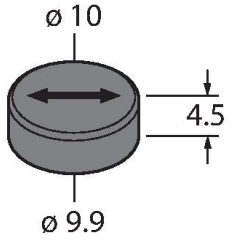
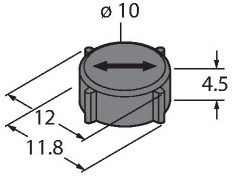
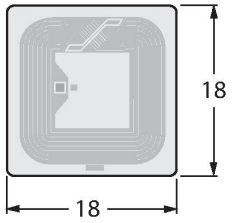
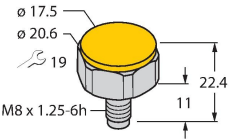
Diameter active area B  $\varnothing$  18 mm

flush 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]
		Recommended (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	9	15	18	9	54
	<b>TW-R9.5-K2</b> 7030558	5	13	12	6	54

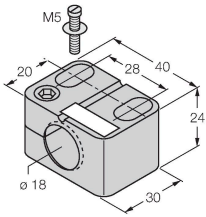
	<b>TW-R16-B128</b> 6900501	10	17	14	7	54
	<b>TW-R20-B128</b> 6900502	8	15	12	6	54
	<b>TW-R20-B320</b> 100005244	8	15	12	6	54
	<b>TW-R20-K2</b> 6900505	5	12	16	8	54
	<b>TW-R30-B128</b> 6900503	8	17	22	11	54
	<b>TW-R30-B320</b> 100005245	8	17	22	11	54
	<b>TW-R30-K2</b> 6900506	6	14	18	9	54
	<b>TW-BD10x1.5-19-K2</b> 6901381	6	14	16	8	54
	<b>TW-R30-M-B128</b> 7030210	8	12	16	8	54
	<b>TW-R50-M-B128</b> 7030209	8	18	22	11	54
	<b>TW-R30-M-K2</b> 7030206	7	10	18	9	54

 <p>Technical drawing of a circular disc with diameter <math>\varnothing 49,9</math> and thickness 15.</p>	<p><b>TW-R50-M-K2</b> 7030229</p>	7	15	24	12	54
 <p>Technical drawing of a cylindrical rod with diameter <math>\varnothing 4</math> and length 21,7.</p>	<p><b>TW-R4-22-B128</b> 7030237</p>	3	9	12	6	54
 <p>Technical drawing of a rectangular plate with dimensions 86 by 54 and a thickness of 0,8.</p>	<p><b>TW-L86-54-C-B128</b> 6900479</p>	10	21	70	35	54
 <p>Technical drawing of a circular disc with outer diameter <math>\varnothing 10</math> and inner diameter <math>\varnothing 9,9</math>, and thickness 4,5.</p>	<p><b>TW-R10-M-B146</b> 7030545</p>	5	7	7	3	54
 <p>Technical drawing of a circular disc with outer diameter <math>\varnothing 10</math> and inner diameter <math>\varnothing 9,9</math>, and thickness 4,5.</p>	<p><b>TW-R10-M-K2</b> 100002368</p>	5	7	7	3	54
 <p>Technical drawing of a circular disc with diameter <math>\varnothing 10</math>, thickness 4,5, and a diameter of 12 at the base.</p>	<p><b>TW-R12-M-B146</b> 7030500</p>	5	7	7	3	54
 <p>Technical drawing of a square plate with dimensions 18 by 18.</p>	<p><b>TW-L18-18-F-B128</b> 7030634</p>	8	16	16	8	54
 <p>Technical drawing of a threaded component with diameters <math>\varnothing 17,5</math>, <math>\varnothing 20,6</math>, and 19, and lengths 22,4 and 11. The thread is M8 x 1.25-6h.</p>	<p><b>TW-BS8x1.25-19-K2</b> 7030638</p>	5	10	13	6	54

## Accessories

**BST-18B** 6947214

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



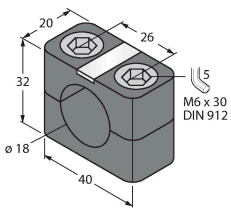
**SKN/M18** 69663

PTFE-coated closure cap; for use in welding systems and grinding machinery; protection against intense sparking



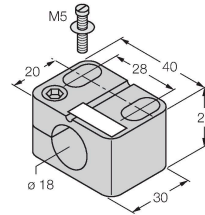
**BSN 18** 69472

Mounting clamp for threaded barrel sensors; material: PA66-GF



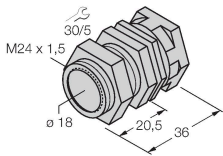
**BST-18N** 6947215

Mounting clamp for threaded barrel sensors, without dead-stop; material: PA6



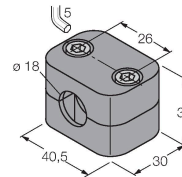
**QM-18** 6945102

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



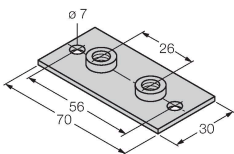
**BSS-18** 6901320

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



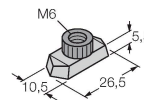
**BSS-SPV2** 6901316

Weld-on plate for BSS mounting brackets



**BSS-TSM 2 pcs** 6901323

DIN rail nut for BSS and BSM mounting clips, for mounting on DIN rails



**MW-18** 6945004

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

