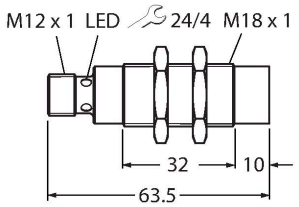
TN-M18-IOL2-H1141
HF Read/Write Head – IO-Link



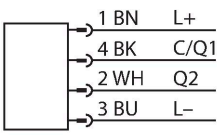
Technical data

Type	TN-M18-IOL2-H1141
ID	100012160
Remark to product	Please note: The Japanese radio approval MIC is only valid after a corresponding sticker has been affixed to the device
Approvals	CE UKCA cULus
Radio approvals (HF)	EU/RED: Europe UK SI 2017/1206: United Kingdom FCC: USA IC: Canada MIC: Japan
Electrical data	
Operating voltage U_B	11…32 VDC
DC rated operating current I_e	≤ 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
The following chip types are supported	NXP I-Code SLI-X NXP I-Code SLI-S NXP I-Code SLIX2 EM4233SLIC Fujitsu MB89R118
Wire break/reverse polarity protection	yes
Output function	4-wire, Read/Write, IO-Link

Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Process value in 32-byte IO-Link telegram
- Operation in SIO mode possible
- RSSI value output
- Alarm outputs, parameterizable (e.g. for RSSI threshold)
- Password function for accessing the tag (separate hardware must be used to enable the password function)
- Operating hours counter
- Male connector, M12 × 1, 4-pin

Pin Assignment



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

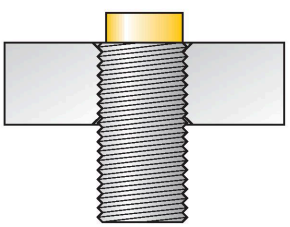
TN-M18-IOL2-H1141| 10/23/2025 23-32 | technical changes reserved

Technical data

Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-25…+80 °C
Design	Threaded barrel, M18 x 1
Dimensions	63.5 mm
Housing diameter	Ø 18 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT, yellow
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	Connector, M12 × 1
MTTF	756 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Included in delivery	Accessories
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Programming	IO-Link, PACTware, parameterization tag
Communication mode	COM 3 (230.4 kBaud)
Process data width	256 bit
Minimum cycle time	10 ms
Function pin 4	IO-Link/SIO
Function Pin 2	SIO
Transmission rate	230.4 kbaud
Fieldbus Protocol	IO-Link
Packaging unit	1

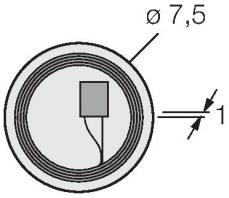
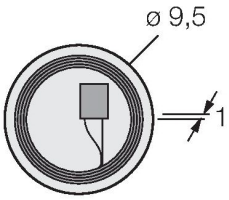
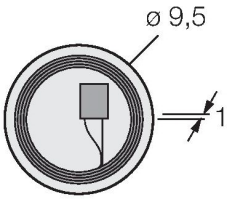
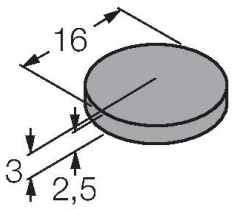
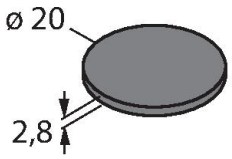
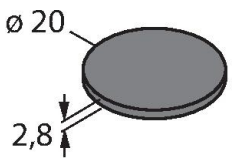
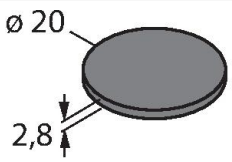
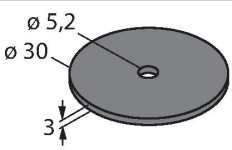
conditions, ambient conditions and material qualities (especially when mounted in metal). Testing of the application under real operating conditions is therefore essential, especially with on-the-fly reading and writing!

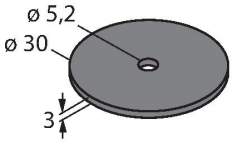
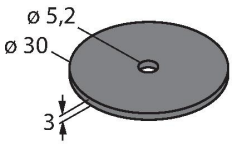
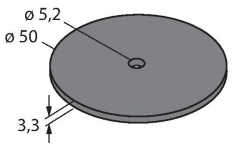
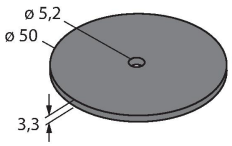
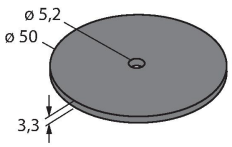
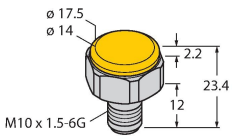
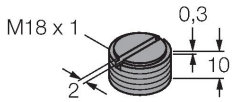
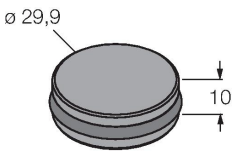
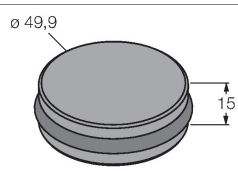
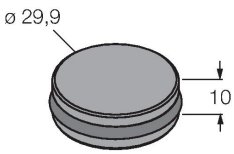
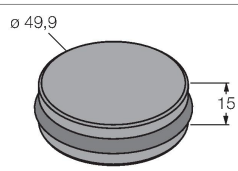
Mounting instructions/Description

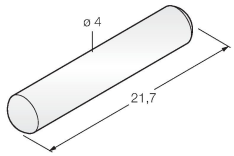
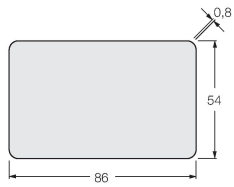
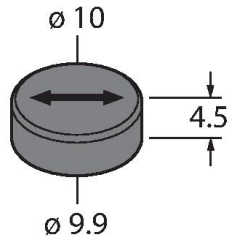
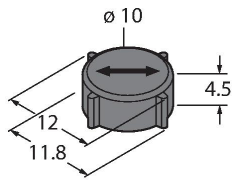
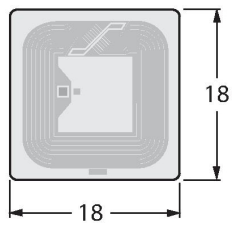
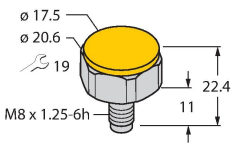
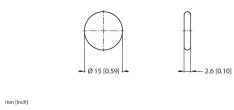


Diameter active area B	Ø 18 mm

non-flush mounting

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-R7.5-B128** 7030231	8	16	20	10	54
	**TW-R9.5-B128** 7030252	9	18	22	11	54
	**TW-R9.5-K2** 7030558	9	20	23	11	54
	**TW-R16-B128** 6900501	12	23	26	13	54
	**TW-R20-B128** 6900502	10	22	26	13	54
	**TW-R20-B320** 100005244	10	22	26	13	54
	**TW-R20-K2** 6900505	12	20	24	12	54
	**TW-R30-B128** 6900503	10	25	34	17	54

	**TW-R30-B320** 100005245	10	25	34	17	54
	**TW-R30-K2** 6900506	16	31	32	16	54
	**TW-R50-B128** 6900504	20	41	70	35	54
	**TW-R50-B320** 100005246	20	41	70	35	54
	**TW-R50-K2** 6900507	12	30	60	30	54
	**TW-BD10X1.5-19-K2** 6901381	8	17	22	11	54
	**TW-SPP18X1-B128** 6901062	5	16	22	11	54
	**TW-R30-M-B128** 7030210	6	14	16	8	54
	**TW-R50-M-B128** 7030209	10	22	22	11	54
	**TW-R30-M-K2** 7030206	6	13	10	5	54
	**TW-R50-M-K2** 7030229	10	22	32	16	54

	**TW-R4-22-B128** 7030237	5	13	20	10	54
	**TW-L86-54-C-B128** 6900479	15	39	74	37	54
	**TW-R10-M-B146** 7030545	5	12	14	7	54
	**TW-R12-M-B146** 7030500	5	12	14	7	54
	**TW-L18-18-F-B128** 7030634	15	30	29	14	54
	**TW-BS8x1.25-19-K2** 7030638	7	15	18	9	54
	**TW-R15-B320** 100047102	15	30	29	14	54