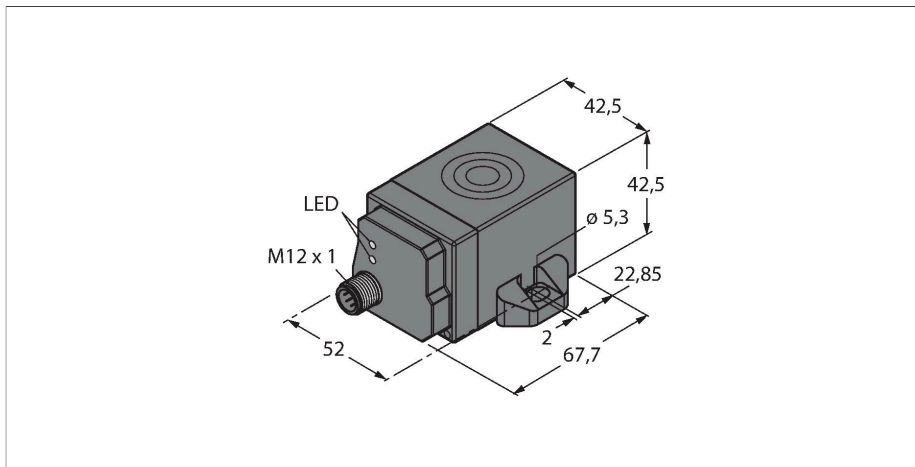


TNSLR-Q42TWD-H1147

HF Read/Write Head



Technical data

Type	TNSLR-Q42TWD-H1147
ID	7030424
Approvals	CE UKCA UL
Radio approvals	EU/RED: Europe UK SI 2017/1206: United Kingdom FCC: USA IC: Canada MIC: Japan RCM: Australia/New Zealand
Electrical data	
Operating voltage	19.2...28.8 VDC
DC rated operational current	≤ 110 mA
inrush current	1200 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.	215 mm
Output function	4-wire, Read/Write
Mechanical data	
Mounting conditions	Non-flush, partially embeddable
Ambient temperature	-25...+70 °C
Design	Rectangular, Q42
Dimensions	67.7 x 42.5 x 42.5 mm
Housing material	Plastic, PA12-GF30, Black
Active area material	Plastic, black
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)

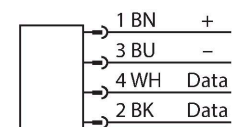
Features

- Rectangular, height 42.5 mm
- Active face on top
- Plastic, PA12-GF30
- Powered and operated only via connection to BL ident interface module
- M12 × 1 connector, connection only via BL ident extension cable

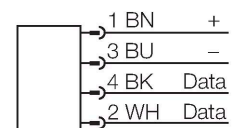
.../S2503 Connectors



.../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

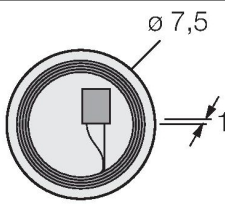
Technical data

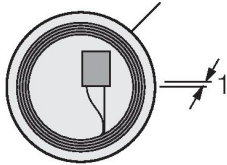
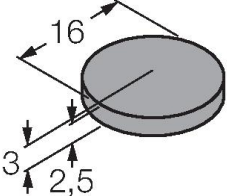
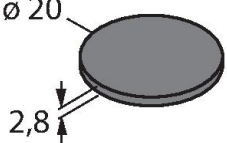
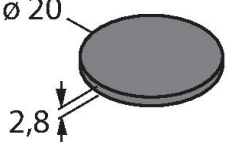
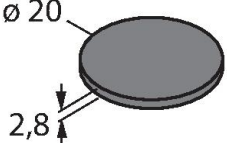
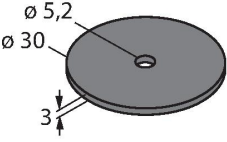
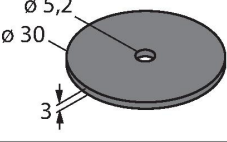
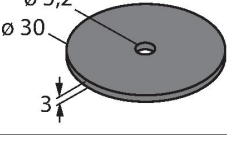
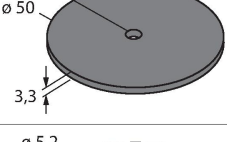
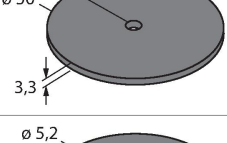
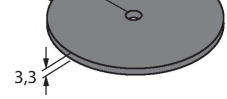
Protection class	IP68 IP69K
Electrical connection	M12 × 1
MTTF	201 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Diagnostic display	Functional description of the orange range-restricted LED: If the read/write head is supplied with voltage, it briefly checks to see whether its resonance 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 (tag) 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

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!

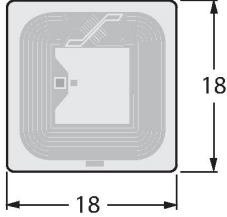
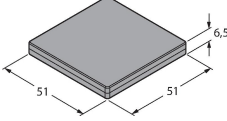
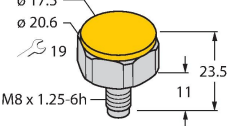
Mounting instructions/Description

Width active area 42 mm
 B

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]	
	TW-R7.5-B128 7030231	20	41	60	30	240
	TW-R9.5-B128 7030252	22	45	66	33	240

	TW-R9.5-K2 7030558	36	70	74	37	240
	TW-R16-B128 6900501	50	85	90	45	240
	TW-R20-B128 6900502	50	88	92	47	240
	TW-R20-B320 100005244	50	88	92	47	240
	TW-R20-K2 6900505	40	75	84	42	240
	TW-R30-B128 6900503	60	115	116	58	240
	TW-R30-B320 100005245	60	115	116	58	240
	TW-R30-K2 6900506	60	98	104	52	240
	TW-R50-B128 6900504	80	165	168	84	240
	TW-R50-B320 100005246	80	165	168	84	240
	TW-R50-K2 6900507	90	144	150	75	240

	TW-SPP18X1-B128 6901062	30	66	80	40	240
	TW-R50-M-B128 7030209	35	58	64	32	240
	TW-R80-M-B128 7030207	50	90	90	45	240
	TW-R50-M-K2 7030229	30	58	76	38	240
	TW-R80-M-K2 7030205	35	78	80	40	240
	TW-R4-22-B128 7030237	40	73	86	43	240
	TW-L86-54-C-B128 6900479	120	215	214	107	240
	TW-R10-M-B146 7030545	20	42	75	37	240
	TW-R12-M-B146 7030500	22	44	77	38	240
	TW-BS10X1.5-19-K2 6901380	20	42	44	22	240
	TW-BS8X1.25-19-K2 7030638	20	42	44	22	240

	TW-L18-18-F-B128 7030634	55	103	100	50	240
	TW-Q51WH-HT-B128 7030661	108	194	192	96	240
	TW-BS8X1.25-19-K9/C55 100000368	23	45	46	23	240