

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 and free from any influences caused by materials.

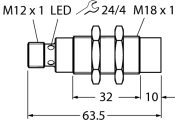
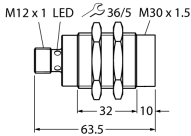
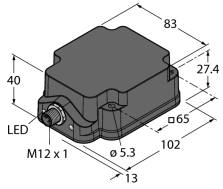
The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

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!

Type designation	TW-R16-K2
Ident-No.	7030410
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Data transfer	Inductive coupling
Operating frequency	13.56 MHz
Memory type	FRAM
Chip	Fujitsu MB89R118
Memory	2048 Byte
Memory	Read/Write
Freely usable memory	2000 Byte
Number of read operations	unlimited
Number of write operations	10 ¹⁰
Typical read time	0.5 ms/byte
Typical write time	0.5 ms/byte
Radio communication and protocol standards	ISO 15693
Minimum distance to metal	10 mm
Temperature of data carrier during read/write access	-25...+85 °C
Temperature of data carrier outside detection range	-40...+185 °C
	160, 1x35 h
	220, 1x30 s
Design	Hard tag, R16
Diameter	16 mm
Housing material	Plastic, PA6
Active area material	Plastic, PA6, black
Protection class	IP69K
Packaging unit	1
Remark to product	extended storage temperature range, suitable for Laundry applications

Read/write heads

Dimensions	Type designation	Read-write distance		Transfer zone		Minimum distance between two read-write heads
	Ident - no.	Recommend- ed (mm)	max. [mm]	length max. [mm]	width offset max. [mm]	[mm]
	TN-M18-IOL-H1141	10	20	24	12	36
	100000974					
	TN-M30-IOL-H1141	14	29	32	16	60
	100000975					
	TNSLR-Q80WD-H1147	48	97	106	53	450
	7030418					
	TNSLR-Q80WD-H1147/C50	48	97	106	53	450
	7030721					
	TNSLR-Q80WD-H1147/ C53	48	97	106	53	450
	100001312					

Operating manual**Intended use**

This tag corresponds to the requirements for simple apparatus according to EN 60079-14, 5.12.2 and may, under certain conditions, be used in the Ex area. The requirements of EN 60079-14 must be observed in this case.