

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.

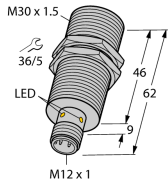
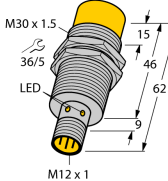
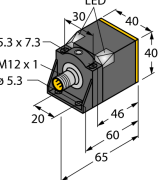
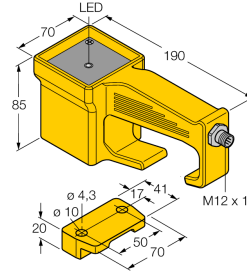
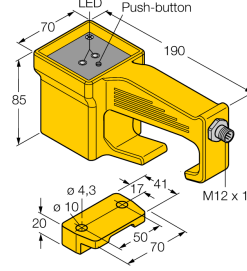
The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal)

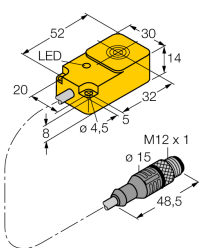
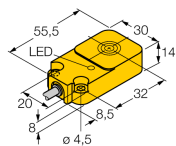
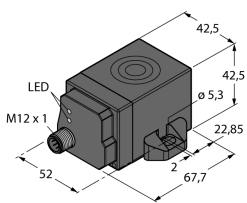
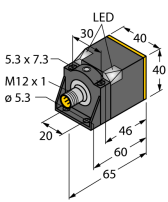
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TW-BS10X1.5-19-K2
Ident-No.	6901380
Type	TW-BS10X1.5-19-K2
Ident. no.	6901380
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
Ambient temperature	-25...+85 °C
Storage temperature	-45...+85 °C
Design	Hard tag with thread, BS10 × 1.5
Diameter	10 mm
Housing material	Metal, 1.7225 (AISI 4140)
Active area material	Plastic, PA6.6, yellow
Tightening torque	≤ 23 Nm
Vibration resistance (EN 60068-2-6)	10 g; 10...2000 Hz; 3 axis; 2.5 hrs.
Continuous shock resistance (EN 60068-2-29)	40 g; 18 ms; 6 axis; 2000x
Protection class	IP67 / IP69K
Packaging unit	1
Remark to product	Threaded data carrier, can be screwed onto metal

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]
	TB-M30-H1147 7030003	6	15	21	10	90
	TB-EM30WD-H1147 7030221	6	15	21	10	90
	TN-M30-H1147 7030004	8	20	22	11	90
	TN-EM30WD-H1147 7030222	8	20	22	11	90
	TN-M30-H1147/C53 7030730	8	20	22	11	90
	TN-CK40-H1147 7030006	8	23	30	15	120
	TN-CK40-H1147/C53 7030732	8	23	30	15	120
	TN-CK40-H1147/CS30171 100016067	8	23	30	15	120
	HT-IDENT-H1147 7030236	8	23	30	15	120
	HT-IDENT-H1187 7030238	6	18	34	17	120

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-Q14-0.15-RS4.47T 7030235	5	15	21	10	90
	TN-Q14-0.15-RS4.47T/C53 7030779	7	18	24	12	90
	TN-Q14-0.1/C37 7030445	7	18	24	12	90
	TN-Q14-0.55 100003964	7	18	24	12	90
	TNSLR-Q42TWD-H1147 7030424	20	42	44	22	240
	TNSLR-Q42TWD-H1147/C51 7030722	20	42	44	22	240
	TNSLR-Q42TWD-H1147/C53 7030733	20	42	44	22	240
	TNSLR-Q42TWD-H1147/C44 100009610	20	42	44	22	240
	TNSLR-Q42TWD-H1147/CS30171 100016068	20	42	44	22	240
	TN-CK40-H1147/CS30171 100016067	8	23	30	15	120