
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.

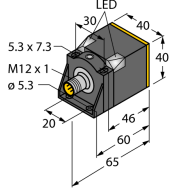
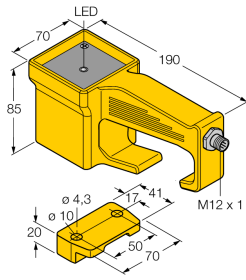
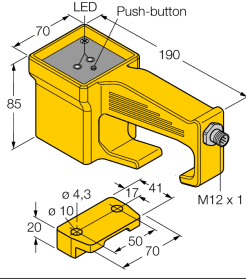
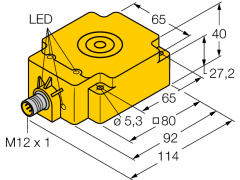
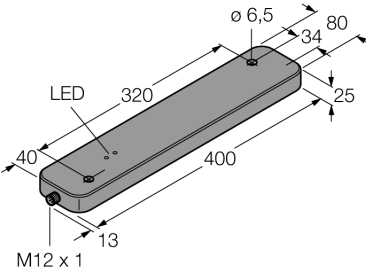
The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

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

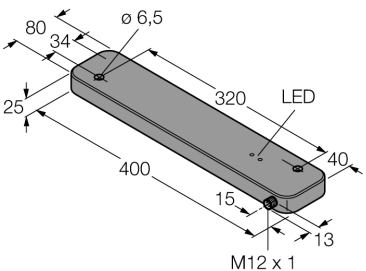
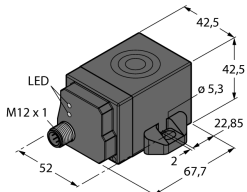
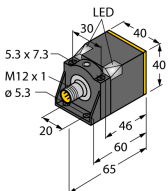
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

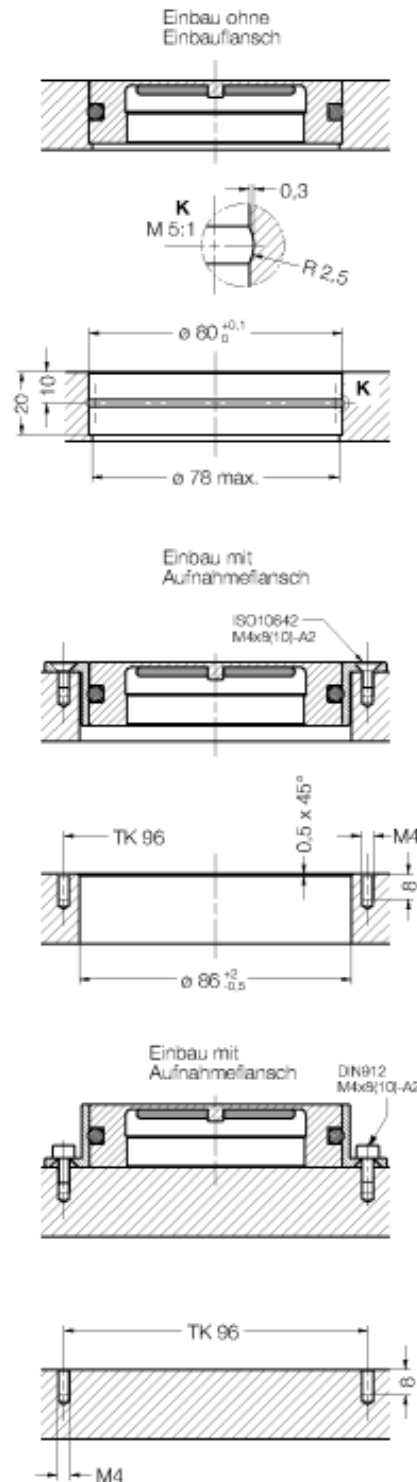
Type designation	TW-R80-M-K2
Ident-No.	7030205
Type	TW-R80-M-K2
Ident. no.	7030205
Data transfer	Inductive coupling
Operating frequency	13.56 MHz
Memory type	FRAM
Chip	Fujitsu MB89R118
Memory	2048 Byte
Memory	Read/Write
Freely usable memory	2000 Byte
Number of read operations	unlimited
Number of write 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	0 mm
Temperature of data carrier during read/write access	-25...+85 °C
Temperature of data carrier outside detection range	-25...+85 °C
	140, 1x100 h
Design	Hard tag, R80
Diameter	80 mm
Housing material	PET
Active area material	Plastic, PET, black
Protection class	IP68
Packaging unit	1

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-CK40-H1147 7030006	15	47	54	27	120
	TN-CK40-H1147/C53 7030732	15	47	54	27	120
	TN-CK40-H1147/CS30171 100016067	15	47	54	27	120
	HT-IDENT-H1147 7030236	15	47	54	27	120
	HT-IDENT-H1187 7030238	15	47	54	27	120
	TN-Q80-H1147 7030007	20	55	64	32	240
	TN-Q80-H1147/C53 100010648	20	55	64	32	240
	TNLR-Q80-H1147 7030230	35	78	80	40	240
	TNLR-Q80-H1147/C53 100010649	35	78	80	40	240
	TNLR-Q80L400-H1147 7030204	30	77	64	195	240

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]
	TNLR-Q80L400-H1147L 7030234	30	77	64	195	240
	TNLR-Q80L400-H1147L 7030234 Lengthwise	30	68	390	32	240
	TNSLR-Q42TWD-H1147 7030424	35	78	80	40	240
	TNSLR-Q42TWD-H1147/C51 7030722	35	78	80	40	240
	TNSLR-Q42TWD-H1147/C53 7030733	35	78	80	40	240
	TNSLR-Q42TWD-H1147/C44 100009610	35	78	80	40	240
	TNSLR-Q42TWD-H1147/CS30171 100016068	35	78	80	40	240
	TN-CK40-H1147/CS30171 100016067	15	47	54	27	120

Mounting instructions


These data carriers can be mounted in 3 different ways:

1. Directly potted or glued in metal (without O-ring)
2. Installed in metal with O-ring (fixed with 2 screws)
3. Mounted upside down on metal (fixed with 2 screws)

Accessories

Type code	Ident-No.	Description	Dimension drawing
MF-R80	6901152	The flange facilitates mounting of the data carrier TW-R80-M-B128 (-K2) on or in metal.	