

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.

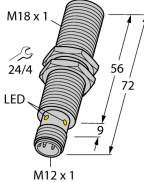
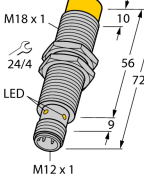
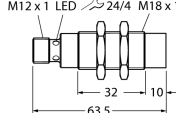
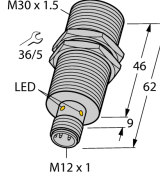
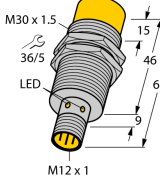
The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

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

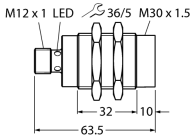
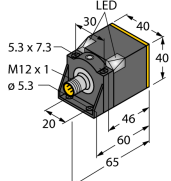
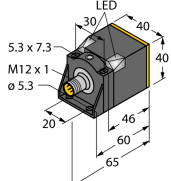
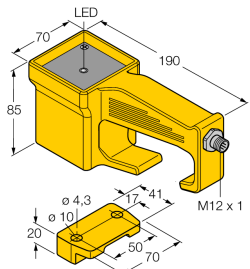
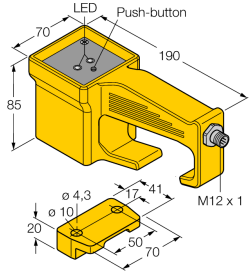
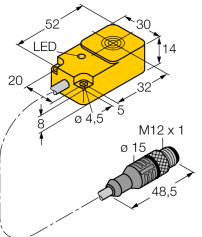
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TW-R16-B128
Ident-No.	6900501
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Ident. no.	6900501
Data transfer	Inductive coupling
Operating frequency	13.56 MHz
Memory type	EEPROM
Chip	NXP I-Code SLI/SL2
Memory	128 Byte
Memory	Read/Write
Freely usable memory	112 Byte
Number of read operations	unlimited
Number of write operations	10 ⁵
Typical read time	2 ms/byte
Typical write time	3 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	-25...+120 °C
	160, 1x35 h
	220, 1x30 s
Design	Hard tag, R16
Diameter	16 mm
Housing material	Plastic, PPS
Active area material	Plastic, PPS, black
Protection class	IP69K
Packaging unit	1
Remark to product	extended storage temperature range, suitable for Laundry applications

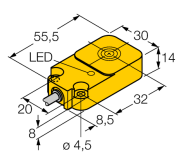
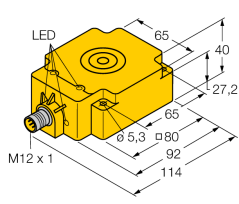
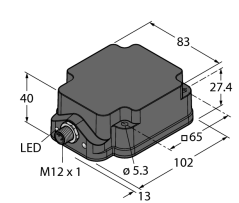
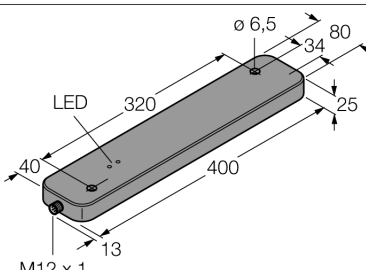
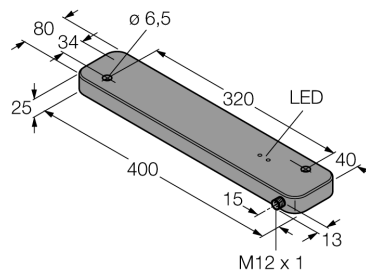
Read/write heads

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]
	TB-M18-H1147 7030001	10	17	14	7	54
	TB-EM18WD-H1147 7030224	10	17	14	7	54
	TB-M18-H1147/C53 7030729	10	17	14	7	54
	TN-M18-H1147 7030002	12	23	26	13	54
	TN-EM18WD-H1147 7030223	12	23	26	13	54
	TN-M18-H1147/C53 7030728	12	23	26	13	54
	TN-M18-IOL-H1141 100000974	10	22	28	14	36
	TB-M30-H1147 7030003	12	23	20	10	90
	TB-EM30WD-H1147 7030221	12	23	20	10	90
	TB-M30-H1147/C53 7030731	12	23	20	10	90
	TN-M30-H1147 7030004	20	38	44	22	90
	TN-EM30WD-H1147 7030222	20	38	44	22	90
	TN-M30-H1147/C53 7030730	20	38	44	22	90

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-M30-IOL-H1141	17	35	40	20	60
	100000975					
	TN-CK40-H1147	28	50	54	27	120
	7030006					
	TN-CK40-H1147/C53	28	50	54	27	120
	7030732					
	TN-CK40-H1147/CS30171	28	50	54	27	120
	100016067					
	HT-IDENT-H1147	28	50	54	27	120
	7030236					
	HT-IDENT-H1187	28	50	54	27	120
	7030238					
	TN-Q14-0.15-RS4.47T	20	38	44	22	90
	7030235					
	TN-Q14-0.15-RS4.47T/C53	20	38	44	22	90
	7030779					

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-Q14-0.1/C37 7030445	20	38	44	22	90
	TN-Q14-0.55 100003964	20	38	44	22	90
	TN-Q80-H1147 7030007	20	52	60	30	240
	TN-Q80-H1147/C53 100010648	20	52	60	30	240
	TNLR-Q80-H1147 7030230	50	85	90	45	240
	TNLR-Q80-H1147/C53 100010649	50	85	90	45	240
	TNSLR-Q80WD-H1147 7030418	75	146	144	72	450
	TNSLR-Q80WD-H1147/C50 7030721	75	146	144	72	450
	TNSLR-Q80WD-H1147/ C53 100001312	75	146	144	72	450
	TNLR-Q80L400-H1147 7030204	50	95	74	205	240
	TNLR-Q80L400-H1147L 7030234	50	95	74	205	240
	TNLR-Q80L400-H1147L 7030234Lengthwise	30	95	410	37	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-Q350-H1147	60	203	360	180	1110
	7030220					
	TNSLR-Q42TWD-H1147	50	85	90	45	240
	7030424					
	TNSLR-Q42TWD-H1147/C51	50	85	90	45	240
	7030722					
	TNSLR-Q42TWD-H1147/C53	50	85	90	45	240
	7030733					
	TB-Q08-0.15-RS4.47T	10	17	14	7	54
	7030553					
	TB-Q08-0.15-RS4.47T/C53	10	17	14	7	54
	7030778					
	TB-Q08-0.22-RS4.47T	10	17	14	7	54
	100004092					
	TN-S32XL-H1147	20	67	125	62	420
	7030008					
	TN-CK40-H1147/CS30171	28	50	54	27	120
	100016067					

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.