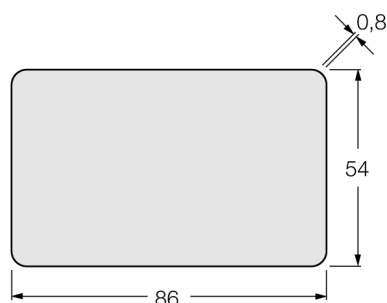



Functional principle

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.

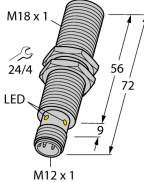
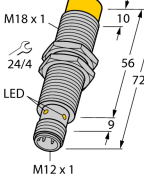
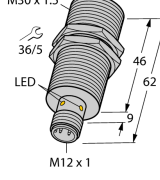
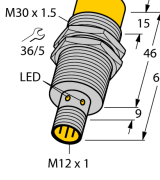
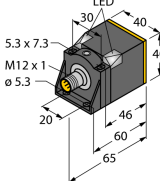
The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

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

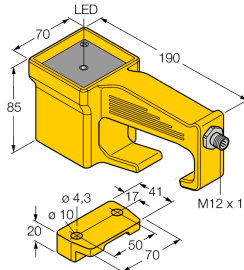
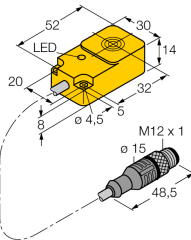
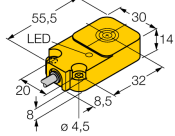
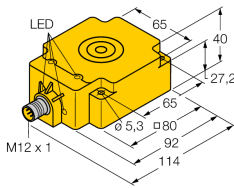
Testing of the application under real operating conditions is therefore essential, especially with read/write on-the-fly!

Type designation	TW-L86-54-C-B128
Ident-No.	6900479
Type	TW-L86-54-C-B128
Ident. no.	6900479
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...+50 °C
Temperature of data carrier outside detection range	-20...+50 °C
Design	smart card, Smart Card
Housing length	86 mm
Housing width	54 mm
Housing material	Plastic, PC
Active area material	Plastic, PC
Protection class	IP67
Packaging unit	1
Remark to product	credit-card size

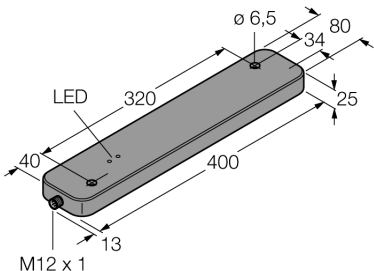
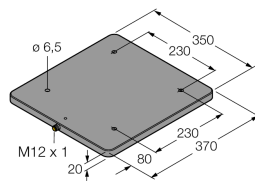
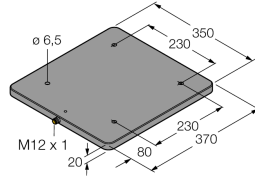
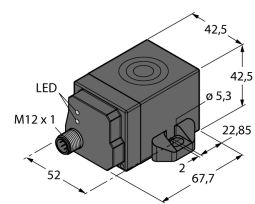
Read/write heads

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	21	70	35	54
	TB-EM18WD-H1147 7030224	10	21	70	35	54
	TB-M18-H1147/C53 7030729	10	21	70	35	54
	TN-M18-H1147 7030002	15	39	74	37	54
	TN-EM18WD-H1147 7030223	15	39	74	37	54
	TN-M18-H1147/C53 7030728	15	39	74	37	54
	TB-M30-H1147 7030003	20	45	80	40	90
	TB-EM30WD-H1147 7030221	20	45	80	40	90
	TB-M30-H1147/C53 7030731	20	45	80	40	90
	TN-M30-H1147 7030004	30	77	92	46	90
	TN-EM30WD-H1147 7030222	30	77	92	46	90
	TN-M30-H1147/C53 7030730	30	77	92	46	90
	TN-CK40-H1147 7030006	60	115	132	66	120
	TN-CK40-H1147/C53 7030732	60	115	132	66	120
	TN-CK40-H1147/CS30171 100016067	60	115	132	66	120

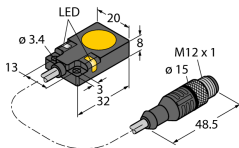
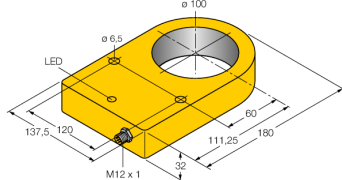
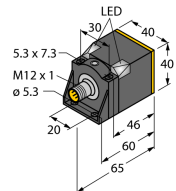
Read/write heads

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]
	HT-IDENT-H1147 7030236	60	115	132	66	120
	HT-IDENT-H1187 7030238	60	115	132	66	120
	TN-Q14-0.15-RS4.47T 7030235	20	65	98	49	90
	TN-Q14-0.15-RS4.47T/C53 7030779	30	77	92	46	90
	TN-Q14-0.1/C37 7030445	30	77	92	46	90
	TN-Q14-0.55 100003964	30	77	92	46	90
	TN-Q80-H1147 7030007	70	146	158	78	240
	TN-Q80-H1147/C53 100010648	70	146	158	78	240
	TNLR-Q80-H1147 7030230	120	215	214	107	240
	TNLR-Q80-H1147/C53 100010649	120	215	214	107	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]
	TNLQ80L400-H1147 7030204	200	345	306	242	240
	TNLQ80L400-H1147L 7030234 TNLQ80L400-H1147L 7030234 Lengthwise	200 120	345 360	306 484	242 153	240 240
	TNLQ350-H1147 7030220	360	662	660	330	1110
	TNSLQ350-H1147 7030454	432	794	792	396	1110
	TNSLQ42TWD-H1147 7030424	120	215	214	107	240
	TNSLQ42TWD-H1147/C51 7030722	120	215	214	107	240
	TNSLQ42TWD-H1147/C53 7030733	120	215	214	107	240
	TNSLQ42TWD-H1147/C44 100009610	120	215	214	107	240
	TNSLQ42TWD-H1147/CS30171 100016068	120	215	214	107	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]
	TB-Q08-0.15-RS4.47T 7030553	10	21	70	35	54
	TB-Q08-0.15-RS4.47T/C53 7030778	10	21	70	35	54
	TB-Q08-0.22-RS4.47T 100004092	10	21	70	35	54
	TB-Q08-0.15-RS4.47T/C43 7030675	10	21	70	35	54
	TN-S32XL-H1147 7030008	90	180	206	103	420
	TN-CK40-H1147/CS30171 100016067	60	115	132	66	120

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.