

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-Q51WH-HT-B128
Ident-No.	7030661

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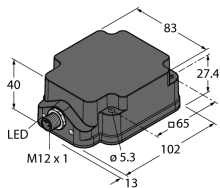
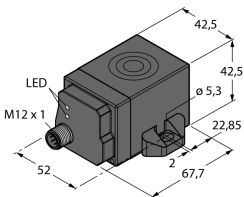
Data transfer	Inductive coupling
Operating frequency	13.56 MHz
Memory type	EEPROM
Chip	NXP I-Code SLI-X
Memory	128 Byte
Memory	Read/Write
Freely usable memory	112 Byte
Number of read operations	unlimited
Number of write operations	10 ⁵
Typical read time	2 ms/byte
Typical write time	3 ms/byte
Radio communication and protocol standards	ISO 15693

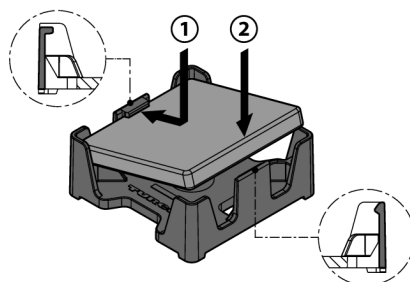
Minimum distance to metal	10 mm
Temperature of data carrier during read/write access	-25...+85 °C
Storage temperature	-40...+210 °C
Temperature of data carrier outside detection range	-55...+185 °C
	200, 60 min.
	220, 45 min.
	240, 30 Minutes

Design	Hard tag, Q51
Housing length	51 mm
Housing width	51 mm
Housing height	6.5 mm
Housing material	Plastic
Active area material	Plastic, PPS, black
Protection class	IP68

Packaging unit	1
Remark to product	High-temperature

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]
	TNSLR-Q80WD-H1147 7030418	145	260	250	125	450
	TNSLR-Q80WD-H1147/C50 7030721	145	260	250	125	450
	TNSLR-Q80WD-H1147/ C53 100001312	145	260	250	125	450
	TNSLR-Q42TWD-H1147 7030424	108	194	192	96	240
	TNSLR-Q42TWD-H1147/C51 7030722	108	194	192	96	240
	TNSLR-Q42TWD-H1147/C53 7030733	108	194	192	96	240
	TNSLR-Q42TWD-H1147/C44 100009610	108	194	192	96	240
	TNSLR-Q42TWD-H1147/CS30171 100016068	108	194	192	96	240

Mounting instructions**Mounting the data carrier properly in the retainer**

To avoid damage to the retainer, follow the instructions below.

Carefully push both sides of the data carrier in the retainer until they latch (the latches are designed differently):

1. Insert data carrier
2. Latch data carrier

Accessories

Type code	Ident-No.	Description	Dimension drawing
TH-Q51S-HT	7030541	Retainer with spring cotter for Q51 data carrier. The use of the 4.5 mm lock pin ensures protection against twisting of the retainer or the data carrier For mounting on metal. Suitable for repeated use in high-temperature. Only suitable for a single assembly (engage the data carrier in the retainer). The use of the retainer results in a clearance of 12 mm between metal to data carrier.	
TH-Q51T-HT	7030540	Retainer with M5 threaded bush to screw on Q51 data carriers. The use of the 4.5 mm lock pin ensures protection against twisting of the retainer or the data carrier For mounting on metal. Suitable for repeated use in high-temperature. Only suitable for a single assembly (engage the data carrier in the retainer). The use of the retainer results in a clearance of 12 mm between metal to data carrier.	

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.