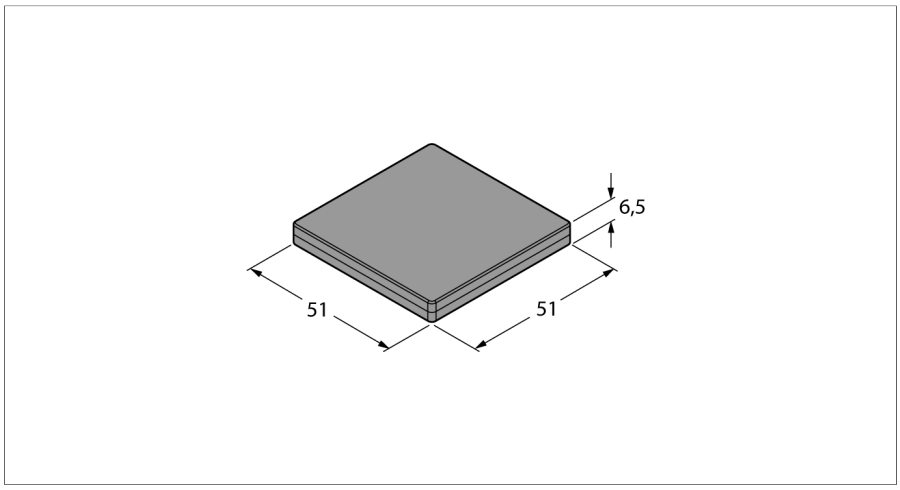
Mobile High-temperature Data Carrier
TW-Q51WH-HT-B128



Type designation	TW-Q51WH-HT-B128
Ident-No.	7030661
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
Ambient temperature	-25…+85 °C
Storage temperature	-55…+185 °C 200 °C, 60 min. 220 °C, 45 min. 240 °C, 30 Minutes
Design	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

- **The high-temperature tags must undergo adequate stress tests within the proposed temperature processes before deployment.**
- **The following stress test was performed on this data carrier:**
  Cyclic temperature stress: 20 min. at 20 °C – 20 min. at 220 °C.
  Number of tested cycles: 1500
  This successfully performed test does not imply suitability for a specific high-temperature application, but merely serves as proof of the basic usability.
- **The TH-Q51S-HT and TH-Q51T-HT brackets protect the tag from mechanical loads and allow the mounting on metal.**
- **EEPROM, memory 128 byte**

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!

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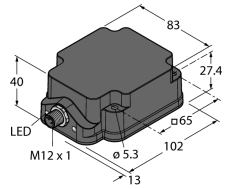
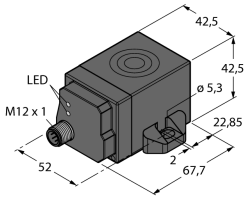
Read/write heads

Dimensions	Type designation Ident - no.	Read-write distance Recommended (mm)	 max. [mm]	Transfer zone length max. [mm]	 width offset max. [mm]	Minimum distance between two read-write heads [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

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Compatible handhelds

	PD-IDENT-HF-RWBTA (7030601) Handheld for mobile reading and writing to data carriers. Equipped with WLAN 802.11a/b/g/n and Bluetooth; incl. docking station with power supply, USB cable, and TURCK RFID Software TA-HF.
	PD-IDENT-HF-S2D-RWBTA (7030602) Handheld for mobile reading and writing to data carriers. Equipped with WLAN 802.11a/b/g/n, Bluetooth and 2 D barcode scanner; incl. pistol grip, docking station with power supply, USB cable, and TURCK RFID software TA-HF.
	PD-IDENT-HF-L1D-RBUP-SMART (7030564) Handheld for mobile reading and writing to data carriers. Keyboard functions (HID) for wireless transmission of data via Bluetooth (also to IOS devices) or USB. Barcode 1 D laser scanner and only three buttons for ease of use.

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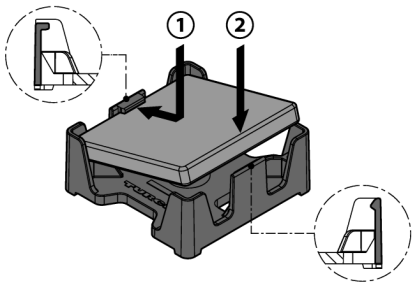
Mounting instructions



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

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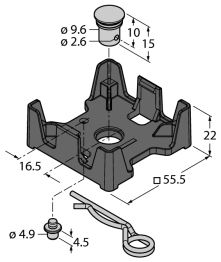
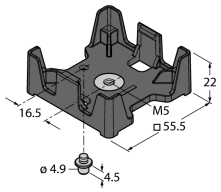
Accessories

Type code	Ident-No.	Description	
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.

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