

■ **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.

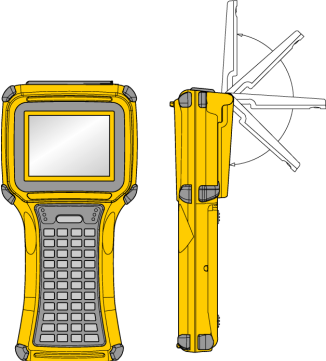

The read/write distances of data carriers suitable for mounting in/on metal were determined in/on metal.

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!

<b>Type code</b>	TW-R20-B128-Ex
Ident no.	7030242
<b>Data transfer</b>	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 <sup>5</sup>
Typical read time	2 ms/byte
Typical write time	3 ms/byte
Radio communication and protocol standards	ISO 15693
<b>Minimum distance to metal</b>	10 mm
Ambient temperature	-25...+85 °C in the explosion hazardous area see instruction leaflet
<b>Device designation</b>	Ex II 2 G Ex ia IIC T4/T6 II 2D Ex iaD 21 T110°C
Approval acc. to	BVS 09 ATEX E 036 X
<b>Diameter</b>	20 mm +/- 0.5 mm mm
Housing height	2.8 mm +/- 0.5 mm mm
Housing material	plastic, PA
Material active area	Plastic, Black, PA
Protection class	IP69K
<b>Packaged quantity</b>	1
Special features	ATEX

Compatible handhelds

	<p>PD-IDENT (1542331), PD-IDENT-WLAN (1542340) Handheld for mobile reading and writing to data carriers.</p>	
	<p>PD-IDENT-HF-RBTW (7030499), PD-IDENT-HF-RWBTW (7030534), PD-IDENT-HF-S2D-RBTW(7030539), PD-IDENT-HF-S2D-RWBTW (7030560) Handheld for mobile reading and writing to data carriers.</p>	

## Operating manual

### Intended use

This device fulfils the directive 94/9/EC and is suited for use in explosion hazardous areas as per EN60079-0, -11 and EN61241-0, -11

### For use in explosion hazardous areas conform to classification

II 2 G and II 2 D (Group II, Category 2 G, electrical equipment for gaseous atmospheres and category 2 D, electrical equipment for dust atmospheres)

### Marking (see device or technical data sheet)

⊕ II 2 G and Ex air IIC T4/T6 and EN60079-0:2006 and EN60079-11:2007 and ⊕ II 2 D Ex aid 21 T110°C and EN61241-0:2006 and EN61241-11:2006

### Local admissible ambient temperature

As ATEX category II 2 G electrical equipment -45...+55°C for T6, -45...+85°C for T4 and as category II 2 D -45...+85°C

### Installation / Commissioning

These devices may only be installed, connected and operated by trained and qualified staff. Qualified staff must have knowledge of protection classes, directives and regulations concerning electrical equipment designed for use in explosion hazardous areas and if necessary, of the regulations applicable to safety-related systems.

Please verify that the classification and the marking on the device comply with the actual application conditions.

### Installation and mounting instructions

Avoid static charging of cables and plastic devices. Please only clean the device with a damp cloth. Do not install the device in a dust flow and avoid build-up of dust deposits on the device.

### Special conditions for safe operation

Special conditions indicated with the X in the approval should be observed to ensure safe operation.

Data carriers applied in explosion hazardous area should only be read and written to with devices which are approved for this area.

In order to observe the admissible surface temperature of the data carriers, the strength of allowed electromagnetic fields should be limited.

Maximum values should comply with the safety and occupational health regulations. The regulation BGV B11 of the BGFE for electromagnetic fields is applied in Germany.

The data carriers should not be damaged when mounted or dismantled. Please also ensure that the label is clearly visible for later inspection when mounted. To avoid possible electrostatic discharge, 50 mm Ø data carriers should be mounted with only one freely accessible side. Due to possible electrostatic discharge, all mounting screws and brackets for data carriers should be earthed safely when applied in the hazardous dust explosive area. If this is not possible, because the data carrier is mobile for example, use plastic screws and brackets.

In hazardous dust explosive areas metal screws and brackets for data carriers have to be earthed safely. Static charge caused by cleaning, friction or other forms of charge separation has to be avoided.

Data carriers approved for temperature class T6 (-45°C ... +55°C ) and T4 (-45°C ... +85°C ) can be applied in hazardous gas explosive areas. The data carriers can be applied in hazardous dust explosive areas at ambient temperatures of -45°C to +85°C

### service / maintenance

Servicing is not required. Defective data carriers have to be replaced, repair is not possible. Mechanically damaged data carriers must be removed.