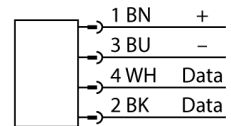


- Rectangular, height 40 mm
- Active face on top
- Plastic, PBT-GF30-VO

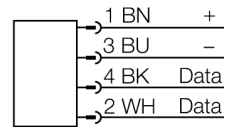
.../S2503 Connectors



Connector .../S2500



Connector .../S2501



### 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.



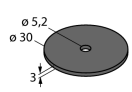
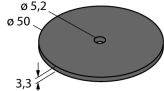
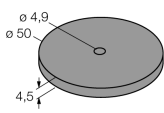
The read/write distances of the data carriers for mounting in metal TW-R\*\*-M(MF) were determined in metal.

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 designation</b>	TN-Q80-H1147-EX
Ident-No.	7030302
Ident-No (TUSA)	M7030302
<b>Mounting conditions</b>	Non-flush, flush mountable
Ambient temperature	-25...+70 °C
	For explosion hazardous areas see instruction leaflet
Storage temperature	For explosion hazardous areas see instruction leaflet
<b>Device marking</b>	Ⓔ II 3G Ex nA II T4 II 3D Ex tD A22 IP67 T135°C
Approval acc. to	BVS 09 ATEX E 122 X
<b>Operating voltage</b>	10...30 VDC
DC rated operational current	≤ 80 mA
Data transfer	inductive coupling
Operating frequency	13.56 MHz
Radio communication and protocol standards	ISO 15693
Read/Write distance max.	118 mm
Output function	4-wire, Read/Write
Suitable for bus mode on TBEN-*	no
<b>Design</b>	Rectangular, Q80
Dimensions	92x 80x 40mm
Housing material	Plastic, PBT-GF30-V0, Yellow
Active area material	Plastic
<b>Electrical connection</b>	Connector
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	248 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Included in delivery	SC-M12/3GD
<b>Packaging unit</b>	1
Remark to product	ATEX

Data carrier

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]
	<b>TW-R16-B128-EX</b> 7030241	20	52	60	30	240
	<b>TW-R20-B128-EX</b> 7030242	35	65	72	36	240
	<b>TW-R20-K2-EX</b> 7030245	25	52	70	35	240
	<b>TW-R30-B128-EX</b> 7030243	35	72	80	40	240
	<b>TW-R30-K2-EX</b> 7030246	35	67	80	40	240
	<b>TW-R50-B128EX</b> 7030244	65	118	120	60	240
	<b>TW-R50-K2-EX</b> 7030247	50	100	110	55	240
	<b>TW-R50-MF-K2-EX</b> 7030248	20	35	48	24	240

## Operating manual

### Intended use

This device fulfills the directive 94/9/EC and is suited for use in explosion hazardous areas acc. to EN60079-0, -15 and EN61241-0, -1

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

II 3 G and II 3 D (Group II, Category 3 G, electrical equipment for gaseous atmospheres and category 3 D, electrical equipment for dust atmospheres).

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

Ⓔ II 3G and Ex nA II T4 acc. to EN60079-0:2006 and EN60079-15:2005 and Ⓔ II 3D Ex tD A22 IP67 T135°C acc. to EN61241-0:2006 and EN61241-1:2004

### Local admissible ambient temperature

-10...+50 °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.

Do not disconnect the plug-in connection or cable under voltage.

Please attach a warning label permanently in an appropriate fashion in close proximity to the plug-in connection with the following inscription:

Nicht unter Spannung trennen / Do not separate when energized.

The read/write head should be protected against mechanical impacts of > 4 J resp. 2 J in the area near the lens.

The read/write head should be protected against ultraviolet light.

### service / maintenance

Repairs are not possible. The approval expires if the device is repaired or modified by a person other than the manufacturer. The most important data from the approval are listed.