

# Type designation

TNSLR-Q350-H1147 7030454

### Remark to product Very long ranges

Electrical data Operating voltage DC rated operational current inrush current Data transfer Technology Operating frequency Radio communication and protocol standards

Ident-No.

Read/Write distance max. Output function

 19.2...28.8 VDC ≤ 150 mA

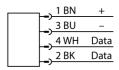
1200 mA For: 1 ms Inductive coupling HF (13.56 MHz) 13.56 MHz ISO 15693 794 mm

4-wire, Read/Write

# .../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!





Mechanical data

Mounting conditions

Ambient temperature Design

Dimensions Housing material

Active area material

Vibration resistance

Shock resistance Protection class

Electrical connection

MTTF

Power-on indication

Diagnostic display

 Non-flush -25...+70 °C Rectangular, Q350 370x 350x 20mm

Plastic, PBT-GF30-V0, Black

Plastic, black 55 Hz (1 mm) 30 g (11 ms) IP67

Connector, M12 × 1

121 years acc. to SN 29500 (Ed. 99) 40 °C

LED,Green

Functional description of the orange range-restricted LED: If the read/write head is supplied with voltage, it briefly checks to see whether its resonance frequency is affected by surrounding metal. If this is the case, the resonant circuit off-tunes its frequency to reach again the (optimum) resonance frequency. However, this is only possible within a certain range. If too much metal is in the environment, the read/write head cannot re-tune or the surrounding metal takes too much energy from the field and due to the reduced range the communication between the read/ write head and the tag (data carrier) is cut off (the orange range-restricted-LED lights up). If the LED is off, this does not mean conversely, that no reduction in range occurs. The lit LED is rather an indication of too much metal in the environment and a greatly reduced range (about 50% less).

Packaging unit

1





# Data carrier

| Dimensions | Type designation             | Read-write distance   |           | Transfer zone       |                           | Minimum dis-<br>tance between<br>two read-<br>write heads |
|------------|------------------------------|-----------------------|-----------|---------------------|---------------------------|---|
|            | Ident - no.                  | Recommend-<br>ed (mm) | max. [mm] | length<br>max. [mm] | width offset<br>max. [mm] | [mm]  |
|            | TW-R50-B128<br>6900504       | 280                   | 560       | 600                 | 300                       | 1110  |
| 05.2       | TW-R50-K2<br>6900507         | 210                   | 400       | 480                 | 240                       | 1110  |
| 86         | TW-L86-54-C-B128<br>6900479  | 432                   | 794       | 792                 | 396                       | 1110  |
| o 9,5      | <b>TW-R9.5-K2</b><br>7030558 | 35                    | 130       | 350                 | 175                       | 1110  |