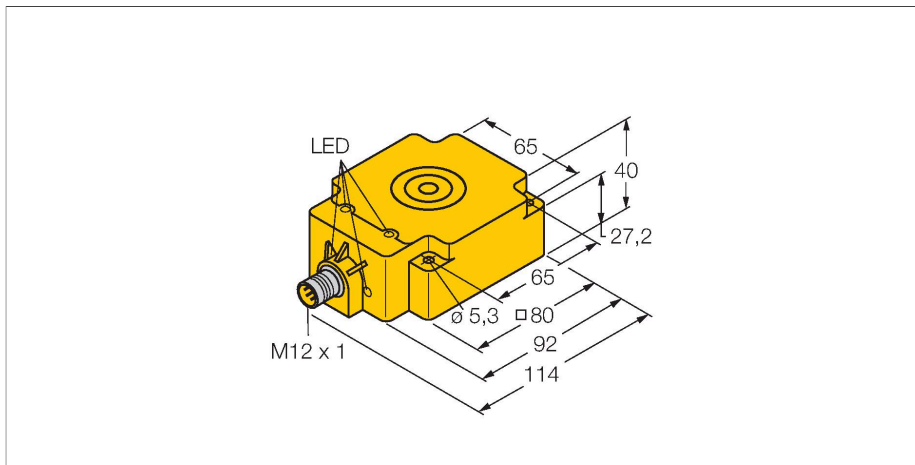


TNLR-Q80-H1147

HF Read/Write Head



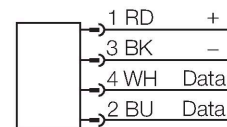
Technical data

| | |
|--|---|
| Type | TNLR-Q80-H1147 |
| ID | 7030230 |
| Approvals | CE UKCA UL |
| Radio approvals | EU/RED: Europe UK SI 2017/1206: United Kingdom FCC: USA IC: Canada RCM: Australia/New Zealand |
| Electrical data | |
| Operating voltage | 19.2...28.8 VDC |
| DC rated operational current | ≤ 90 mA |
| inrush current | 1100 mA For: 1 ms |
| Data transfer | Inductive coupling |
| Technology | HF RFID |
| Operating frequency | 13.56 MHz |
| Radio communication and protocol standards | ISO 15693 NFC Typ 5 |
| Read/Write distance max. | 215 mm |
| Output function | 4-wire, Read/Write |
| Mechanical data | |
| Mounting conditions | Non-flush, partially embeddable |
| Ambient temperature | -25...+70 °C |
| Design | Rectangular, Q80 |
| Dimensions | 92 x 80 x 40 mm |
| Housing material | Plastic, PBT-GF30-V0, Yellow |
| Active area material | Plastic |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |

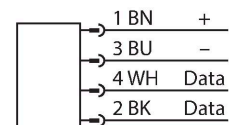
Features

- Rectangular, height 40 mm
- Active face on top
- Plastic, PBT-GF30-V0
- Powered and operated only via connection to BL ident interface module
- M12 × 1 connector, connection only via BL ident extension cable

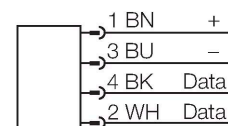
.../S2503 Connectors



.../S2500 Connectors



.../S2501 Connectors



Functional principle

The HF read/write devices operating at a frequency of 13.56 MHz form a transmission zone, the size of which (0...500 mm) varies

Technical data

| | |
|---------------------|---|
| Protection class | IP67 |
| MTTF | 248 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED, Green |
| Packaging unit | 1 |

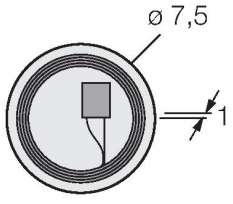
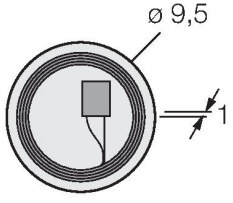
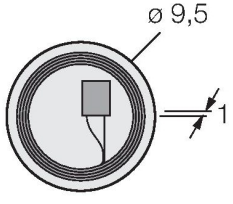
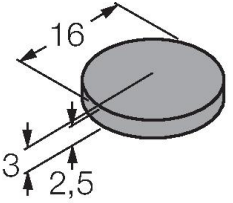
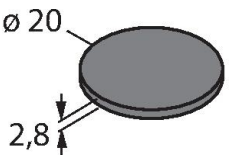
depending on the combination of read/write device and tag used.
 The read/write distances mentioned here only represent standard values measured under laboratory conditions, free from any influences caused by surrounding materials.
 The read/write distances of the tags for mounting in metal TW-R**-M(MF) 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 on-the-fly reading and writing!

Mounting instructions/Description

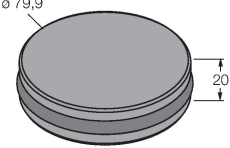
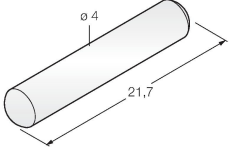
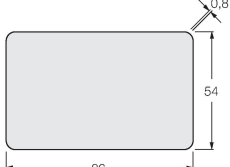
Width active area 80 mm
 B

| | | | |
|-----|-------|--------|---------|
| LED | Color | Status | Meaning |
|-----|-------|--------|---------|

\\Graphics\Pic4\00185369_0.EPS

| Dimensions | Type designation | Read-write distance | | Transfer zone | | Minimum distance between two read-write heads [mm] |
|---|--------------------------------|---------------------|-----------|------------------|------------------------|--|
| | | Recommended (mm) | max. [mm] | length max. [mm] | width offset max. [mm] | |
|  | TW-R7.5-B128 7030231 | 20 | 41 | 60 | 30 | 240 |
|  | TW-R9.5-B128 7030252 | 22 | 45 | 66 | 33 | 240 |
|  | TW-R9.5-K2 7030558 | 34 | 70 | 76 | 38 | 240 |
|  | TW-R16-B128 6900501 | 50 | 85 | 90 | 45 | 240 |
|  | TW-R20-B128 6900502 | 50 | 88 | 92 | 47 | 240 |

| | | | | | | |
|-------------------------------|---|----|-----|-----|----|-----|
| <p>∅ 20 2,8</p> | <p>TW-R20-B320 100005244</p> | 50 | 88 | 92 | 47 | 240 |
| <p>∅ 20 2,8</p> | <p>TW-R20-K2 6900505</p> | 40 | 75 | 84 | 42 | 240 |
| <p>∅ 5,2 ∅ 30 3</p> | <p>TW-R30-B128 6900503</p> | 60 | 115 | 116 | 58 | 240 |
| <p>∅ 5,2 ∅ 30 3</p> | <p>TW-R30-B320 100005245</p> | 60 | 115 | 116 | 58 | 240 |
| <p>∅ 5,2 ∅ 30 3</p> | <p>TW-R30-K2 6900506</p> | 60 | 98 | 104 | 52 | 240 |
| <p>∅ 5,2 ∅ 50 3,3</p> | <p>TW-R50-B128 6900504</p> | 80 | 165 | 168 | 84 | 240 |
| <p>∅ 5,2 ∅ 50 3,3</p> | <p>TW-R50-B320 100005246</p> | 80 | 165 | 168 | 84 | 240 |
| <p>∅ 5,2 ∅ 50 3,3</p> | <p>TW-R50-K2 6900507</p> | 90 | 144 | 150 | 75 | 240 |
| <p>M18 x 1 0,3 10</p> | <p>TW-SPP18X1-B128 6901062</p> | 30 | 66 | 80 | 40 | 240 |
| <p>∅ 49,9 15</p> | <p>TW-R50-M-B128 7030209</p> | 35 | 58 | 64 | 32 | 240 |
| <p>∅ 79,9 20</p> | <p>TW-R80-M-B128 7030207</p> | 50 | 90 | 90 | 45 | 240 |
| <p>∅ 49,9 15</p> | <p>TW-R50-M-K2 7030229</p> | 30 | 58 | 76 | 38 | 240 |

| | | | | | | |
|--|--|-----|-----|-----|-----|-----|
|  <p>Technical drawing of a circular disc. The diameter is labeled as $\varnothing 79,9$ and the thickness is labeled as 20.</p> | <p>TW-R80-M-K2 7030205</p> | 35 | 78 | 80 | 40 | 240 |
|  <p>Technical drawing of a cylindrical rod. The diameter is labeled as $\varnothing 4$ and the length is labeled as 21,7.</p> | <p>TW-R4-22-B128 7030237</p> | 40 | 73 | 86 | 43 | 240 |
|  <p>Technical drawing of a rectangular plate. The width is labeled as 86, the height is labeled as 54, and the thickness is labeled as 0,8.</p> | <p>TW-L86-54-C-B128 6900479</p> | 120 | 215 | 214 | 107 | 240 |