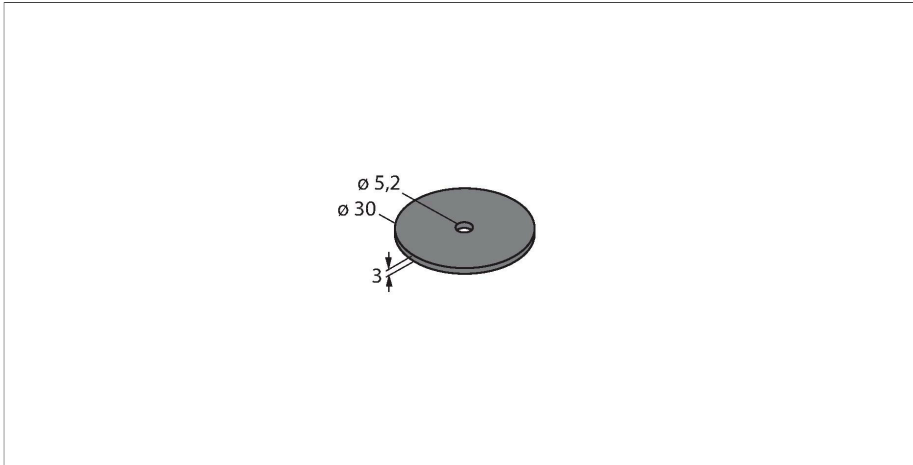


# TW-R30-K2 HF Tag



## Technical data

|  |   |
|--|---|
| Type                                       | TW-R30-K2                                 |
| ID   | 6900506                                   |
| Remark to product                          | Not suitable for direct mounting on metal |
| Data transfer                              | Inductive coupling                        |
| Technology                                 | HF RFID                                   |
| Operating frequency                        | 13.56 MHz                                 |
| Radio communication and protocol standards | ISO 15693<br>NFC Typ 5                    |
| Read/Write distance max.                   | 215 mm                                    |
| Design                                     | Hard tag, R30                             |
| Housing material                           | Plastic, PA6                              |
| Active area material                       | Plastic, PA6, black                       |
| Protection class                           | IP69K                                     |
| Tightening torque                          | ≤ 6.5 Nm                                  |
| Packaging unit                             | 1   |

## Technical data

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| Type                      | TW-R30-K2                                 |
| ID                        | 6900506                                   |
| Remark to product         | Not suitable for direct mounting on metal |
| Data transfer             | Inductive coupling                        |
| Technology                | HF RFID                                   |
| Operating frequency       | 13.56 MHz                                 |
| Memory type               | FRAM                                      |
| Chip                      | Fujitsu MB89R118                          |
| Memory size               | 2048 Byte                                 |
| Memory                    | Read/Write                                |
| Freely usable memory      | 2000 Byte                                 |
| Number of read operations | unlimited                                 |

## Features

- The tags must undergo adequate stress tests within the proposed temperature processes before deployment.
- The following stress test was performed on this tag:  
Cyclic temperature stress: 5 min at -40 °C – 5 min at 90 °C  
Number of tested cycles: 100, transition period: 30 seconds  
Continuous load: 140 °C for 100 hours
- This successfully performed test does not imply suitability for a specific application, but merely serves as proof of the basic usability.
- FRAM memory 2 kB
- Not for direct mounting on metal

## 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, depending on the combination of read/write head 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.

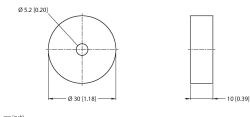
The read/write distances of tags suitable for mounting in/on metal were determined in/on metal.

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 on-the-fly reading and writing!

## Technical data

|  |                        |
|--|------------------------|
| Number of write operations                 | 10 <sup>10</sup>       |
| Typical read time                          | 0.5 ms/Byte            |
| Typical write time                         | 0.5 ms/Byte            |
| Radio communication and protocol standards | ISO 15693<br>NFC Typ 5 |
| Minimum distance to metal                  | 10 mm                  |
| Temperature during read/write access       | -40...+85 °C           |
| Temperature outside detection range        | -40...+90 °C           |
|  | 140 °C, 1 × 100 h      |
| Design                                     | Hard tag, R30          |
| Diameter                                   | 30 mm +/- 0.5 mm       |
| Internal diameter                          | 5.2 mm +/- 0.3 mm      |
| Housing height                             | 3 mm +/- 0.5 mm        |
| Housing material                           | Plastic, PA6           |
| Active area material                       | Plastic, PA6, black    |
| Tightening torque                          | ≤ 6.5 Nm               |
| Protection class                           | IP69K                  |
| Packaging unit                             | 1                      |

## Accessories

**DS-R30**
**6900512**


Spacer for indirect mounting of tags on metal.