



1) Sensing surface, 2) Tightening torque



**Basic features**

|                            |               |
|----------------------------|---------------|
| <b>Antenna type</b>        | round         |
| <b>Approval/Conformity</b> | CE<br>WEEE    |
| <b>EN 55022</b>            | Size 1, Cl. B |

**Electrical data**

|                                  |   |
|----------------------------------|---|
| <b>Data retention time/years</b> | ≥ 10 at 55 °C                                       |
| <b>Memory organization</b>       | 250 × 8 bytes                                       |
| <b>Programming cycles</b>        | ≥ 10.000.000.000                                    |
| <b>Read cycles</b>               | Unlimited   |
| <b>Read time</b>                 | User ID for 8 bytes: 0.02 s<br>for 16 bytes: 0.03 s |

**Environmental conditions**

|                                |               |
|--------------------------------|---------------|
| <b>Ambient temperature</b>     | -25...70 °C   |
| <b>Continuous shock load</b>   | yes           |
| <b>EN 60068-2-27, Shock</b>    | yes           |
| <b>EN 60068-2-32 Free fall</b> | yes           |
| <b>EN 60068-2-6, Vibration</b> | yes           |
| <b>IP rating per DIN 40050</b> | IP68<br>IPx9K |

**Functional Characteristics**

|                                     |           |
|-------------------------------------|-----------|
| <b>Memory type</b>                  | FRAM      |
| <b>UID serial number, read-only</b> | 8 Byte    |
| <b>User data, read/write</b>        | 2000 Byte |

**Material**

|   |   |
|---|---|
| <b>Housing material</b>                     | Steel, Data carrier: PA 12-GF30, coated |
| <b>Housing material, surface protection</b> | coated                                  |

**Mechanical data**

|                           |              |
|---------------------------|--------------|
| <b>Application weight</b> | 16.00 g      |
| <b>Dimension</b>          | 19 × 25.9 mm |

HF (13.56 MHz)  
**BIS M-143-02/A-T6-SA4**  
Order Code: BIS017R

**BALLUFF**

#### Remarks

---

We recommend lightly oiling the data carrier screws and storing in a dry location at room temperature.  
Values are under rated conditions unless otherwise specified.  
Only when used together with the appropriate read/write head.  
For installation requirements see corresponding read/write head.  
Time specification includes data check.  
Lubricate screw before installing.