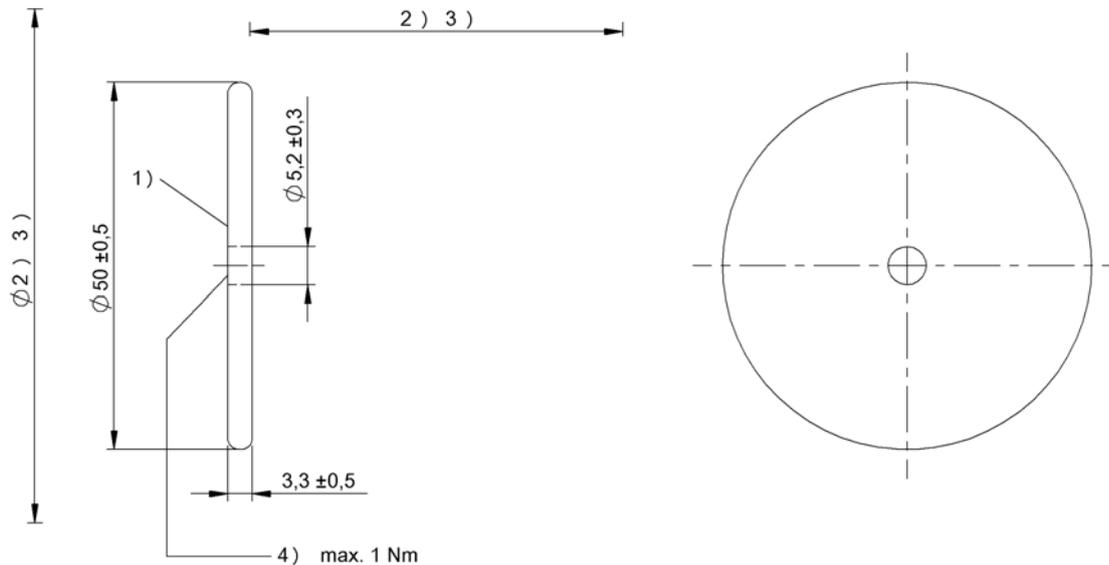


HF (13.56 MHz)  
 BIS M-112-02/L  
 Order Code: BIS0046

**BALLUFF**



- 1) Sensing surface
- 2) Clear zone
- 3) see corresponding R/W head
- 4) Tightening torque



**Basic features**

|                        |                    |
|------------------------|--------------------|
| Antenna type           | round              |
| Approval/Conformity    | CE<br>WEEE<br>EAC  |
| EN 55011               | Size 1, Cl. A      |
| EN 55022               | Size 1, Cl. B      |
| Food compatibility     | Directive 02/72/EC |
| Principle of operation | Data carrier       |

**Electrical data**

|                           |   |
|---------------------------|---|
| Data retention time/years | ≥ 10 at 55 °C                                       |
| Memory organization       | 250 × 8 bytes                                       |
| Programming cycles        | ≥ 10.000.000.000                                    |
| Programming time          | for 16 bytes: 0.060s                                |
| Read cycles               | Unlimited   |
| Read time                 | User ID for 8 bytes: 0.02 s<br>for 16 bytes: 0.03 s |

**Environmental conditions**

|                               |   |
|-------------------------------|---|
| Ambient temperature           | -25...85 °C   |
| Continuous shock load         | yes   |
| EN 60068-2-27, Shock          | yes   |
| EN 60068-2-32 Free fall       | yes   |
| EN 60068-2-6, Vibration       | yes   |
| IP rating                     | IP68  |
| Storage temperature           | -25...85 °C   |
| Storage temperature temporary | 140 °C 1x100 h<br>-40 °C...90 °C 1x1000 h             |
| Temperature shock             | -20 °C...+85 °C 50x10 min. with transposition in 30 s |

**Functional Characteristics**

|                              |               |
|------------------------------|---------------|
| Memory type                  | FRAM          |
| Supported data carrier types | DIN ISO 15693 |
| UID serial number, read-only | 8 Byte        |
| User data, read/write        | 2000 Byte     |

**Material**

|                  |      |
|------------------|------|
| Housing material | PA 6 |
|------------------|------|

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**Mechanical data**

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**Application weight** 9.50 g

**Dimension**

Ø 50 x 3.3 mm

**Installation**

metal-free (clear zone)

**Remarks**

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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.  
Torsional, bending and impact loading is not permitted.  
Recommended screw: M5, 8.8  
For installation in metal: Observe clear zone.  
IP68 tested according to BWN Pr 36