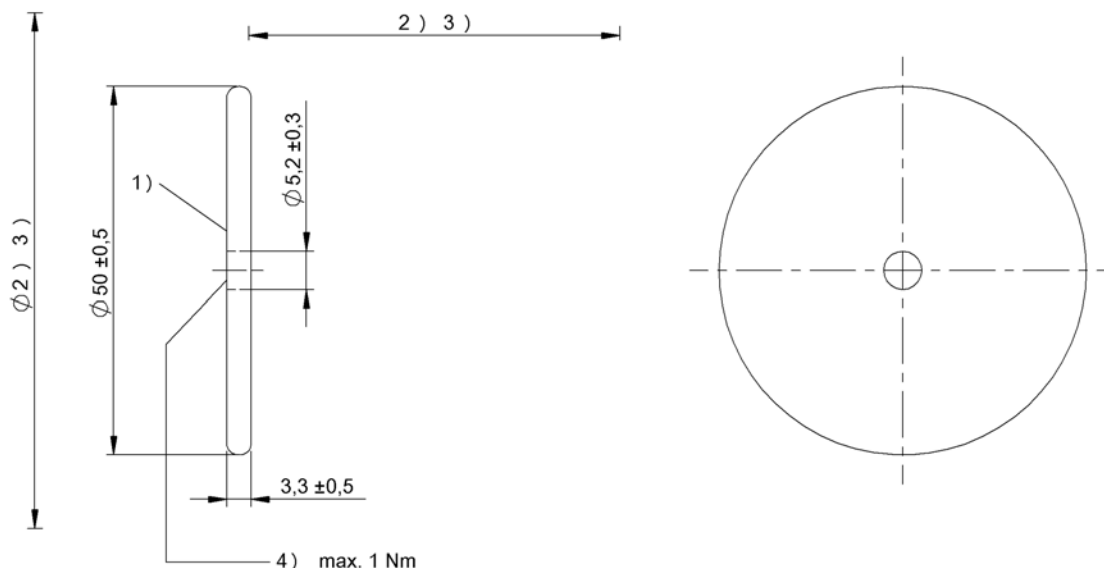


HF (13.56 MHz)  
**BIS M-112-02/L-SA1**  
 Order Code: BIS0158

**BALLUFF**



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



**Basic features**

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

**Electrical data**

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

**Environmental conditions**

<b>Ambient temperature</b>	-25...85 °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</b>	IP68
<b>IP rating per DIN 40050</b>	IPx9K
<b>Storage temperature</b>	-25...85 °C
<b>Storage temperature temporary</b>	140 °C 1x100 h -40 °C...+90 °C 1x1000 h
<b>Temperature shock</b>	-20 °C...+85 °C 50x10 min. with transposition in 30 s

**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>	PA 6
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#### Mechanical data

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**Application weight** 9.50 g

#### Remarks

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

#### Dimension

Ø 50 x 3.3 mm

#### Installation

metal-free (clear zone)