



1) Sensing surface



**Basic features**

Antenna type	round
Approval/Conformity	CE UKCA WEEE
EN 55011	Size 1, Cl. A
EN 55022	Size 1, Cl. B
Principle of operation	Data carrier

**Electrical data**

Data retention time/years	≥ 10
Memory organization	47 × 16 bits
Programming cycles	≥ 100.000
Read cycles	Unlimited
Read time	User ID for 4 bytes: 0.02s for 16 bytes: 0.02 s

**Environmental conditions**

Ambient temperature	-25...55 °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	IP67, 1 m, 30 min
Storage temperature	-25...75 °C

**Functional Characteristics**

Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
UID serial number, read-only	4 Byte
User data, read/write	752 Byte

**Material**

Housing material	ABS, Blue
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**Mechanical data**

Application weight	4.50 g
Dimension	Ø 31 x 40 mm

HF (13.56 MHz)  
**BIS M-104-01/L-BU**  
**Order Code: BIS019F**

**BALLUFF**

**Remarks**

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Torsional, bending and impact loading is not permitted.  
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.