

1) LED 4x on circumference, 2) Power/Status, 3) Tightening torque, 4) Sensing surface



### Basic features

|                                             |                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Antenna type                                | round                                                                                                  |
| Approval/Conformity                         | CE<br>UKCA<br>FCC Part 15<br>IC (Radio)<br>WEEE<br>Ecolab<br>cULus                                     |
| Principle of operation                      | Read/write head                                                                                        |
| Secondary features for condition monitoring | Vibration monitoring<br>Inclination monitoring and installation aid<br>Internal temperature monitoring |

### Display/Operation

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| Function indicator | Power (ON)<br>Green LED<br>TP (Tag Present)<br>LED yellow |
|--------------------|-----------------------------------------------------------|

### Electrical connection

|            |                            |
|------------|----------------------------|
| Connection | M12x1-Male, 4-pin, A-coded |
|------------|----------------------------|

### Electrical data

|                                                  |                                                     |
|--------------------------------------------------|-----------------------------------------------------|
| Current consumption max. at 24 V DC              | 150 mA                                              |
| Current consumption max. at 24 V DC without load | 25 mA                                               |
| Current consumption max., note                   | Output (Pin2) may be loaded with a maximum of 100mA |
| Operating voltage $U_b$                          | 18...30 VDC Supports only LPS/ Class 2              |
| Residual ripple max.                             | 1.3 Vpp                                             |
| Transfer rate                                    | COM3 (230.4 kBaud)                                  |

### Environmental conditions

|                         |             |
|-------------------------|-------------|
| Ambient temperature     | 0...70 °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, IP69K |
| Storage temperature     | -20...85 °C |

### Functional Characteristics

|                              |                                                       |
|------------------------------|-------------------------------------------------------|
| Supported data carrier types | DIN ISO 15693<br>DIN<br>ISO<br>15693<br>(High Memory) |
|------------------------------|-------------------------------------------------------|

### Functional safety

|              |         |
|--------------|---------|
| MTTF (40 °C) | 413.1 a |
|--------------|---------|

# Smart Automation and Monitoring System

HF (13.56 MHz)

**BIS M-4A3-082-401-07-S4**

**Order Code: BIS01E5**

# BALLUFF

## IO-Link

|                                   |                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------|
| <b>IO-Link Profil IDs</b>         | 0x0030 BLOB<br>0x0031 BLOB FW-Update<br>0x4000 Identification and<br>Diagnosis |
| <b>Supported IO-Link Profiles</b> | Common Profile<br>BLOB Profile<br>FW-Update Profile                            |

## Interface

|                        |             |
|------------------------|-------------|
| <b>Interface</b>       | IO-Link 1.1 |
| <b>Process data IN</b> | 10 bytes    |

## Material

|                                 |                        |
|---------------------------------|------------------------|
| <b>Housing material</b>         | 1.4404 stainless steel |
| <b>Material sensing surface</b> | PBT, GF30              |

## Mechanical data

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| <b>Application weight</b> | 17.00 g                                               |
| <b>Dimension</b>          | Ø 12 x 65 mm                                          |
| <b>Installation</b>       | metal-free (clear zone)<br>on metal<br>flush in metal |
| <b>Size</b>               | M12x1                                                 |

## Remarks

Only for data carriers acc. to ISO 15693.

For basic equipment: Accessories see [www.balluff.com](http://www.balluff.com)

Values are under rated conditions unless otherwise specified.

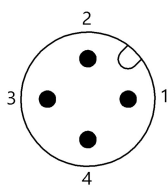
When installing, the technical standards and regulations of the corresponding countries must be observed.

Use included nuts for installation.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

## Connector Drawings



- 1 ) 2 )  
IO-Link  
1 — L+ (24 V)  
2 — I/Q  
3 — L- (GND)  
4 — C/Q