

Model:

**BF-IDM06**

**RFID Reader**

## Operating Guide

**BALLUFF**

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### **Purpose of the Device**

The BF-IDM06 RFID Reader is intended to read and write ISO15693 / ISO14443 compliant data carriers via magnetic field communication.

### **Variability**

BF-IDM06 RFID Readers are available in different housings and shapes.

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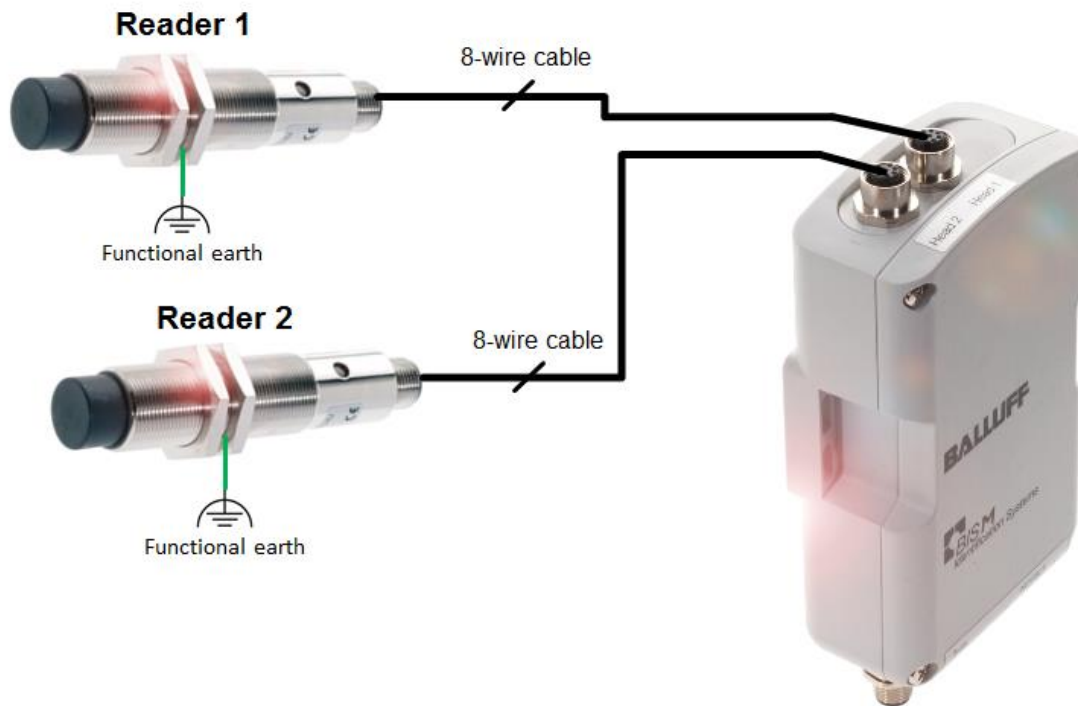
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### Connecting the Device

BF-IDM06 devices operate in combination with BIS M processor units when connected to one of the ports labeled with "Head 1" or "Head 2". For the connection a shielded standard type 8-wire cable M12 / A-coded is used.



Picture 1: Example Application

To ensure reliable operation in strong EMC environments it is recommended to connect metal housings or dedicated functional ground pins directly to installations ground. The ground connection should be short and stable. Depending on the installation situation an indirect ground connection using a RC combination may be required.

For further notes concerning the installation of the processor unit please refer to the operating guide of the processor unit.

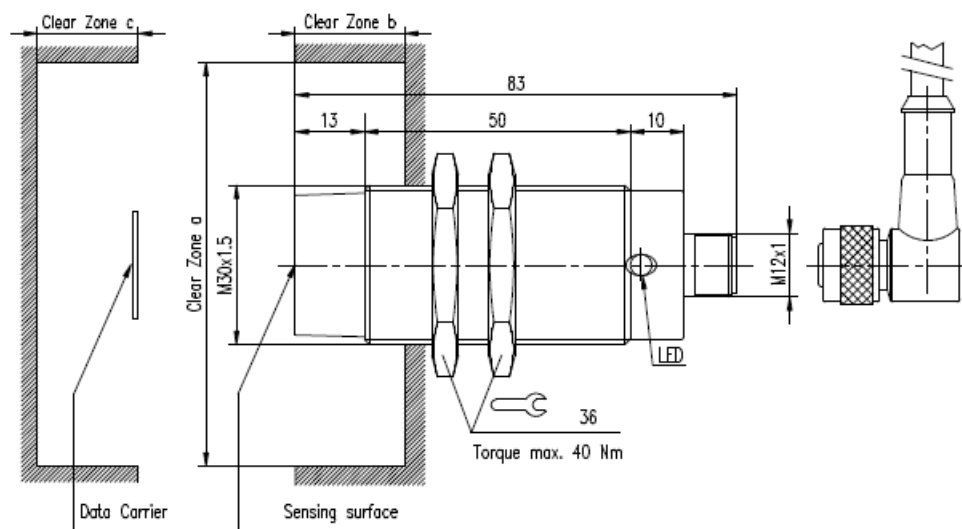
**Installation notes**

For proper operation at first a suitable mounting position has to be evaluated. The position should respect the recommended clear zones as described. Furthermore, please note that strong electrical or magnetic fields in the close environment may influence the RFID Reader.

Precise information concerning clear zones and distances are available on request.

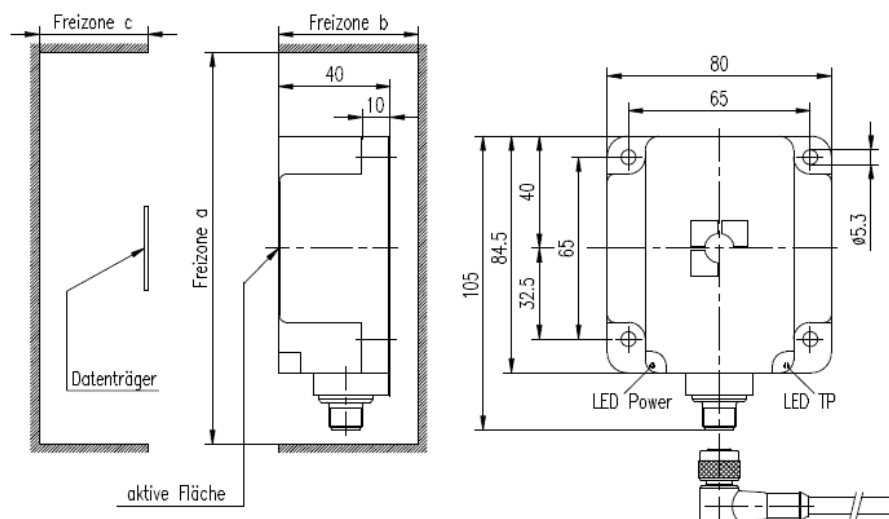
For BF-IDM06 Readers are available in different housings respectively shapes different types of installation may be considered.

## a) Direct In-Hole mounting (Example):



Picture 2: Direct In-Hole mounting (Example)

## b) Direct On-Wall mounting (Example):



Picture 3: Direct On-Wall mounting (Example)

Model:

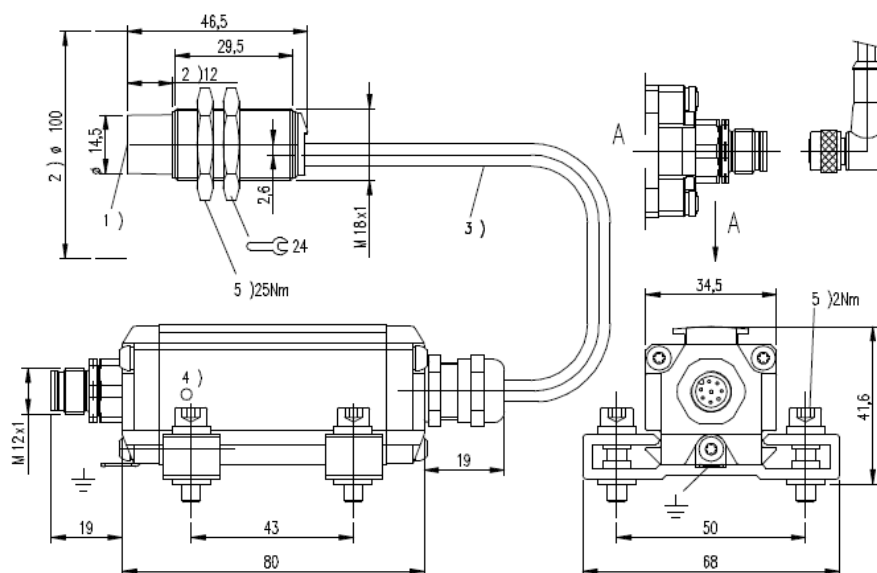
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c) Indirect On-Wall mounting using metal holder (Example):



Active surface 2) Clear zone 3) Cable length see notes 4) LED function indicator 5) Tightening torque

Picture 3: Indirect On-Wall mounting using metal holder (Example):

## Setup and Operation

For operation of BF-IDM06 Readers a BIS M type processor unit is needed. The processor unit is used as gateway between higher level controllers and RFID Reader. Any communication from and to data carriers respectively RFID Readers is managed by the processor unit. Further information concerning the operation or parameterization of RFID Readers can be found operating guide of the processor unit.

## Status Indicators

The device will show its status using the 2 LEDs at the corners of the housing. In normal operation state the meaning of these lights are as follows:

- Green light "Power" indicates that the device is connected to the processor unit and ready to operate.
- Orange light "Tag present" indicates that a RFID tag has been detected in front of the transceiver coil.

## Electrical Data

|                             |                |
|-----------------------------|----------------|
| Operating voltage (nominal) | 24 V DC        |
| Current draw (at +8 V DC)   | ≤ 200 mA       |
| Operating Frequency         | 13.56 MHz      |
| Active principle            | Magnetic field |
| Maximum transmit power      | 1 W            |

## Mechanical Data

|                  |                                    |
|------------------|------------------------------------|
| Housing Material | Metal / ABS-GF16 / PBT / PA12-GF30 |
| Weight max.      | 400g                               |

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux CNR exemptes de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes :

- ( 1 ) Ce dispositif ne peut causer d'interférences ; et
- ( 2 ) Ce dispositif doit accepter toute interférence , y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.