

Model:

**BF-IDM30**

**RFID Reader**

## **Operating Guide**

**BALLUFF**

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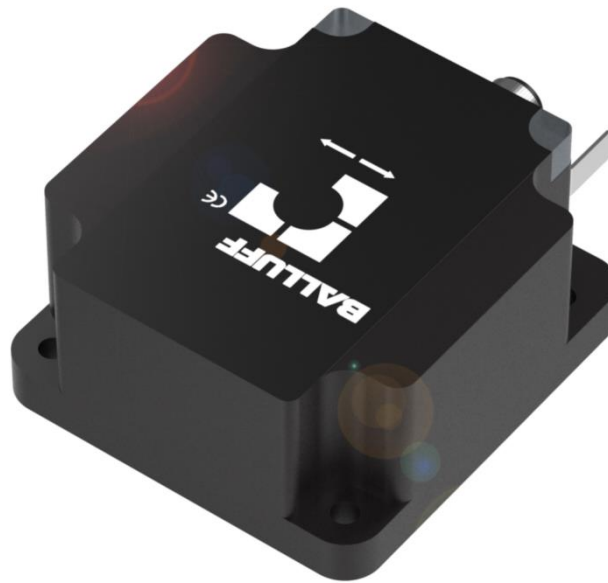
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RFID Reader

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**BALLUFF**



### Purpose of the Device

The BF-IDM30 RFID Reader is intended to read and write ISO15693 / ISO14443 compliant data carriers via magnetic field communication.

Model:

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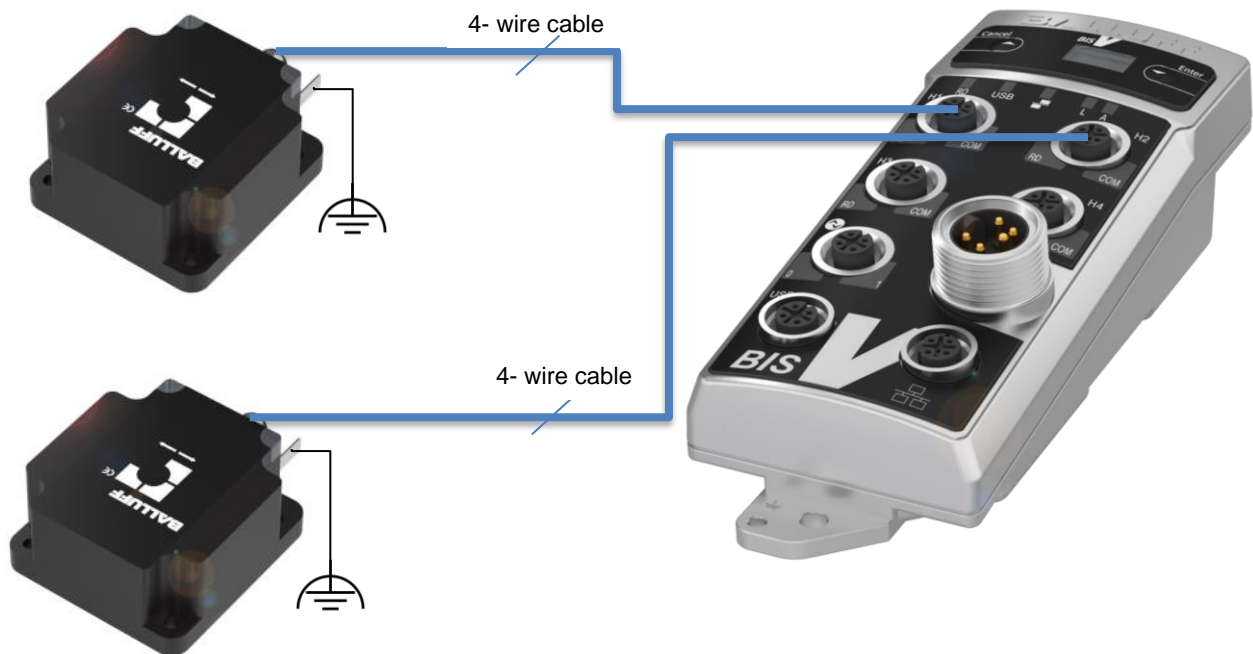
RFID Reader

## Operating Guide

**BALLUFF**

### Connecting the Device

BF-IDM30 devices operate in combination with BIS V processor units when connected to one of the ports labeled with "H1" to "H4". For the connection a shielded standard type 4-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.

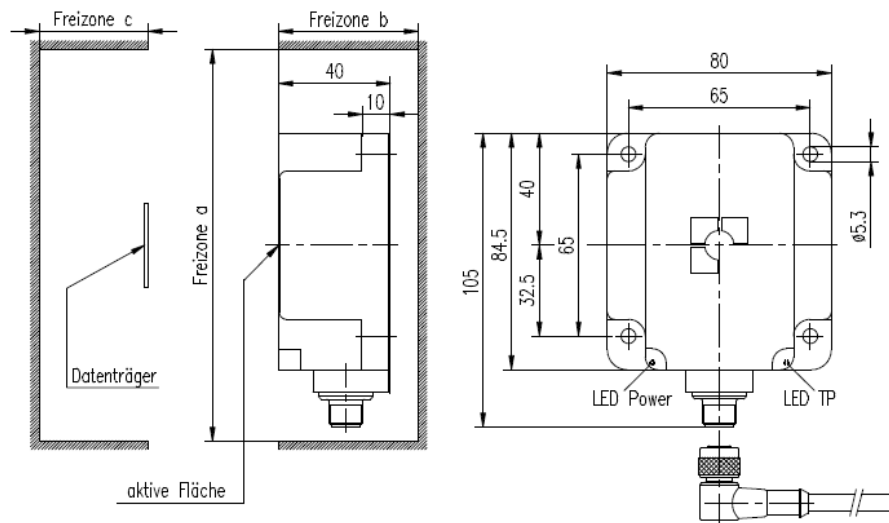
For further notes concerning the installation of the processor unit please refer to the operating guide of the processor unit.

**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.

Direct On-Wall mounting (Example):



Picture 3: Direct On-Wall mounting (Example)

**Setup and Operation**

For operation of BF-IDM30 Readers a BIS V 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 +24 V DC)	≤ 200 mA
Operating Frequency	13.56 MHz
Active principle	Magnetic field
Transmit power	Class 5

**Mechanical Data**

Housing Material	Metal / ABS-GF16 / PBT / PA12-GF30
Weight max.	400g
Ambient temperature	0...+70°C

**Statements**

This product was developed and manufactured under observance of the guidelines applicable in the USA and Canada.

Ce produit a été développé et fabriqué conformément aux directives applicables aux États-Unis et au Canada.

Model:

**BF-IDM30**

**RFID Reader**

## **Operating Guide**

**BALLUFF**

### FCC:

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device complies with the safety requirements for RF exposure for mobile (>20 cm) use conditions in accordance with FCC rule part 2.1091



FCC ID: 2AGZY-BFIDM30

This device complies with Section 15 of the FCC Rules. The following two conditions apply to operation:

- this device may not cause interference
- this device must accept any interference, including interference that may cause undesired operation of the device

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

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### ISED Canada:

This equipment complies with ISED Canada RSS-102 radiation exposure limits set forth for the general population. This equipment complies with the safety requirements for RF exposure in accordance with RSS-102 Issue 5 section 2.5.2 for mobile (>20 cm) use conditions.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- this device may not cause interference
- this device must accept any interference, including interference that may cause undesired operation of the device

Cet équipement est conforme aux limites d'exposition aux radiations CNR-102 de l'ISDE Canada établies pour la population générale. Cet équipement est conforme aux exigences de sécurité pour l'exposition aux radiofréquences conformément à la section 2.5.2 de la norme CNR-102 Issue 5 pour les conditions d'utilisation mobile (>20 cm).

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage
- l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement