

Model:

**BF-IDU05**

RFID Reader

## Data Sheet

**BALLUFF**

### Operational Description

This device is a RFID reader operating at 902 .. 928 MHz to read and write RFID tags according to ISO18000-63 / EPC Global Gen2 standard in industrial environment.

The device is intended to operate in combination with a controller which allows connection to control devices with standard industrial bus protocols.

The device is powered by 24 V limited power supply of the mentioned controller and communicates with this controller via RS-232.

### Electrical Data

Operating voltage $V_s$	21.6 .. 26.4 V DC
Current draw (at 24 V DC)	$\leq 400$ mA
Operating Frequency	902 .. 928 MHz
Operating channels (in MHz)	902.75 903.25 903.75 904.25 904.75 905.25 905.75 906.25 906.75 907.25 907.75 908.25 908.75 909.25 909.75 910.25 910.75 911.25 911.75 912.25 912.75 913.25 913.75 914.25 914.75 915.25 915.75 916.25 916.75 917.25 917.75 918.25 918.75 919.25 919.75 920.25 920.75 921.25 921.75 922.25 922.75 923.25 923.75 924.25 924.75 925.25 925.75 926.25 926.75 927.25
Maximum Transmit Power	36 dBm (4 W) EIRP <sup>1</sup>
Maximum Port Power	30 dBm <sup>2</sup>

### Mechanical Data

Housing material: Aluminium, anodized

Weight: 850 g

Ambient temperature range: -20°C ... +55°C

Device size: Length x Width x Height = 188 mm x 105 mm x 57 mm

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<sup>1</sup> Maximum Transmit Power is ensured by the software *UHF Manager* by consideration of cable loss and antenna gain. The *UHF Manager* is used to adjust the RFID reader through the mentioned controller.

<sup>2</sup> Maximum Port Power is also limited by the software *UHF Manager*.

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### **Regulatory Notes**

#### **USA:**

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 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 B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **Radiofrequency radiation exposure Information:**

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 50 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un Environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 50 cm de distance entre la source de rayonnement et votre corps.

Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.

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### Canada:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

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 :

1) L'appareil ne doit pas produire de brouillage;

2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This radio transmitter 20739-BFIDU05 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio 20739-BFIDU05 a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Antenna type	Antenna gain	Antenna impedance
BIS U-303-C1-TNCB	5.5 dBi (8.5 dBic)	50 $\Omega$
BIS U-301-C1-TNCB	2.5 dBi (5.5 dBic)	50 $\Omega$