

## iRFID100 Fixed Zone 1 UHF RFID Reader



*Zone 1 Explosion Proof UHF RFID reader. Long range reader allowing passive RFID tags to be detected at distances of up to 30m.*

**Ex II 2(1) GD**

**Ex db [Ia IIC Ga] IIB+H2 T6**

**Ex tb IIIC T85°C IP66**

**IP66**

**-20°C to +60°C**

### Overview

The Extronics iRFID100 brings RFID reader technology into the hazardous area, allowing reliable tracking solutions to be implemented in the harshest of environments. When used with Extronics extensive iTAG500 range of passive RFID tags, users can safely track and maintain any asset throughout the hazardous area. With up to 4 antenna outputs the iRFID100 provides a versatile solution for multiple read locations with just one fixed reader. The intrinsically safe RF outputs utilize Extronics patented RF Galvanic isolator technology allowing the use of specialist RFID antennas for long read range and excellent read reliability.

The reader is a UHF multi protocol module for long range applications. With programmable output power in 256 steps from 17dBm to 32dBm, the reader can detect tags at distances of up to eight meters. The iRFID100 is fully compliant to the European regulations ETSI EN302208 and EN 300220, and supports Philips UCODE EPC 1.19, ISO 18000-6B and EPC Class1 Gen2. Extronics also offer a portable handheld RFID reader with touch screen technology to conveniently capture tags information - see ordering details overleaf.

### Features and Benefits

#### Multiple Antennas

Allows up to 4 antenna outputs, each with a reading capability of up to 30m for long range tag detection<sup>1</sup>.

#### Intrinsically Safe RF Outputs

Allows additional antennas to be added without the need to power down equipment, meaning users can easily expand their tracking system capability.

#### Rugged Enclosure

Custom enclosure with IP66 ingress protection made from marine grade aluminium, epoxy painted for installation in extremely arduous environments.

#### Multi Protocol

Philips UCODE EPC 1.19  
ISO18000-6B  
EPC Class1 Gen2

#### Multi Region Support

Compliant to international regulatory approvals:

- ETSI EN 302 208
- ETSI EN 300 220

### Specification

<b>Certification Type</b>	ATEX II 2(1) GD Ex db [Ia IIC Ga] IIB+H2 T6 Ex tb IIIC T85°C IP66
<b>Power Supply</b>	Universal 90-264VAC Or 15Vdc
<b>Frequency</b>	865.6-867.6 MHz (ETSI EN 302 208)
<b>Output Power</b>	SW programmable: Up to 32 dBm (~1.6 W) conducted
<b>Power Consumption</b>	15W (max), 0.25W (idle mode)
<b>Enclosure Material</b>	Marine grade copper free aluminium light alloy, epoxy powder coated
<b>Ingress Protection</b>	IP66
<b>Weight</b>	Approx 21kg
<b>Dimensions</b>	415 x 340 x 168 mm (w x h x d)
<b>Environmental</b>	Ambient temperature -20°C to+60°C Relative humidity: 0 to 95%, non condensing
<b>Digital I/O</b>	5x GPIO pins 3.3V out, 5V tolerant
<b>Ports</b>	RS232 Serial Communication (DB9)
<b>RF Output Connections</b>	Up to four intrinsically safe N-Type RF outputs
<b>Antennas</b>	To be used with up to four iANT200 range of UHF antennas
<b>Certificate</b>	ATEX—BKI08ATEX0019 IECEX—IECEX BKI 09.0005
<b>Standards Compliance</b>	EPC C1 G2/ISO 18000-6B

<sup>1</sup>Read range is dependant on the type of tag used, surrounding objects and the tag mounting surface.



Wireless



Vision



Engineering



Tracking

## Ordering Information

**iRFID100 - Fixed UHF RFID Reader**

**iRFID100-[#1]-[#2]**

### Specify option [#1] - Power Supply

Universal AC powered (90-264VAC)  
DC powered (15Vdc)

AC  
DC

### Specify option [#2] - Number of intrinsically Safe Antenna Outputs

1 off N-type connector  
2 off N-type connector  
3 off N-type connector  
4 off N-type connector

1  
2  
3  
4

## Optional Extras

### Antennas

iANT200 Range of Simple Apparatus Certified antennas—See product datasheets for more information

iANT2XX

### Accessories

Stainless Steel 316L Enclosure Pipe mount bracket kit for iRFID100 Enclosure to fit 1.5" - 2" diameter pipe or rectangular post

iWAPMB02

### Cable Glands

iRFID100 is a flameproof / explosion-proof product and requires installation using the correct types of cable glands and stopping plugs. It is the customer's responsibility to ensure that the correct cable glands and stopping plugs are purchased for the installation. Extronics can quote for cable glands if given a full cable specification. Contact us for suitable types for use with power or Ethernet entries on this product.