

# This active RFID reader offers a perfect access solution and provides instant report of all detected Wavetrend active RFID tags.

This active RFID reader offers a perfect access solution and provides instant reporting of all detected Wavetrend active RFID tags. It responds automatically without the need for a PC or software applications once tag IDs and I/O positions are uploaded. This RFID reader allows up to 500 unique tag IDs and I/O positions to be loaded.RS232, RS485 and USB connection are available.

This compact access RFID reader can operate in rugged conditions at ultra long ranges and can be configured to run in direct control via a PC or in response mode as a standalone unit. In direct control mode the client PC will receive data from this access reader and can switch the readers I/O's on/off to lift barriers open/shut doors as directed.



It can be upgraded to increase the standard number of tag IDs and I/O positions if required. Its data output can be selected as a Wiegand output allowing it to be directly controlled by existing door controllers. This portable active RFID reader can be deployed as a standalone unit for tag detection. In tag detection applications, users can select the distance that a tag is read and a response from the I/O. It is ideally suited for proximity alarms in industrial applications. When a fixed list of up to 300 assets is required in or out of a zone, the access reader can be preset to respond to all in all out events.

### **Key Feature**

- ✓ Standalone store mode for up to 300 tags
- ✓ Selectable Wiegand conversion outputs
- Collision avoidance functionality
- ✓ RS232, RS485 and USB connection
- Supports wide variety of antennas to achieve custom coverage areas
- Compatible with L Series



| Key features  | Benefits  |
|---|---|
| Remote readers are powered via standard CAT5 cable centralized or distributed PSU topology may be used. | Units can be powered over the network or individually depending on the clients' requirements  |
| Certified for FCC and ETSI  | Can be deployed in all major countries  |
| High RF long and short range sensitivity  | High near field resolution < 0.5m   |
| USB connection  | Allows easy installation diagnostics and demonstrations   |
| RF hardened receiver  | Maintains high performance in RF noisy backgrounds  |
| Configurable protocol support for L series  | Can read both L series tags   |
| Selectable Wiegand format output  | Connecting directly into existing door controllers, the reader can be used as a direct replacement for a passive swipe card reader. |
| Standalone mode   | Automatic response to pre-loaded Tag IDS and IO control without the need of a PC or software application.                           |

#### Typical read ranges of tags with various antennas

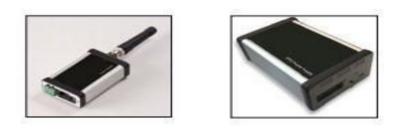
(Distances may vary depending on the ambient RF environment and site configurations and may not match those stated in this sheet. Read ranges will generally be greater outdoors than indoors. With specialist antennas, ranges in excess of 500 m can be achieved.)

| Antenna Type | Read Range                 |
|--------------|----------------------------|
| 304001       | ¼ Whip up to 50 m          |
| 304002       | 1⁄2 Stub- up to 20 m       |
| 304004       | Circular patch up to 150 m |
| 304005       | Outdoor Whip up to 150 m   |

#### Serial Networking hardware

Completing the networking suite for all power and access control requirements please refer to the 214042 and IPSU.





## **Technical Specifications**

| Environmental                      |                                       |
|------------------------------------|---------------------------------------|
| Operating temperature              | - 40 °C to 85 °C                      |
| Storage temperature                | - 20 °C to 70 °C                      |
| Humidity                           | 5% to 90% (Non condensing)            |
| IP Rating                          | IP50                                  |
| Physical                           |                                       |
| Size                               | 105 mm x 58mm x 28mm                  |
| Weight (unit)                      | 118 grams                             |
| Color                              | Aluminium Grey                        |
| Material                           | Aluminium                             |
| Connections                        | 1 x RJ45 socket                       |
|                                    | 1 Mini USB type socket                |
|                                    | 2.5mm Power socket                    |
|                                    | 2 pairs of relay contacts, C, NO , NC |
| Radio Frequency                    |                                       |
| Receive Frequency                  | 433.92 MHz                            |
| Modulation                         | ASK                                   |
| RF Input                           | 60 Ohm BNC                            |
| Electrical                         |                                       |
| Supply Voltage                     | 7 V to 16 V DC                        |
| Max. current consumption           | 60 mA                                 |
| Two pairs of re lay contacts rated | 1A                                    |
|                                    |                                       |



Protocol Specification

Standard Data Rate

Interface

9,600 to 115,200 (baud rate) RJ45 connectors

# **GAO Group**

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Active RFID Access Reader 214042

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