



## Wireless Access

# Model WRI-OTD-12VDC

## Wireless Reader Interface - Outdoor Version

### Overview

The WRI-OTD-12VDC provides wireless communications between gates or elevators and a Panel Interface Module (PIM), which is hardwired to an electronic access control panel. One elevator cab or gate can be controlled with each WRI-OTD-12VDC. Local 12VDC power must be supplied. Eliminating traveling cables and trenching, elevator and gate applications can be controlled using Wireless Access at a fraction of the cost of conventional wired solutions.

### Reliability

Ultra-reliable communications result from several technological advances and incorporated features. 900 MHz Spread Spectrum technology enables high transmission power in a license-free band. Modulo 256 error detection maintain data integrity on each transmission and redundant transmissions ensure communication success. Periodic "heartbeat" signals assure good communications are maintained between the WRI-OTD-12VDC and PIM. Lastly, Dynamic Channel Switching overcomes harsh RF environments by automatically changing channels to avoid potential interference.

### Universal

Utilizing open standards for compatibility with virtually all access control systems, seamlessly integrate the WRI-OTD-12VDC into new and existing installations. The WRI-OTD-12VDC installs like a traditional wired access point and includes the following features:

- 2 reader inputs for a mix of reader technologies or multiple reader positions on one side of a door or gate
- 2 Form C relay outputs (Strike and Auxiliary)
- 4 additional inputs, including door position, request-to-exit, request-to-enter, and tamper

Security is also maintained as the WRI-OTD-12VDC utilizes Spread Spectrum transmissions, which are encoded with 128-bit keys, to yield a system that is virtually uncompromisable. In addition, scalability is virtually unlimited as each Wireless Access Point Module (WAPM) has nearly a million addresses to choose from during the linking process.



### ORDERING INFORMATION

**WRI-OTD-12VDC** - Wireless Reader Interface for indoor and outdoor applications, Weather-tight enclosure included with antenna inside. Requires 12VDC power supply and external readers.

### OPTIONAL ACCESSORIES

**ANT-REM-IN** - Omni-directional remote indoor antenna module.

**ANT-REM-I/O** - Omni-directional remote indoor/ outdoor antenna module with grounding kit.

**ANT-REM-I/O+6DB** - Directional, flat panel, remote indoor/outdoor antenna with 6dB of gain. Requires available Grounding Kit (MGB+MCA5) for outdoor installations.

**593PI-12DC (Power supply)**  
12VDC power supply

## FEATURES

- Wireless communications with Panel Interface Module up to 1000 feet line of sight or up to 4000 feet with optional gain antennas
- 900MHz Spread Spectrum RF technology
- Encoded Spread Spectrum transmissions
- Weather-tight enclosure
- Inputs for 2 readers, such as high mount for trucks and low mount for cars
- Interfaces for all access-controlled door, gate or elevator peripheral devices
- Flash memory

## ADDITIONAL FEATURES

### Ultra-Reliable Communications

900MHz band, with 15 channels to choose from, up to 225mW of power, Modulo 256 error detection on every transmission and redundant transmissions.

### Online Communications (Heartbeat)

Regular communications between the WRI-OTD-12VDC and Panel Interface Module (PIM) monitor transmission presence and integrity. Online communications enable the PIM to download information or instructions to the WRI-OTD-12VDC. The period between heartbeat transmissions is configurable from 1 second to 18 hours in 1-second increments.

### Auto Addressing

A simple one-button operation links the WRI-OTD-12VDC to a select PIM and assigns a unique address. There are over 65,000 unique addresses available per channel, providing nearly a million combinations for virtually unlimited scalability.

### Assured Communications

A Packet-Error-Rate test is performed during linking, assuring greater than 99.0% of all messages get through.

### Long Range

Up to 200 feet normal building construction, horizontal.  
Up to 1000 feet line of sight.

### Encoded Transmissions

Each transmission is encoded using 128-bit keys to provide virtually uncompromisable security.

### Tamper

The WRI-OTD-12VDC has a Tamper switch.

### Visual Indicators

One green LED to indicate:  
- power on  
- WRI tamper status

One bi-colored LED (red & green) to indicate:

- state of output relays
- access deny
- no RF communication
- linking status to PIM
- WRI firmware version

## BENEFITS

- Installs quickly and reduces time and wiring costs
- Long range with ultra-reliable communications
- Virtually impossible to be compromised
- Suitable for outdoors applications
- One unit covers both card and keypad data
- Easy to upgrade to latest software
- Easy remote installation, compatible with ALL existing access control systems

## SPECIFICATIONS

- Certifications:** FCC Part 15 certified, RSS-210 of Industry Canada approved, UL 294 certified
- Frequency Range:** 902MHz to 928MHz license-free band in U.S. and Canada 15 discrete channels to select from
- Transmission Type:** Encoded Direct Sequence Spread Spectrum
- Data Rate:** 62.5Kbps max, half duplex
- Verification Time:** Less than 0.10 second (not including panel delays)
- Enclosure Rating:** NEMA 1, 4, 4X Rated, outdoors
- Contacts:** 2 Form C relays  
Strike Relay:  
6A @ 24VDC or 120VAC  
3A @ 240VAC, Resistive  
Auxiliary Relay:  
2A @ 28VDC  
0.5A @ 120VAC, Resistive
- Power Supply:** Regulated 7.5 to 14.0VDC at 300mA peak, UL approved
- Operating Temperature:** -35°C to +66°C (-31°F to +150°F)
- Operating Humidity:** 20% RH to 95% RH (non-condensing)
- Weight:** 8lbs (3.63 kg)
- Dimensions (Overall):** 8.7in x 6.94in x 4.5in (220mm x 176mm x 140mm)

**Requires External Reader(s), Status Switches and Power Supply**

### Reader Interfaces Supported

Wiegand (data1/data0) up to 255 bits  
Magnetic Stripe (clock & data) up to 255 bits

### Configurable Items from PIM

- heartbeat frequency
- relock parameters:
  - unlock time
  - when to re-lock
  - card format conversion
  - extended unlock
  - polarity of signals
  - fail safe/fail secure
  - cache memory
  - dynamic channel switching (DCS)

