Overview

The WRI400 is a networked access point controller designed to provide wireless connectivity to traditional electronic access control components including credential readers, door position and request-to-exit switches.

The WRI400 Wireless Reader Interface provides local termination points for your wall or mullion mounted reader, door position switch, request-to-exit (RX) and reader tamper. The WRI400 communicates data via 900 MHz back to either a PIM400-485 or PIM400-TD2 which are hardwired to the Access Control Panel (ACP) where all access and specific reporting decisions are made and recorded.

The WRI400 is designed to be compatible with most of the popular Wiegand or Clock & Data format readers that exist in the market today. Utilizing the two form C relays on board expands the capability at the door to control electronic locking hardware as well as other devices such as automatic operators.

The WRI400 allows you to extend the reach of your access control system to openings that are hard to reach with network wiring. Ideal applications include remote doors, historic buildings, gates and elevators. Since the WRI400 is built on an open architecture platform it is designed for seamless integration with most access control systems.

Features and benefits

- Visual LED indications – WRI400 cover is monitored by a tamper switch
- Encryption – Each RF transmission is encrypted with AES-128 bit keys
- Reader interfaces support:
  - Wiegand (data1/data0) up to 255 bits
  - Magnetic stripe (Clock & Data) up to 255 bits
- Form C relay outputs:
  - Strike relay
  - Auxiliary output relay
- Signal inputs:
  - Request-to-enter
  - Request-to-exit
  - Door position switch
  - Reader tamper 1
  - Reader tamper 2
- Certification: NEMA 1, 4, 4X, 6; UL 294, FCC Part 15; Industry Canada (IC), RoHS
WRI400 specifications

Frequency range: 902-928 MHz

Modulation: 900 MHz spread spectrum, direct sequence, 10 channels

RF interference avoidance: Optional dynamic channel switching

Transmission/encryption: AES-128 bit key (optional)

Data rate: RF: 40 kbps

Credential verification time*: < 1 second

Communication range: Up to 200 ft (61 m) normal building construction. Up to 1000 ft (305 m) clear line of sight. (See ANT400-REM data sheet for increasing distance)

Power supply requirements: 12 VDC or 24 VDC; 500 mA maximum current

Connector cable specifications:
- DC power input: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 1000 ft (305 m)
- Credential readers (x2): Data signals: 22AWG, 6 conductor (Alpha 1296C or equivalent) up to 500 feet (152 meters). Reader tamper signals: 18AWG, twisted pair shielded (Belden 8760 or equivalent) up to 500 feet (152 meters)
- Strike/aux relay outputs: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 2000 feet (610 meters)
- Request-to-enter and -exit inputs: 18AWG, 2 conductor (Belden 8760 or equivalent) up to 2000 feet (610 meters)

Relay output tolerances:
- Strike output relay: Form C relay; 6 amps at 24 VDC or 6 amps at 120 VAC or 3 amps at 240 VAC
- Auxiliary output relay: Form C relay; 2 amps at 24 VDC or 0.5 amps at 120 VAC

Operating temperature: -31°F (-35°C) to 151°F (66°C)

Operating humidity: 0 - 100% condensing

Dimensions (H x W x D): 10.43" x 7.28" x 3.79" (26.49 cm x 18.49 cm x 9.63 cm)

Certifications: NEMA 1, 4, 4X, 6; UL 294; FCC Part 15; Industry Canada (IC); RoHS

Additional features

Reliable communications
900 MHz band enables longer transmission ranges. In general, signal propagation with longer wavelengths travel a greater distance and penetrate through, and around objects better than signals with shorter wavelengths.

Online communications (heartbeat)
Regular communications between the WRI400 and PIM400 monitor transmission presence and integrity. Online communications enable the WRI400 to download information or instructions such as unlock and relock.

Option accessories
- ANT400-REM-I/O – Omni-directional remote indoor/outdoor antenna module. Requires available grounding kit (MGB+MCAS) for outdoor installations
- ANT400-REM-I/O+6DB – Directional, flat panel, remote indoor/outdoor antenna with 6DB of gain. Requires available grounding kit (MGB+MCAS) for outdoor installations
- MGB+MCAS – Grounding kit for outdoor installations
- ANT400-REM-CEILING – Omni-directional ceiling mount indoor remote antenna
- ANT400-REM-HALL – Bi-directional indoor hall application remote antenna
- HHD Kit-USB – Handheld device with SUS installed and HH-USB cable
- 593PI-12DC – 12 VDC power supply

Available through one of our GSA schedule 84 approved distributors

Remote door application
- For hard to reach openings, the WRI400 can extend your access control system saving you time and money by reducing wiring to the door from the panel.

*WRI requires less than 100 msec, response time does not include latency time of ACP.

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a $2 billion company, with products sold in almost 130 countries. For more, visit www.allegion.com.