



Installation and Operation Instructions RD2402D Remote Spread Spectrum Wireless Output Device

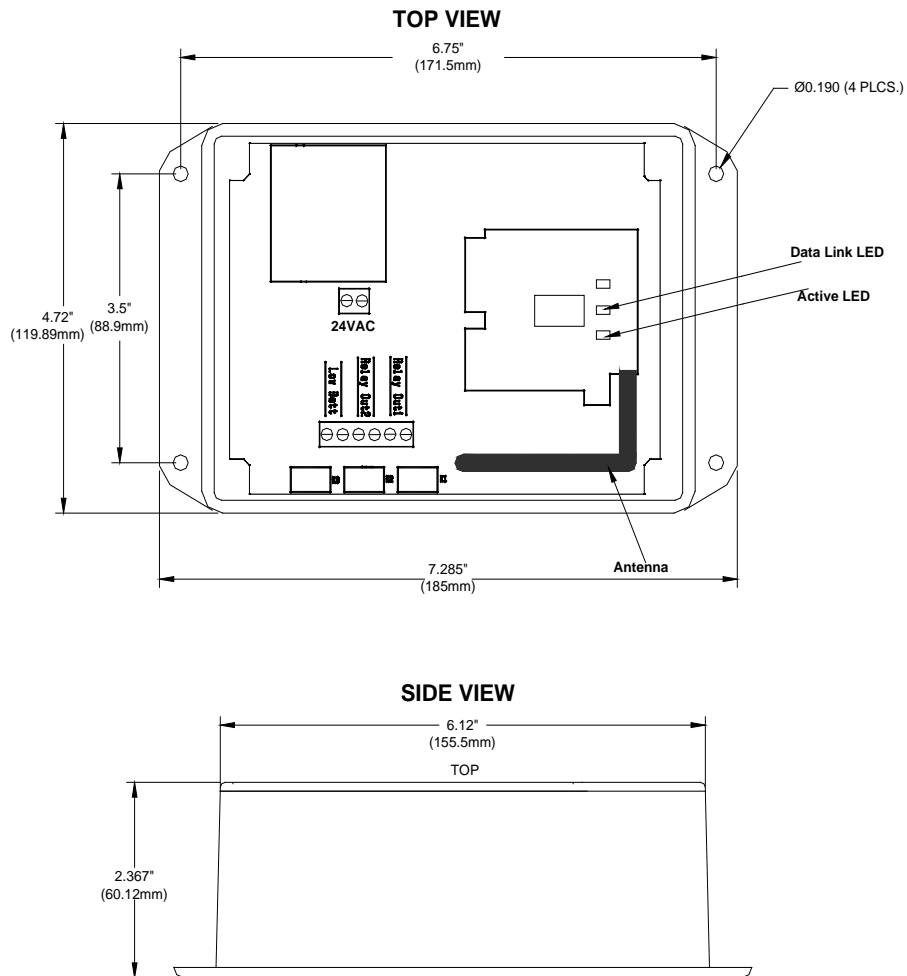


Figure #1

General Description

ACI's mesh network Series 2000 RD2402D wireless digital output module utilizes reliable Spread Spectrum Mesh Network Radio technology. Together with other ACI Series 2000 transceiver (LON, BacNet, & MODBUS), the system can be used to transmit remote control signals wirelessly.

The maximum radio transmission distance is dependent on the building type. The maximum open air transmission distance is one mile. In a typical commercial building with steel I-Beam construction, concrete floors with reinforcing rod, and metal stud walls, it can be expected that transmissions will penetrate vertically through floors and horizontally through 200 to 500 feet of walls, furniture and air.

Generally a wireless system will cover at least three floors – one floor above, and one floor below the output module location. In some buildings with favorable transmission characteristics the system may cover more floors.

Wireless transceiver or repeaters should be installed within 200 to 500 feet of the RD2402D output module.

RR2552 signal repeaters can be installed as needed to increase transmission distance between transceiver and output modules.

Installation

Mount the RD2402D as close to the equipment or controller as possible using four #8 screws (mounting dimensions see Figure #1).

Using the RD2402D configuration information, connect the digital outputs to the appropriate control input terminals on the controller using 20AWG wire.

While the RD2402D is attempting to connect to the transceiver the Data-Link LED will blink rapidly 8–10 times every 10 seconds. Once a connection has been established the Data-Link LED will blink once to indicate the data transmission has been received successfully. The Data-Link LED will continue to blink once for every data transmission. The data transmission rate is programmed into the sensor (normally 1 minute intervals).

Connect 24VAC 60Hz to the input terminals using 18-20AWG wire(See Figure #1). Check all connections before applying power to the unit.



PRECAUTIONS

SENSORS, REPEATERS AND RECEIVERS SHOULD NOT BE INSTALLED IN THE FOLLOWING AREAS:

- **INSIDE METAL ENCLOSURE / PANEL**
- **INSIDE OR IMMEDIATELY NEXT TO ELEVATOR SHAFT / ELEVATOR BANKS**
- **IN FRONT OF OR IMMEDIATELY NEXT TO LARGE TREES OR LARGE BODY OF WATER**

TRANSMISSION DISTANCE AND PERFORMANCE WILL BE DRASTICALLY REDUCED.



CAUTION

**DO NOT USE THIS PRODUCT IN ANY SAFETY RELATED APPLICATIONS
WHERE HUMAN LIFE MAY BE AFFECTED.**

PRODUCT SPECIFICATIONS

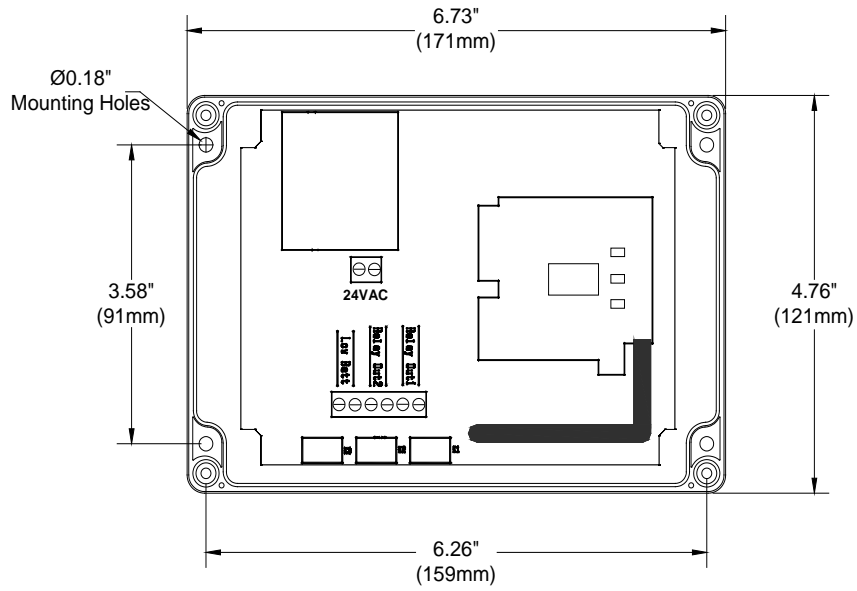
Supply	Voltage	24VAC 60Hz, 300mA nominal
RF	Data Protocol	IEEE 802.15.4-2003/2006
	Operating Frequency	902-928 MHz
	Output Power	+11 dBm
	Receiver Sensitivity	-110 dBm
	Open Field Range	One mile (line of sight)
	Data Transmission Interval	75 seconds (standard)
Input	Digital Output (2 qty)	Pilot Duty Relay Contact Closure Contact Rating – 1A @ 24VAC Max
Enclosure	Material	ABS (standard), Polycarbonate (Nema 4X)
	Rating	UL 94 5VA (standard), UL 94 HB (Nema 4X)
Environment	Operating Temperature	32 to 140°F (0 to 60°C)
	Operating Humidity	0 to 95% RH (non-condensing)
Approvals		FCC

WARRANTY SPECIFICATION

The ACI Wireless Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site: www.workaci.com.

RD2402DE

TOP VIEW



SIDE VIEW

