ACI

Activity   Volt1 Volt2 Volt3 Volt4 Dig1 Dig2 Dig3 Dig4

Sensor Status LED Indication
Sensor Out = Off
Sensor In = On
Batt Low = Blink

Volt Out
5
10

**RJ Serial Connection
for Receiver
Configuration**

**Voltage Selection
Jumper**

**24VAC Power
Input Terminals**

8.26"
(209.8mm)

Ø0.190 (4 PLCS.)

4.72"
(119.89mm)

3.5"
(88.9mm)

Data Link LED

Active LED

**Digital (Contact)
Output Terminals**

**Analog (Voltage)
Output Terminals**

**N/A -For use only with EX2432
Expander Module**

Antenna

8.78"
(223mm)

TOP VIEW

7.625"
(184.5mm)

TOP

2.365"
(60.1mm)

SIDE VIEW

Figure #1

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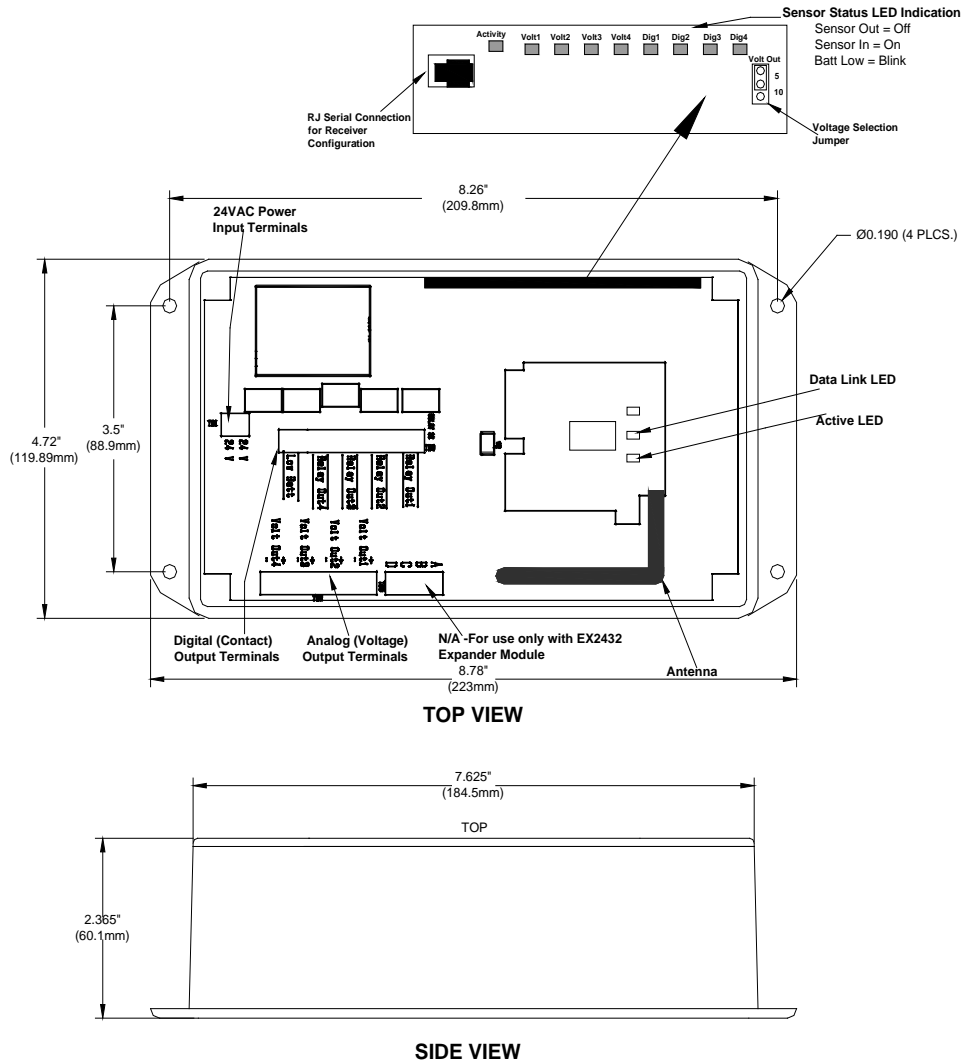
General Description

ACI's mesh network Series 2000 RM2432D wireless receiver utilizes reliable Spread Spectrum Radio technology. Together with other ACI wireless sensors and controls, the system can be used to transmit remote sensor readings, status/alarm indications, and control signals wirelessly. It is compatible with any control systems or DDC panels that accept 0-10VDC or 0-5VDC inputs. Up to eight(8) separate wireless sensor transmitters can be used with one RM2432D.

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 receiver location. In some buildings with favorable transmission characteristics the system may cover more floors.

Wireless sensor transmitters should be installed within 200 to 500 feet of the RM2432D receiver.

RR2552 signal repeaters can be installed as needed to increase transmission distance between sensors and receivers.

Configuration

The RM2432D Receiver can be configured to accept inputs from up to 8 wireless sensors. Refer to the RM2432D Receiver Setup and Configuration Manual for instruction.

Installation

⚠ 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.

Mount the RM2432D Receiver as close to the controller as possible using four #8 screws (mounting dimensions see Figure #1). The maximum wiring distance for the analog outputs is 100 ft.

Select 0-10VDC or 0-5VDC output by moving J4 jumper(see Figure #1).

Using the RM2432D configuration information, connect the analog and digital outputs to the appropriate control input terminals on the controller using 20AWG wire. The controller input connecting to the RM2432D should have a minimum analog input resistance of 20K Ohms.

Note: Always connect the Low Battery (or Lost Sensor) relay contact output (see Figure #1) to the appropriate alarm input on the controller.

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⚠ CAUTION

Observe polarity when connecting analog outputs to the controller inputs.

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

Wireless Sensor Status Indications

The statuses of the sensors assigned to the eight outputs of the RM2432D are displayed by 8 LEDs on the top of the plug-in status module board (See Figure #1) as shown:

- - Sensor Out (Lost) = Off
- - Sensor In (Normal) = On
- - Battery Low (Alarm) = Blink

⚠ CAUTION

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

PRODUCT SPECIFICATIONS

Supply	Voltage	24VAC 60Hz, 300mA maximum
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)
Outputs	Analog (4 qty)	0-10VDC or 0-5VDC
		Minimum controller input resistance greater then 20K Ohms
		100ft. maximum wiring distance to controller
	Digital (4 qty)	Pilot Duty Relay Contact Closure
		Contact Rating – 1 Amp @ 24VAC Max
	Low Battery/Lost Sensor Alarm (1 qty)	Pilot Duty Relay Contact Closure
		Contact Rating – 1 Amp @ 24VAC Max
Enclosure	Material	ABS (standard), Polycarbonate (Nema 4X)
	Rating	UL 94 5VA (standard), UL 94 HB (Nema 4X)
Environment	Operating Temperature	-40 to 150°F (-40 to 65°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.

RM2432DE

TOP VIEW

8.74"
(222mm)

Ø0.18"
Mounting Holes

4.56"
(115.8mm)

5.74"
(145.8mm)

8.24"
(209.3mm)

SIDE VIEW

TOP

2.96"
(75.2mm)

8.74"
(222mm)

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