Installation and Operation Instructions
RT2630 Wireless Analog & Digital Sensor Input Concentrators

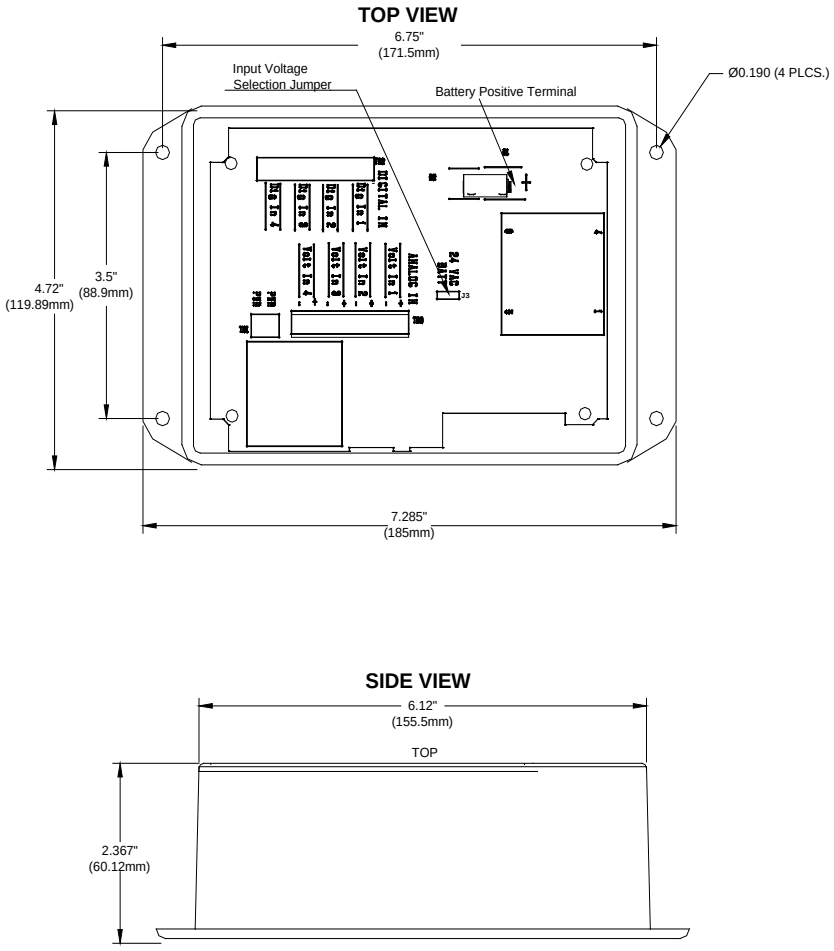


Figure #1

General Description

The Series 2000 RT2630 wireless remote Analog/Digital Sensor Input Concentrator accepts analog and digital sensor/control inputs and transmits wirelessly to the receiver.

ACI's mesh network Series 2000 wireless Analog and Digital Sensor Input Concentrators utilize reliable Spread Spectrum Radio technology. They can be installed easily in minutes, eliminating hundreds of feet of wire and saving installation cost while reducing installation labor risks.

The Series 2000 sensor Data-Link LED confirms the data transmission was received by the receiver for fast and reliable positioning of the sensor during installation. There is no need for special wireless installation equipment or tool.

Together with the ACI Series 2000 receivers and controllers, the ACI wireless sensors can be used with any LON, BacNet, MODbus, or DDC control system or panel.

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.

Installation

Wireless sensors should be installed within 200 to 500 feet of the receiver. RR2552 signal repeaters can be installed as to increase transmission distance between sensors and receivers.

⚠ CAUTION

Observe battery polarity when installing battery.

To select the proper sensor location, *first install and power the receiver*. ***To activate the sensor insert the battery observing the polarity.*** The mesh networked Series 2000 system does not require any additional wireless equipment to determine the proper location of the sensors.

While the sensor is attempting to connect to the receiver 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). To manually initiate a data transmission, press the push button switch located by the negative terminal of the battery.

Once the location has been determined, mount the RT2630 remote transmitter on a wall using four #8 screws(see Figure #1 for mounting dimensions). Determine if the RT2630 remote transmitter will be powered by 24V (AC or DC depending on model) or by the batteries on a permanent basis.

For 24V Operation

If the device is to be powered by 24V (AC or DC depending on model), move the voltage selection jumper to 24VAC position, and connect 24V to the input terminals using 18AWG wire.

For Battery Operation

If the device is to be powered using the 3.0 volt batteries—remove the voltage selection jumper(see Figure #1) and reposition it for battery operation.

Note: The device is shipped with the voltage selection jumper installed in the 24VAC position.

For proper operation, it is important to use the correct type of battery. Size: 2/3A, Lithium 3.0V 1400mAh (e.g. Duracell DL123A) batteries.

Installing the battery or applying 24VAC will activate the transmitter.

Sensor Inputs
Wire the sensor inputs to the appropriate terminals using 18AWG wire.

Attach the cover using the four screws.

⚠ 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

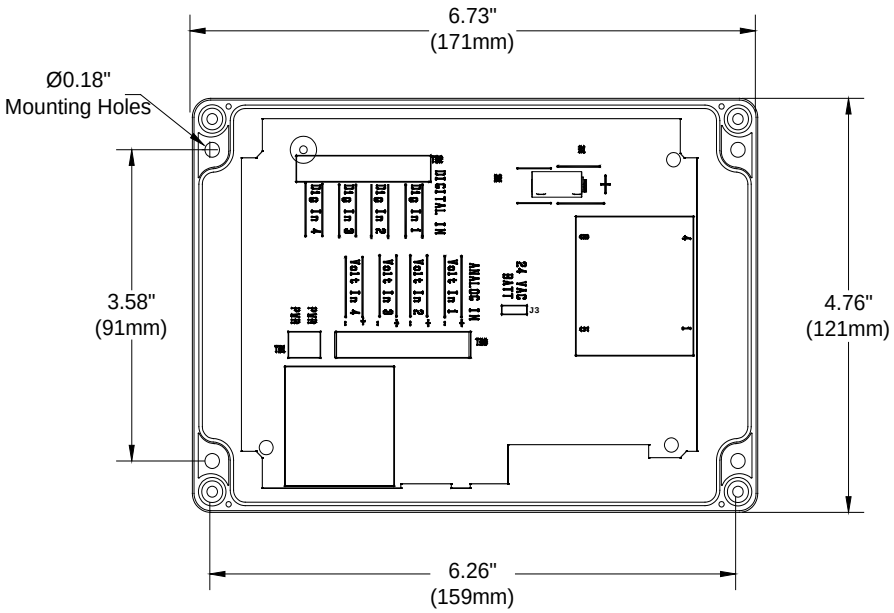
Supply	**Voltage**	24VAC *or* (1) Li/MnO2 3.0 VDC Battery, 1400 mAH (e.g. Duracell DL123A)
RF	**Data Protocol**	IEEE 802.15.4-2003/2006
	Operating Frequency	902-928 MHz
	Output Power	+11 dBm
	Receiver Sensitivity	-110 dBm
	Open Field Range	One mile (line of sight)
	Data Transmission Interval	75 seconds (standard), 10 seconds(optional),
		30 seconds(optional), 180 seconds(optional)
		300 seconds(optional)
Input	**Digital Input (4 qty)**	Dry Contact Closure
	Analog Inputs (4 qty)	Resolution – 12 bits
		Four 20K Ohm ***or*** 0-10VDC ***or*** 0-20mA*(Model Specific)*
Enclosure	**Material**	ABS (standard), Polycarbonate (Nema 4X)
	Rating	UL 94 5VA (standard), UL 94 HB (Nema 4X)
Environment	**Operating Temperature**	14 to 140°F (-10 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.

RT2630xE (Nema Enclosure)

TOP VIEW



SIDE VIEW