



Installation and Operation Instructions RT2602B Wireless Digital Sensor Input Concentrators

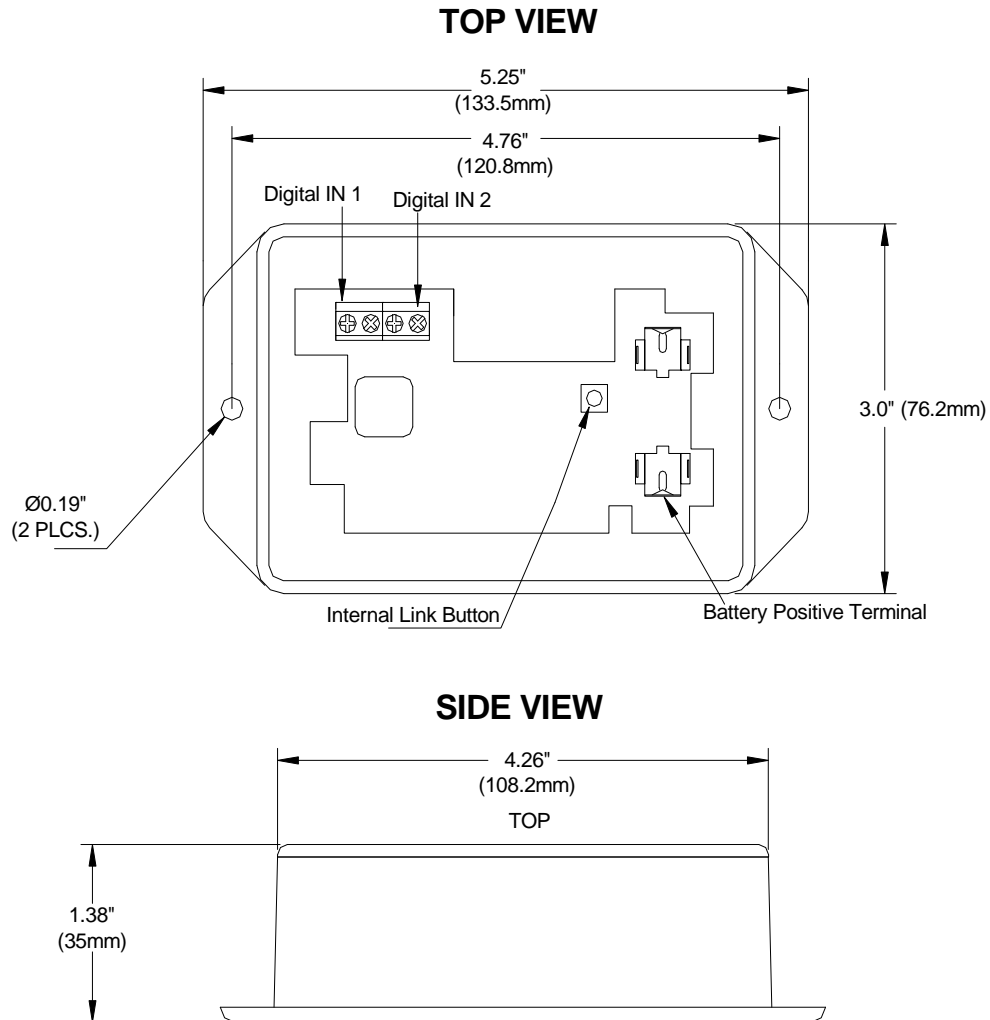


Figure #1

General Description

The ACI Series 2000 RT2602B wireless remote Digital Sensor Input Concentrator accepts a variety of digital sensor/control inputs and transmits wirelessly to the receiver. It can be used for remote alarm/status indications and wireless on/off control (wireless relay) applications.

ACI's mesh network Series 2000 wireless 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 digital transmitter 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 RT2620B remote transmitter on a wall using two #8 screws(see Figure #1 for mounting dimensions).

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.

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	(1) Li/MnO ₂ 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)
Input	Digital Input (2 qty)	SPST Dry Contact Closure
Enclosure	Material	ABS (standard)
	Rating	UL 94 5VA (standard)
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.