

RT2620 Wireless Digital Sensor Input Concentrators



General Description

The Series 2000 RT2620 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 applications.

It utilizes reliable Spread Spectrum Mesh Network Radio technology. It 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 Trs Systems Series 2000 receivers and controllers, the Trs Systems 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 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.

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

Ordering Information

<u>Model</u>	<u>Description</u>
RT2620A	Battery powered or 24 VAC powered (field selectable) device with four (4) digital sensor inputs
RT2620AE	Same as above in NEMA4 enclosure
RT2620B	Battery powered <u>only</u> device with (4) digital sensor inputs
RT2620BE	Same as above in NEMA4 enclosure

Features

- Battery powered or 24 VAC powered remote wireless sensor input modules
- Battery powered only model (RT2620B)
- Up to 4 digital inputs (relay contact)
- No calibration required
- Wireless – easy to install & relocate
- Long battery life (Approximately 5+ years)
- Low battery LED + remote low battery alarm notification
- Optional 24VAC power
- Reliable Spread Spectrum Mesh Network wireless technology

Specifications

Input Voltage:

- 24 VAC 60 Hz Option (A model only)
- Battery Option - Size:2/3A, Type: Lithium 3.0V 1400 mAh (e.g. Duracell DL123A)

Dimensions:

- 7.3" x 4.7" x 2.25"

Operating Conditions:

- 15 F to 125 F
- 5 to 95% RH non-condensing

Open Field Range:

- One mile line of sight

Digital Inputs (4)

- Contact Closure

Case

- Flame Retardant ABS Plastic (Black)
- UL Flame Rating – 94-5VA

Transmitter Characteristics

- Center Transmit Frequency
 - 923.58 MHz
- Transmitter Power – 11 dB

Approvals

- FCC certified

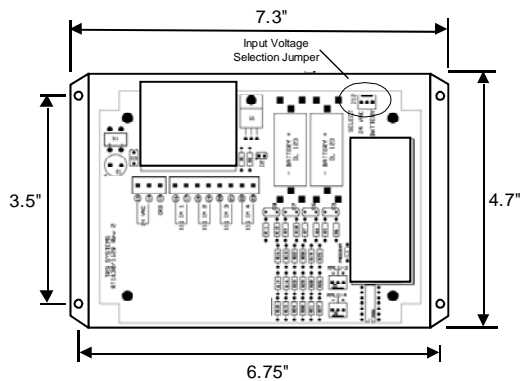


Figure 1

Sensor Location

To select the proper sensor location first install and power the receiver. Observing polarity insert the battery into the sensor to activate it (For RT2620A, move the voltage selection jumper to battery operation before inserting the battery). 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.

⚠ CAUTION

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 a 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.

Limitation of Liability - Trs Systems' liability shall not exceed the purchase price paid for the products giving rise to any liability. In no event shall Trs be liable for any special, consequential or incidental damages arising in any way from using this product by the customers.

Installation

Once the location has been determined, mount the RT2620 remote transmitter on a wall using four #8 screws (mounting dimensions see Figure 1). Determine if the RT2620 remote transmitter will be powered by 24 VAC or by batteries on a permanent basis.

For 24 VAC Operation (RT2620A only)

If the device is to be powered by 24 VAC, move the voltage selection jumper to 24 VAC position and connect 24 V 60 Hz to the input terminals using 18 AWG 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 (RT2620A only).

NOTE: For RT2620A, the device is shipped with the voltage selection jumper installed in the 24 VAC position.

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

Installing the battery or applying 24 VAC (RT2620A only) will activate the transmitter again.

⚠ CAUTION

Observe battery polarity when installing battery. Do not use 3.6V LiSOCl₂ batteries With 3.0V LiMNO₂ batteries in the same device.

Sensor Inputs

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

Record the sensor location on the wiring label located inside the cover.