



RM2432D Spread Spectrum Output Receivers

General Description

The RM2432 wireless receiver utilizes reliable Spread Spectrum Mesh Network Radio technology. Together with other Trs 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 0-10 VDC or 0-5 VDC inputs. Up to eight (8) separate wireless sensor transmitters can be used with one RM2432D.

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.

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 RM2432 receiver.

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

Ordering Information

Model	Description
RM2432D	Output receiver with four (4) analog output (0-10 VDC or 0-5 VDC selectable) and four (4) digital outputs (relay contacts)
RM2432D-24DC	Same as RM2432D except with 24VDC power input
RM2432DE	Same as RM2432D except in NEMA4 enclosure
RM2432DE-24DC	Same as RM2432D-24DC except in NEMA4 enclosure

Features

- For wireless sensor and wireless control applications
- Receives wireless sensor/relay information and outputs a corresponding signal to any DDC controller/panel
- Up to 4 analog outputs (0-10 VDC or 0-5 VDC **field selectable**) and 4 digital outputs (relay contact)
- Receives up to 8 remote wireless sensor or control modules
- Real time sensor status indications
- Individual low battery and lost sensor alarm indications
- Common alarm relay output for external indication.
- Adjustable digital capture time (up to 4 hours) for application such as temporary occupancy
- Reliable Spread Spectrum Mesh network technology

Specifications

Input Power:

- 24 VAC 60 Hz, 300 mA maximum

Dimensions:

- 8.8" x 4.7" x 2.25"

Operating Conditions:

- -40 F to 150 F
- 5 to 95% non-condensing

Case

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

Four Analog Output Channels

- 0 – 10 VDC or 0 – 5 VDC
- Minimum controller input resistance should be greater than 20 KOhm
- 100 ft. maximum wiring distance to controller

Four Digital Outputs

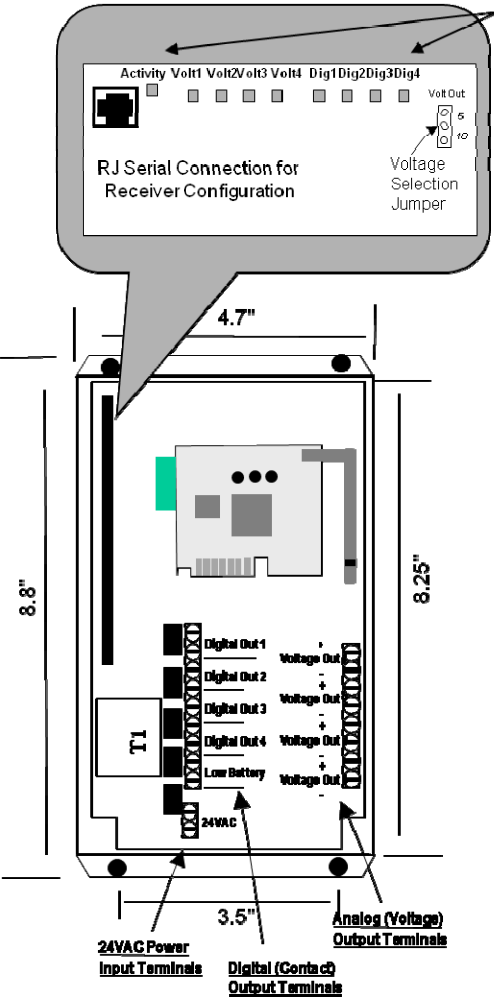
- Pilot Duty Relay Contact Closure
- Contact Rating – 1 A at 24VAC Max.

One Low Battery/Lost Sensor Alarm

- Pilot Duty Relay Contact Closure
- Contact Rating – 1 A at 24VAC Max.

RF Characteristics

- Operating Frequency Channel
 - 2.4 GHz
- Receiver Sensitivity (avg. power)
 - -110 dBm
 - FCC Certified



RM2432DS Plug-In Status Module
Sensor Status Indication

Sensor Out = Off
Sensor In = On
Batt Low = Blink

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.

Configuration

The RM2432 Receiver can be configured to accept inputs from up to 8 wireless sensors. Refer to the RM2432D Configuration Manual for instruction.

Installation

Mount the RM2432 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 5VDC output by moving the J4 jumper (Figure 1)

Using the RM2432 configuration information, connect the analog and digital outputs to the appropriate control input terminals on the controller using 20 AWG wire. The controller input connecting to the RM2432 should have a minimum analog input resistance of 20 KOhms.

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

Caution

Observe polarity when connecting analog outputs to the controller inputs.

Connect 24 VAC 60 Hz to the input terminals using 20 AWG 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

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.

Figure 1