WRZ-RMT10K-2 Wireless Remote Temperature Transmitter Catalog Page

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Description

Use the WRZ-RMT10K-2 Wireless Remote Temperature Transmitter to operate with a TE-6300 Series 10k ohm Johnson Controls® Type II Thermistor Sensor (order separately), to sense the temperature in warmer applications up to 158°F (70°C) and transmit wireless temperature data to a receiver or controller. Ideal applications include data server racks, food warming ovens, warming baths, warm food storage units, and hospital neonatal incubators.

In a mesh application, the WRZ sensor is compatible with the ZFR18xx Wireless Field Bus Systems (ZFR181x, ZFR182x, ZFR183x). See Table 1. Depending on the system controller, the transmitter communicates through the ZFR18xx Router (ZFR or ZFR Pro Series Router). Up to nine WRZ Series Sensors can associate with a single Controller.

Use a WRZ-RMT10K-2 Wireless Remote Temperature Transmitter in a one-to-one application non-mesh network to communicate with a WRZ-7860-0 Wireless Receiver. The WRZ-7860-0 Receiver transfers data to the controller through the Sensor Actuator (SA) bus. In an application, one WRZ-RMT10K-2 Transmitter reports to one WRZ-7860-0 Receiver, but you can associate up to five WRZ-RMT10K-2 Transmitters with a single WRZ-7860-0 Receiver in averaging applications.

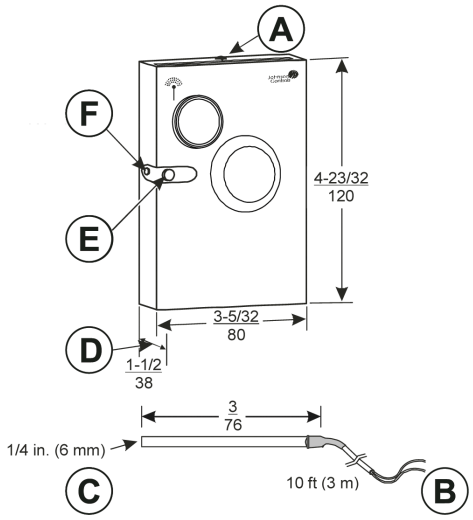
The WRZ-RMT10K-2 Wireless Remote Temperature Transmitter can transmit sensed temperature and low battery conditions to an associated router or receiver. Use the WRZ-RMT10K-2 Transmitter and associated TE-6300 Series Temperature Sensor only for indoor, intra-building applications.

Refer to the *WRZ-RMT10K-2 Wireless Remote Temperature Transmitter Product Bulletin (LIT-12011766)* for important product application information.

Dimensions

See the following figure for features and dimensions of the WRZ-RMT10K-2 Wireless Remote Temperature Transmitter and the associated TE-6300 Series Temperature Sensor.

Figure 1: WRZ-RMT10K-2 and TE-6300 features and dimensions, in. (mm)



Callout	Description
A	Tamper-resistant set screw
B	Plenum-rated cable
C	Outside diameter
D	Back of base to front of protrusion

Callout	Description
E	°F/°C button
F	Signal test button

Features and benefits

- System extended architecture design: leverages the system web-based platform to provide wireless temperature data transmission to a field device across the network.
- Application mobility and flexibility: provides a wireless alternative to hard-wired counterparts, and facilitates easy initial location and relocation of the temperature transmitter and the associated temperature sensor.
- One-to-one wireless non-mesh network communication: enables quick, economical, and low-maintenance installation, which reduces overall installed costs.
- Wireless mesh network communication: enhances reliability through automatically forming wireless links and redundant wireless data transmission paths.
- Temperature monitoring and temperature range deviation alarm system: replaces manual daily temperature monitoring with continuous electronic temperature monitoring.
- High degree of temperature system accuracy: enables the temperature transmitter and the associated temperature sensor to monitor temperature-sensitive applications over a range of 32°F to 158°F (0°C to 70°C).
- Liquid Crystal Display (LCD): indicates real-time status of the environment.
- Fahrenheit and Celsius (°F/°C) button: toggles the display temperature between degrees Celsius and degrees Fahrenheit.
- Temperature sensor connects to the associated temperature transmitter in the field: ensures that you can easily replace the temperature sensor if necessary.

Version compatibility

See the following table for information on the compatibility of the WRZ Series Sensors with wireless field bus systems.

Table 1: WRZ compatibility

Wireless Field Bus System	Compatibility	
	-0 models	-2 models
WRZ-7860	x	x
ZFR181x	x	x
ZFR182x	x	x
ZFR183x		x

Repair information

If the WRZ-RMT10K-2 Wireless Remote Temperature Transmitter fails to operate within its specifications, replace the unit. For a replacement transmitter, contact the nearest Johnson Controls representative.

Batteries

The two AA alkaline batteries supplied with the WRZ-RMT10K-2 Wireless Remote Temperature Transmitter have a life of 5 to 10 years or more, depending on the model and application. The transmitter reports a low battery condition to the receiver or controller, which relays the low battery condition to the system. The low battery condition also shows on the LCD on the face of the transmitter.

Replace the transmitter batteries with two high-quality AA alkaline batteries as necessary. Ensure to install the batteries in the correct polarity.

Note: When you replace the batteries, replace both batteries at the same time. Batteries removed from this device must be recycled or disposed of in accordance with local, regional, and national regulations. Only certified technicians or qualified building maintenance personnel should service Johnson Controls products. You can substitute Li-ion batteries to extend sensor life, depending on the model and application. Do not mix lithium and alkaline batteries in this device.

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Ordering information

To order a WRZ Series Wireless Room Sensor and accessories, contact the nearest Johnson Controls representative. Specify the preferred product code number from the following table.

Table 2: Selection chart

Product code	Description
WRZ-RMT10K-2	Wireless Room Temperature Sensor for Remote 10k Temperature Probes, display, °F/°C button, and manual occupancy override button, ZFR183x compatible
TE-6361A-1	Johnson Controls 10k ohm Type II Thermistor Sensor 8 in. (203 mm) duct probe, adjustable enclosure
TE-6361V-2	Johnson Controls 10k ohm Type II Thermistor Sensor 8 in. (203 mm) duct probe, flange mount enclosure
TE-636GV-2	Johnson Controls 10k ohm Type II Thermistor Sensor 4 in. (102 mm) duct probe, flange mount enclosure
TE-636S-1	Johnson Controls 10k ohm Sensor; strap-mount probe
ZFR-HPSST-0	Wireless Sensing System Tool for use with ZFR wireless systems. Supports all low or high power configurations.
MAGNET-BASE-PLW	Magnetic backplate for mounting the Transmitter on metal surfaces; 5 magnetic backplates per package
T-4000-119	Allen-Head adjustment tool: 1/16 in. (1.6 mm), for the tamper-resistant set screw that secures the Temperature Transmitter to the mounting base; 30 tools in each package

Technical specifications

Table 3: WRZ-RMT10K-0 Wireless Remote Temperature Transmitter technical specifications

Specification		Description
Power requirements		Two 1.5 VDC AA alkaline batteries included with the sensor supply 3 VDC Battery life: 60 to 120 months, depending on the model and application
Addressing		DIP switches, field-adjustable MS/TP address, network number, and zone address
Transmitter ambient conditions		Operating: 23°F to 111°F (-5°C to 44°C), 5% RH to 95% RH, noncondensing Storage: -4°F to 140°F (-20°C to 60°C), 5% RH to 95% RH, noncondensing
RF band		Direct-sequence, spread-spectrum, 2.4 GHz ISM band
Transmission power		10 mW maximum
Transmission range		Mesh network application: 100 ft (30 m) maximum indoor line of sight, 50 ft (15 m) practical average indoor Non-mesh network, one-to-one application: 150 ft (45 m) maximum indoor line of sight, 100 ft (30 m) practical average indoor
Transmissions		Every 120 s (±20 s)
Temperature system accuracy		±1.8°F/±1.0°C over the range of 32°F to 158°F (0°C to 70°C)
Materials		NEMA 1 white plastic housing
Mounting		Surface mounted with factory-installed, double-sided adhesive foam tape
Compliance	United States	Transmission complies with FCC Part 15.247 Regulations for Low Power Unlicensed Transmitters, Transmitter FCC Identification: TFB-MATRIXL or OEJ-WRZRADIO
	Canada	Industry Canada IC: 5969A-MATRIXL or 279A-WRZRADIO
CE	Europe	CE Mark – Johnson Controls declares that this product is in compliance with the essential requirements and other relevant provisions of the RED, EMC, LVD, and RoHS Directives.
ANATEL	Brasil	Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. ANATEL: 05194-22-06174.
NOM UL	México	La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada. IFT, Número: RCPJOWR22-4254.
Shipping weight		0.55 lb (0.25 kg)

Table 4: TE-6300 Series Temperature Sensors technical specifications

Specification	Description
Sensor type	10k ohm Johnson Controls Type II thermistor sensor
Sensor thermal characteristics	See Table
Sensor temperature coefficient	Nonlinear 10k ohm NTC thermistor
Electrical connections	22 AWG (0.6 mm diameter) x 10 ft (3 m) long plenum-rated cable, white leads

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Table 4: TE-6300 Series Temperature Sensors technical specifications

Specification	Description
Probe materials	Stainless steel
Mounting	Mount within 10 ft (3 m) of the WRZ-RMT10K-0 Wireless Remote Temperature Transmitter
Operating temperature limits	Cable: -50°F to 140°F (-46°C to 60°C)
	Probe: -50°F to 220°F (-46°C to 104°C)
Shipping weight	0.2 lb (0.09 kg)

The performance specifications are nominal and conform to acceptable industry standard. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Software terms

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Patents

Patents: https://jcipat.com

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Contact information

Contact your local Johnson Controls representative: www.johnsoncontrols.com/locations

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