

FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter

Description

The FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter is designed 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 an FX-ZFR1800 Series Wireless Field Bus System (mesh network) application, the transmitter communicates with FX-PCG16 Series, FX-PCG26 Series, and FX-PCV16 Series Controllers by means of the FX-ZFR1811 Router.

An FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter can also be used in a One-to-One application (non-mesh network) to communicate with an FX-WRZ7850-0 Wireless Receiver. The FX-WRZ7850-0 Receiver transfers data to the controller by means of the Sensor Actuator (SA) Bus. In a typical application, one FX-WRZRMT10K-0 Transmitter reports to one FX-WRZ7850-0 Receiver, but up to five FX-WRZRMT10K-0 Transmitters can be associated with a single FX-WRZ7850-0 Receiver in averaging applications.

The FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter can transmit sensed temperature and low battery conditions to an associated router or receiver. The FX-WRZRMT10K-0 Transmitter and associated TE-6300 Series Temperature Sensor are designed for indoor, intra-building applications only.

Refer to the *FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter Product Bulletin (LIT-12011767)* for important product application information.

Features

- Facility Explorer design — leverages the Facility Explorer 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/temperature range deviation alarm system — replaces manual daily temperature monitoring with continuous electronic temperature monitoring
- high degree of temperature system accuracy — allows the temperature transmitter and the associated temperature sensor to monitor temperature-sensitive applications over a range of 32 to 158°F (0 to 70°C)
- Liquid Crystal Display (LCD) — indicates real-time status of the environment
- Fahrenheit/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 the temperature sensor can be easily replaced if needed



FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter with Johnson Controls TE-6300 Series Temperature Sensor (Order Separately)

Repair Information

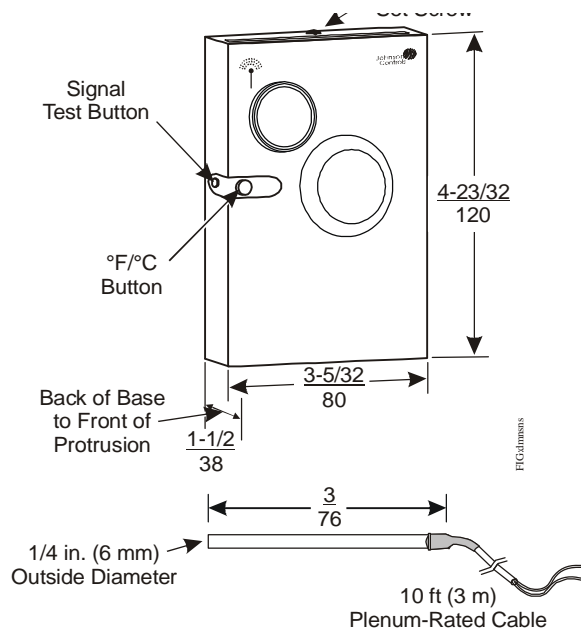
If the FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter fails to operate within its specifications, replace the unit. For a replacement transmitter, contact the nearest Johnson Controls representative.

The two AA alkaline batteries supplied with the FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter typically have a life of 5 years or more. The transmitter reports a low battery condition to the receiver or controller, which relays the low battery condition to the Facility Explorer system. The low battery condition is also shown on the LCD on the face of the transmitter.

Replace the transmitter batteries with two high-quality AA alkaline batteries as necessary, ensuring that the batteries are installed in the proper polarity.

When replacing batteries, both batteries should be replaced at the same time. Batteries removed from this device must be recycled or disposed of in accordance with local, national, and regional regulations. Only certified technicians or qualified building maintenance personnel should service Johnson Controls products. Lithium batteries with a maximum cell voltage of 1.5 volts can be substituted to extend the period between replacing the batteries. Do not mix lithium and alkaline batteries in this device.

FX-WRZRT10K-0 Wireless Remote Temperature Transmitter (Continued)



FX-WRZRT10K-0 and TE-6300 Dimensions and Physical Features, in./mm

Selection Chart

Ordering Information

Code Number	Description
FX-WRZRT10K-0	Wireless Remote Temperature Transmitter: Includes One Temperature Transmitter Assembly (One Transmitter, One Mounting Base, and Strips of Double-Sided Adhesive Foam Tape; All Factory Assembled), One Strain Relief Bushing, One DIP Switch Overlay for a Mesh Network Application Using an FX-ZFR1811 Router, One DIP Switch Overlay for a Non-mesh Network One-to-One Application Using an FX-WRZ7850-0 Receiver, One Installation Instructions Sheet, and Two AA Alkaline Batteries
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 Type II Thermistor Sensor; Strap-Mount Probe
FX-WRZSST-110	Wireless Sensing System Tool: For Use with an FX-WRZRT10K-0 Wireless Remote Temperature Transmitter, to Function as a Site Survey Tool for the FX-WRZ Series One-to-One Wireless Room Sensing System, or for the FX-ZFR1800 Wireless Field Bus System
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 per Package

Technical Specifications

FX-WRZRT10K-0 Wireless Remote Temperature Transmitter (Part 1 of 2)	
Power Requirements	3 VDC Supplied by Two 1.5 VDC AA Alkaline Batteries (Included with Transmitter); Typical Battery Life: 5 Years or More; 7 Years Using Lithium Batteries
Addressing	DIP Switches (Field Adjustable): MS/TP Address, Network Number, and Zone Address
Transmitter Ambient Conditions	Operating: 23 to 111°F (-5 to 44°C), 5 to 95% RH, Noncondensing Storage: -4 to 140°F (-20 to 60°C), 5 to 95% RH, Noncondensing

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. © 2012 Johnson Controls, Inc. www.johnsoncontrols.com

FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter (Continued)

FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter (Part 2 of 2)	
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 Seconds (±20 Seconds)
Temperature System Accuracy	±1.8F°/±1.0C° Over the Range of 32 to 158°F (0 to 70°C)
Materials	NEMA 1 White Plastic Housing
Mounting	Surface Mounted Using 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 Canada: Industry Canada IC: 5969A-MATRIXL Europe: CE Mark – Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the R&TTE Directive 1999/05/EC.
Shipping Weight	0.55 lb (0.25 kg)

TE-6300 Series Temperature Sensors	
Sensor Type	10k ohm Johnson Controls Type II Thermistor Sensor
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)
Probe Materials	Stainless Steel
Mounting	Mount within 10 ft (3 m) of the FX-WRZRMT10K-0 Wireless Remote Temperature Transmitter
Operating Temperature Limits	Cable: -50 to 140°F (-46 to 60°C) Probe: -50 to 220°F (-46 to 104°C)
Shipping Weight	0.2 lb (0.09 kg)