



WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assemblies

Installation Instructions

WRZ-PTR0000-0 and WRZ-PTRNIST-0

Part No. 24-10332-29, Rev. E

Issued March 2016

Refer to the [QuickLIT website](#) for the most up-to-date version of this document.

Application

The WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assemblies operate with a Johnson Controls® WRZ-STRxxxx-0 Series Wireless Refrigerator/Freezer Temperature Transmitter to sense the temperature in either a refrigerator or freezer unit, and transmit wireless temperature data to a receiver or controller.

In a ZFR1800 Series Wireless Field Bus System (mesh network) application, the transmitter communicates with FEC16 Series, FEC26 Series, and VMA16 Series Controllers by means of the ZFR1811 Router.

In a One-to-One (non-mesh network) application, the transmitter communicates with a WRZ-7850-0 Wireless Receiver. The WRZ-7850-0 Receiver transfers data to the controller by means of the Sensor Actuator (SA) communication Bus.

The WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assemblies are designed for indoor, intra-building applications only.

IMPORTANT: The WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assemblies are intended to provide an input to equipment under normal operating conditions. Where failure or malfunction of the probe assembly could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices, such as supervisory or alarm systems or safety or limit controls, intended to warn of or protect against failure or malfunction of the probe assembly.

IMPORTANT : Le WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assemblies est destiné à transmettre des données entrantes à un équipement dans des conditions normales de fonctionnement. Lorsqu'une défaillance ou un dysfonctionnement du probe assembly risque de provoquer des blessures ou d'endommager l'équipement contrôlé ou un autre équipement, la conception du système de contrôle doit intégrer des dispositifs de protection supplémentaires. Veiller dans ce cas à intégrer de façon permanente d'autres dispositifs, tels que des systèmes de supervision ou d'alarme, ou des dispositifs de sécurité ou de limitation, ayant une fonction d'avertissement ou de protection en cas de défaillance ou de dysfonctionnement du probe assembly.

Installation

Follow these guidelines when installing the WRZ-PTRxxxx-0 Temperature Sensor Probe Assembly:

- Transport the probe assembly in the original container to minimize vibration and shock damage.
- Verify that all the parts shipped with the probe assembly.
- Do not drop the probe assembly, or subject it to physical shock.

Parts Included

- one temperature sensor probe encased in a clear acrylic cylinder, a 9 ft (2.7 m) wire lead, one probe mounting strap, and a strip of double-sided adhesive foam tape; all factory assembled
- one installation instructions sheet

WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly Dimensions

See Figure 1 for dimensions and physical features of the WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly.

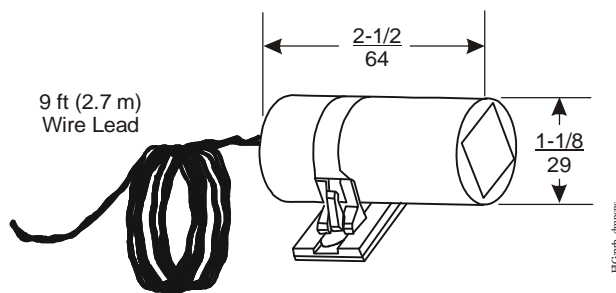


Figure 1: WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly, Physical Features and Dimensions, in./mm

Special Tools Needed

- 1/16 in. (1.6 mm) Allen-head adjustment tool (Johnson Controls T-4000-119; order separately) for the tamper-resistant set screw that secures the transmitter to the mounting base
- coin for unlocking the transmitter housing from the mounting base locking tab

Mounting

The WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly can be surface mounted using the adhesive tape affixed to the probe mounting strap.

Location Considerations

When locating the temperature sensor probe assembly:

- Mount the probe inside the refrigerator or freezer unit away from the front, so as not to interfere with the contents being stored and to eliminate any false temperature spikes when the door is opened.
- Run the 9 ft (2.7 m) wire lead through the door gap or an existing hole designed for remote temperature sensor probe installation.

Installing the WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly

To install the WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly:

1. Peel off the protective paper from one side of the factory-installed strip of adhesive foam tape on the back of the probe mounting strap.
2. Mount the temperature sensor probe inside the refrigerator or freezer unit away from the front, so as not to interfere with the contents being stored and to eliminate any false temperature spikes when the door is opened. Clean the mounting surface first to ensure that the adhesive foam tape sticks to the surface.

Note: The mounting surface, mounting strap, and ambient temperature must be at least 50°F (10°C) when mounting the temperature sensor probe with adhesive foam tape.

3. Support the wire lead along the inside walls of the refrigerator or freezer unit to the WRZ-STRxxxx-0 Series Wireless Refrigerator/Freezer Temperature Transmitter, running the lead through the door gap or an existing hole designed for remote temperature sensor probe installation.

Note: Do not use an existing hole that is designed for electrical voltage, as this affects the temperature reading. Do not drill a hole through the wall of the refrigerator or freezer unit for the wire lead unless it is recommended and/or allowed by the refrigerator or freezer manufacturer, and also approved by the customer.

4. If the door gap method is used for installation, secure the wire lead with adhesive foam tape where the lead passes through the door gap to protect it from excessive rubbing or getting caught in the door hinge.
5. Remove the transmitter housing from its mounting base (Figure 2).

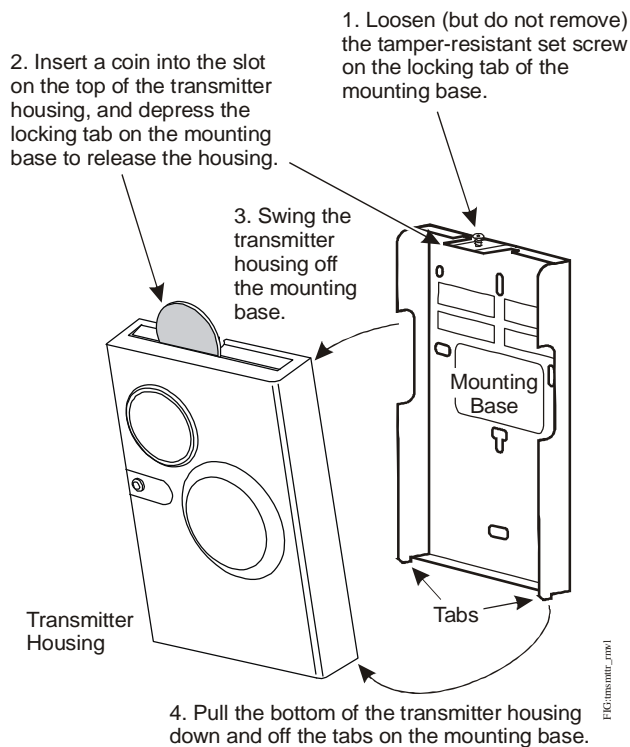


Figure 2: Removing the Transmitter Housing from its Mounting Base (Reverse the Steps to Reinstall the Housing)

6. Feed the wire lead through the slot on the bottom edge of the transmitter housing, tie a knot in the wire just inside the housing to act as a strain relief, and secure the wire ends to the terminal block as illustrated in Figure 3.

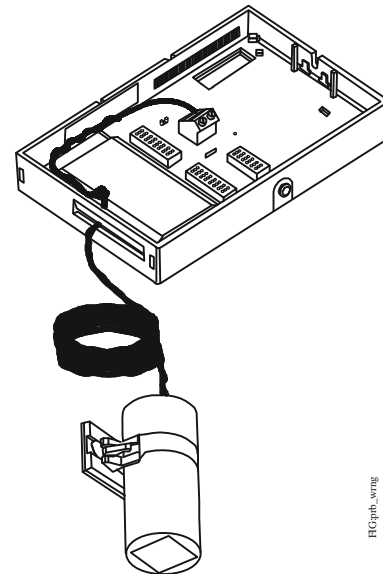


Figure 3: Wiring the WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly to the Johnson Controls WRZ-STRxxxx-0 Series Wireless Refrigerator/Freezer Temperature Transmitter

7. Reinstall the transmitter housing on its mounting base by reversing the steps illustrated in Figure 2.
8. Refer to the *WRZ-STRxxxx-0 Series Wireless Refrigerator/Freezer Temperature Transmitter and Probe Assemblies Installation Instructions (Part No. 24-10332-10)* for information on preparing the transmitter for operation.

Removing a WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly Installed with Double-Sided Adhesive Foam Tape

To remove or relocate a temperature sensor probe mounted with double-sided adhesive foam tape:

1. Remove the temperature sensor probe from the mounting surface by carefully twisting the probe mounting strap off of the surface.
2. Remove the adhesive foam tape from the probe mounting strap and clean the mounting strap to remove any leftover adhesive.

Note: New double-sided adhesive foam tape is required to remount the temperature sensor probe on the surface; use Can-Do National Tape (Code No. 99116) adhesive foam tape or its equivalent.

National Institute of Standards Technology (NIST) Certification

To order a replacement temperature sensor probe assembly with NIST certification, use code number WRZ-PTRNIST-0. To receive NIST certification for an existing non-NIST certified temperature sensor probe assembly, contact the Johnson Controls laboratory at 1-502-493-2139 or via e-mail at CG-Metrology-Louisville@jci.com.

Non-NIST certified temperature sensor probe assemblies should be sent to:

Technical Specifications

WRZ-PTRxxxx-0 Series Temperature Sensor Probe Assembly

Ambient Conditions	Operating: -40 to 95°F (-40 to 35°C) Storage: -40 to 140°F (-40 to 60°C), 5 to 98% RH, Noncondensing
Temperature System Broad Range Accuracy	±1.8F°/±1.0C° Over the Range of -40 to 95°F (-40 to 35°C)
Refrigerator/Freezer Narrow Range Accuracy	±0.9F°/±0.5C° Over the Range of -9 to 41°F (-23 to 5°C)
Temperature Sensor Type	External 3k ohm Negative Temperature Coefficient (NTC) Thermistor
Materials	Clear Acrylic Cylinder
Mounting	Surface Mounted Using Factory-Installed Probe Mounting Strap with Double-Sided Adhesive Foam Tape Installed
Shipping Weight	0.24 lb (0.11 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, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

European Single Point of Contact:

JOHNSON CONTROLS
WESTENDHOF 3
45143 ESSEN
GERMANY

NA/SA Single Point of Contact:

JOHNSON CONTROLS
507 E MICHIGAN ST
MILWAUKEE WI 53202
USA

APAC Single Point of Contact:

JOHNSON CONTROLS
C/O CONTROLS PRODUCT
MANAGEMENT
NO. 22 BLOCK D NEW DISTRICT
WUXI JIANGSU PROVINCE 214142
CHINA



Building Efficiency

507 E. Michigan Street, Milwaukee, WI 53202

Metasys® and Johnson Controls® are registered trademarks of Johnson Controls, Inc. All other marks herein are the marks of their respective owners. © 2016 Johnson Controls, Inc.