nVent RTD-200 Temperature Sensor for Ambient Sensing Owner's Manual
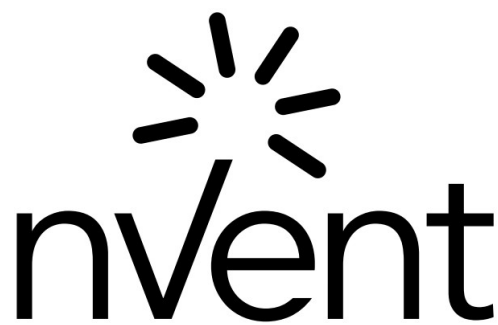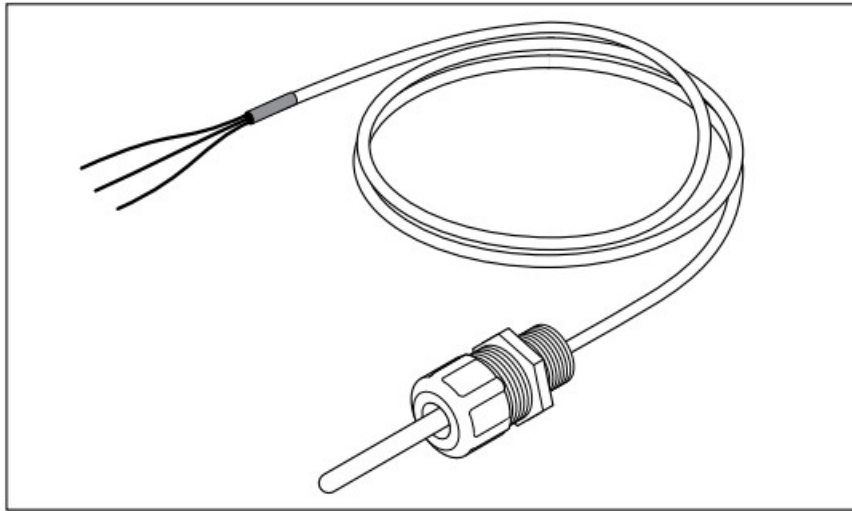
RAYCHEM
RTD-200
RTD Temperature Sensor
for Ambient Sensing
Installation Instructions
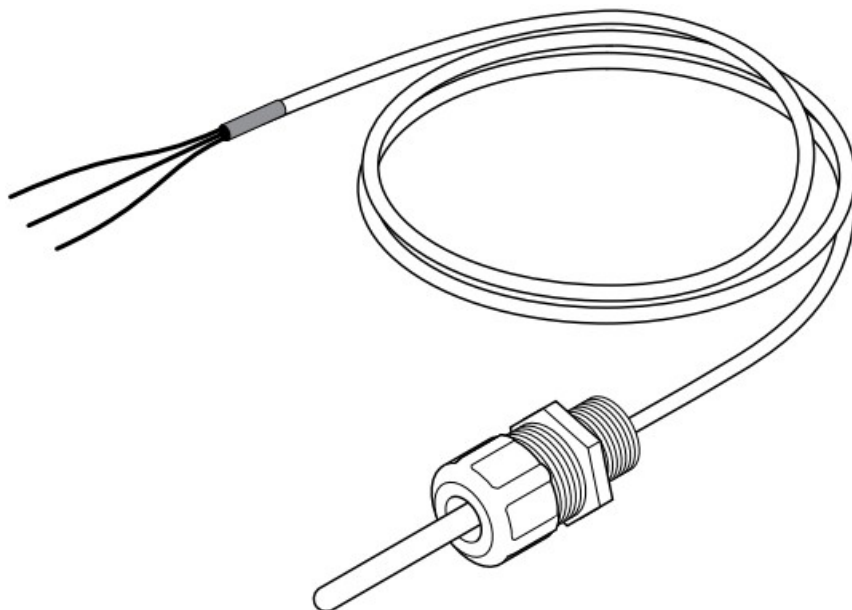
Contents

RTD-200 Temperature Sensor for Ambient Sensing

APPROVALS

Approvals associated with control device, however not to be used in Div. 1 areas.

DESCRIPTION

The nVent RAYCHEM RTD-200 is a three-wire platinum RTD (resistance-temperature-detector) typically used with electronic control systems that require accurate ambient temperature sensing. The RTD-200 comes with a 1/2" NPT fitting that installs to the appropriate conduit box. This allows mounting of the RTD in a typical ambient location. This also allows for splicing of RTD extension wire back to the controller.

Tools required

- None

Additional materials required

- None

KIT CONTENTS

Item	Qty	Description
A	1	RTD temperature sensor with 1/2-in NPT fitting

SPECIFICATIONS

Sensor	
Housing	316 stainless steel
Dimensions	3 in (7.6 mm) length 1/4 in (6 mm) diameter
Accuracy	±0.3°F (0.2°C)
Range	−100°F to 300°F (−73°C to 149°C)
Resistance	100 ohms +/− .25 ohm at 0°C X=0.00385 ohms/ohm/°C
Extension Wires	
Wire size (each of 3)	22 AWG **Note:** The length of RTD extension wires is determined by the wire gauge used. To reduce the likelihood that electrical noise will affect temperature measurement, keep RTD extension wires as short as possible. Use shielded instrument cable such as nVent RAYCHEM MONI-RTD-WIRE (22 AWG, PVC insulation, −30°F to 140°F, −20°C to 60°C) or Belden 83553 (22 AWG, FEP insulation, −95°F to 395°F, −70°C to 200°C).
Wire dielectric strength	600 volts
Length	6 ft (1.8 m)
Outer jacket	Fluoropolymer
Maximum exposure temperature	300°F (149°C)
Sensor fitting	1/2-in NPT with sealing washer and nut

⚠ **WARNING:**

This component is an electrical device. It must be installed correctly to ensure proper operation and to prevent shock or fire. Read these important warnings and carefully follow all the installation instructions. Component approvals and performance are based on the use of specified parts only. Do not use substitute parts or vinyl electrical tape to make connections.
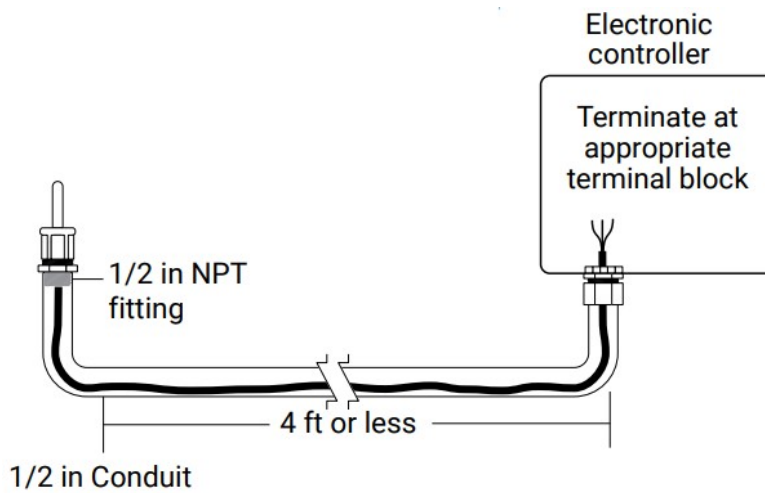
INSTALLATION

The RTD-200 can be terminated directly at the controller using the supplied 1/2 in NPT fitting. In this configuration, no additional extension wire is required.
RTD wired directly to controller
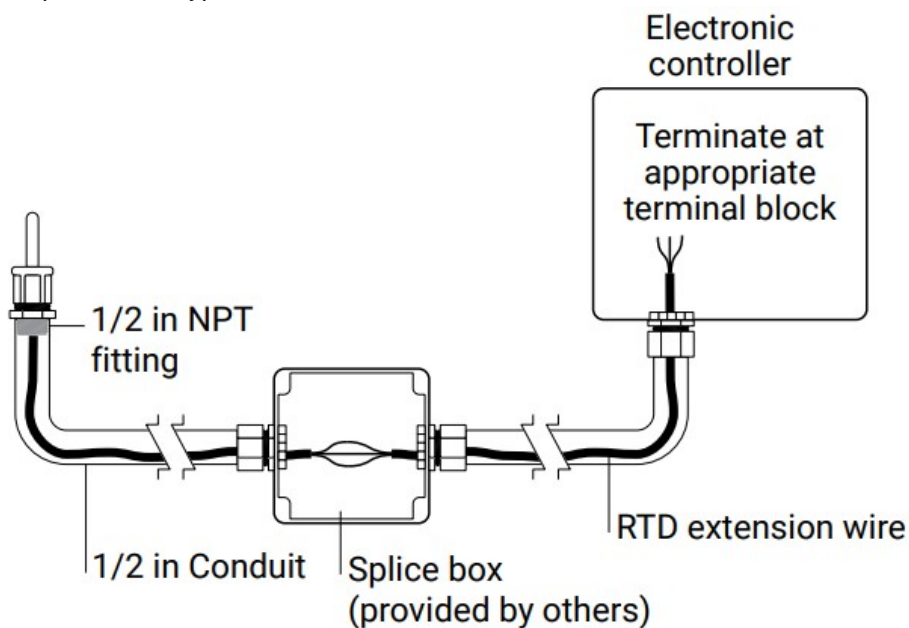(Distance from sensor bulb to controller must be less than 4 ft)
Note: RTD should be placed in a typical ambient location.
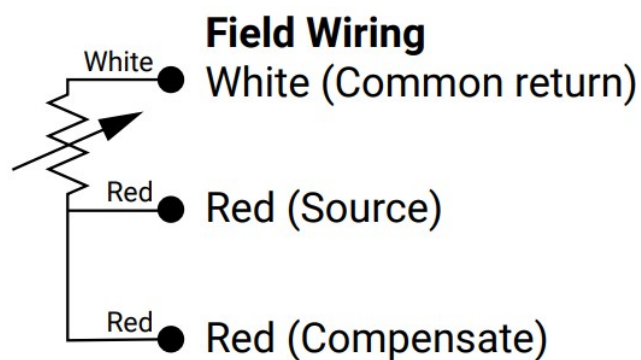
RTD wired with splice box
Note: RTD should be placed in a typical ambient location.

RTD-200 WIRING

Electrical Schematic of RTD
Connect the wires as shown.

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Documents / Resources

	nVent RTD-200 Temperature Sensor for Ambient Sensing [pdf] Owner's Manual RTD-200 Temperature Sensor for Ambient Sensing, RTD-200, Temperature Sensor for Ambient Sensing, Sensor for Ambient Sensing, for Ambient Sensing, Ambient Sensing, Sensing

References

- ☀ **Electrical Heat Tracing | Heat Tracing | nVent RAYCHEM**
- **User Manual**

Manuals+, **Privacy Policy**