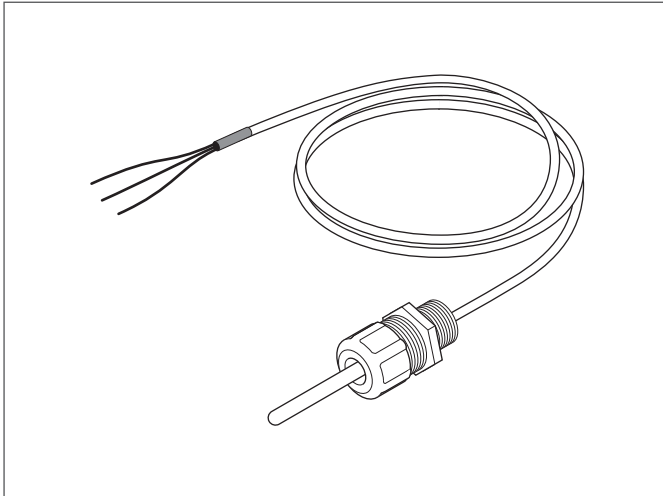# PENTAIR

DigiTrace RTD-200
RTD TEMPERATURE SENSOR FOR AMBIENT SENSING INSTALLATION INSTRUCTIONS

DESCRIPTION

The 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

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

⚠ 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.
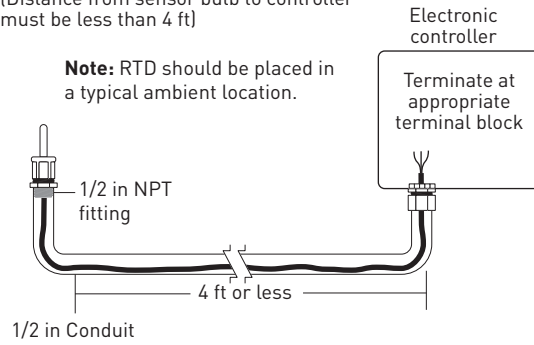

INSTALLATION

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.
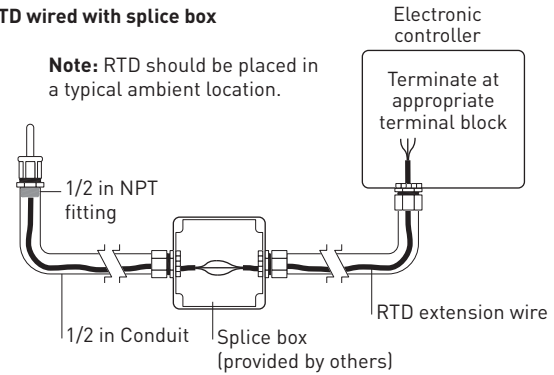
RTD wired directly to controller
(Distance from sensor bulb to controller must be less than 4 ft)

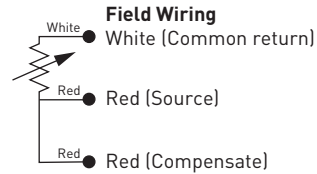**Note:** RTD should be placed in a typical ambient location.

Electronic controller

Terminate at appropriate terminal block

1/2 in NPT fitting

4 ft or less

1/2 in Conduit

RTD wired with splice box

Note: RTD should be placed in a typical ambient location.

Electronic controller

Terminate at appropriate terminal block

1/2 in NPT fitting

RTD extension wire

1/2 in Conduit

Splice box (provided by others)

RTD-200 WIRING

Electrical Schematic of RTD

Connect the wires as shown.

Field Wiring

White — White (Common return)

Red — Red (Source)

Red — Red (Compensate)