

Duct Point Temperature Sensors 100 Ω Platinum RTD with 4 to 20 mA Transmitter

Product Description

The Duct Point Temperature Sensor provides temperature input to a controller.

Product Numbers

| Product Number | Sensing Element |
|----------------|---|
| 533-377-XX | 100 Ω Pt RTD 30°F to 250°F (-1°C to 121°C) |
| 533-376-XX | 100 Ω Pt RTD 20°F to 120°F (-7°C to 49°C) |
| 544-560-XX | 100 Ω Pt RTD -4°F to 122°F (-20°C to 50°C) |
| XX | Insertion Length in Inches (mm) |
| 4 | 4 (101.6) |
| 8 | 8 (203.2) |
| 18 | 18 (457.2) |

Required Tools

- Drill with 13/32-inch (10.3 mm) bit
- Power screwdriver with standard screw chuck or medium flat-blade screwdriver
- Wire cutter/stripper

Expected Installation Time

45 minutes

Prerequisite

The appropriate field wiring, within the maximum wiring length, should be routed through the conduit.

Installation

NOTE: All wiring must comply with National Electric Code (NEC) and local regulations.

1. Drill a 13/32-inch (10.3 mm) hole into the duct at the desired location of the sensor. See Figure 1.

2. Remove the conduit box cover and remove gasket. Assemble gasket onto sensor assembly. See Figure 1.
3. Insert the sensor tube into the hole.
4. Hold the conduit box against the duct and secure the sensor to the duct with the two No. 18-8 self-tapping sheet metal screws supplied with the sensor.
5. Attach the flexible conduit and field wiring to the conduit box. Ensure that the conduit and field wiring have enough length to allow the installation/removal of the sensor assembly.

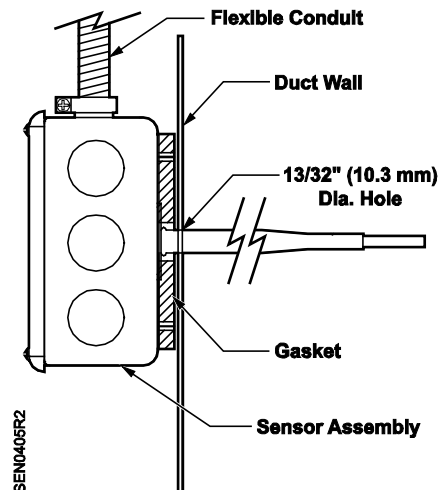


Figure 1. Duct Point Sensor Installation.

6. Connect the field wiring to the transmitter with the positive (+) 26V supply lead to the PWR wire and negative signal lead to the SIG wire. See Figure 2 and Table 1.

NOTE: For 544-560-XX variants, connect the field wiring to the transmitter with the positive (+) 26V supply lead to terminal No. 1 and the negative signal lead to terminal No. 2.

7. Replace the conduit box cover.
8. Connect the field wiring at the controller as shown in the wiring diagram. See Figure 2 and Table 1.

The installation is now complete.

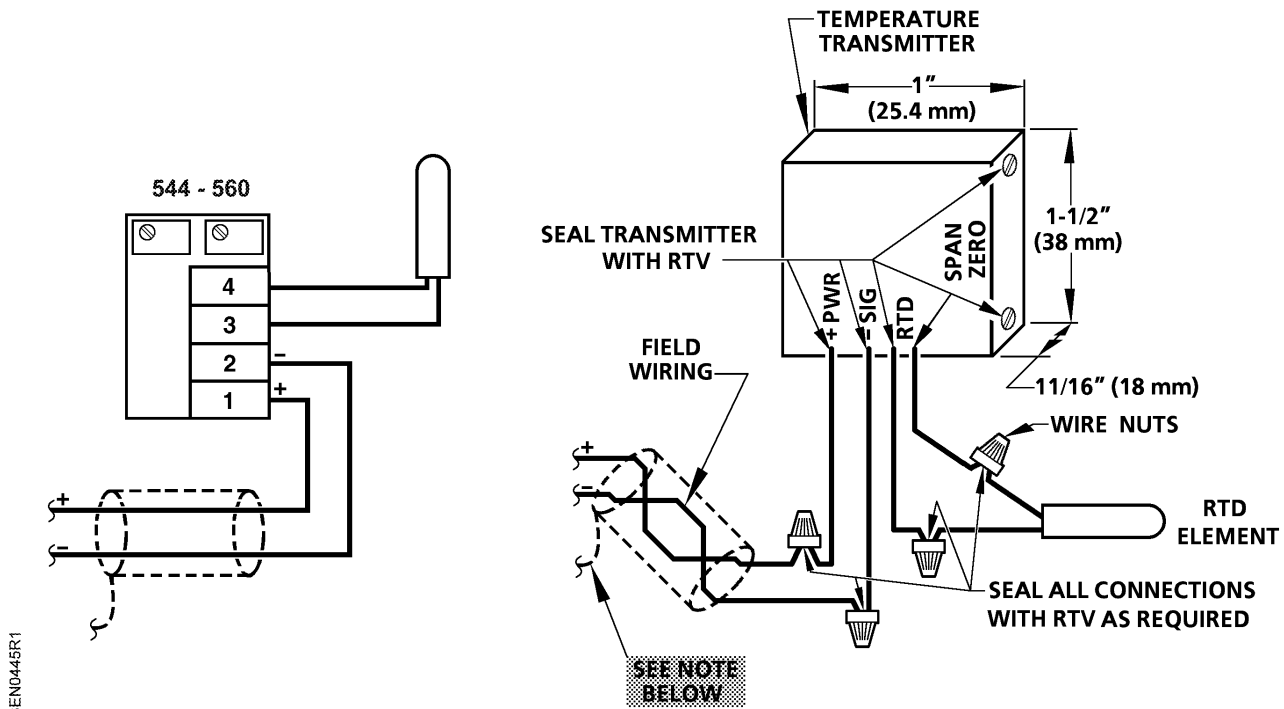


Figure 2. Wiring Connections for 4 to 20 mA Sensors.

- NOTE:**
1. Some Siemens Building Technologies controllers may require a shield termination.
 2. For individual panel wiring details, see the appropriate hardware manual.

Table 1. Transmitter Lead Wire Color Codes.

| Terminal | PWR | SIG | RTD | |
|----------|-----|-------|-------|--------|
| Option 1 | Red | Brown | Black | Orange |
| Option 2 | Red | Black | White | White |

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