Document No. 538-494 Rev. 3, October, 2001

Duct Temperature Sensor, 10K Ohm Thermistor

Product Description

The single point 10K ohm Duct Temperature Sensor is inserted into the duct to provide an input to the controller. The assembly may be installed on the outside of a square or round duct (Figures 1 and 2). The mounting plate is made of thin steel, which can be easily bent to conform to round or irregular contour ducts.

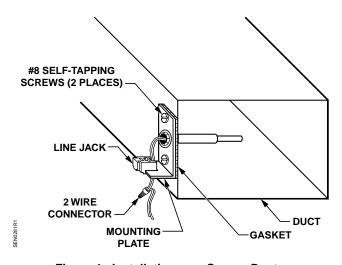


Figure 1. Installation on a Square Duct.

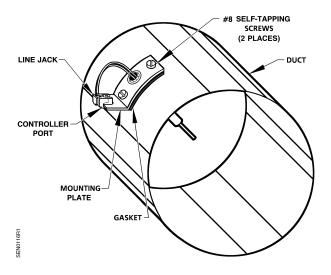


Figure 2. Installation on a Round Duct.

Contents

Shipping carton includes sensor assembly with line jack and gasket, and two No. 8 self-tapping screws.

Product Number

540-128

Required Tools

- Medium-duty electric drill with 3/8-inch (9.5 mm) and 1/8-inch (3 mm) drill bits
- Power screwdriver with 1/4-inch hex extension or medium, flat-bade screwdriver

Additional tools if NOT using preterminated cables:

Room sensor connector tool
Room sensor connector kit (100/pkg)
540-141

Expected Installation Time

12 minutes

Prerequisites

- Review the instructions before beginning.
- Appropriate field wiring must be in place.

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

Installation

 Drill a 3/8-inch (9.5 mm) diameter hole on the side of the duct where the sensor is to be mounted.

NOTE: If you cannot use the self-tapping feature of the screws provided, use Figure 3 as a template and drill one 3/8-inch (9.5 mm) center hole and two 1/8-inch (3 mm) diameter holes in the side of the duct.

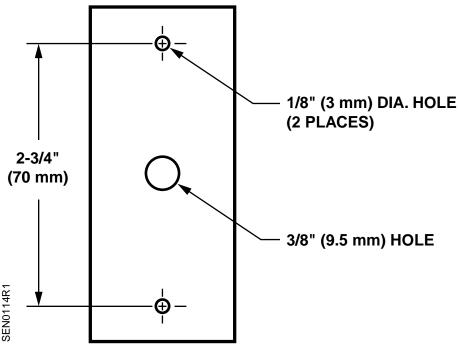
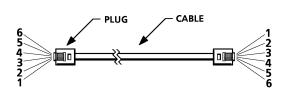


Figure 3. Template for Mounting Holes.

- Insert the sensor into the 3/8-inch (95 mm) hole in the duct.
- Secure the sensor assembly to the duct with the two No. 8 self-tapping screws provided.
- 4. Press the line jack into the cutout on the mounting plate. See Figures 1 and 2.
- 5. Do one of the following:
 - If you are using preterminated cable, skip to Step 7.
 - Using the room sensor connector tool, attach an RJ11 connector to both ends of the cable. Align the six wires in the same order on the connectors on both ends of the cable. See Figure 4 and Table 1.
- 6. Insert the RJ11 plug of the field wiring into the line jack.
- Connect the field wiring to the controller by inserting the RJ11 plug into the controller's port.



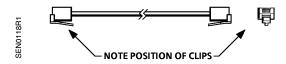


Figure 4. Wiring Pairs.

Table 1. Wiring Pairs.

Pin	Wire Color/Stripe	Pin	Wire Color/Stripe
1	Green/white	4	White/blue
2	Orange/white	5	White/orange
3	Blue/white	6	White/green

The installation is now complete.

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