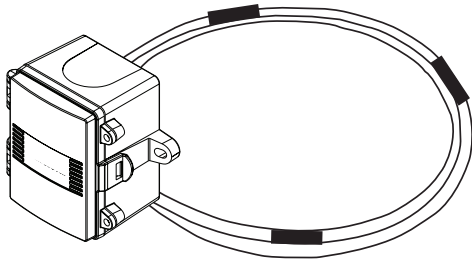


# High Accuracy Flexible Cable Duct Average Temperature Transmitter

## Installation Instructions



### INTRODUCTION

The high accuracy flexible, multi-point duct averaging mounted temperature transmitter incorporates numerous precision platinum RTD sensor and a transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response. They are available with various scaled ranges. The sensing cable is constructed to provide excellent heat transfer, fast response time and is available in several lengths and a quantity of sensing elements. A compact ABS enclosure with a hinged and gasketed cover is provided for ease of installation.

### BEFORE INSTALLATION

Read these instructions carefully before installing and commissioning the temperature sensor. Failure to follow these instructions may result in product damage. Do not use in an explosive or hazardous environment, with combustible or flammable gases, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury. **Do not exceed the device ratings.**

### MOUNTING

The temperature sensor installs directly into any air duct with several lengths available for a wide range of duct widths/diameters. Please select a suitable installation area in the middle of the duct wall. To achieve the best reading, do not place in an area where air stratification may be present. Mount the sensor at least 1.5 m (5') in either direction from elbows, dampers, filters or other duct restrictions. Avoid areas where the sensor is exposed to vibrations or rapid temperature changes.

Once a suitable spot is selected, drill a 9.5 - 12 mm (3/8" - 1/2") hole for the probe.

Unroll the sensing cable probe, being careful not to kink the wire and feed into the drilled hole until the enclosure is flush against the duct. The airflow direction is not important. Secure the enclosure to the duct with two #10 x 25 mm (1") self tapping screws (not provided). Tighten screws until the enclosure is tight against the duct and ensure that there is no movement of the enclosure as shown in Figure 1. A foam gasket on the back of the enclosure provides a tight seal against any air leaks.

Install two lengths of hanger strap, securing to the floor and ceiling of the duct.

The cable probe can easily be shaped to fit any duct size but observe a minimum bend radius of 4" to prevent damage to the wire or sensors. Criss-cross the duct multiple times so that the probe covers a large section of the duct. **The cable probe needs to be fastened onto hangers using tube clamps or wire ties and should be secured every 100 cm or 3' maximum to prevent movement of the wire and prevent wear. If sensor is to be used in high velocity or vibration environment use of rigid style duct probe is recommended.** See Figure 2.

The enclosure has a hinged cover with a latch. Open the cover by pulling slightly on the latch on the right side of the enclosure. At the same time pulling on the cover, as illustrated in Figure 3.

A 1/2" NPT threaded connection hole is provided in the bottom of the enclosure. Screw the EMT connector or cable gland connector in until tight. See Figure 4. It is recommended that weatherproof conduit or cable gland fittings be used. The E style enclosure includes a 1/2" NPT to M16 thread adapter and cable gland fitting.

Make wire connections as per the "Wiring" illustrations on Page 2.

Swing door closed until securely latched. For added security, two screws are provided that may be installed in the integrated screw tabs. See Figure 5.

Figure 1

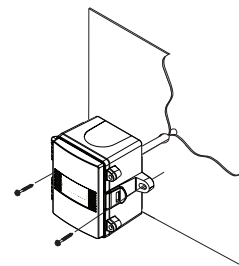


Figure 2

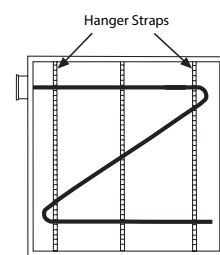


Figure 3

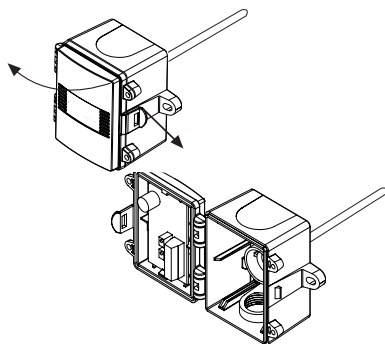


Figure 4

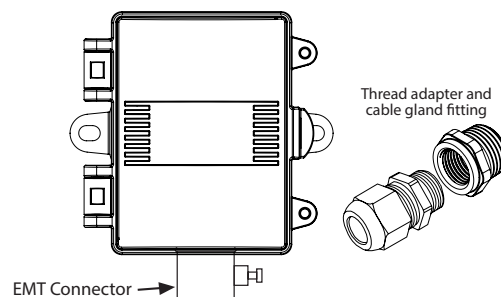


Figure 5

