

Installation Guide

Mounting

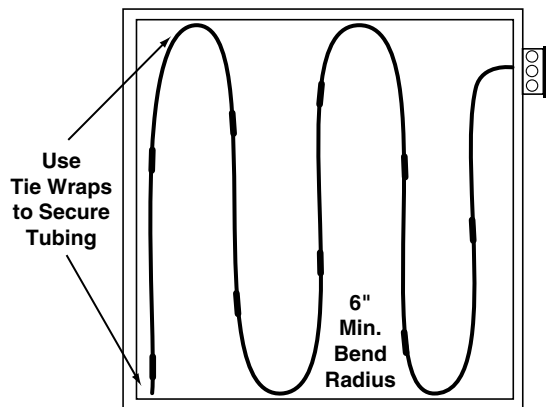
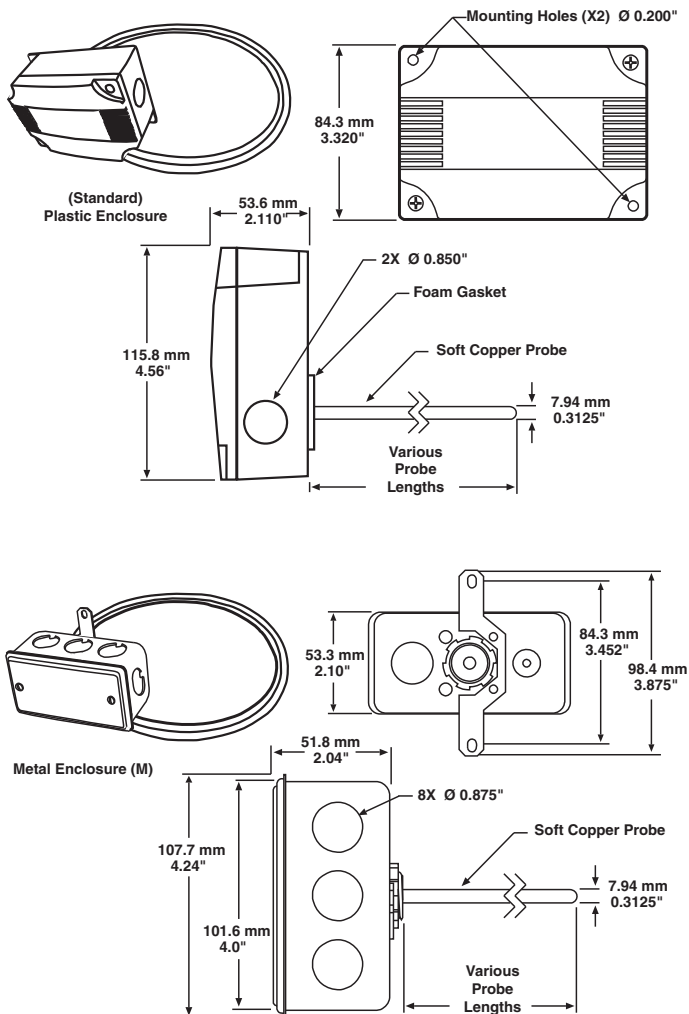
The averaging temperature sensor incorporates several discrete sensors encapsulated at equal distances across the length of the copper tubing probe. The complete assembly acts as a single sensor to monitor the average temperature in a duct. Averaging elements are not recommended for high humidity applications.

The copper tubing can be installed onto hangers in the duct using tube clamps or wire ties. It should be located in a straight section of duct away from heating, cooling, or humidifier elements.

Temperature sensors can be affected by air stratification in the duct, air leakage through the conduit or other duct holes, and nearness to exterior walls, a large thermal mass (e.g., concrete blocks), heat sources, or wires with power.

Because of air stratification, the coldest air tends to be toward the bottom of the duct. Hence, one of the sensors inside the tubing should be near the bottom of the duct.

1. Cut a hole in the duct large enough to feed the copper probe through the back of the sensor enclosure.
2. Fasten the enclosure to the duct by drilling holes in the duct and threading screws through the mounting holes in the case.
3. Insert the sensor probe into the duct, bend the probe tubing to cover the air path, and secure as needed. **Maintain a minimum bend radius of six inches to prevent damage to the wires or sensors.**
4. For the cable leading to the building automation system controller, attach conduit to a hole in one of the sides.



Connections and Wiring

1. Feed wires from the controller through the conduit opening.
2. Make connections to the two sensor wire leads with either butt-splices or solder. (Using wire nuts is **not** recommended.) The two-wire sensor is not polarity sensitive.
3. Plug the conduit with plumber's putty, painter's putty, caulk, or other sealant to prevent air infiltration.

Configuration

For controller configuration, see the [Type III Sensors Applications Guide](#) on the KMC web site.

Maintenance

No routine maintenance is required. Each component is designed for dependable, long-term reliability and performance. Careful installation will also ensure long term reliability and performance.

Specifications

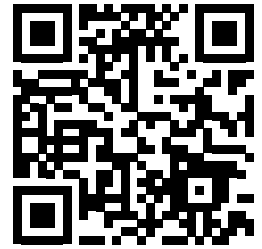
Sensor	Type III thermistor, 10K ohm @ 77° F (25° C)
Temperature Limits	-4 to 221° F (-20 to 105° C)
Wiring	22 AWG wire leads
Enclosure Materials	Flame-retardant ABS plastic or galvanized steel
Probe Lengths and Number of Discrete Sensors	
STE-1411	6 feet (1.8 m), 4 sensors
STE-1412	12 feet (3.6 m), 4 sensors
STE-1413	24 feet (7.3 m), 9 sensors
STE-1414	20 feet (6.1 m), 4 sensors

More Information

For **additional information**, see the [STE-1400 Series Data Sheet](#) on the KMC web site.



For **troubleshooting, controller configuration, and other information**, see the [Type III Sensors Applications Guide](#) on the KMC web site.



Important Notices

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