

Descriptions and Applications

STE-1400 Series 10,000 ohm, Type III thermistor, temperature sensors are available in different housings for surface, duct, duct averaging, immersion, strap-on, and outside air applications. All probes are constructed to provide good heat transfer and fast response. The averaging sensors are available in both plenum-rated cable or with a copper probe.

Each STE-1401/1402/1404/1405 duct sensor is encapsulated in a 1/4-inch OD stainless-steel probe. The probe protrudes from the bottom of the sensor housing (if included). The probe can be inserted directly into the duct for single-point monitoring, and mounting holes are provided to rigidly support the assembly.

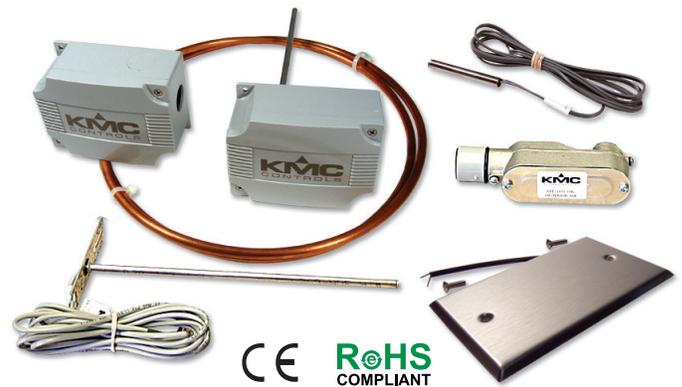
An STE-1411/1412/1413/1414/1415/1416/1417 averaging duct sensor incorporates numerous sensors inside a copper tube and is available in a 5/16-inch OD bendable copper probe or in a flexible plenum-rated cable. The completed assembly acts as a single sensor and any temperature change is averaged across the sensor. The probes can be bent to fit any size duct.

An STE-1421/1422 immersion sensor is encapsulated in a 1/4-inch OD 304 stainless-steel probe. The probe protrudes from the bottom of the sensor housing, minimizing lead length error. The probe has a 1/2-inch NPT fitting to be screwed into an HMO-4534/4544 stainless-steel well.

The STE-1455 strap-on sensor is encapsulated in a two-inch-long, 1/4-inch OD stainless-steel probe. The probe has a five-foot lead wire. The STE-1454 strap-on sensor also comes with an enclosure.

The STE-1451 outside air sensor is mounted in a weatherproof gasketed enclosure with a sun shield for protection against the outdoor elements. It comes with an LB c/w 1/2" NPT fitting for connection to conduit.

The STE-1430 room sensor, designed for tamper-resistant temperature measurement of occupied spaces, can be mounted on an interior hollow wall in a standard single-gang electrical box. The sensor is mounted behind a flat brushed stainless-steel plate.



Features

- ◆ Type III 10,000 ohm thermistor encapsulated temperature sensors.
- ◆ Available in a number of models to accommodate various installation applications.
- ◆ Some models are available in either an ABS plastic utility box or optional metal enclosure.

Models

STE-1401	8-inch Duct Rigid (w/ 10-ft. plenum-rated cable and w/o enclosure)
STE-1402	8-inch Duct Rigid (w/ 5-ft. non-plenum-rated cable)
STE-1404	12-inch Duct Rigid (w/ 5-ft. non-plenum-rated cable)
STE-1405	4-inch Duct Rigid (w/ 10-ft. plenum-rated cable and w/o enclosure)
STE-1411	6-ft. Duct Averaging (copper)
STE-1412	12-ft. Duct Averaging (copper)
STE-1413	24-ft. Duct Averaging (copper)
STE-1414	20-ft. Duct Averaging (copper)
STE-1415	6-ft. Duct Averaging (flexible)
STE-1416	12-ft. Duct Averaging (flexible)
STE-1417	24-ft. Duct Averaging (flexible)
STE-1421	4-inch Immersion (without well)
STE-1422	6-inch Immersion (without well)
STE-1430	Room, Flat Plate
STE-1451	Outside Air
STE-1454	2-inch Strap-On
STE-1455	2-inch Strap-On (w/o enclosure)

Specifications

Sensor	Type III thermistor, 10K ohm @ 77° F (25° C)
Accuracy	±0.36° F (±0.20° C)
Temperature Limits	
Standard Limits:	-4 to 221° F (-20 to 105° C)
Outdoor Air only:	-58 to 212° F (-50 to 100° C)
Wiring	22 AWG wire leads
Mfg. Process	ISO 9001 registered quality system
Regulatory	CE and RoHS compliant
Enclosure Ratings	

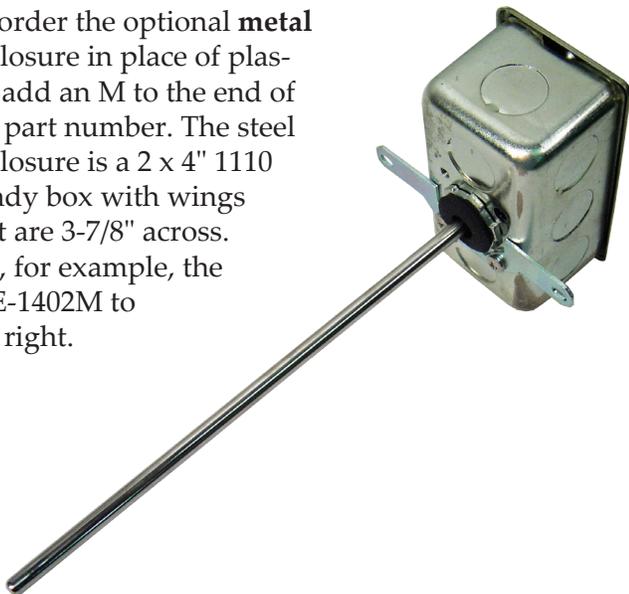
STE-1451 OAT, Aluminum LB	NEMA 4X & IP65
Other metal (steel) enclosures	NEMA 1 & IP50
Rectangular ABS enclosures	NEMA 2 & IP61
STE-1405, STE-1430, STE-1455	(No Enclosure)

Enclosures

A 3.3 x 2.1 x 4.55" (84 x 53 x 116 mm) ABS plastic utility box comes as the standard enclosure for these sensors:

STE-1402	STE-1412	STE-1421
STE-1404	STE-1413	STE-1422
STE-1411	STE-1414	STE-1454

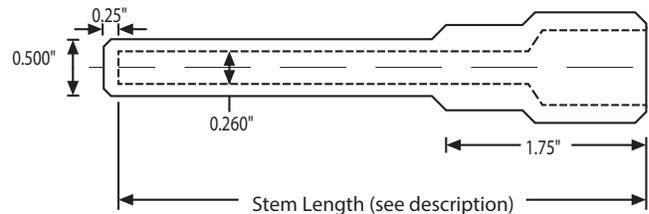
To order the optional **metal** enclosure in place of plastic, add an M to the end of the part number. The steel enclosure is a 2 x 4" 1110 handy box with wings that are 3-7/8" across. See, for example, the STE-1402M to the right.



Accessories

For the **STE-1421** and **STE-1422**, these thermowells and thermal compound are available:

HMO-4532	Thermal compound for wells, 1 oz.
HMO-4534	4" 304 stainless-steel well (for the STE-1421)
HMO-4544	6" 304 stainless-steel well (for the STE-1422)



NOTE: NPT Thread Size = 1/2 inch.