

### DESCRIPTION AND APPLICATION

STE-1400 Series, 10,000 ohm, Type III thermistor, temperature sensors are available for duct, immersion, strap-on, room, and outside air applications. See also [Models on page 2](#). Applicable probes are constructed to provide good heat transfer and fast response.

The **STE-1430 room** sensor, designed for inconspicuous and 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 to the back of a flat, brushed stainless-steel plate.

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

An **STE-1411/1412/1413/1414/1415/1416/1417 averaging duct** sensor incorporates numerous sensors 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 flex to fit any size duct.

Each **STE-1401/1402/1404/1405 duct** sensor is encapsulated in a rigid 1/4-inch OD stainless-steel probe. The probe protrudes from 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-1423/1424 immersion/duct** sensor is encapsulated in a rigid 1/4-inch OD 304 stainless-steel probe. The probe protrudes from the sensor housing for insertion into an HMO-4545/4546 stainless-steel thermowell for immersion applications. (See [Accessories on page 3](#) for thermowells and thermal compound.) These sensors can also be used (without thermowells) as a rigid-probe duct sensors for small ducts.

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. A strap-on sensor is typically used if an immersion sensor is impractical.



### FEATURES

- ◆ Type III 10,000 ohm thermistor encapsulated temperature sensors.
- ◆ Available in a number of models to accommodate various installation applications.
- ◆ Models are available with and without enclosures and with different length leads.

### SPECIFICATIONS

<b>Sensor</b>	Type III thermistor, 10K ohm @ 77° F (25° C)
<b>Accuracy</b>	±0.36° F (±0.20° C)
<b>Temperature Limits</b>	See installation guides for the different models
<b>Wiring</b>	Wire leads pigtail or cable, dependent on model
<b>Mfg. Process</b>	ISO 9001 registered quality system
<b>Approvals</b>	CE and RoHS compliant

**NOTE:** These specifications are for models that started shipping May 2020. For specifications of earlier models, see Rev. Q of this document.

## MODELS

MODEL	SENSOR TYPE	PROBE TYPE	PROBE LENGTH	ENCLOSURE	CONNECTIONS*
STE-1405	Duct, Rigid	1/4-inch OD stain-less-steel	4 inches (100 mm)	None (mounting bracket only)	10-ft. FT-6 plenum-rated, 22 AWG cable
STE-1401			8 inches (200 mm)		
STE-1402			8 inches (200 mm)		
STE-1404			12 inches (300 mm)		
STE-1411	Duct, Averaging	Copper, bend-able	6 feet (1.8 m)	Plastic, UL94-V0, IP65 (NEMA 4X) ABS	FT-6 plenum-rated, 22 AWG wire leads
STE-1412			12 feet (3.6 m)		
STE-1414			20 feet (6.1 m)		
STE-1413			24 feet (7.3 m)		
STE-1415		Flexible, FT-6 plenum-rated cable	6 feet (1.8 m)		
STE-1416			12 feet (3.6 m)		
STE-1417			24 feet (7.3 m)		
STE-1423	Immersion** or Rigid Duct	1/4-inch OD stain-less-steel (w/o well)	4 inches (100 mm)		PVC insulated, 22 AWG, wire leads
STE-1424			6 inches (150 mm)		
STE-1454	Strap On	1/4-inch OD stain-less-steel	2 inches (50 mm)		
STE-1455					
STE-1430	Room	Sensor is behind a blank, flat, stainless steel plate for mounting on a (not supplied) single-gang electrical box			Wire leads
STE-1451	Outside Air	Inside an LB-type aluminum, IP65 (NEMA 4X), enclosure			

**\*NOTE:** All sensors have short leads except for those with five-foot or ten-foot cables.

**\*\*NOTE:** For immersion applications, the STE-1423 sensor requires an HMO-4545 thermowell, and the STE-1424 requires an HMO-4546. See [Accessories](#) on page 3.

## ENCLOSURES

The STE-1401, STE-1405, and STE-1455 have no enclosures.

The STE-1430 sensor is behind a blank, flat, brushed stainless steel plate for mounting on a (not supplied) single gang electrical box. It has an IP50 (NEMA 1) rating after mounting.

The STE-1451 outside air temperature sensor has an aluminum LB enclosure with an IP65 (NEMA 4X) rating.

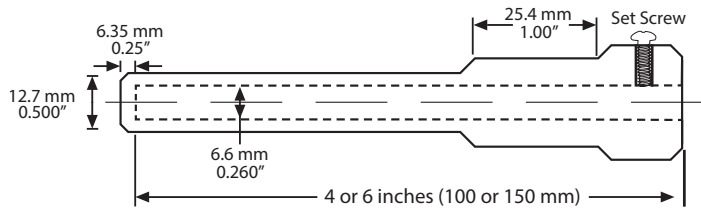
All others have a UL94-V0, IP65 (NEMA 4X) ABS plastic utility box, with a hinged and gasketed cover.



## ACCESSORIES

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

- |                 |   |
|-----------------|---|
| <b>HMO-4532</b> | Thermal compound for thermowells,<br>1 oz.        |
| <b>HMO-4545</b> | 4" 304 stainless-steel well (for the<br>STE-1423) |
| <b>HMO-4546</b> | 6" 304 stainless-steel well (for the<br>STE-1424) |



**NOTE:** STE-1423/1424 sensor probe is secured inside the thermowell with a set screw. Using HMO-4532 thermal compound inside the well ensures optimal heat transfer.

**NOTE:** STE-1423/1424 immersion sensors replace older STE-1421/1422 sensors used with (threaded) HMO-4534/4544 thermowells. When replacing an STE-1421/1422 sensor with an STE-1423/1424, the thermowell also needs to be replaced with an HMO-4545/4546.

## SUPPORT

Additional product and other resources are available on the web at [www.kmccontrols.com](http://www.kmccontrols.com).



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