KMC CONTROLS®

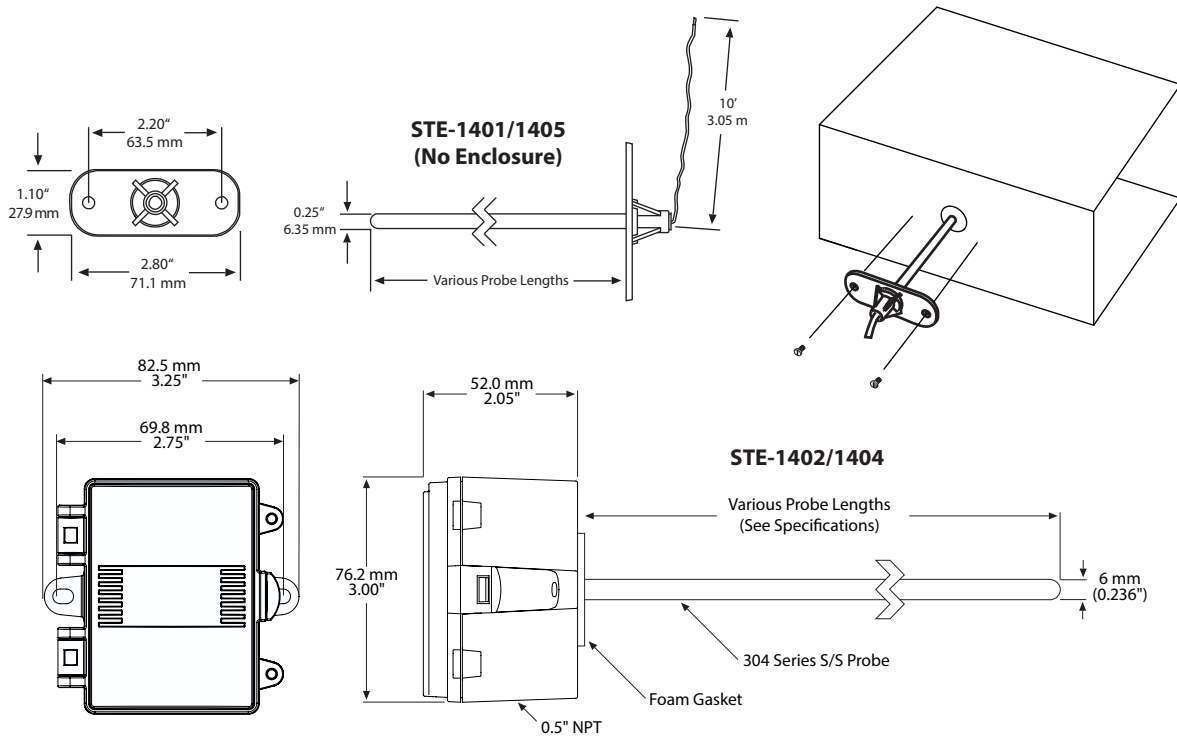# Duct Temperature Sensor, Rigid

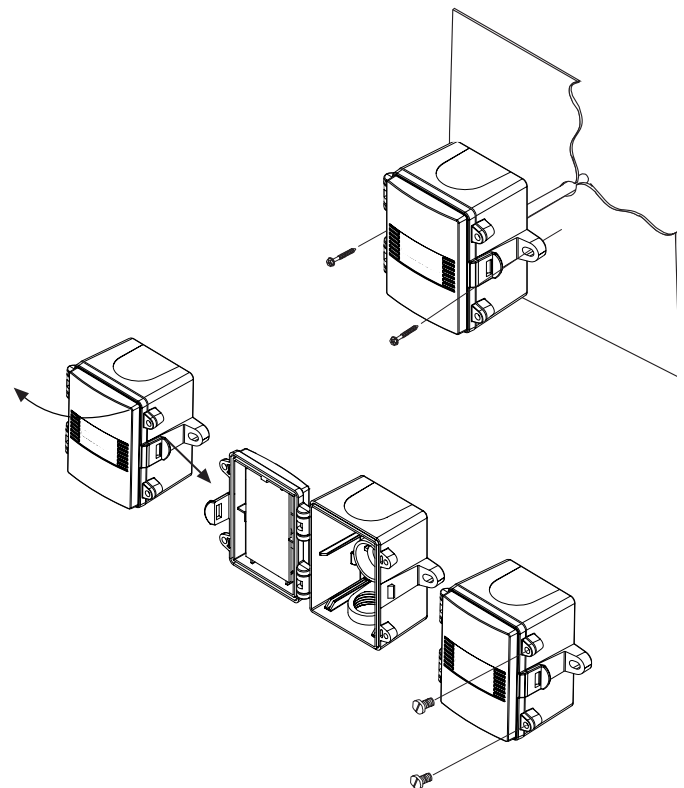**STE-1401/1402/1404/1405**

Installation Guide

Mounting

Designed for single-point monitoring, these sensors are available in various stainless-steel probe lengths of 4, 8, and 12 inches (100, 200, and 300 mm).

NOTE: Select a probe length that places the sensor in the middle of the duct to avoid errors due to laminar flow.

1. Locate the sensor in a straight section of duct away from heating, cooling, or humidifier elements.

2. Cut a 1/4-inch hole for the probe in the side of the duct as well as smaller holes for screws at the appropriate locations.

3. Insert the probe and fasten the assembly to the duct using screws threaded through the mounting holes in the housing.

4. Open the sensor cover (STE-1402/1404 only) by pulling slightly on the latch on the right side of the enclosure while pulling on the cover.

5. For the cable leading to the building automation system controller, attach conduit to the 1/2" NPT threaded connection hole that is provided in the bottom of the enclosure as needed.

Connections and Wiring

NOTE: Use 18 to 24 AWG shielded wiring for all connections. Do not locate the device wires in the same conduit with wiring used to supply inductive loads such as motors. Make all connections in accordance with national and local codes.

1. Bring the cable from the controller through the bottom hole (if applicable).

2. Make connections to the two wire leads with either butt-splices or solder. Using wire nuts is **not** recommended.

NOTE: The two-wire sensor is not polarity sensitive.

NOTE: Plug the conduit with sealant to prevent air infiltration.

3. Swing the door (if applicable) closed until securely latched.

4. If desired for added security (if applicable), install the two (provided) screws in the door's integrated screw tabs.

Configuration

For controller configuration, see the **Type III Sensors Applications Guide** on the KMC web site.

Specifications

Sensor	Type III thermistor, 10K ohm @ 77° F (25° C)
Probe Sensing Range	
	–40 to 212° F (–40 to 100° C)
Ambient Operating Range	
	–40 to 122° F (–40 to 50° C), 5 to 95 % RH noncondensing
Enclosure	(STE-1402/1404 only) UL94-V0, IP65 (NEMA 4X), ABS
Wiring	10-ft. FT-6 plenum-rated, 22 AWG cable for STE-1401/1405; PVC insulated, 22 AWG leads for STE-1402/1404
Probe Lengths	
STE-1405	4 inches (100 mm)
STE-1401/1402	8 inches (200 mm)
STE-1404	12 inches (300 mm)

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.

More Information

For **troubleshooting, controller configuration, and other information**, see the **Type III Sensors Applications Guide** on the KMC web site. For **additional information**, see the **STE-1400 Series Data Sheet** on the KMC web site.

Important Notices

The KMC logo and KMC Controls are registered trademarks of KMC Controls, Inc.

All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of KMC Controls, Inc.

The material in this document is for information purposes only. **The contents and the product it describes are subject to change without notice.** KMC Controls, Inc. makes no representations or warranties with respect to this document. In no event shall KMC Controls, Inc. be liable for any damages, direct or incidental, arising out of or related to the use of this document.

KMC Controls, Inc.
19476 Industrial Drive
New Paris, IN 46553
574.831.5250
www.kmccontrols.com
info@kmccontrols.com