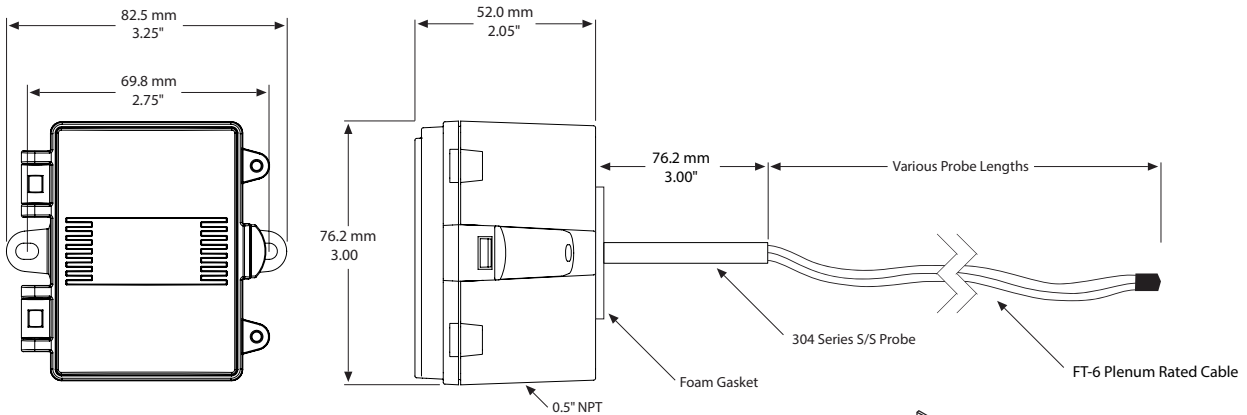


## Installation Guide

### Mounting



The averaging temperature sensor incorporates several discrete sensors encapsulated at equal distances across the length of the 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.)

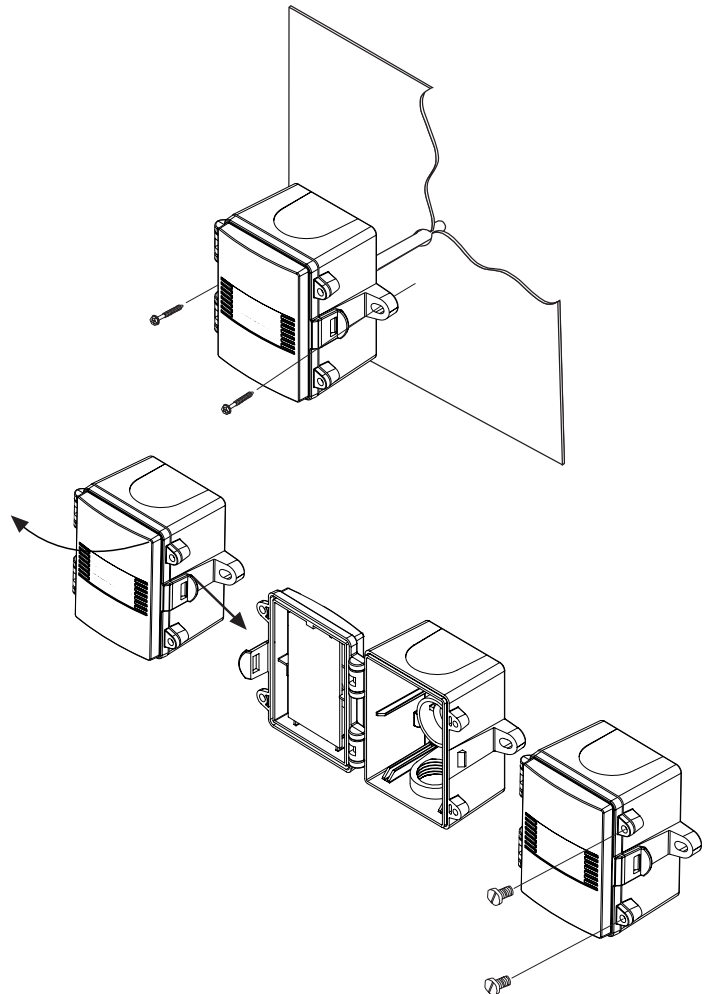
The sensors can be installed onto hangers in the duct using tube clamps or wire ties. They should be located in a straight section of duct away from heating, cooling, or humidifier elements.

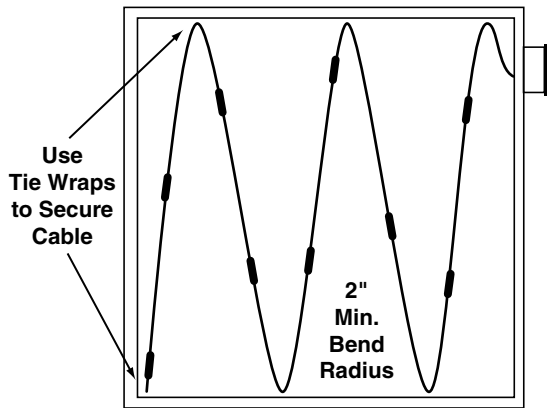
Temperature sensors can be affected by air stratification in the duct, air leakage through the conduit or other duct holes, and nearness to exterior walls, a large thermal mass (e.g., concrete blocks), heat sources, or wires with power.

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

The flexible cable can be easily shaped to fit any duct size but observe a **minimum bend radius of two inches** to prevent damage to wires or sensors.

1. Cut a hole in the duct large enough to feed the sensor cable from the back of the sensor enclosure.
2. Insert the sensor cable into the duct, stringing the cable to cover the air path, and secure as needed.
3. Fasten the enclosure to the duct by drilling holes in the duct and threading screws through the mounting holes in the case.
4. 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.





5. Open the cover by pulling slightly on the latch on the right side of the enclosure while pulling on the cover.

## 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.
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 closed until securely latched.
4. If desired for added security, install the two (provided) screws in the door's integrated screw tabs.

## Specifications

<b>Sensor</b>	Type III thermistor, 10K ohm @ 77° F (25° C)
<b>Probe Sensing Range</b>	-40 to 140° F (-40 to 60° C)
<b>Ambient Operating Range</b>	-40 to 122° F (-40 to 50° C), 5 to 95% RH noncondensing
<b>Enclosure</b>	UL94-V0, IP65 (NEMA 4X), ABS
<b>Wiring</b>	FT-6 plenum-rated, 22 AWG wire leads

**Cable Lengths** STE-1415 6 feet (1.8 m), STE-1416 12 feet (3.6 m), STE-1417 24 feet (7.3 m)

## 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.

## More Information

For **controller configuration, troubleshooting, 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](http://www.kmccontrols.com); [info@kmccontrols.com](mailto:info@kmccontrols.com)