Installation Guide

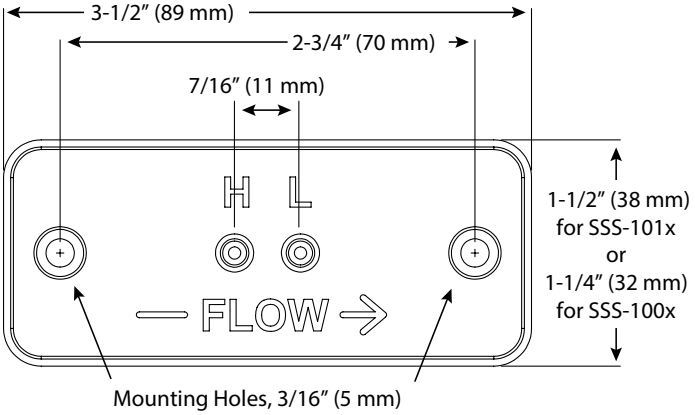
Mounting for Differential Pressure Flow

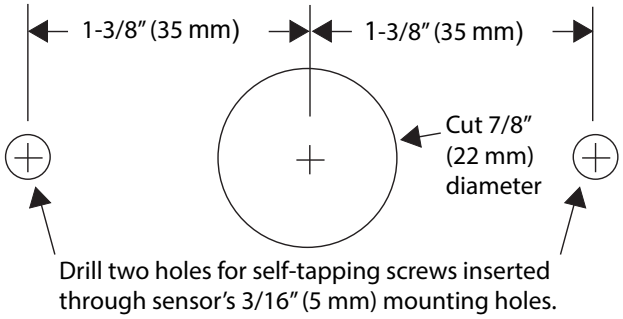
To mount the sensor for differential pressure:

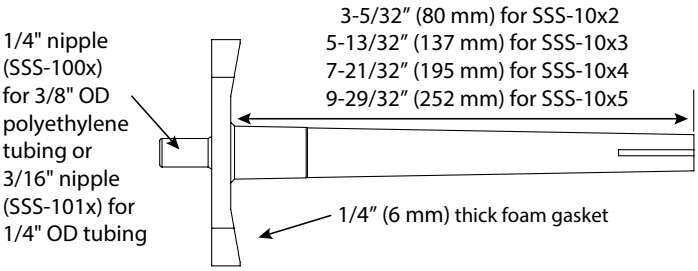
1. Determine the duct's flow direction and install the sensor based on the sensor's flow arrow imprint.

NOTE: The sensor must be mounted with the FLOW arrow imprint pointing in the direction of the air flow.

2. Cut a 7/8" (22 mm) hole in the duct to accept the sensor's probes.
3. Attach the sensor to the duct using two self-tapping screws inserted through the sensor's 3/16" (5 mm) mounting holes.







Connections

Use appropriately sized polyethylene tubing to connect the sensor to the controller:

- For connecting SSS-10xx sensors with CSC-3000 series, CSP-4000/5000 series, KMD-7000 series, and BAC-7000/8000/9000 series controllers, use a barb union adapter and tubing sized appropriately to the sensor and controller. For maximum accuracy in the CSP-5000 series, KMD-7000 series, and BAC-7000 series controllers, the 3/8" OD tubing between the sensor and the adapter should be as short as possible, and the 1/4" OD tubing from the adapter to the controller should be 24" long (on both the High and the Low sides).
- OR use the equivalent SSS-101x sensor and just 1/4" OD tubing (no adapter is necessary). For maximum accuracy in the CSP-5000 series, KMD-7000 series, and BAC-7000 series controllers, the 1/4" OD tubing from the sensor to the controller should be 24" long (on both the High and the Low sides).

NOTE: For other controllers, the length of the tubing should not be longer than necessary.

NOTE: CSC-2000 series controllers have ports for 3/8" tubing (the same as the SSS-10xx sensors).

Check that there are no sharp bends in the tubing at any connection. Bends and creases may leak as tubing ages.

1. Connect the Port "H" to the "High" input on the VAV controller.
2. Connect the Port "L" to the "Low" input on the VAV controller.

Mounting for Static Pressure

To mount the sensor for static pressure:

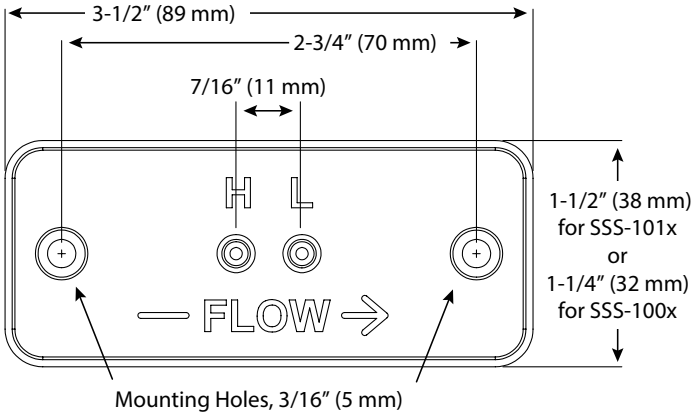
1. Determine the duct's flow direction and install the sensor so that the FLOW arrow imprint is **perpendicular** to the direction of the air flow.

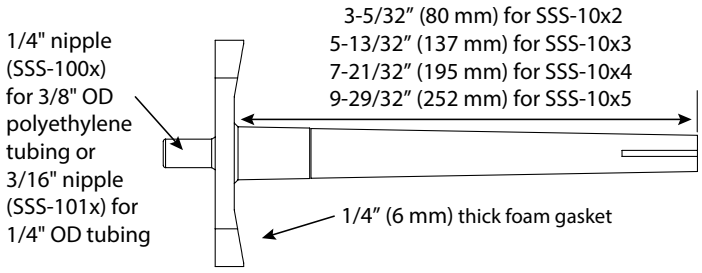
NOTE: The FLOW arrow imprint on the sensor can point either up or down.

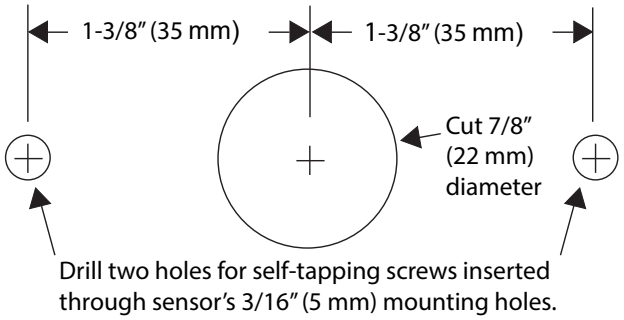
NOTE: It is recommended that an indication or marking be applied to the SSS-10xx probe to indicate the intended orientation.

2. Cut a 7/8" (22 mm) hole in the duct to accept the sensor's probes.
3. Attach the sensor to the duct using two self-tapping screws inserted through the sensor's 3/16" (5 mm) mounting holes.

NOTE: If mounting an SSS-10xx sensor perpendicular to a relatively small diameter round duct, take care not to break the sensor by overtightening the screws and overflexing the plastic sensor mount.





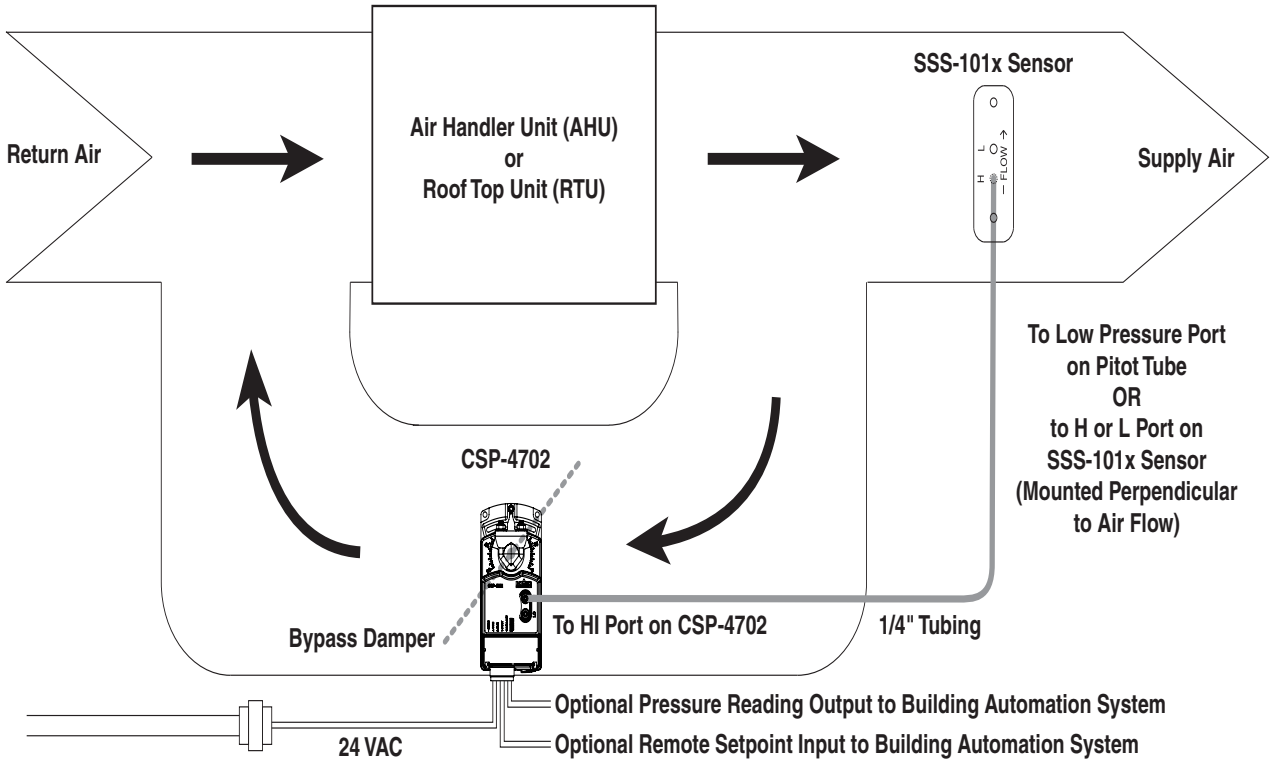


Connections

Using appropriately sized polyethylene tubing, connect either the H or L port on the sensor to the High port on the controller.

NOTE: The other port of the sensor is left unconnected and open to air.

NOTE: Tubing should be free of kinks and restrictions.



Select Specifications

Material	Light gray (SSS-100x) or almond (SSS-101x) ABS/polycarbonate (UL94-5V)
Connection	1/4" nipple (SSS-100x) for 3/8" OD polyethylene tubing or 3/16" nipple (SSS-101x) for 1/4" OD tubing
K Factors	Refer to the data sheet for additional information!

NOTE: The appropriate "K" factor for the sensor depends upon the type of setup required by the VAV controller with which it will be used:

- For VAV controllers that require K_{CFM} for setup, refer to the "Cubic Feet Per Minute (CFM)" chart below and the device documentation for additional information. For rectangular ducts, $K_{CFM} = K_{FPM}$ x (W" x H"/144) (with duct cross-section measurements in inches).
- For VAV controllers that require K_{FPM} for setup, refer to the "Feet Per Minute" chart below and the device documentation for additional information.

"Cubic Feet Per Minute (CFM)" K Factors				
Round Duct Size (Diameter)	K_{CFM} Factor			
	SSS-10x2	SSS-10x3	SSS-10x4	SSS-10x5
4	301	NA	NA	NA
5	470	NA	NA	NA
6	677	648	NA	NA
7	922	882	NA	NA
8	1204	1152	1117	NA
9	1524	1458	1414	NA
10	1882	1800	1745	1745
12	2710	2592	2513	2513
14	3688	3528	3421	3421
16	4817	4608	4468	4468
18	6097	5832	5655	5655
22	9107	8711	8447	8447
24	10838	10367	10053	10053

"Feet Per Minute" K Factors	
Sensor Model	K_{FPM}
SSS-10x2	3450
SSS-10x3	3300
SSS-10x4	3200
SSS-10x5	3200

Maintenance

Sensing orifices must be kept free of dust accumulation or debris. The sensors are designed for dependable, long-term reliability and performance.

More Information

For additional K factor and other information, see the data sheet for the SSS-1000 series on the KMC web site (**www.kmccontrols.com**).

Important Notices

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