STAT-Probe

STATIC PRESSURE TRAVERSE PROBE

The STAT-Probe is a static pressure traverse probe designed for accurate static pressure measurement in HVAC applications with limited straight duct runs.

We believe in our products, so should you.
1 YEAR NO FAULT WARRANTY
3 YEAR MANUFACTURER WARRANTY

FACTORY CONFIGURED

ON TIME DELIVERY

BEST CUSTOMER SERVICE

• Suppy System Static Control • Branch Duct Static Control • • Exhaust System Static Control •

DESCRIPTION

Air Monitor's STAT-probe Static Pressure Traverse Probe is ideally suited for both new installations and retrofit applications requiring accurate static pressure measurement in locations with limited straight duct runs. Mulitple sets of static pressure sensing ports positioned along the entire length of the STAT-probe traverse the airstream in a single line across the duct, and average the sensed pressures in an internal manifold. The STAT-probe is suited for installation in ductwork operating at temperatures up to 200°F. As a primary static pressure sensing means, the STAT-probe can be used in applications ranging from commercial building HVAC to laboratory, pharmaceutical and electronics production, and health care institutions.

FEATURES

Accuracy - ±3% of the reading accuracy from 100-4,000 FPM.

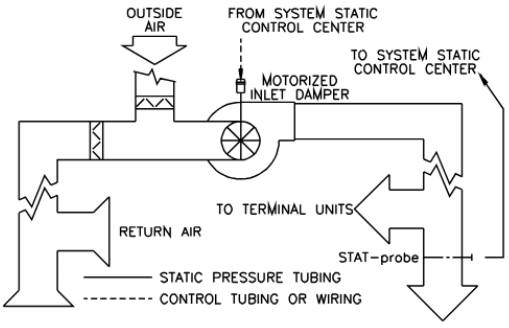
Flow Angle Accommodation - Insensitive to flow angle variations of as much as ±30° when faced in the normal direction of flow.

Minimal Resistance to Airflow - Less than 0.1 inch of water column pressure drop for velocities of up to 4,000 FPM.

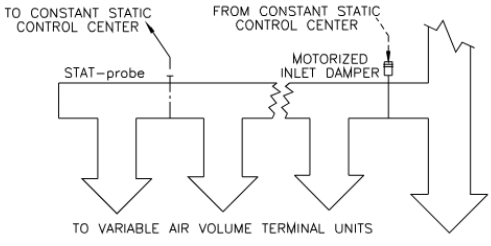
Multiple Point Reading - Multiple static measurement points across the probe to provide a better representation of the duct static pressure.

BMS/BAS Communication - Pairing STAT-probes with the VELTRON III allows for ±3% of the reading accuracy to be digitally displayed and communicated via Display, BACnet, MODBUS, and Analog Outputs.

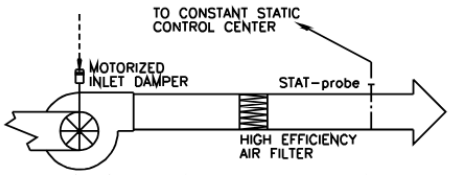
APPLICATIONS



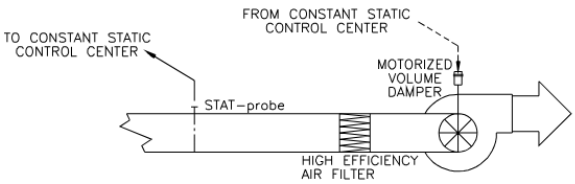
SUPPLY FAN CAPACITY CONTROL FOR VARIABLE AIR VOLUME SYSTEM



BRANCH DUCT STATIC CONTROL FOR VARIABLE AIR VOLUME SYSTEMS



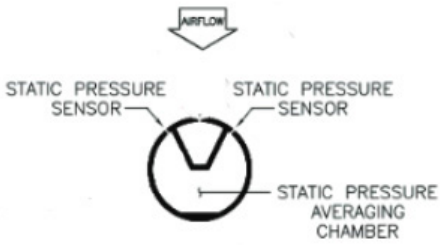
SUPPLY SYSTEM CONSTANT STATIC CONTROL



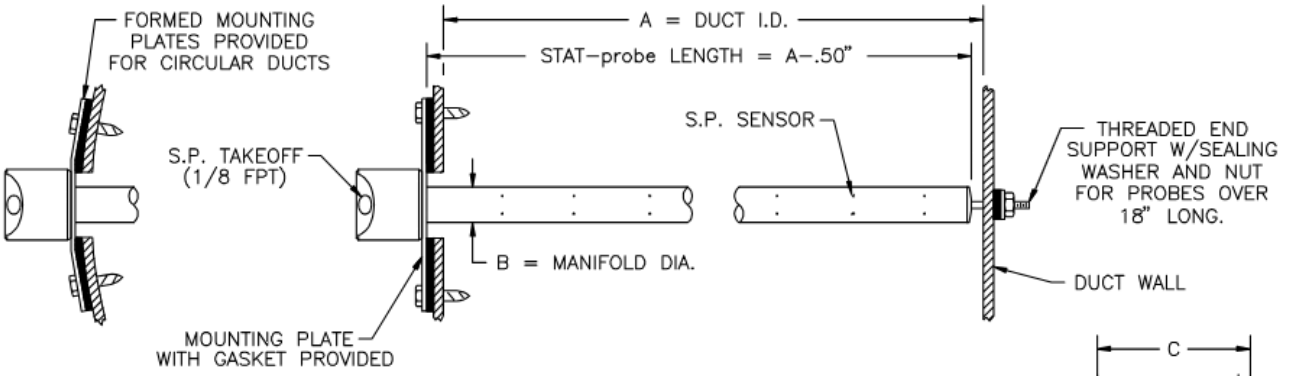
EXHAUST SYSTEM CONSTANT STATIC CONTROL

HOW IT WORKS

The STAT-probe operates on the Fechheimer derivative of the mulit-point, self-averaging Pitot principal to measure the static pressure component of airflow. Fechheimer pairs of static pressure sensing ports, positioned at designated angles offset from the flow normal vector, minimize the error inducing effect of directionalized airflow. It is this unique design of offset static pressure sensors that makes the STAT-probe insensitive to approaching mulit-directional, rotating airflow with yaw and pitch up to 30° from straight flow, thereby assuring the accurate measurement of the sensed static pressure without the presence of an airflow straightener upstream.



DIMENSIONAL SPECIFICATIONS



DIMENSIONAL CHART				
A"	B"	C"	D"	E"
8–48	.75	4.00	1.00	.31
49–144	1.38	6.00	2.00	.38

SPECIFICATIONS

STAT-Probe	
ACCURACY	±2-3%; dependent upon quantity and placement of probes to achieve traverse of ducted airflow
OUTPUTS	Averaged signal of static pressure
OPERATING VELOCITY	100-10,000 FPM
OPERATING TEMPERATURE	Continuous operation to 200°F
DIRECTIONAL SENSITIVITY	Not measurably affected by directional airflows with pitch and yaw angles up to 30°
MEASURED PRESSURE DROP	Pressure drop created by the probes shall not exceed 0.025" w.c. at 2,000 FPM or 0.085" w.c. at 4,000 FPM
RESISTANCE	Less than 0.1 times the velocity pressure head at probe operating velocity
SENSING METHOD	Fechheimer derivative of the multipoint, self-averaging Pitot principle to measure the static pressure component of airflow.
NUMBER OF SENSING PORTS	Rectangular: 8" to 144" 2 to 16 pairs of ports per probe Circular: 8" to 144", 4 to 12 pairs of ports per probe
OPERATIONAL PRESSURE RANGE	0 to 30 in. WC (transmitter limitations)
MATERIALS OF CONSTRUCTION	Type 6063 anodized aluminum extrusion SS Option available

MODEL SELECTION GUIDE

Model Number Coding = STAT-Probe/ABCDE

A = Probe Mounting Configuration
1 = Externally mounted

B = Materials of Construction Probe
1 = 6063 Anodized Alum, Dual Chamber Probe
2 = 316 SS, dual tube probes

C = Configuration
R = Rectangular
C = Circular

D = Probe Length

A = 8" to 12"	I = >60" to 72"
B = >12" to 18"	J = >72" to 84"
C = >18" to 24"	K = >84" to 96"
D = >24" to 30"	L = >96" to 108"
E = >30" to 36"	M = >108" to 120"
F = >36" to 48"	N = >120" to 132"
G = >48" to 54"	O = >132" to 144"
H = >54" to 60"	

E = Process Connections
1 = ¼" brass comp fitting (default for AI)
2 = ¼" brass hose barb fitting (AI only)
3 = ¼" SS comp fitting (stainless only)
4 = ¼" FNPT (default for SS)

Air Monitor
Precision Airflow Measurement
An ONICON Brand

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