



Air Monitor

Precision Airflow Measurement
An ONICON Brand

S.A.P.

STATIC AIR PROBE

The S.A.P. is a shielded static air probe designed for room or space pressurization applications where it is essential that the static pressure level within a room or space.



FACTORY CONFIGURED



ON TIME DELIVERY



BEST CUSTOMER SERVICE

- Room Pressurization • Building Pressurization •
- Hot/Cold Aisle Pressurization •



DESCRIPTION

Air Monitor's S.A.P. is a shielded design created for room or space pressurization applications where it is essential that the static pressure level within a room or space, and that of a reference pressure (corridor, adjacent space, outdoor location, etc.), be accurately sensed, free of pulsations or effects of air movement in the vicinity of the sensing probe(s). The S.A.P./R can also be utilized to sense the static pressure within fan inlet and discharge plenums or large ducts, where the presence of multi-directional and turbulent airflow prohibit the use of flow sensitive static pressure tips or probes.

FEATURES

- Engineered sensing ports and integral volume chamber suppress minor room, space or plenum pressure pulsations, providing a stead (non-noisy) static pressure signal.
- Capable of sensing room, space or plenum pressures within 1% of actual static pressure.
- Measurement accuracy is unaffected by airflows up to 1,000 FPM from a 360° radial source.
- Available in aluminum or stainless steel construction.
- Self draining sensing ports for applications where room or space washdown is required.
- Available in four mounting configurations:
 - S.A.P./B - Electrical Junction Box Mount
 - S.A.P./P - Suspended Mount via 1/2" Pipe
 - S.A.P./S - Surface Mount
 - S.A.P./R - Recessed Flush Mount

APPLICATIONS

Shielded Room and Space Static Pressure Sensor

Provide for each room or space, a shielded static pressure sensor suitable for surface [recessed flush; suspended; junction box; external flush] mounting, complete with multiple sensing ports, pressure impulse suppression chamber, airflow shielding, and signal connection, all contained in an aluminum [stainless steel] casing, with brushed finish on exposed surfaces. These probes shall be capable of sensing the static pressure in the proximity of the sensor to within 1% of the actual pressure valve while being subjected to a maximum airflow of 1,000 FPM from a 360° radial source.

Shielded Plenum or Duct Static Pressure Sensor

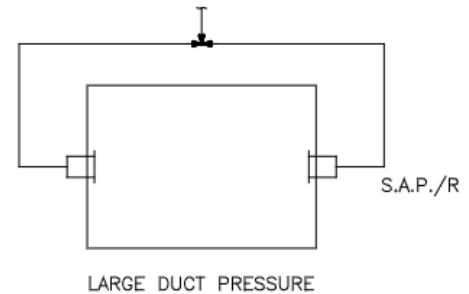
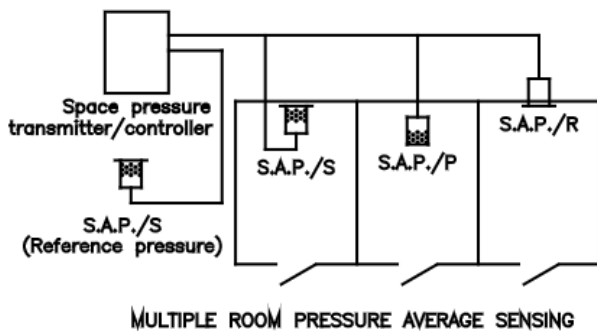
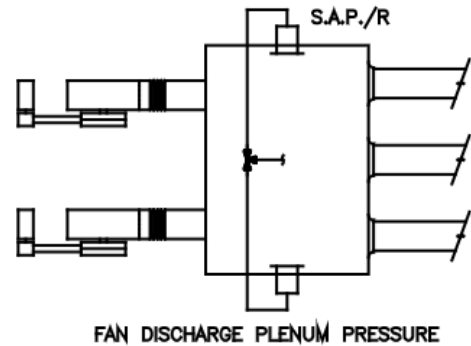
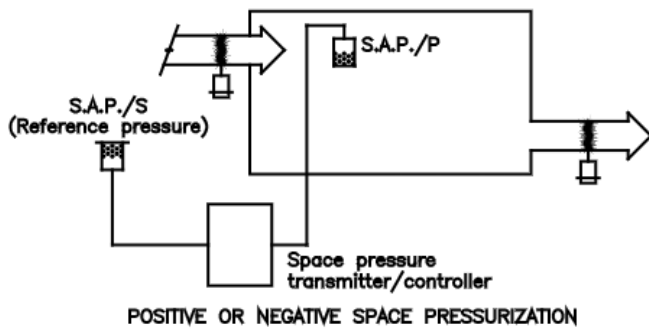
Provide where indicated for each plenum [duct], two shielded static pressure sensors suitable for mounting externally on the plenum [duct] wall in opposing positions. The plenum [duct] pressure sensors are complete with multiple sensing ports, pressure impulse suppression chamber, airflow shielding, and signal connection, all contained in an aluminum [stainless steel] casing, with brushed finish on exposed surfaces. These probes are capable of sensing the static pressure of the plenum or duct in the proximity of the sensor to within 1% of the actual pressure valve.

Building Pressurization

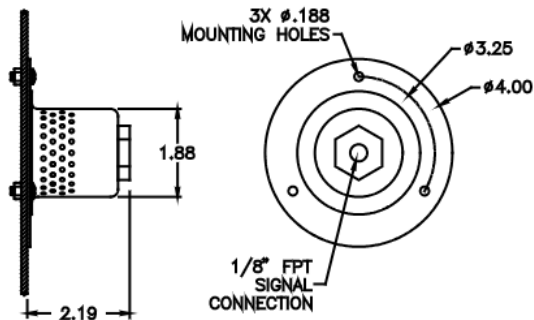
Maintaining proper building pressurization is important to ensure that air blows outwards when the doors open, and the doors do not get pressurized which would make it difficult for someone to open. To prevent this, differential indoor and outside pressure can be monitored by bundling a Static Outside Air Probe (S.O.A.P) and an Air Monitor Bi-Directional transmitter like the DPT-2500 plus with the S.A.P. The pressure reading and information provided by the bundle can be sent to the BMS/BAS to ensure there is proper air flow and pressurization in the building.



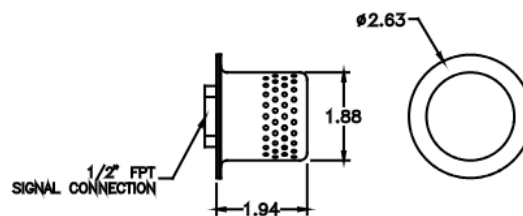
APPLICATION EXAMPLES



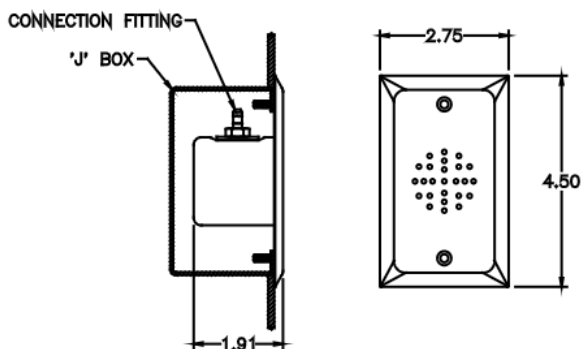
CONSTRUCTION / DIMENSIONAL DATA



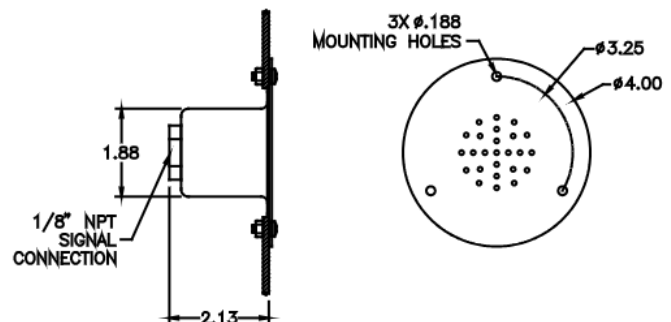
S.A.P./S Surface mount; 1/8" FPT signal connection



S.A.P./P Suspended mount via 1/2" pipe; 1/2" FPT signal connection



S.A.P./B Recessed flush mount via electrical junction box (provided by others)



S.A.P./R Recessed flush mount; 1/8" NPT signal connection

SPECIFICATIONS

S.A.P.	
ACCURACY	Within 1% of actual static pressure for sensing room, space or plenum pressure
OPERATING TEMPERATURE	Continuous operation to 200°F
CASING	Aluminum or Stainless Steel Construction
SELF DRAINING PORTS	Self draining sensing ports for applications where room or space washdown is required
MOUNTING	S.A.P./B Recessed Junction box S.A.P./P Pipe Mount S.A.P./R Recessed Flush Mount S.A.P./S Surface Mount
ENVIRONMENTAL CONDITIONS	The measurement accuracy is unaffected by airflows up to 1,000 FPM from a 360° radial source.

MODEL SELECTION GUIDE

Model Number Coding = SAP/ABCD

SAP = STATIC AIR PROBE

A = Mounting Configuration

- B = Recessed J-box
- P = Pipe mount
- R = Recessed flush mount
- S = Surface mount

B = Materials of Construction

- 1 = Aluminum Construction
- 2 = Stainless Steel Construction

C = Connection

- 0 = Permanent fitting (B only)
- 1 = 1/8" FNPT (R & S only)
- 2 = 1/2" FNPT (P only)

D = Fitting

- 0 = No fitting (required for P)
- 1 = 1/4" brass compression fitting
- 2 = 1/4" brass hose barb fitting (required for AB=B1)
- 3 = 1/4" SS compression fitting
- 4 = 1/4" SS hose barb fitting (required for AB=B2)

