STATIC & VELOCITY PITOT TUBE SERIES

Installation & Operation Instructions

Phone: 1-888-967-5224
Website: workaci.com

GENERAL INFORMATION

Static Pitot Tubes

The SPT is an Aluminum Static Pressure (Aspiration) probe used to monitor the static pressure in an HVAC duct or equipment application.

Velocity Pitot Tubes

The VPT Series is an Aluminum Velocity Pressure or flow (Impact) probe used to sample the air flow in HVAC duct or equipment applications.

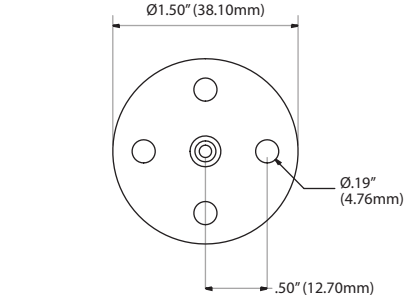
MOUNTING INSTRUCTIONS

Select a position that is 5 to 8 diameters downstream from elbows, obstructions, or large changes in duct area. Insert the probe into the duct so that it is perpendicular to the airstream. The Aspiration or Static probe tip should open parallel with the airstream. The Impact or Total Pressure probe tip should open directly into the airstream.

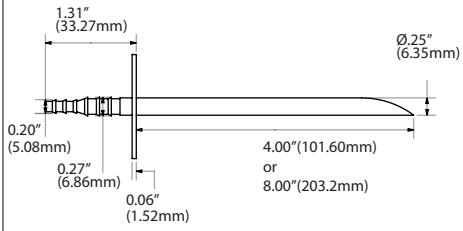
Drill a 3/8" hole in the duct and insert the probe through the hole until the flange is tight to the duct. Drill pilot holes for the (4) mounting screws. Use the flange as a guide, or use the dimensions listed in Figure #1 to measure out. Now fasten and insert (4) screws, #8 x 3/4" TEK (not provided), through the mounting holes in the flange and tighten until the unit is held firmly to the duct. Make sure the flange is tight to the duct to eliminate any possible air leaks.

The following diagrams show some of the locations for the ACI/SPT and ACI/VPT. The numbers by each of the pressure switches correspond to the the following notes below the picture. These drawings will show some of the most common applications for both the Differential Pressure Switches and the Pitot or Pick up Tubes.

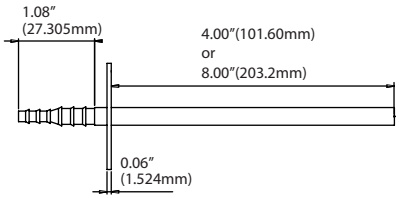
FIGURE 1: DIMENSIONS



ACI/VPT



ACI/SPT



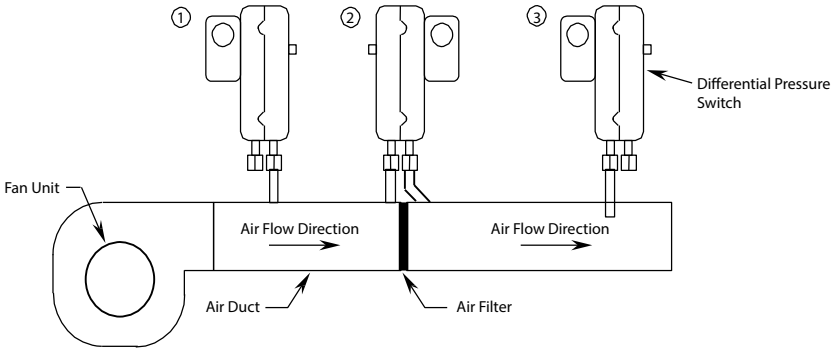
Application Examples

1. Positive static pressure increases as the filter gets dirty.
2. Differential across filter changes as filter gets dirty.
3. Flow is reduced as filter gets dirty.
4. Fan Operation or True Air Flow with little or no Static Pressure
5. Fan Operation and True Air Flow; Varying amounts of Pressure. Probe must be perpendicular to Air Flow
6. Negative Pressure Increases as the Filter gets dirty.

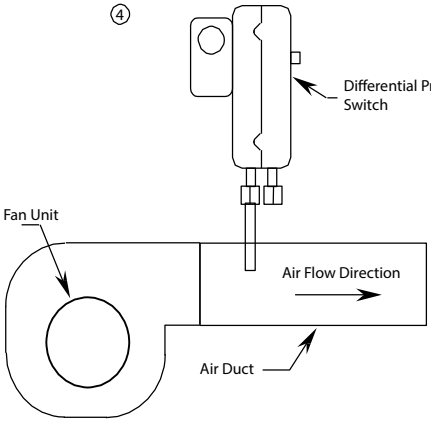
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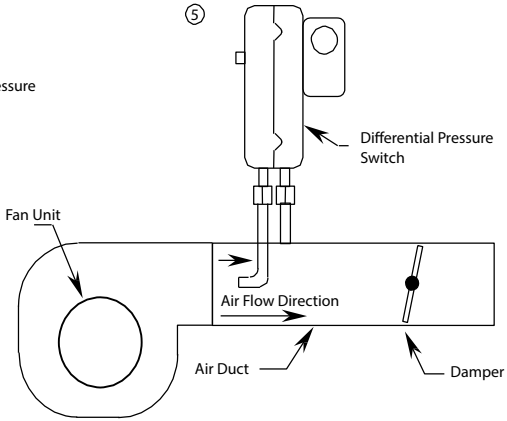
Applications #1, #2, and #3



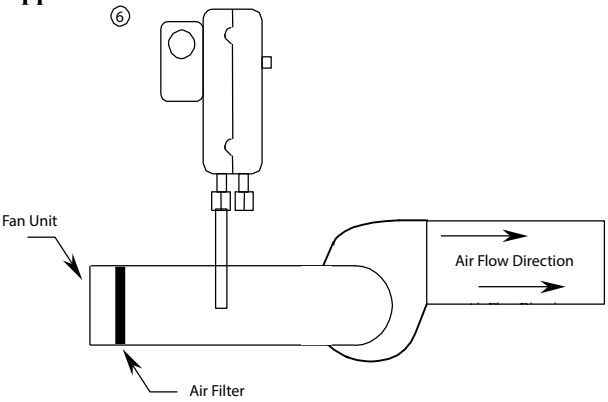
Applications #4



Applications #5



Applications #6



Pressure Conversion Table

1" w.c. = 0.0361 psi or 0.0735"gH
1" Hg. = 13.6" wc. or 0.491 psi
1 psi = 27.7"wc. or 2.036" Hg.

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PRODUCT SPECIFICATIONS

Tubing Connection | Tubing Size:	45º Barbed Type (6 Places), accepts 1/8" through 1/4" ID flexible plastic tubing
Probe Insertion Length & Sensing Points:	**SPT: 3.5"** (88.9 mm) | Single Point | **SPT-8.0":** 8" (203.2 mm) | Single Point **VPT:** 4" (101.6 mm) | Single Point | **VPT-8":** 8" (203.2 mm) | Single Point
Tube Mounting Direction:	**SPT:** Tip opens parallel to the air stream | **VPT:** Tip opens directly into the air stream (Mounting arrow on Probe)
Tube Mounting Angle:	**SPT:** Perpendicular to the duct (90 Degrees +/- 3 Degrees) **VPT:** Parallel to air stream (+/- 7 Degrees)
Mounting Flange (Diameter):	1.50" (38.1 mm)
Measurement Probe Hole Size (Diameter):	1/4" (6.35mm)
Mounting Holes (Diameter):	3/16" (4.76 mm)
Material:	Aluminum
Storage & Operating Temperature Range:	-40 to 185ºF (-40 to 85ºC)
Operating Humidity Range:	0 to 90% RH non-condensing

W.E.E.E. DIRECTIVE

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre. Do not dispose of with household waste. Do not burn.

WARRANTY

The ACI VPT and SPT Series are covered by ACI's Five (5) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's website: www.workaci.com.

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NOTES

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