**Product Overview**

The AX-AV-SP range of single point air velocity transmitters are designed on the Calorimetric principle of the air flow being passed across a heated thermistor and the results being measured against the control thermistor to determine heat loss and corresponding air flow. The units are mounted across the flow of the duct and give an analogue signal proportionate to the air flow.

**Features**

- 5% or 8% accuracy versions
- Damped output for a stable control signal
- three speed ranges as standard 4, 8, 16 m/sec
- Analogue output

**Product Specifications**

<table>
<thead>
<tr>
<th>Ranges: AX-AV-SP-4</th>
<th>0-4m/sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>AX-AV-SP-8</td>
<td>0-8m/sec</td>
</tr>
<tr>
<td>AX-AV-SP-16</td>
<td>0-16m/sec</td>
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</tbody>
</table>

**Power Supply:**

- AX-AV-SP: 24Vdc ± 15%
- AX-AV-SPH: 21 to 26Vac or 24Vdc ± 15%

**Max Current:**

- 70mA

**Max inrush current:**

- 70mA

**Max loop resistance:**

- 600 ohms @24Vdc (AX-AV-SP-xxI versions only)

**Accuracy:**

- AX-AV-SP: ±5% FSD
- AX-AV-SPH: ±8% FSD

**Output:**

- AX-AV-SP-xx-V: 0-10Vdc
- AX-AV-SP-xx-I: 4-20mA
- AX-AV-SPH: 0-10Vdc

**Response time:**

- <10 seconds

**Settling time:**

- <25 seconds after power up

**Ambient Temp. Range:**

- 0 to +50°C

**Housing:**

- Material: Flame retardant ABS
- Dimensions: 55 x 90 mm dia

**Probe:**

- Material: Aluminium
- Dimensions: 240 x 19mm dia

**Gasket:**

- Neoprene

**Conformity:**

- CE marked, EMC, LVD.

**Country of Origin:**

- United Kingdom
Installation

NOTE:
Do not install the transmitters until the fans have been fully tested and run for several days to remove contaminants.

Siting:
Select a location not less than 2m downstream from any heating or cooling device or fan also ensuring that the position chosen is not within 2m of a bend in the ductwork in either direction and in an area where pollutants and dust are at a minimum and not subject to condensation or dampness.

Mounting
Ensure that the supply voltage is within the required tolerances
Drill two holes at 85mm centres and a 20mm diameter centrally between them for the probe.
Fit the sensor to the duct using appropriate screws, making sure to align the holes in the probe so that they point into the airflow.
To get the best accuracy ensure the holes in the probe are positioned 0.24 x the duct radius into the duct
Remove the front cover of the housing and feed the screened cable through the gland and terminate at the terminal block, leave some slack inside the unit and tighten the cable gland.
allow 3 minutes before checking functionality
allow 30 minutes before carrying out pre-commissioning checks

Connections

<table>
<thead>
<tr>
<th>AX-AV-SP-xx-I</th>
<th>AX-AV-SP-xx-V and AX-AV-SPH-xx</th>
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</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Connector</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>24Vdc</td>
<td>24Vac/dc</td>
</tr>
<tr>
<td>0V</td>
<td>0V</td>
</tr>
<tr>
<td>Output</td>
<td>Output</td>
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</tbody>
</table>

Note: The current versions are not loop powered and do require the common 0V connection

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