The Series AVPT Pencil Style Air Velocity Transmitter uses thermal anemometer technology to provide high accuracy and stable air velocity measurements in imperial and metric units. The Series AVPT can be configured with either a voltage output or BACnet MS/TP communication to provide universal inputs to a variety of monitoring equipment. Models are available with fixed cable lengths of 20 or 78 inches with flying leads or a 5-pin M12 connector on a 24 inch cable. Probes are available in lengths of 6 or 12 inches. A mounting flange included with the product provides the ability to vary insertion depth. Models are available in 3% or 5% accuracy to suit a variety of applications, while the optional BACnet MS/TP communication protocol allows units to be daisy-chained to provide access to all of the velocity and temperature measurements.

### SPECIFICATIONS

**Service:** Clean air.

**Ranges:** 1000, 2000, 3000, or 4000 FPM (5, 10, 15, or 20 m/s); Model specific.

**Accuracy:** Standard: ±(5% reading +40 FPM); High accuracy: ±(3% reading +40 FPM); Model specific.

**Power Requirements:** 24 VAC/VDC ±20%.

**Current Consumption:** < 50 mA.

**Outputs:**
- Analog: 0-10 V (0-5 V configurable).
- BACnet MS/TP: Selectable at time of order.

**Supported Baud Rate:** 9600, 19200, 38400, 57600, 76800, and 115200.

**Voltage Output Load Resistance:** 10k Ω minimum (10 V output with AC supply); 1k Ω minimum all other conditions.

**Electrical Connection:**
- Cable: Plenum rated cable with 22 AWG conductors.
- 5-Conductor Cable whip: 20˝ (0.5 m) or 78˝ (2 m).
- 5-pin M-12: 24˝ (0.6 m); model specific.

**Response Time (90%):** 4 s, typical.

**Operational Temperature Limits:** -4 to 140 °F (-20 to 60 °C).

**Storage Temperature Limits:** -40 to 140°F (-40 to 60°C).

**Probe Length:** 6˝ or 12˝; model specific.

**Enclosure Rating:** NEMA 3.

**Mounting Orientation:** Flow direction must be parallel to the sensor tip; See Installation section for details.

**Agency Approvals:** CE, RCM, BTL, UL plenum rated (UL tested).
Voltage Output Operation:

**DO NOT EXCEED SPECIFIED SUPPLY VOLTAGE RATINGS. PERMANENT DAMAGE NOT COVERED BY WARRANTY WILL RESULT.**

The minimum receiver load for the voltage output model is 1 kΩ except when using an AC supply and 10 V output, where 10 kΩ should be used. The resistance due to the wire should be low compared to the receiver load resistance. While the voltage at the device remains unchanged with a full load current flow, resistive losses in the wiring do cause errors in the voltage delivered to the receiver. For example, a 1% accurate gage, the resistance of the wires should be less than 0.1% of the value of the receiver load.

The configuration wire may be left unconnected for default 0-10 V output operation as seen in Figure 2, or connected to power supply common to configure a 0-5 V output operation as seen in Figure 3.

For models ordered with optional M-12 electrical connections. Reference Table 1 for wiring color and pinout designation.

<table>
<thead>
<tr>
<th>Wire Color</th>
<th>M-12 Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
</tr>
<tr>
<td>Green</td>
<td>3</td>
</tr>
<tr>
<td>Brown</td>
<td>4</td>
</tr>
<tr>
<td>Red</td>
<td>5</td>
</tr>
</tbody>
</table>

**MAINTENANCE/REPAIR**

Upon final installation of the Series AVPT, no routine maintenance is required; though sensor should be kept clean and free of dirt or debris.

This symbol indicates waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

**WARRANTY/RETURN**

Refer to “Terms and Conditions of Sale” in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.