Air Velocity Transmitters

**AIR QUALITY**

220

**APPLICATIONS**

- Exhaust stack flow monitoring
- Air control in drying processes
- HVAC air velocity measurements
- Fan supply and exhaust tracking
- Clean room ventilation monitoring

**FEATURES/BENEFITS**

- Ranges from 250 FPM (1.25 MPS) to 15,000 FPM (75 MPS)
- Optional bright LED display
- 4 to 20 mA output
- Digital filter for signal damping

**SERIES 641RM**

**AIR VELOCITY TRANSMITTER WITH REMOTE PROBE**

For Remotely Mounting Electronic Enclosure

The Series 641RM Air Velocity Transmitter with Remote Probe features the same highly accurate heated mass flow sensor as the Series 641, with a remote probe construction. The unit’s 6” cable which connects the sensing probe with the electronic enclosure allows the enclosure to be mounted where it can be more easily accessed.

**MODEL CHART**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>641RM-12</td>
<td>Air velocity transmitter with 6” cable</td>
</tr>
<tr>
<td>641RM-12-LED</td>
<td>Air velocity transmitter with 6” cable with LED display</td>
</tr>
</tbody>
</table>

**OPTIONS**

To order add suffix: Description

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional Bright LED</td>
</tr>
<tr>
<td>NIST traceable calibration certificate</td>
</tr>
</tbody>
</table>

Example: 641RM-12-NIST

**SERIES 641B**

**AIR VELOCITY TRANSMITTER**

Dirty Air Flow Applications

The Series 641B Air Velocity Transmitter uses a heated mass flow sensor suitable for dirty air flow applications. It has user-selectable ranges from 250 FPM (1.25 MPS) to 2000 FPM (10 MPS).

**FEATURES/BENEFITS**

- SS sensor suitable for dirty air flow measurement
- Ranges from 250 FPM (1.25 MPS) to 2000 FPM (10 MPS)
- 4 to 20 mA output
- Digital filter for signal damping

**APPLICATIONS**

- Exhaust stack flow monitoring
- Air control in drying processes
- HVAC air velocity measurements
- Fan supply and exhaust tracking
- Clean room ventilation monitoring

**SPECIFICATIONS**

- Service: Air and compatible, non-combustible gases.
- Accuracy: 5% FS process gas: 32 to 122°F (0 to 50°C); 6% FS process gas: -40 to 32°F & 122 to 176°F (-40 to 0°C & 50 to 80°C).
- Response Time: Flow: 1.5 s to 95% of final value (output filter set to minimum).
- Temperature Limits: Process: -40 to 176°F (-40 to 80°C). Ambient: 32 to 212°F (0 to 100°C).
- Pressure Limit: 100 psi (6.89 bar) maximum.
- Humidity Limit: Non-condensing.
- Power Requirements: 250 FPM: 10 to 16 VAC, 1.5 A. 1500 FPM: 12 to 35 VDC, 1.5 A. 1000 FPM: 9 to 16 VAC, 1.5 A.
- Output Signal: 4 to 20 mA, isolated 24 V source, 3- or 4-wire connection.
- Weight: 13.9 oz (394.16 g).

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-156</td>
<td>Universal mounting plate, 1/2˝ female NPT</td>
</tr>
<tr>
<td>A-158</td>
<td>Split flange mounting kit</td>
</tr>
<tr>
<td>A-159</td>
<td>Duct mounting gland</td>
</tr>
<tr>
<td>641-LED</td>
<td>Field-upgradable LED</td>
</tr>
</tbody>
</table>

**SERIES 641A**

**AIR VELOCITY TRANSMITTER**

Clean Room Air Velocity Applications

The Series 641A Air Velocity Transmitter features the same highly accurate heated mass flow sensor as the Series 641, with a probe construction. The unit’s 6” cable which connects the sensing probe with the electronic enclosure allows the enclosure to be mounted where it can be more easily accessed.

**SPECIFICATIONS**

- Service: Clean room and compatible, non-combustible gases.
- Accuracy: 3% FS process gas: 32 to 122°F (0 to 50°C); 4% FS process gas: -40 to 32°F & 122 to 212°F (-40 to 0°C & 50 to 100°C).
- Response Time: Flow: 1.5 s to 95% of final value (output filter set to minimum).
- Temperature Limits: Process: -40 to 122°F (-40 to 50°C). Ambient: 32 to 176°F (0 to 80°C).
- Pressure Limit: 300 psi (2.07 bar) maximum.
- Humidity Limit: Non-condensing.
- Power Requirements: 250 FPM: 10 to 16 VAC, 1.5 A. 1500 FPM: 12 to 35 VDC, 1.5 A. 1000 FPM: 9 to 16 VAC, 1.5 A.
- Output Signal: 4 to 20 mA, isolated 24 V source, 3- or 4-wire connection.
- Weight: 13.9 oz (394.16 g).

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Model</th>
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</tr>
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<tbody>
<tr>
<td>A-155</td>
<td>Mounting gland with 1/2˝ male NPT fitting</td>
</tr>
<tr>
<td>A-156</td>
<td>Flange mounting plate with 1/2˝ female NPT</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

- Mounting Orientation: Unit not position sensitive.
- Weight: 12.6 oz (357.2 g).

*A brief current transient exceeding 300 mA may be seen on startup.*

**Air Velocity Transmitter**

Air Velocity Transmitter with Remote Probe

For Remotely Mounting Electronic Enclosure

**SERIES 641B**

**AIR VELOCITY TRANSMITTER**

Dirty Air Flow Applications

The Series 641B Air Velocity Transmitter uses a heated mass flow sensor suitable for dirty air flow applications. It has user-selectable ranges from 250 FPM (1.25 MPS) to 2000 FPM (10 MPS).

**FEATURES/BENEFITS**

- SS sensor suitable for dirty air flow measurement
- Ranges from 250 FPM (1.25 MPS) to 2000 FPM (10 MPS)
- 4 to 20 mA output
- Digital filter for signal damping

**APPLICATIONS**

- Exhaust stack flow monitoring
- Air control in drying processes
- HVAC air velocity measurements
- Fan supply and exhaust tracking
- Clean room ventilation monitoring

**SPECIFICATIONS**

- Service: Air and compatible, non-combustible gases.
- Accuracy: 5% FS process gas: 32 to 122°F (0 to 50°C); 6% FS process gas: -40 to 32°F & 122 to 176°F (-40 to 0°C & 50 to 80°C).
- Response Time: Flow: 1.5 s to 95% of final value (output filter set to minimum).
- Temperature Limits: Process: -40 to 176°F (-40 to 80°C). Ambient: 32 to 212°F (0 to 100°C).
- Pressure Limit: Non-condensing.
- Power Requirements: 12 to 35 VDC, 10 to 16 VAC. 1.5 A rating required on supply due to initial power surge drawn by transmitter.
- Output Signal: 4 to 20 mA, isolated 24 V source, 3- or 4-wire connection.
- Output Filter: Selectable 0.5–15 seconds.
- Loop Resistance: 600 Ohm max.
- Current Consumption: 300 mA max.*
- Electrical Connections: Screw terminal.
- Mounting Orientation: Unit not position sensitive.
- Weight: 12.6 oz (357.2 g).

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**DIMENSIONS**

- Mounting Orientation: Unit not position sensitive.
- Weight: 12.6 oz (357.2 g).

*A brief current transient exceeding 300 mA may be seen on startup.*