GENERAL-PURPOSE
AIR VELOCITY TRANSDUCERS

FMA-900-V Series
$822
All models

- Up to 1.5% Accuracy
- Remote Probe Model Available with 4.6 m (15') Cable
- Each Unit Individually Calibrated
- Durable Fast-Response Platinum Sensors
- Compact Solid-State Electronics
- Directly Monitors True Air Mass Velocity
- Linear 0 to 5 Vdc or 4 to 20 mA Output
- 400 msec Response Time
- Economical Insertion Design

The unique FMA-900 air velocity transducer utilizes both a velocity sensor and a temperature sensor to accurately measure air velocity (in SFPM, standard feet per minute). The built-in temperature sensor automatically corrects the flowrate for temperature variations. Both sensors are rugged glass-coated Platinum resistance detectors (RTDs). The circuit heats the velocity sensor to a constant temperature differential above ambient temperature and measures the cooling effect of the air flow. This design provides excellent low velocity sensitivity and high accuracy. The FMA-900 also features negligible pressure drop.

To obtain mass flow rate in SCFM (standard cubic feet/minute), the SFPM velocity indicated by the FMA-900 is multiplied by the cross-sectional area of the pipe or duct in square feet. A traverse across the pipe or duct can be performed to determine the mounting location for average velocity indication. The FMA-900 can be mounted in pipes (down to 38 mm [1.5"] size) with the use of SSLK compression fittings (SSLK-14-14, $8.50). PTFE ferrules are required (T-FER-1/4, $40/10 pack).

Each unit is individually calibrated in OMEGA’s NIST-traceable wind tunnel.

Suggested power supply; FPW-15, $75.

For compatible meters and controllers, see the iSeries, Section M.

Replacement mating connector, model FMA-3CON, $25.
SPECIFICATIONS
Accuracy: 1.5% FS @ room temperature
2% at 50 °C; 3% at 75 °C; 3½% at 100 °C;
4% at 121 °C; add 1% FS below 1000 SFPM
Repeatability: ±0.2% FS
Initial Stabilization Time in Flow: 40 sec
Response Time/After Stabilization: 400 msec to within 63% of final value
at room temperature
Probe: Aluminum oxide ceramic glass coating, epoxy; probe body 304SS
Probe Temperature: -40 to 121 °C (-40 to 250 °F)
Probe Pressure: 150 psig maximum
Electronics Temperature:
Operating: 0 to 50 °C (32 to 122 °F)
Storage: 0 to 70 °C (32 to 158 °F)
Operating Relative Humidity: Less than 80% RH, without condensation
Ambient Temp Compensation: About 5 min for 11 °C (20 °F) temp change
Outputs: 0 to 5 Vdc or 4 to 20 mA
Voltage Load Resistance: 250 Ω minimum
Current Loop Resistance: 0 Ω minute to 400 Ω maximum; 4-wire
Power: 15 to 24 Vdc, 300 mA
(0 to 100 and 0 to 200 SFPM only);
15 to 18 Vdc, 300 mA (all other ranges)
Accessories: Mating connector pre-wired to 4.6 m (15') shielded cable (with
built-in ferrite core) included, standard
Dimensions:
Case: 89 H x 51 W x 31.8 mm D
(3.5 H x 2 W x 1.25” D)
Probe: 6.35 mm (0.25”) O.D.,
330 mm (13”) length
Short Probe (-S): 6.35 mm (0.25”) O.D.,
95 mm (3.75”) length
Weight: 160 g (5.6 oz)

To Order (Specify Model Number)

<table>
<thead>
<tr>
<th>Model No. 0 to 5 V Output</th>
<th>Price</th>
<th>Model No. 4 to 20 mA Output</th>
<th>Price</th>
<th>Range</th>
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<tbody>
<tr>
<td>FMA-900-V</td>
<td>$822</td>
<td>FMA-900-I</td>
<td>$882</td>
<td>0 to 100 SFPM</td>
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<tr>
<td>FMA-901-V</td>
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<td>FMA-901-I</td>
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<tr>
<td>FMA-902-V</td>
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<td>FMA-902-I</td>
<td>882</td>
<td>0 to 500 SFPM</td>
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<tr>
<td>FMA-904-V</td>
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<td>FMA-904-I</td>
<td>882</td>
<td>0 to 2000 SFPM</td>
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<td>822</td>
<td>FMA-905-I</td>
<td>882</td>
<td>0 to 5000 SFPM</td>
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<tr>
<td>FMA-906-V</td>
<td>822</td>
<td>FMA-906-I</td>
<td>882</td>
<td>0 to 10,000 SFPM</td>
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Accessories

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Price</th>
<th>Description</th>
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<tbody>
<tr>
<td>CAL-3-FLOW</td>
<td>$225.00</td>
<td>NIST-traceable 4-point calibration certificate</td>
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<tr>
<td>FPW-15</td>
<td>75.00</td>
<td>+15 Vdc power supply</td>
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<tr>
<td>FMA-3CON</td>
<td>25.00</td>
<td>Replacement mating connector</td>
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<tr>
<td>SSLK-14-14</td>
<td>8.50</td>
<td>Compression fitting</td>
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<tr>
<td>T-FER-1/4</td>
<td>40.00</td>
<td>PTFE ferrules (10-pack)</td>
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<td>FW-0119</td>
<td>155.00</td>
<td>Reference Book: Flow Measurement</td>
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</tbody>
</table>

Comes with 4-point certificate of compliance, mating connector pre-wired to 4.6 m (15’) shielded cable and complete operator’s manual.
To order with 95 mm (3.75”) probe instead of standard 330 mm (13”) probe, add suffix “-S” to model number and add $30 to price.
To order models with remote probe add suffix “-R” to model number and $30 to price.
Ordering Example: FMA-904-I, probe with 4 to 20 mA output, 0 to 2000 SFPM range, plus CAL-3-FLOW, NIST 4-point calibration certificate, $982 + $225 = $1107.

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