



# 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



FMA-902-V, \$822, shown smaller than actual size.

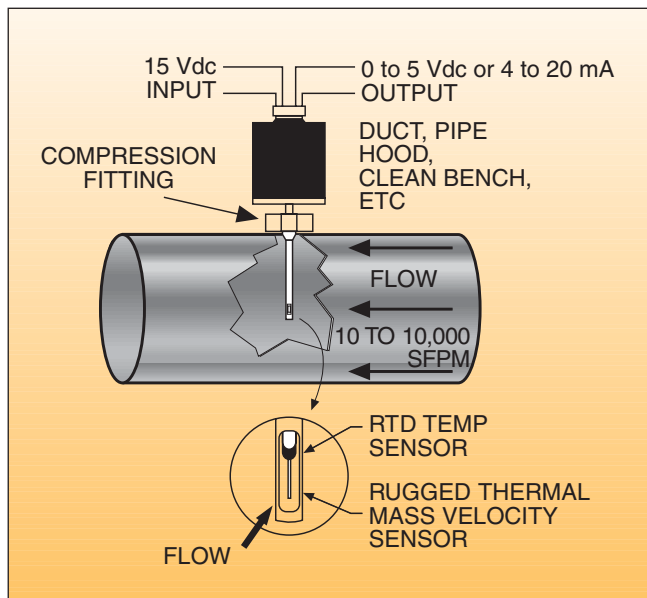


The unique FMA-900 air velocity transducer utilizes both a velocity sensor and a temperature sensor to accurately measure air velocity (in SFPM, standard feet per minute). The built-in temperature sensor automatically corrects the flowrate for temperature variations. Both sensors are rugged glass-coated 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 OMEGA® 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.**



Replacement mating connector, model FMA-3CON, \$25.

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

FMA-902-V-R,  
\$852, shown smaller  
than actual size.



Models with remote probe  
add suffix "-R" and \$30.

**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 minimum 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)

**ALL MODELS AVAILABLE FOR FAST DELIVERY!**

| <b>To Order (Specify Model Number)</b> |       |                                |       |                  |
|--|-------|--------------------------------|-------|------------------|
| Model No.<br>0 to 5 V Output           | Price | Model No.<br>4 to 20 mA Output | Price | Range            |
| FMA-900-V                              | \$822 | FMA-900-I                      | \$882 | 0 to 100 SFPM    |
| FMA-901-V                              | 822   | FMA-901-I                      | 882   | 0 to 200 SFPM    |
| FMA-902-V                              | 822   | FMA-902-I                      | 882   | 0 to 500 SFPM    |
| FMA-903-V                              | 822   | FMA-903-I                      | 882   | 0 to 1000 SFPM   |
| FMA-904-V                              | 822   | FMA-904-I                      | 882   | 0 to 2000 SFPM   |
| FMA-905-V                              | 822   | FMA-905-I                      | 882   | 0 to 5000 SFPM   |
| FMA-906-V                              | 822   | FMA-906-I                      | 882   | 0 to 10,000 SFPM |

**Accessories**

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

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,  
\$882 + 225 = \$1107.



#### UNITED STATES

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1-800-TC-OMEGA  
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