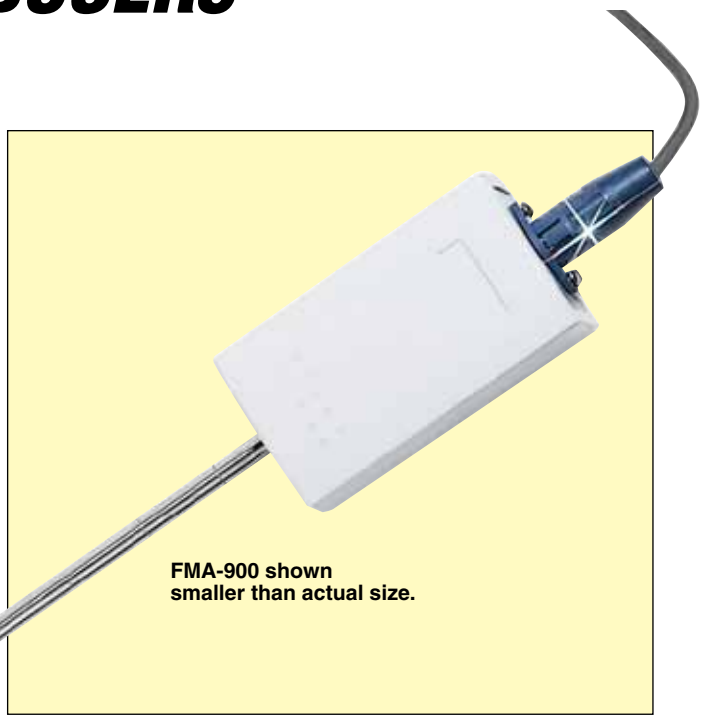
GENERAL-PURPOSE AIR VELOCITY TRANSDUCERS

FMA-900-V

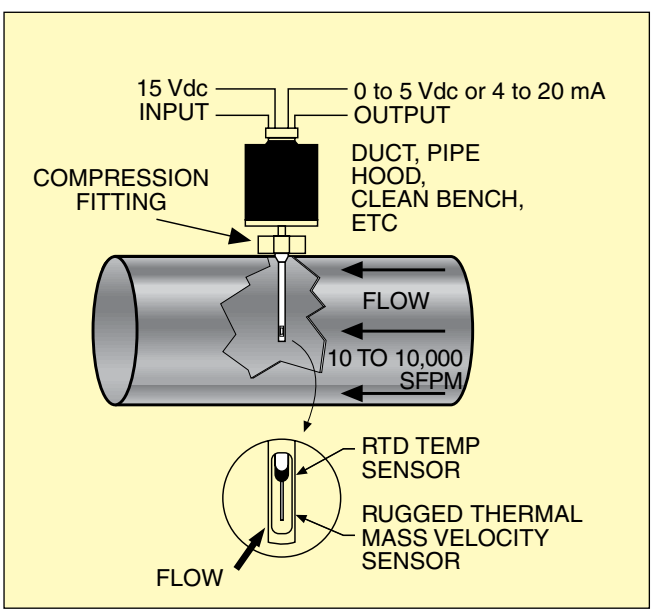
1 YEAR WARRANTY

Optional

- Up to 1.5% Accuracy
- Remote Pobe 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-900 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 flowrate 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**). PTFE ferrules are required. (Model **T-FER-1/4**).

Each unit is individually calibrated in OMEGA's NIST-traceable wind tunnel. Suggested power supply; **FPW-15**

Replacement mating connector, model FMA-3CON.

Model FMA-902-V-R, shown smaller than actual size

Models with remote probe add suffix "-R".

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 304 SS
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 min. to 400 ohms 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

Model No. 0 to 5 V Output	Model No. 4 to 20 mA Output	Range
FMA-900-V	**FMA-900-I**	0 to 100 SFPM
FMA-901-V	**FMA-901-I**	0 to 200 SFPM
FMA-902-V	**FMA-902-I**	0 to 500 SFPM
FMA-903-V	**FMA-903-I**	0 to 1000 SFPM
FMA-904-V	**FMA-904-I**	0 to 2000 SFPM
FMA-905-V	**FMA-905-I**	0 to 5000 SFPM
FMA-906-V	**FMA-906-I**	0 to 10,000 SFPM

Accessories

To Order

Model No.	Description
CAL-3-FLOW	NIST traceable 4-point calibration certificate
FPW-15	+15 Vdc power supply
FMA-3CON	Replacement mating connector

Comes complete 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 for additional cost.*

*To order models with remote probe add suffix "**-R**" to model number for additional cost.*

***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.*