GENERAL PURPOSE INDUSTRIAL AIR VELOCITY/TEMPERATURE TRANSMITTER/INDICATOR

FMA1000 Series

1 YEAR WARRANTY | NIST | CE

Optional†

6 OD x 305 mm L (¼ x 12") sensor probe included with 4.5 m (15') cable

- Measures Air Velocities up to 60.9 m/sec (12,000 FPM)
- Measures Air Temperature up to 121°C (250°F)
- High Temperature Model Measures Air Temperature up to 171°C (340°F)
- 1.5% Full Scale Accuracy (Velocity)
- 0.5% Full Scale Accuracy (Temperature)
- 3 Different Sensor Probe Configurations: Fixed Probe with Top or Right Angle Back Mount, or Remote Probe with 4.5 m (15') Cable
- Hot Wire Air Velocity Sensor Design
- 250 msec Response Time Programmable up to 2 Seconds
- Economical 6 OD x 305 mm L (1/4 x 12") Insertion Probe Design
- Backlit LCD Displays Air Velocity and Air Temperature Simultaneously
- Air Velocity and Air Temperature can be Displayed in Different Engineering Units
- Monitors Maximum and Minimum Air Velocity and Temperature
- Dual Linear Analog Outputs for Air Velocity and Temperature
- High and Low Velocity Alarm Voltage Outputs
- USB PC Interface with Windows Based PC Software
- NEMA 4 (IP65) Industrial Enclosure

The FMA1000 Series industrial air velocity/temperature transmitter/indicator measures and displays air velocity as well as air temperature in research and development labs, HVAC applications, and other manufacturing processes. The sensor design is based on three RTD elements, one measures air temperature and the other two measures air velocity by measuring the heat loss from the RTD sensor as it cools down by the air flow. The FMA1000 series offers many standard features such as display of air velocity and temperature, two analog outputs corresponding to air velocity and temperature, high and low voltage alarm outputs, PC serial interface, and Windows® based PC interface software. The FMA1000 displays the air velocity in different engineering units such as FPM, m/sec, miles/hour, and km/hour. The air temperature is displayed in °C or °F.

Shown smaller than actual size.

FMA1000 units feature a large, easy to read, backlit LCD.

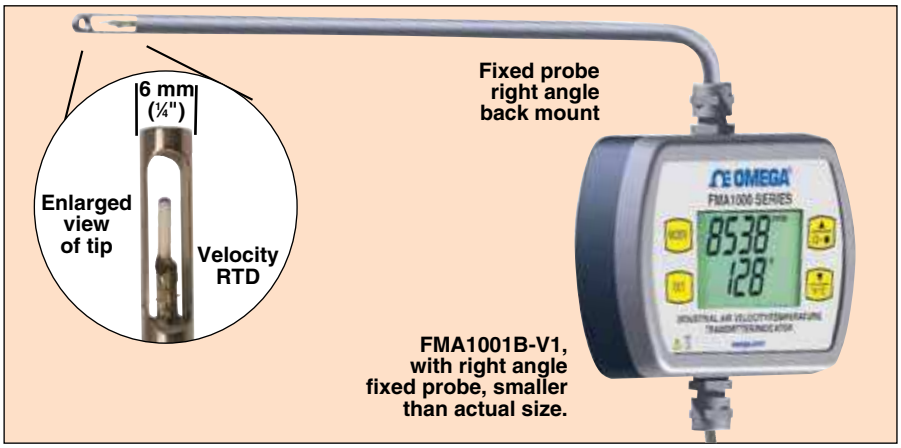
SPECIFICATIONS

Air Velocity Ranges: 0 to 500, 0 to 1000, 0 to 2000, 0 to 5000, 0 to 10,000, 0 to 12,000 FPM
Air Temperature Range: -40 to 121°C (-40 to 250°F)
-40 to 171°C (-40 to 340°F) high temperature model
Accuracy:
Air Velocity: 1.5% full scale or 12 FPM whichever larger
Air Temperature: 0.5% full scale
Air Velocity/Temperature Probe: Stainless steel, 6 OD x 305 mm L (¼ OD x 12")
Air Velocity/Temperature Sensor: Three RTDs, 100 and 1000 Ω
Sensor Probe Pressure: 150 psig maximum
Display: Backlit LCD, 32 x 51 mm (1.25 x 2")
Response Time: 250 msec up to 2 seconds
Analog Output (Air Velocity): 4 to 20 mA, 0 to 5 Vdc, or 0 to 10 Vdc
Analog Output (Air Temperature): 0 to 5 Vdc
Operating Ambient Temperature:
Sensor Probe: -40 to 121°C (-40 to 250°F)
-40 to 171°C (-40 to 340°F) high temperature model
Electronic Case: 0 to 50°C (32 to 122°F)
Alarms: High and low alarm voltage outputs, corresponding to air velocity
Power: 15 to 24 Vdc, 200 mA
Case Dimensions: 114 H x 89 W x 33 mm D (4.5 x 3.5 x 1.3")
Weight: 230 g (0.5 lb)

† *Refer to accessories chart on page D-36 for NIST calibration ordering information.*

FMA1001R-V1, with remote sensor probe and 4.5 m (15') cable, smaller than actual size.

Power and output cable



Sensor probe

FMA1001A-V1, with top mount fixed probe, smaller than actual size.

Fixed probe top mount

Power and output cable

To Order *Visit newportUS.com/fma1000 for Pricing and Details*

Model No.	Range: m/sec (FPM)	Description
FMA1001A-*-**	0 to 5.08 (0 to 1000)	Air velocity/temperature transmitter, fixed probe top mount
FMA1002A-*-**	0 to 25.4 (0 to 5000)	
FMA1003A-*-**	0 to 50.8 (0 to 10,000)	
FMA1004A-*-**	0 to 2.54 (0 to 500)	
FMA1005A-*-**	0 to 10.16 (0 to 2000)	
FMA1006A-*-**	0 to 60.9 (0 to 12,000)	
FMA1001B-*-**	0 to 5.08 (0 to 1000)	Air velocity/temperature transmitter, fixed probe right angle back mount
FMA1002B-*-**	0 to 25.4 (0 to 5000)	
FMA1003B-*-**	0 to 50.8 (0 to 10,000)	
FMA1004B-*-**	0 to 2.54 (0 to 500)	
FMA1005B-*-**	0 to 10.16 (0 to 2000)	
FMA1006B-*-**	0 to 60.9 (0 to 12,000)	
FMA1001R-*-**	0 to 5.08 (0 to 1000)	Air velocity/temperature transmitter, remote probe
FMA1002R-*-**	0 to 25.4 (0 to 5000)	
FMA1003R-*-**	0 to 50.8 (0 to 10,000)	
FMA1004R-*-**	0 to 2.54 (0 to 500)	
FMA1005R-*-**	0 to 10.16 (0 to 2000)	
FMA1006R-*-**	0 to 60.9 (0 to 12,000)	

Accessories

Model No.	Description
CAL-3-FLOW†	NIST traceable 4-point calibration certificate
TX8-100	8 conductor shielded cable, PVC insulation, 30.5 m 100' spool
FPW-15	+15 Vdc power supply
PSR-24S	Regulated 24 Vdc @ 400 mA power supply, screw terminal
PSR-24L	Regulated 24 Vdc @ 400 mA power supply, stripped leads
SSLK-14-14	Compression fitting, ¼" tube OD, ¼ NPT
T-FER-1/4	¼" PTFE ferrules (10 pack) for use with SSLK-14-14 compression fitting

***** *Specify output type add suffix **"-MA"** for 4 to 20 mA, **"-V1"** for 0 to 5 Vdc, or **"-V2"** for 0 to 10 Vdc, no additional cost.*

****** *For 95 mm (3.75") short probe add suffix **"-S"** to model number for additional cost.*

****** *For high temperature probe models add suffix **"HT"** to model number for additional cost (Not offered for short probe models).*

† *Unit is NIST traceable up to 8500 FPM.*

Comes complete with 305 mm (12") long sensor probe, power/output cable, Windows based PC interface software and cable, 4-point of certificate of compliance and operator's manual.

***Ordering Examples: FMA1002A-MA,** air velocity/temperature transmitter, 0 to 5000 FPM range, fixed probe top mount, 4 to 20 mA output (velocity), 0 to 5 Vdc output (temperature), and **CAL-3-FLOW**, NIST traceable 4-point calibration certificate.*

***FMA1001R-V1**, air velocity/temperature transmitter, 0 to 1000 FPM range remote probe with 4.5 m (15') cable, dual voltage outputs.*