# Solutions

## Series 9000MP Multipoint Systems

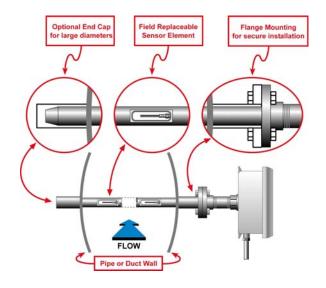
Eldridge Products, Inc.'s Master-Touch™ Series 9000MP Multipoint Systems are designed to measure gas flows where two or more sensing points are required due to large cross-sectional areas, such as large air intake ducts or air exhaust and flue stacks. Our Series 9000MP Multipoint Systems are installed throughout the world, providing our customers with years of steady, reliable service. Coupled with our new Air Purge System, the Series 9000MP Multipoint Systems are now well-suited to an even greater variety of industrial applications.

### **Applications**

The Series 9000MP Multipoint design allows their use in applications as diverse as ambient air flows in HVAC ducts, exhaust gas in large diameter stacks, boiler NOx efficiency systems and municipal waste incinerators. Series 9000MP customers include environmental/HVAC system integrators, pulp & paper mills, power & energy companies, etc. They are successfully installed across the US, Europe and Asia. The configuration and installation options support facility retrofits as well as the most modern new construction requirements.

### Configuration

The Series 9000MP Multipoint System includes one or more Series 9000MP Probes and a Series 9601MP System Control Panel. The 9000MP flow transmitter probe assembly is the heart of the system. The probe assembly typically has two or more flow sensors mounted in a 1½" OD probe shaft. The 9000MP probe's sensors are removable for field replacement if one is damaged.



Each sensor is matched to its own bridge board and microprocessor to function, in effect, as a complete flowmeter. The linearized output signals from the multiple sensor assemblies in each probe are averaged to create one overall probe output signal. The probe's averaged output signal is transmitted to a Series 9601MP System Control Panel (SCP). If more than one probe is installed, the output signals from all of the probes are transmitted to the 9600MP System Control Panel for averaging to create one system output.

The Series 9601MP System Control Panel, or SCP, is housed in a 12" x 10" NEMA 4X fiberglass enclosure. The SCP provides the power for the probe assemblies and receives the averaged outputs over a four-wire cable to each probe. It also includes its own microprocessor assembly for system-level control and flow display. The SCP provides two analog output signals (0-5 VDC and 4-20 mA), as well as RS232 & RS485 Modbus RTU communications. The 4-20 mA grand average output can drive up to 1200 ohms.



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### Optional Air Purge System

The optional Air Purge System (APS) provides a means of cleaning the sensors in applications where particulates cause problems. The frequency and duration of the purge cycle can be controlled externally or by using the Master-Touch™ software. The system can also be set to maintain the flow rate at its level when the purge was activated. This important option preserves the integrity of the flow rate and elapsed total data which might otherwise be compromised by the flow of the purge gas.



### **Specifications**

Linear signal output
Signal Interface
Sensor Accuracy, including linearity (Ref.: 21°C)
Sensor Repeatability
Sensor response time
Turn down ratio
Electronics temperature range
Gas temperature range

Gas pressure effect

Pressure rating maximum 9600MP input power requirement

9600MP Control Panel power requirements 9600MP Control Panel enclosure 9000MP Probe Assembly enclosure Wetted materials Standard temperature & pressure (STP) NIST traceable calibration

0-5 VDC & 4-20 mA RS232 & RS485 Modbus RTU  $\pm$ [1% of Reading + (.5% + .02%/°C of Full Scale)] ±0.2% of Full Scale 1 second 100:1 @ 1500 SFPM minimum 0°-50°C (32°-122°F) -40°-200°C (-40°-392°F), consult factory for extended ranges Negligible over ± 20% of absolute calibration pressure 500 PSI Std., > 500 PSI special 24VDC @ 250mA 115 VAC 50/60 Hz optional 230 VAC 50/60 Hz optional 5 watts maximum NEMA 4X fiberglass, 10" x 12" x 6" NEMA 4X fiberglass, 8" x 10" x 4" flanged 316 Stainless Steel 70°F & 29.92" Hg (Air .075 lb./cubic foot) Standard

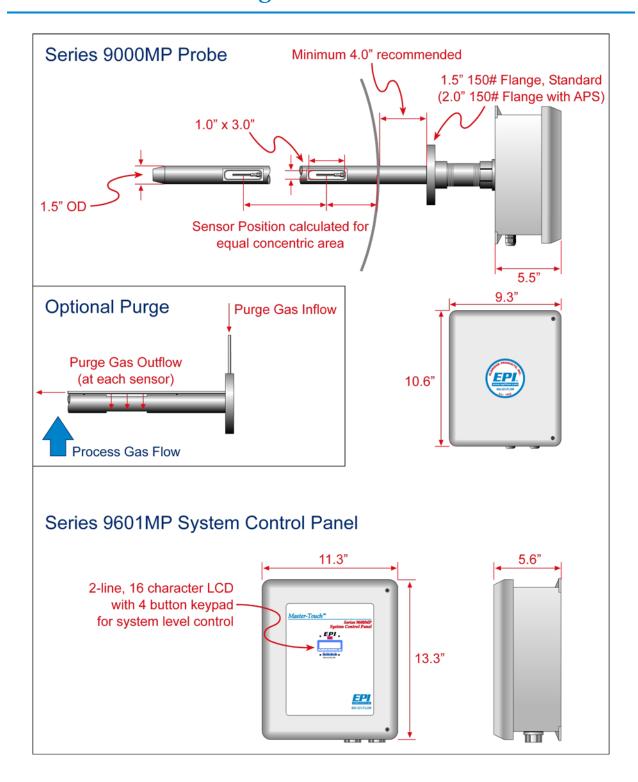






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### **Model Numbering**

#### **Probe Assembly**

Part	Description
9001MP-XX-XX-XX"-XXX	Probe assembly with 1 sensor
9002MP-XX-XX-XX"-XXX	Probe assembly with 2 sensors
9003MP-XX-XX-XX"-XXX	Probe assembly with 3 sensors
9004MP-XX-XX-XX"-XXX	Probe assembly with 4 sensors
	(Each sensor requires gas calibration)
XXXXXX-06-XX-XX"-XXX	ANSI 11/2" 150# Class flange assembly mounted on probe
XXXXX-08-XX-XX"-XXX	ANSI 2" 150# Class flange assembly mounted on probe (required for APS*)
XXXXXX-XX-01-XX"-XXX	10" x 8" enclosure on
XXXXXX-XX-XX"-XXX	Probe assembly length from flange face to end
XXXXXX-XX-XX"-DESFC	Double-ended support system Probe mating flange assembly and probe end support cup
XXXXXX-XX-XX"-DESF	Double-ended support system  Probe mating flange assembly only
XXXXXX-XX-XX-XX"-DESC	Double-ended support system Probe end support cup only
XXXXXX-XX-XX"-XXX-APS	*Air Purge System mounted on 900XMP probe(s) Includes tube stub for purge gas connection by user
System Control Panel*	
9601MP-133-1210-DC24	System Control Panel with 24VDC input power
9601MP-133-1210-AC115	System Control Panel with 115VAC input power
9601MP-133-1210-AC230	System Control Panel with 230VAC input power

<sup>\* 0-5</sup>VDC, 4-20mA outputs; RS485 Modbus RTU included

#### SPECIFICATION NOTICE

The specifications contained herein are subject to change without notice. *EPI* cannot guarantee the applicability or suitability of our products in all situations since it is impossible to anticipate or control every condition under which our products and specifications may be used.

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