



Eldridge Products, Inc.

Manufacturer of Master-Touch™ Thermal Gas Mass Flowmeters

Eldridge Products, Inc. has pursued innovation and excellence in thermal dispersion gas mass flow measurement for 25 years. With all of the major industry approvals and a variety of configuration and installation choices, our Master-Touch™ flowmeters could be solving your measurement challenges, too.

Master-Touch™ Series 9000MP Multipoint Flowmeters

9000MP Series Multipoints have not been submitted for agency approval testing

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.

The probe design supports applications as diverse as ambient air flows in HVAC ducts, exhaust gas in large diameter stacks, boiler NOx efficiency systems and municipal waste



incinerators. Our customers include environmental/HVAC system integrators, pulp & paper mills, power & energy companies, etc. 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 SCP for averaging to create one system output. The System Control Panel (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.

THERMAL GAS MASS FLOW MEASUREMENT APPLICATIONS —

Compressed Air Monitoring

Natural Gas Consumption

Ventilation Hood Alarms

Water & Wastes Aeration

Bio / Digester Gas Production

Landfill Gas Recovery

Boiler Combustion Efficiency

Stack / Flue Gases

Pharmaceutical Clean Rooms

Semiconductor Fabrication

Food Processing

Nitrogen Purging

Pulp & Paper Mills and many more!

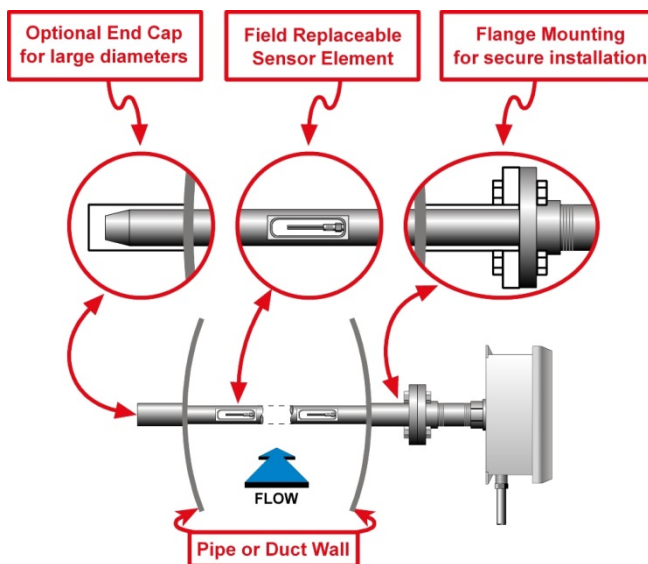


Optional Air Purge System

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	0–5 VDC & 4–20 mA
Signal Interface	RS232 & RS485 Modbus RTU
Sensor Accuracy, including linearity (Ref.: 21°C)	±[1% of Reading + (.5% + .02%/°C of Full Scale)]
Sensor Repeatability	±0.2% of Full Scale
Sensor response time	1 second
Turn down ratio	100:1 @ 1500 SFPM minimum
Electronics internal temperature range	0° to 50°C (32° to 122°F) Standard -40° to 60°C (-40° to 140°F) Optional temperature range
Gas temperature range	-40° to 200°C (-40° to 392°F), consult factory for extended ranges
Gas pressure effect	Negligible over ± 20% of absolute calibration pressure
Pressure rating maximum	500 PSI Std., > 500 PSI special
9600MP input power requirement	24VDC @ 250mA 115 VAC 50/60 Hz optional 230 VAC 50/60 Hz optional
9600MP Control Panel power requirements	5 watts maximum
9600MP Control Panel enclosure	NEMA 4X fiberglass, 10" x 12" x 6"
9000MP Probe Assembly enclosure	NEMA 4X fiberglass, 8" x 10" x 4" flanged
Wetted materials	316 Stainless Steel
Standard temperature & pressure (STP)	70°F & 29.92" Hg (Air .075 lb./cubic foot)
NIST traceable calibration	Standard



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