EPI™
ELDRIDGE PRODUCTS, INC

ValuMass™

Series 400 & 440

A leading manufacturer of Thermal Mass Flow Meters Since 1988.

SERIES 400 & 440

LOW COST/ HIGH VALUE

Eldridge Products, Inc. has pursued innovation and excellence in thermal dispersion mass flow measurements since 1988. With an economical set of features and a variety of configurations and installations choices, our ValuMass flow meters are ready to take any measurement challenge for customers around the world.

ValuMass Flow Meters Series 400

Eldridge Products, Inc. (EPI) is a proven leader in gas flow measurement. *Our Master-Touch thermal dispersion gas mass flowmeters and patented Flow Averaging Tubes set the standard for innovation, performance and reliability. Now our* ***Series 400 ValuMass*** *flow meters offer a lower cost option for many flow applications with the high value associated with all of EPI's flow measurement instrumentation.The Series 400 ValuMass flow meters include 16-bit linearization technology for excellent flow rate accuracy and rugged construction of 316L stainless steel wetted parts. The robust feature set includes:*

- ***0-5 or 0-10 VDC output, flow & temperature***
- ***4-20 mA output, flow & temperature***
- ***Frequency output 0-1 kHz proportional flow***
- ***Programmable event relay(s) one 1amp with frequency out, optional two 1amp without frequency out.***
- ***Protocols- RS232; RS485 Modbus RTU***
- ***Optional Protocols- HART, Profibus DP or BACnet***
- ***Display 2-line, 16 Character backlit Transflective LCD and 4-button keypad***

Series 400 Inline and insertion *style flow meters accommodate virtually all common installations requirements. The insertion style flow meters are available with 1/2" OD probes in 6" to 24" lengths, The inline style are available for pipe sizes from 1/4" to 2". The 3 1/2" long flow sections have MNPT ends as standard for easy mounting in the process line. ValuMass flow meters accept 24VDC, 115VAC or 230VAC input power as specified at the time of purchase.*

THERMAL GAS MASS FLOW MEASUREMENT APPLICATIONS-

Compressed Air Monitoring
Ventilation Hood Alarms
Bio / Digester Gas production
Boiler Combustion Efficiency
Pharmaceutical Clean Rooms
Food Processing
Pulp & Paper Mills
Natural Gas Consumption
Water &Waste Aeration
Landfill Gas Recovery
Stack / Flue Gases
Semiconductor Fabrication
Nitrogen Purging
and many more.....

ValuMass™

Thermal Technology

EPI's thermal mass flow meters are solid state instruments that use the principle of convective heat transfer to directly meausre gas mass flow. EPI's sensors consist of two matched reference grade resistance temperature detectors (RTD's). A microcontroller preferentially heats one sensor; the other sensor acts as a control temperature reference. The gas flow dissipates heat from the heated sensor, in Constant Temperature Anemometer (CTA) mode for dry-gas operation. This heat dissipation is directly related to the gas molecular rate of flow. Our sensors are temperature compensated and insenstive to pressure changes for direct output readings, so no additional instrumentation or calculations are required. The output signal is a true mass flow rate signal which can be directly interfaced with your data acquisition system.

Specifications

Linear signal output	0–5 Vdc & 4–20 mA (Flow and Temperature)
Event Relays (Two)	1 Amp @ 30 Vdc event selectable functions (see Manual)
Communication Protocols	RS232 & RS485 Modbus RTU, Optional BACnet, HART or Profibus DP
Display LCD 2-line 16-character	Rate, Total, Milliwatts, Temperature, Event
Accuracy including linearity (Ref.: 21°C)*	±(1% of Reading + 0.5% of Full Scale + GTC)
Repeatability	±0.2% of Full Scale
Sensor response time	1 second to 63% of final value
Turn down ratio	100:1; 10 SFPM (0.05 NMPS) Minimum Reading
Withstands Ambient temperature (electronics)	-40° to 158°F (-40° to 70°C)
Suitable Process Gas temperature range**	-40° to 392°F (-40° to 200°C)
Gas temperature coefficient (GTC)	0.02% Full Scale/°C
Gas pressure effect	Negligible over ± 50% of factory calibration pressure
Pressure rating maximum	500 PSIG (Stainless Steel ferrule), 25PSIG (Teflon ferrule)
Input power requirement	6 Watts 24 Vdc @ 250mA 120 Vac 50/60 Hz optional 240 Vac 50/60 Hz optional
Flow Meter power requirements	5 watts maximum
Date/Time RAM Back-up	Lithium Button Cell, ten-year life, quantity 1
Wetted materials	316L Stainless Steel
Standard temperature & pressure (STP)	70°F & 29.92" Hg (Air 0.075 lb./cubic foot) Optional 0°C & 1.0132 BarA (Air 0.081 lb./cubic foot) Or user specified STP at time of order
NIST traceable calibration	Yes

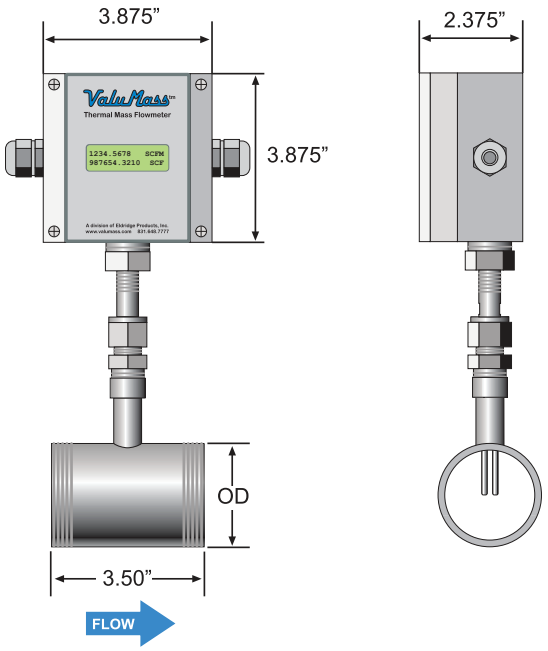
* EPI is not responsible for measurement errors due to flow profile irregularities caused by installation, piping configurations, surface corrosion or scale, valve placement, etc.
** Specify average process operating temperature, with high & low limits.
NOTE: Specifications subject to change without notice. Consult our web site, www.epiflow.com, at time of order.
NOTE: Eldridge Terms & Conditions for sales available on our web site, www.epiflow.com.

Series 400 & 440

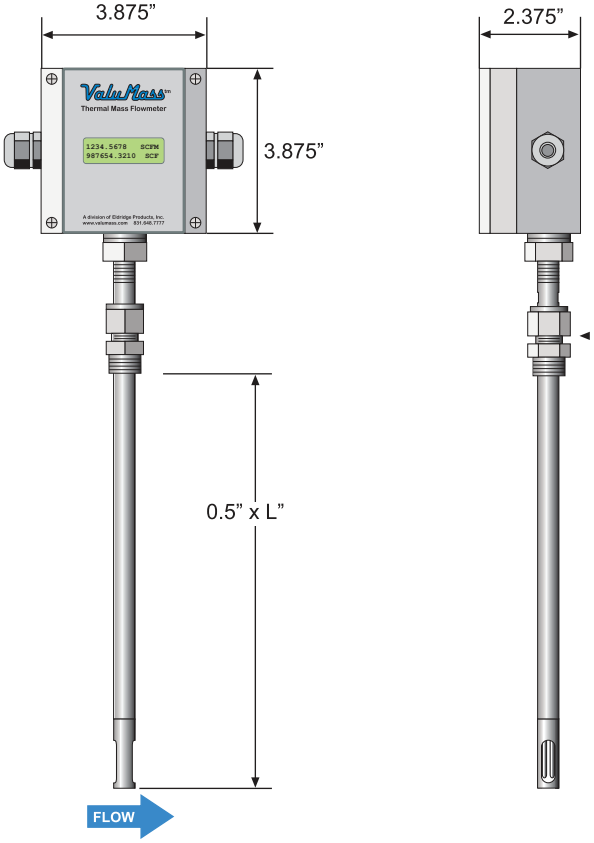
Dimensional Specifications

*Flow Transmitter Assembly

400 INLINE



440 INSERTION



Model Numbers

Model	Style	OD”	Length
440	Insertion	.5”	6” up to 24”

Model	Style	Flow Section
400	Inline	.25” x 3.5”L up to 2 .5” x 3.5” L

Certification Choices

NO AGENCY CERTIFICATIONS

Flow Transmitter: Manufacturer rated as Type 4X, IP66

CE

CE
APPROVED INSTRUMENT

EPI™
ELDRIDGE PRODUCTS, INC

ORDER YOURS TODAY

Series 400-440

WANT TO LEARN MORE...

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CMC TECHNOLOGIES

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