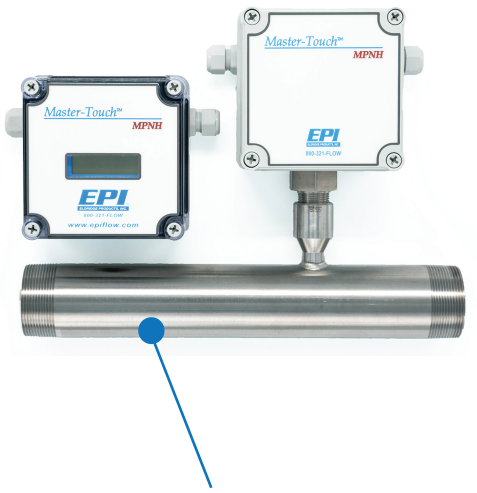
ELDRIDGE PRODUCTS, INC

Master-Touch™

Series 8000MPNH & 8100MPNH

A leading manufacturer of Thermal Mass Flow Meters Since 1988.



2" MNPT / 14" Lenght
Shown here

SERIES 8000/8100 MPNH

Eldridge Products, Inc. has pursued innovation and excellence in thermal dispersion mass flow measurements since 1988. Thermal Mass Flow Meters offer simple, low cost operating for accurate, economical and reliable gas flow measurements for various applications - Compressed Air, Biogas, Natural Gas, Aeration,Digesters, Landfield, Wet Gas, HVAC systems - virtually any gas flow application. Master-Touch flow meters can solve your gas measurement challenges.

Master-Touch Series 8000MPNH & 8100MPNH Flow Meters are apporved for use in ordinary locations (see specifications)

Inline Style Thermal Mass Flow Meters *include a flow section that is usually specified to match the user's flow conduit and is then plumbed directly into the process line. This design has the sensing elements mounted directly in the flow section for exposure to the process gas. Our inline style thermal mass flow meters are available in sizes from 1/4" pipe through 4"pipe or tube, and are provided with a variety of mounting conventions, such as MNPT ends, tube end fittings, butt weld ends, flanged end configurations, etc. as required. Pipe sizes in excess of 4" typically required insertion style thermal mass flow meters.*

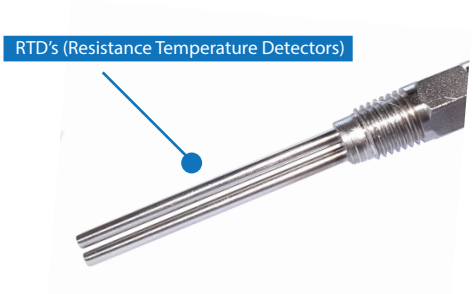
Remote Style Thermal Mass Flow Meters *utilize two enclosures. One enclosure is mounted at the point of measurement on the flow section or on the probe assembly. This enclosure may be rated for either hazardous environments or for ordinary, non-hazardous environments, as necessary. The second (remote) enclosure is usually placed in a readily accessible location rated for non-hazardous conditions. (Contact the factory for information concerning remote explosion-proof enclosure). The remote enclosure includes the all of the electrical connections as well as the linearizing electronics and the display/keypad assembly. Only a four-wire, twisted-pair cable is required to carry the input power and flow signal between the two enclosures.*

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
- and many more.....
- Natural Gas Consumption
- Water &Waste Aeration
- Landfill Gas Recovery
- Stack / Flue Gases
- Semiconductor Fabrication
- Nitrogen Purging

Master-Touch™

Series 8000MPNH & 8100MPNH



Thermal mass flow meters use the principle of convective heat transfer to directly measure mass flow. EPI's proprietary thermal mass flow sensors use two ***precisely matched,*** *reference-grade platinum* ***Resistance Temperature Detectors (RTDs).*** *The sensor elements are hermetically sealed in 316L Stainless Steel (or optional Hastelloy C276) thin wall sheaths. Our microcontroller operated smart sensor technology preferentially heats one RTD; the other RTD acts as the temperature reference. The process gas flow dissipates heat from the first RTD, causing an increase in the power required to maintain a balance between the RTDs. This increase is directly related to the molecular gas flow rate. Our sensors are temperature compensated for a wide process gas temperature range and insensitive to pressure changes, therefore the flow meter output signal is a true direct mass flow rate value.*

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 HART, BACnet or Profibus DP
Display LCD 2-line 16-characte	Flow Rate, Flow 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 / .051 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) Extended range available
Gas temperature coefficient (GTC)	0.02% Full Scale/°C
Gas pressure effect	Negligible over ± 50% of factory calibration pressure
Pressure rating maximum	500 PSI Std.
Input power requirement	24 Vdc @ 250mA 120 Vac 50/60 Hz optiona 240 Vac 50/60 Hz optiona
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 (Optional Hastelloy C276)
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
Approvals to Certified to CSA/CUS Standard	Class 2252-03 & 2252-83 for Process Control Equipment in Ordinary Locations; CSA Enclosures Type 4X, IP66

* 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.

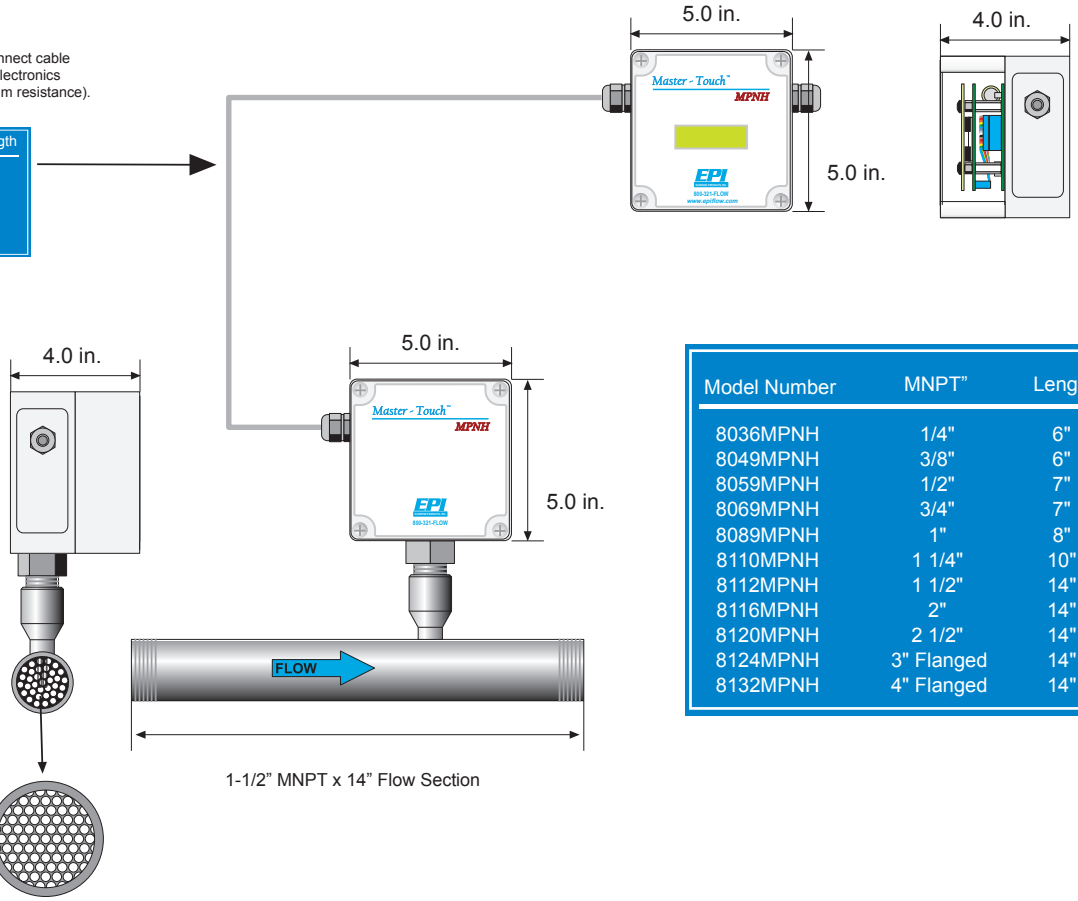
Master-Touch™

Series 8000MPNH & 8100MPNH

Dimensional Specifications

Two-wire, twisted pair interconnect cable required between Remote Electronics and Flow Transmitter (max. 5 ohm resistance).

AWG	Wire Length
20	200'
18	300'
16	500'
14	800'
12	1250'



1-1/2" MNPT x 14" Flow Section

Model Number	MNPT"	Length
8036MPNH	1/4"	6"
8049MPNH	3/8"	6"
8059MPNH	1/2"	7"
8069MPNH	3/4"	7"
8089MPNH	1"	8"
8110MPNH	1 1/4"	10"
8112MPNH	1 1/2"	14"
8116MPNH	2"	14"
8120MPNH	2 1/2"	14"
8124MPNH	3" Flanged	14"
8132MPNH	4" Flanged	14"

Certification Choices

Flow Transmitter - CSA/CUS, CE (specify preference at the time of order)
Remote Enclosure - CSA/CUS Non-Hazardous area location (Ordinary Locations)

C US

CSA/CUS
APPROVED INSTRUMENT
For use in ordinary area locations; Class 2252-03, Class 2252-83 for process Control Equipment in Ordinary Locations; CSA Enclosures Type 4X, IP66

CE

CE
APPROVED INSTRUMENT

EPI™
ELDRIDGE PRODUCTS, INC

ORDER YOURS TODAY

Series 8000MPNH & 8100MPNH

WANT TO LEARN MORE...

Scan me to learn more

Visit:
www.epiflow.com

Call us at:
800.321.FLOW

To place an order, email:
sales@epiflow.com