

# **SERIES 7000 - 7200 Mass Flow Switches.**







#### **BENEFITS**

Series 7000-7200 Mass Flow offer a lower cost option for many flow applications with the high value associated with all of EPI's flow measurement instrumentation.



#### **FEATURES**

Design for use in hazardous locations. The 7000-7200 Series switches have two single-pole, double-throw relays for Hi/Hi, Lo/Lo and Hi/Lo capability. Other features include:

- Sensor response time 1 second
- Flow Enclosure- NEMA 4, Class1, Div1,Groups B,C, & D, Std.
- Standard NIST traceable calibration
  Trip point accuracy +/- 1.0% of set point.
- Gas temperature range 0-200 C (32-392 F)
- A variety of alternatives are available, including ANSI 300lb. DN flanges, butt ends, tri-clover fittings, etc..

## **ABOUT US**

Eldridge Products, Inc. has pursued innovation and excellence in the thermal dispersion mass flow measument since 1988. With an economical set of features and a variety of configurations and installation choices, our flow switches are ready to take any measurement challenge.

### THERMAL TECHNOLOGY

EPI's thermal dispersion flow meters are solid state instruments that use the principle of convective heat transfer to directly measure gas mass flow. EPI's sensors consist of two resistance temperature detectors (RTD's). A digital bridge preferentially heats one RTS; the other RTD acts as the temperature reference. The gas flow dissipates heat from the first RTD, causing an increase in the power required to maintain a balance between the RTD's. This increase is directly related to the gas molecular rate flow.

Our sensors are temperature compensated and insensitive to pressure changes, so no additional instrumentation or calculations are required. The output signal is a true mass flow rate signal which can be directly interface with your data acquisition system.



# **SERIES 7000 - 7200 Mass Flow Switches.**



#### DESCRIPTION

The Serie 7000-7200 flow switches are analog instruments designed for use in hazardous locations. These flow switches have two single-pole, double-throw relays for Hi/Hi, Lo/Lo, and Hi/Lo capability. The contact closure is 6 amp @ 24 VDC or 250 VAC.

All of our flow switches have the electronics mounted integrally on the flow section. Available in both insertion style or inline with many configurations to choose from. Inline style with pipes sections 3/4" and larger come with flow straightening screens as standard option. Flow sections have MNPT ends as standard. Depending on the line size, a variety of alternatives are available, including ANSI 300lb. and DN flanges, butt ends, tri-clover fittings, etc. We also offer a variety of installation options for the 7200 flow switches, including ball valve retractor assemblies, tube to pipe compression fittings, and probe mounted flanges.

#### **Specifications**

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Trip point accuracy (Ref.: 21°C)	
Signal output Relay Contact High & Low	6Amp @ 24VDC or 250VAC (Class "A" Insulation)
Event Relay Rating	One with Frequency or two, 1 Amp @ 30VDC (33W)
Trip point accuracy	± 1.0% of set point
Repeatability	
Sensor response time	
Turn down ratio	
Range (gas)	0 – 15,000 SFPM, typical
Range (liquid)	0 – 5 SFPS, typical
Electronics temperature range	0°-50°C (32°-122°F), extended temperature optional
Fluid temperature range*	
Gas temperature range	0°–200°C (32°–392°F), extended range available
Gas pressure effect (liquid n/a)	Negligible over ± 20% of set point pressure
Pressure rating maximum	500 PSI Std., > 500 PSI special
Input power requirement	24 VDC @ 250mA
	115 VAC 50/60 Hz optional
Fl T	230 VAC 50/60 Hz optional
Flow Transmitter power requirements	
Flow switch enclosure	NEMA 4, Class 1, Div 1, Groups B, C, & D, Std.
Wetted materials	316 Stainless Steel (Hastelloy optional)
Standard temperature & pressure (STP)	70°F & 29.92" Hg (Air .075 lb./cubic foot)
NIST traceable calibration	Standard

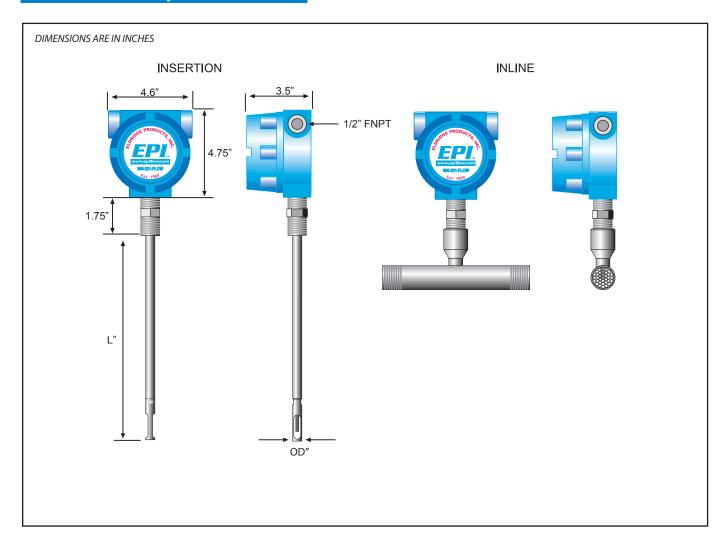
NOTE: Specifications subject to change without notice. Consult our web site, www.epiflow.com, at time of order. NOTE: Eldridge Terms & Conditions for sales available on our web site, www.epiflow.com.

<sup>\*</sup> EPI is not responsible for measurement errors due to flow profile irregularities caused by installation, piping configurations, surface corrosion or scale, valve placement, etc.

<sup>\*\*</sup> Specify average process operating temperature, with high & low limits.

# Dimensional Specifications

FRONT AND SIDE VIEWS OF SERIES 7000-7200



#### Model Numbers

#### **INSERTION**

O.D.	Length
1/2" 3/4"	to 12" to 12"
1"	to 12"
	1/2" 3/4"

\*Non Stock

#### INLINE

Model Number	O.D.	Length
7036	1/4"	6"
7049	3/8"	6"
7059	1/2"	7"
7069	3/4"	7"
7089	1"	8"
7110	1 1/4"	10"
7112	1 1/2"	14"
7116	2"	14"
7120	2 1/2"	14"
7124	3"	14"
7132	4"	14"





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Series7000-7200

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