



Model 8170 Series Mass Flowmeter System



Description

The complete 8170 Mass Flowmeter System offered by Matheson consists of a flowmeter transducer (Model 8172/8173 Series), a digital readout/power supply box and the necessary cable and connectors. These flowmeters can be supplied with either Swagelok tube connections (standard) or optional male VCR compatible connections for easy installation into tubing and piping systems.

The Mass Flowmeter System produces a 0-5 VDC signal proportional to 0-100% of flow rate. This output signal from the digital readout box makes the 8170 Series Mass Flowmeters ideal for use with integrators, totalizers and data logging equipment. The Model 8124 Totalizer is used to compile the total amount of gas used over a period of time, regardless of varying flow rates.

The 8170 Mass Flowmeter Digital Readout Box is available standard for rack mounting in a 1/2 EIA rack or for benchtop use. Other standard features are high and low alarm setpoints selected by the user.

Specifications

Materials	
Body:	316 stainless steel
By-pass:	316 stainless steel
Fittings:	316 stainless steel
Standard Seals:	Viton
Minimum Differential Pressure:	5 psid (34.5 kPa) (nominal)
Maximum Operating Pressure:	
All:	150 psig (1035 kPa)
Temperature Range:	0° to 50°C (32° to 122°F)
Accuracy:	
≤ 30 slpm:	±1% full scale
50-300 slpm:	±2% full scale
>300 slpm:	±3%
Standard Calibration	
Temperature:	0°C (32°F)
Temperature Coefficient:	0.05% per °C
Response Time:	0.5 seconds to 98% of scale (typical)
Repeatability	
≤ 200 slpm:	0.2%
> 200 slpm:	0.5%
Flow Capacity:	2%-100% of range selected
Signal Voltage Output:	0-5 VDC
Voltage Input :	115 VAC, 5 Watts; 230 VAC (optional)
Cable Lengths	
Power Cord:	6 ft
Signal Cable:	8 ft
Alarm Contacts (Each Channel):	1 amp at 30 VDC maximum
Shipping Weight:	8 lbs