Cole-Parmer® Flowmeters and Proportional Controllers for Gases

Measure 130 standard gases—user selectable from display

– Accuracy of ±0.8% of reading +0.2% full-scale; repeatability of ±0.2%
– 100 to 1 turndown with ranges of 1 SCCM full-scale up to 1000 SLPM
– Models with 4 to 20 mA output or totalizer are available

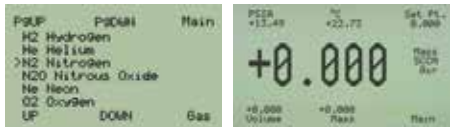
These meters measure flow via pressure drop across a laminar flow element (LFE). Because the flow element makes the flow stream laminar, placement in the process does not require straight pipe runs upstream or downstream of the meter, greatly simplifying installation. As compared to thermal mass technologies, the LFE design provides an ultrafast response within 10 milliseconds and offers "instant on" with no warm-up time.

An integrated keypad around the display is all that is required to program the unit for service. The 0 to 5 VDC output allows transmission of the flow value to a remote display, recorder, or controller regulating a valve or pump.

Flow controllers feature an integrated PID to direct the unit's response to process changes. Flow set point is established with keypad, the optional set point control module, a 0 to 5 V signal, or an RS-232 input signal. Order set point control modules separately from the table. For portable flow metering applications, order the battery pack listed below table.

What's included: 120/230 VAC power adapter with communications cable 32929-89 and NIST-traceable calibration report supplied by the manufacturer.

Flow controller
32907-51



Meters and controllers feature a dynamic display that simultaneously shows flow rate, line pressure, fluid temperature, and (for controllers) the set point. For the units shown, both power and input/output signals are transmitted through a single multi-pin connector.

Mass flowmeter 32908-59 shown with optional battery pack 32929-50

Cole-Parmer®

CE For GASES

Specifications

Max particulate size:
Up to 1 LPM: 20 µm
>1 LPM to 1000 LPM: 50 µm
Accuracy: ±0.8% of reading, +0.2% full-scale
Repeatability: ±0.2%
Response time:
Flowmeters: 10 msec
Flow controllers: 50 msec
Operating temperature:
14 to 122°F (–10 to 50°C)
Max pressure: 145 psig (9.9 bar)

Pressure drop: 0.8 to 3.2 psig (flowmeter)
Output signal: 0 to 5 VDC, RS-232
Input signal: 0 to 5 VDC and RS-232
Wetted materials:
Flowmeters: 302 and 303 SS, Viton®, silicone RTV, and glass-reinforced nylon, aluminum
Flow controllers: 302, 303; Viton, silicone RTV, glass-reinforced nylon, aluminum, brass, 410 SS, silicon, glass

Power:
Flowmeters: 7 to 30 VDC at 30 mA
Flow controllers
Models ≤10 LPM: 12 to 30 VDC at 250 mA
Models ≤50 LPM: 24 to 30 VDC at 750 mA
Display type: four-digit, seven-line LCD; ¼"H flow display
Connections:
≤ 10 mL/min: 10-32 UNF
50 mL/min to 10 LPM: ⅛" NPT(F)
50 to 100 LPM: ¼" NPT(F)
100 and 250 LPM: ½" NPT(F)
500 and 1000 LPM: ¾" NPT(F)

Flow range	Mass flowmeters		Mass flow controllers		Set point modules‡	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
0.01 to 1 mL/min	GH-32908-51		GH-32907-51		GH-32907-83	
0.05 to 5 mL/min	GH-32908-53		GH-32907-53		GH-32907-85	
0.1 to 10 mL/min	GH-32908-55		GH-32907-55		GH-32907-87	
0.5 to 50 mL/min	GH-32908-57		GH-32907-57		GH-32907-89	
1 to 100 mL/min	GH-32908-59		GH-32907-59		GH-32907-91	
2 to 200 mL/min	GH-32908-61		GH-32907-61		GH-32907-93	
5 to 500 mL/min	GH-32908-63		GH-32907-63		GH-32907-97	
0.01 to 1 LPM	GH-32908-67		GH-32907-67		GH-32907-83	
0.05 to 5 LPM	GH-32908-69		GH-32907-69		GH-32907-85	
0.1 to 10 LPM	GH-32908-71		GH-32907-71		GH-32907-87	
0.5 to 50 LPM	GH-32908-73		GH-32907-73		GH-32907-89	
1 to 100 LPM	GH-32908-75		GH-32907-75		GH-32907-91	
2.5 to 250 LPM	GH-32908-77		GH-32907-77		GH-32907-95	
5 to 500 LPM	GH-32908-79		GH-32907-79		GH-32907-97	
10 to 1000 LPM	GH-32908-81		GH-32907-81		GH-32907-99	

‡May be ordered as an option.

GH-17080-10 **NIST-traceable recalibration**
GH-32929-50 **Battery pack,** for portable operation of mass or volumetric flowmeter only
GH-32929-89 **Replacement communication cable,** 8-DIN to stripped ends