# **IN-LINE PNEUMATIC FLOWMETERS**



- Suitable for Monitoring Most Pneumatic or Compressed Gas Systems
- Flow Rates from 1.2 to 900 SCFM @ 100 psi
- High Pressure to 600 psi—Brass, Aluminum; 1000 psi— Stainless Steel
- High Temperature to 116°C (240°F) Standard, 204 or 316°C (400 or 600°F) Optional
- Mounts in Any Position
- Relay Alarms and Analog Outputs Optional

The FLMG flowmeters feature rugged construction, easy installation, and direct-reading flow rates of air. The units are calibrated at 100 psi pressure, suitable for most compressed pneumatic applications.

The spring-and-piston type assembly enables these flowmeters to be mounted in any position.

The FLMG models with optional analog output (-MA) are typically used to transmit a signal proportional to the flow rate to a process controller, a PLC, a recorder, or a panel-mount display. With the -MA option, the user can choose between reading a 0 to 2000 Hz square-wave pulse, a 0 to 5 Vdc analog signal, or a 2-wire 4 to 20 mA analog signal by connecting the appropriate pins.

### SPECIFICATIONS

Measuring Accuracy: ±2.5% FS in the center third of the measuring range; ±4% FS over the entire scale range Repeatability: ±1% FS Flow Measuring Range: 1.2 to 900 SCFM



FLMG-14012AL, \$172, shown smaller than actual size.

#### Maximum Operating Pressure: Aluminum and Brass Monitors:

40 bar (600 psig) Stainless Steel Monitors: 70 bar

(1000 psig) up to 116°C (240°F)

Maximum Operating Temperature: 116°C (240°F)

Note: For options "-HT" and "-UHT", see high-temperature graph at omega.com/flmw

### Pressure Differential:

Visit omega.com/flmw for graphs Standard Calibration Fluids: Air @ 21°C (70°F), 1.0 sg and 6.8 bar (100 psig)

**Relay (Optional):** 1 or 2 form "C" relays, rated 10 A, 125 or 250 Vac or ¼ A, 250 Vdc



FLMG-38050BR, \$230, shown smaller than actual size.

### Mechanical Life:

>10° cycles **Analog Output (Optional):** Supply voltage 12 to 35 Vdc, field selectable for 0 to 5 Vdc (100 W minimum load), 0 to 2000 Hz square-wave pulse or 4 to 20 mA  $R_{max} = 50$  (Vs - 12) (V<sub>s</sub> = supply voltage DC)

### Materials of Construction (Wetted Components)

Description	Aluminum	Brass	Stainless Steel				
High-pressure casing, end ports and tapered shaft	Aluminum	Brass	304 SS				
Seals	Buna (standard), EPR, FKM or Perfluoroelastomer	Buna (standard), EPR, FKM or Perfluoroelastomer	FKM with PTFE backup (standard), Buna, EPR or Perfluoroelastomer				
Transfer magnet	PTFE-coated Alnico	PTFE-coated Alnico	PTFE-coated Alnico				
Floating orifice disk	Stainless steel	Stainless steel	Stainless steel				
All other internal parts Stainless steel		Stainless steel	Stainless steel				

### Materials of Construction (Non-Wetted Components)

Description	Aluminum	Brass	Stainless Steel			
Window tube Polycarbonate (standard), Pyrex®		Polycarbonate (standard), Pyrex	Polycarbonate (standard) Pyrex			
Window seals	Buna (standard), PTFE	Buna (standard), PTFE	Buna (standard) PTFE			

Port Sizes	½ to 1½ FNPT
Installation Dimensions	1⁄4 to 1⁄2" Port: 17⁄8" OD x 6¾6" length ¾ to 1" Port: 2¾" OD x 7₅⁄32" length
	1 <sup>1</sup> / <sub>4</sub> to 1 <sup>1</sup> / <sub>2</sub> " Port: 3 <sup>1</sup> / <sub>2</sub> OD x 10 <sup>1</sup> / <sub>8</sub> " length

Note: Minimum flow rate = 10% of maximum.

#### Air Flowmeters - ¼ to ½ NPT Sizes

Model No.	Max SCFM	Connection Size	Price
FLMG-14012(*)	12	1⁄4 NPT	\$172
FLMG-14022(*)	23	1⁄4 NPT	172
FLMG-14050(*)	50	1⁄4 NPT	172
FLMG-14100(*)	100	1⁄4 NPT	172
FLMG-38012(*)	12	3% NPT	172
FLMG-38022(*)	23	3% NPT	172
FLMG-38050(*)	50	3% NPT	172
FLMG-38100(*)	100	3/8 NPT	172
FLMG-12012(*)	12	1/2 NPT	172
FLMG-12022(*)	23	1/2 NPT	172
FLMG-12050(*)	50	1/2 NPT	172
FLMG-12100(*)	100	1/2 NPT	172

(\*) Specify "AL" for aluminum, standard, "BR" for brass, add \$58, and "SS" for stainless steel, add \$368.

### Air Flowmeters - 1¼ to 1½ NPT Sizes

Model No.	Max SCFM	Connection Size	Price		
FLMG-1140450(*)	470	11/4 NPT	\$691		
FLMG-1141000(*)	900	1¼ NPT	691		
FLMG-1120450(*)	470	1½ NPT	691		
FLMG-1121000(*)	900	1½ NPT	691		

(\*) Specify "AL" for aluminum, standard, "BR" for brass, add \$58, and "SS" for stainless steel, add \$368.

### Option Pricing Includes Flowmeter (Only One Option Per Flowmeter)

	MODELS HIG	T POPULAR HLIGHTED!
Max SCFM	Connection Size	Price
60	<sup>3</sup> ⁄ <sub>4</sub> NPT	\$264
100	3/4 NPT	264
150	3⁄4 NPT	264
330	<sup>3</sup> ⁄ <sub>4</sub> NPT	264
60	1 NPT	264
100	1 NPT	264
150	1 NPT	264
330	1 NPT	264
	SCFM   60   100   150   330   60   100   150	Max SCFM Connection Size   60 ¾ NPT   100 ¾ NPT   330 ¾ NPT   60 1 NPT   150 1 NPT   150 1 NPT   60 1 NPT

(\*) Specify "AL" for aluminum, standard, "BR" for brass, add \$58, and "SS" for stainless steel, add \$368.

### Options

	Order Suffix	Description
	-HT	High temperatures, 204°C (400°F) max
	-UHT	Ultra high temperatures, 315°C (600°F) max
	-R1	Single SPDT relay, 10 A @ 220 Vac
	-R2	Dual SPDT relays, 10 A @ 220 Vac
	-MA	4 to 20 mA ouput (12 to 35 Vdc powered)
<b>Note:</b> Only one option may be ordered with each unit.	-BDF	Bidirectional flow (not available with $1\frac{1}{2}$ " size units, or with UHT, R1, R2, or MA options) <b>\$62</b> additional for $\frac{1}{4}$ to $\frac{1}{2}$ " sizes <b>\$90</b> additional for $\frac{3}{4}$ to 1" sizes <b>\$205</b> additional for $1\frac{1}{4}$ " size

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	Port	Aluminum Prices					Brass Prices				Stainless Steel Prices					
	Size	-HT	-UHT	-R1	-R2	-MA	-HT	-UHT	-R1	-R2	-MA	-HT	-UHT	-R1	-R2	-MA
ſ	¼ <b>to</b> ½"	\$307	\$516	\$408	\$429	\$636	\$408	\$602	\$444	\$501	\$723	\$674	\$871	\$667	\$744	\$888
	¾ <b>to 1</b> "	407	732	469	512	691	523	819	525	577	798	795	1204	885	930	1051
	1¼ to 1½"	794	1807	822	954	1030	1239	2125	1269	1521	1519	1553	2674	1823	2021	2019

Comes complete with operator's manual.

Ordering Examples: FLMG-10100BR-MA, 1" brass air flowmeter, 10 to 100 SCFM, 4 to 20 mA output, **\$798.** FLMG-14012BR, <sup>1</sup>/<sub>4</sub> NPT brass air flowmeter, 1.2 to 12 SCFM, **\$230.** 

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