

EGM-Series Electronic Flowmeter

FLOMEC® EGM-Series Electronic Flowmeters

Are Hall Effect pulse meters designed for volumetric flow measurement of clean liquids across a broad range of applications in the automotive, aviation, mining, power, chemical, pharmaceutical, and petroleum industries. The EGM-Series will produce accurate and reliable measurements of almost all clean liquids, including but not limited to; alcohols, fuels and oils, water based salts and solutions, corrosion inhibitors, brake and transmission fluids, greases, emulsifiers, adhesives, insecticides, and some aggressive chemicals.

Features / Benefits

- Oval Gear technology for high accuracy and repeatability
- Direct volumetric measurement of flow
- Accuracy of reading is not affected by temperature and viscosity changes
- Measures high and low viscosity liquids
- Only two moving parts
- "Fuel Consumption" option can tolerate flow pulsations and has an inbuilt temperature sensor to correct for the fuel density changes

General Specifications

- Flow rates: 1 L/hr - 80 L/min [0.26 USG/hr - 21.1 USG/min]
- Sizes: 1/8" - 3/4" [4mm - 20mm]
- Temperature range: -15°C - +80°C [5F - 176F]



Calibration

EGM-Series flowmeters are available with factory calibrations or can be calibrated in the field as an economical option.

Fuel Consumption

EGM-Series flowmeters with the Fuel Consumption option (Integral Option 2) are equipped with an integral PT100 temperature sensor which allows for accurate measurement of fuel consumption on combustion engines by correcting for temperature differences from the inlet to outlet of the engine. It also includes the Pulsating Flow electronics that eliminate the effect of pulsations in the flow along with a PT100 sensor for measuring temperature in the flow system.

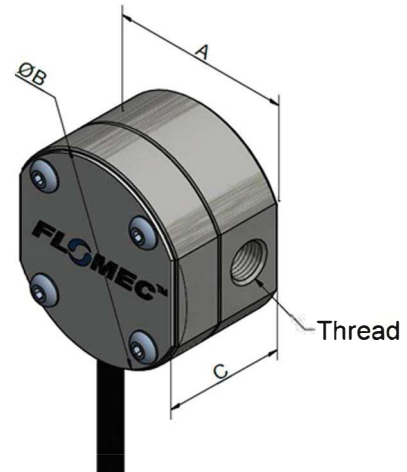
Meter Selection

- Aluminium meters with PPS rotors are suitable for petroleum products; including oils, greases, fuels and fuel oils.
- Aluminium meters with stainless steel rotors and bronze bearings are suitable for petroleum products including fuels with high Benzene content, automotive brake fluid, and some solvents, such as turpentine.
- Stainless steel meters are suitable for alcohols, water based liquids, some aggressive liquids, AdBlue (DEF, Urea) as well as fuel and oil applications in saline marine environments.

EGM-Series Electronic Flowmeter

Dimensions

Meter	Dimension	Dimension	Dimension
Model	A	B	C
EGM004	46mm [1.81"]	49.5mm [1.95"]	35mm [1.38"]
EGM006	58mm [2.28"]	64.5mm [2.54"]	39mm [1.54"]
EGM008	58mm [2.28"]	64.5mm [2.54"]	49mm [1.93"]
EGM015	72mm [2.84"]	82mm [3.23"]	66mm [2.60"]
EGM020	72mm [2.84"]	82mm [3.23"]	77mm [3.03"]



Specifications

Model	EGM004	EGM006	EGM008	EGM015	EGM020
Nominal size	1/8" [4mm]	1/4" [6mm]	3/8" [8mm]	1/2" [15mm]	3/4" [20mm]
Nominal Flow range @ 3cP	1 - 36 L/hr [0.26 - 9.5 USG/hr]	2 - 100 L/hr [0.5 - 26.4 USG/hr]	15 - 550 L/hr [4 - 145 USG/hr]	1 - 40 L/min [0.3 - 10.6 USG/min]	3 - 80 L/min [0.8 - 21.1 USG/min]
Flow range @ 1cP	2 - 24 L/hr	5 - 80 L/hr	18 - 440 L/hr	1.5 - 32 L/min	5 - 64 L/min
Flow range @ 7cP	0.5 - 36 L/hr	1 - 100 L/hr	15 - 550 L/hr	0.5 - 40 L/min	2 - 80 L/min
Flow range @ 200cP	0.4 - 36 L/hr	0.7 - 100 L/hr	6 - 550 L/hr	0.4 - 40 L/min	1.8 - 80 L/min
Flow range @ 500cP	0.25 - 27 L/hr	0.5 - 75 L/hr	2 - 550 L/hr	0.3 - 40 L/min	1.5 - 80 L/min
Flow range @ 1000cP	0.12 - 16 L/hr	0.3 - 45 L/hr	1.5 - 360 L/hr	0.2 - 25 L/min	1 - 50 L/min
Accuracy*	±1% of reading			±0.5% of reading	
Repeatability	Typically ±0.03% of reading				
Ambient Temperature Range	-15°C - +80°C [5°F - +176°F]				
Fluid Temperature Range	-5°C - +80°C [23°F - +176°F]				
Max. Pressure (AI meters)	34 Bar [500 psi]	34 Bar [500 psi]	34 Bar [500 psi]	20 Bar [290 psi]	20 Bar [290 psi]
Max. Pressure (SS meters)	55 Bar [800 psi]	55 Bar [800 psi]	34 Bar [500 psi]	20 Bar [290 psi]	20 Bar [290 psi]
Protection Class	IP65				
Recommended filtration	200 mesh [75 micron]			100 mesh [150 micron]	
Pulse Output Type	NPN Open Collector (Hall Effect Sensor)				
Voltage	5 - 24VDC				
Current Draw	20mA max.				
Switching Current	10mA max.				
Pulse Output Resolution - Standard	2800 [10600]	1060 [4012]	720 [2725]	170 [644]	105 [398]
pulse/L [pulse/USG]					
Pulse Output Resolution - Fuel Cons. Option pulse/L [pulse/USG]	2800 [10600]	1060 [4012]	180[681]	42.5 [161]	26.3 [99.5]
RTD Specification (Integral Option 2)	Platinum Resistance Thermometer 100 Ohms (PT100) Class F0.3				

Model Coding

Model	Size			
EGM004	1/8"	(4mm)	1 - 36 L/hr	[0.26 - 9.5 USG/hr]
EGM006	1/4"	(6mm)	2 - 100 L/hr	[0.5 - 27 USG/hr]
EGM008	3/8"	(8mm)	15 - 550 L/hr	[4 - 145 USG/hr]
EGM015	1/2"	(15mm)	1 - 40 L/min	[0.26 - 10.6 USG/min]
EGM020	3/4"	(20mm)	3 - 80 L/min	[0.5 - 21 USG/min]

Body / Rotor / Bearing				
A	0	0	Aluminium / PPS / No bearing	
A	5	2	Aluminium / Stainless steel / Bronze	
S	0	0	316 Stainless Steel / PPS / No bearing	
S	5	1	316 Stainless Steel / Stainless steel / Carbon Ceramic	

O-ring materials	
1	Viton (-15°C min. [5°F])
3	Teflon encapsulated Viton (-15°C min. [5°F])
4	Nitrile, (-40°C min. [-40°F])

Temperature / Process connection		
8	1	80°C [176°F] max. / BSPP (G) female threaded
8	2	80°C [176°F] max. / NPT female threaded

Integral options	
0	Hall effect output (no calibration)(2m cable)
1	^*Hall effect output with one point calibration and K-Factor (2m cable)
2	^*Fuel consumption (Pulsating flow, PT100 temp. sensor, one pt Cal & K-factor) (2m cable)

^ Statement of Conformance. K-factor printed on the meter
* Calibration sheet can be ordered (CAL-SHEET) - see page 1

Model No. Example

EGM008	A	0	0	1	-	8	1	2
--------	---	---	---	---	---	---	---	---



Managing Technology & Services

MTS ENGINEERS PVT. LTD.

B/408, Wall Street-II, Opposite Orient Club, Near Gujarat College, Ellisbridge, Ahmedabad-380006, Gujarat, INDIA.

T: +91 79 2640 0063 M: +91 9879592951/54

W: www.mtsengrs.com

