

Flow Rate Monitoring – RFA Types

► 0 to 10 VDC Analog Output

GEMS Sensors popularized the RotorFlow's paddlewheel design by combining high visibility rotors with solid-state electronics that are packaged into compact, panel mounting housings. They provide accurate flow rate output with integral visual confirmation...all with an unprecedented price/performance ratio. RFA Types feature a 0 to 10 VDC analog output which is proportional to flow rate.

Typical Applications

- Water Purification/Dispensing Systems • Chemical Metering Equipment
- Lasers and Welders • Water Injection Systems
- Semiconductor Processing Equipment • Chillers and Heat Exchangers

Specifications

Wetted Materials	
Body	Brass, 316 Stainless Steel or Polypropylene (Hydrolytically Stable, Glass Reinforced)
Rotor Pin	Ceramic
Rotor	PPS Composite, Black ¹
Lens	Polysulfone
O-Ring	Viton® (Alloy Bodies); Buna N (Polypropylene Body)
Low Flow Adaptor	Glass Reinforced Polypropylene
Operating Pressure, Maximum	
Brass or Stainless Steel Body	200 PSIG @ 70°F, 100 PSIG @ 212°F ²
Polypropylene Body	100 PSIG @ 70°F, 40 PSI Max. @ 180°F
Operating Temperature,	
Brass or Stainless Steel Body	-20°F to 212°F (-29°C to 100°C)
Polypropylene Body	-20°F to 180°F (-29°C to 82°C)
Electronics	150°F (65°C) Ambient
Viscosity, Maximum	200 SSU
Input Power	24 VDC, ±10%
Output Signal	0-10 VDC Analog Signal @ 1mA, Max.
Current Consumption	25 mA, Max.
Current Source Output, Max.	70 mA
Frequency Output Range	15 Hz (Low Flow) to 225 Hz (High Flow)
Accuracy	See Table Below
Electrical Termination	22 AWG PVC-Jacketed, 24" Cable. Color Coded: Red = +VDC; Black = Ground; White = Signal Output

Notes:

1. Standard on Stainless Steel bodies.
2. For higher pressure/temperature ratings stainless steel face plates are available. Consult factory.

How To Order

For standard configurations, specify Part Number based on desired body material and port size.

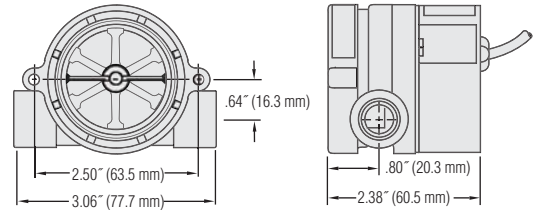
Body Material	Port Size NPT	Flow Ranges – GPM			
		Low Range (Accuracy)	Part Number	Standard Range (Accuracy)	Part Number
Polypropylene	.25"	0.1 to 1.0 (±7.0%)	170290	0.5 to 5.0 (±7.0%)	170280
	.50"	1.5 to 12.0 (±7.0%)	170291	4.0 to 20.0 (±15.0%)	170281
Brass	.25"	0.1 to 1.0 (±7.0%)	170292	0.5 to 5.0 (±7.0%)	170282
	.50"	1.5 to 12.0 (±7.0%)	170293	4.0 to 20.0 (±15.0%)	170283
	.75"	—	—	5.0 to 30.0 (±10.0%)	180407
	1.00"	—	—	8.0 to 60.0 (±15.0%)	182098
Stainless Steel	9/16"-18	0.1 to 1.0 (±7.0%)	170295	0.5 to 5.0 (±7.0%)	170285
	.50"	1.5 to 12.0 (±7.0%)	170296	4.0 to 20.0 (±15.0%)	170286
	.75"	—	—	5.0 to 30.0 (±10.0%)	182097
	1.00"	—	—	8.0 to 60.0 (±15.0%)	182099



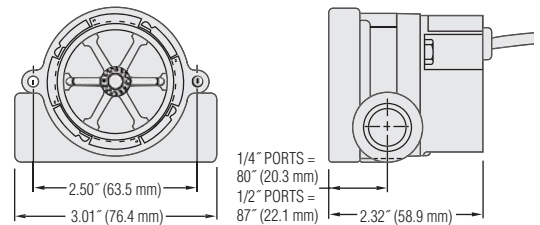
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Dimensions

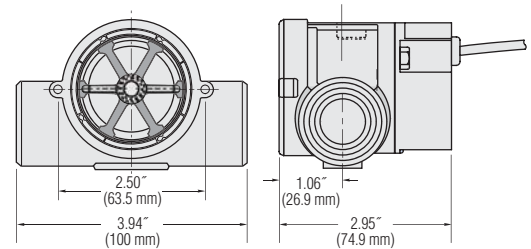
Polypropylene Bodies



Brass and Stainless Steel Bodies - .25" and .50" Ports



Brass Bodies – .75" and 1.00" NPT Ports



High Resolution Black Rotor

PPS composite. Each of the six rotor arms is magnetized. A PTFE loaded bushing ensures long life.

