

Mechanical Flowmeters



Measures Flowrate, Temperatures, and Pressures From 2.5 G.P.M. up to 150 G.P.M.

General Description

Smartflow® mechanical flowmeters are durable, vane-operated devices which provide visual indication of flowrate in many different styles and sizes. Rugged wetted parts are compatible with many process liquids.

Optional temperature and pressure gauges add functionality and flexibility to Smartflow® flowmeters. Brass quick-connect fittings are available on the smaller flowmeters to create an excellent, portable tool for determining flow and locating clogged lines.

Features and Benefits

- **Compact Size** works well in restricted-space locations.
- **Rugged Construction** gives years of dependable service.
- **Variety of Inlet Sizes** provides exactly the right connection.
- **240°F (115°C) Temperature Rating** allows installation into a wide range of applications.
- **Optional Temperature and Pressure Gauges** give instant access to temperature and pressure information in addition to flow in one unit.
- **Common Flowmeter Configurations Stocked** to provide same-day delivery in most cases.
- **No Mounting Restrictions** ease installation in any position without extra brackets or hardware.

Turbulent Flow

Injection molders know that a certain rate of flow is needed to achieve turbulent flow in cooling lines. This concept applies to most cooling applications using a water-based coolant mixture. This chart is provided for a reference only.

Cooling Line Inside Diameter		Turbulent Flowrate	
Inches	Millimeters	gpm	lpm
1/16	1.5	.33	1.3
1/8	3.1	.44	1.7
1/4	6.3	.55	2.1
3/8	9.5	.74	2.8
1/2	12.7	.90	3.4
3/4	19.0	1.17	4.5
1	25.4	1.44	5.5

Mechanical Flowmeters

2.5 and 8 G.P.M. Models

Wetted Parts and Materials

End Caps..... Brass
Body..... Polysulfone
Vane..... Glass-Filled Nylon
Spring..... Stainless Steel
O-Rings..... EPDM
Cap Screws..... Stainless Steel

Specifications

Operating Temperature..... 240° F max
115°C max
Pressure..... 150 psi max
Flow Accuracy..... ±10%
Thermometer..... 0° to 250°F
-20° to 120°C
±2% accuracy full scale
Pressure Gauge..... 0 to 100 psi
±3% accuracy full scale

Flowmeter Only



.5-2.5 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2A25	57.00
3/8 NPT	F3A25	57.00
1/2 NPT	F4A25	57.00

1-8 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2A80	57.00
3/8 NPT	F3A80	57.00
1/2 NPT	F4A80	57.00

Flowmeter & Temperature



.5-2.5 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2B25	110.00
3/8 NPT	F3B25	110.00
1/2 NPT	F4B25	110.00

1-8 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2B80	110.00
3/8 NPT	F3B80	110.00
1/2 NPT	F4B80	110.00

Flowmeter & Pressure



.5-2.5 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2F25	110.00
3/8 NPT	F3F25	110.00
1/2 NPT	F4F25	110.00

1-8 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2F80	110.00
3/8 NPT	F3F80	110.00
1/2 NPT	F4F80	110.00

Flowmeter Temperature & Pressure



.5-2.5 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2C25	140.00
3/8 NPT	F3C25	140.00
1/2 NPT	F4C25	140.00

1-8 GPM

Inlet Size	Part Number	Price
1/4 NPT	F2C80	140.00
3/8 NPT	F3C80	140.00
1/2 NPT	F4C80	140.00

Mechanical Flowmeters

2-20 G.P.M. Models

Wetted Parts and Materials

Body..... Anodized Aluminum
Sight Glass..... Polysulfone
Vane..... Stainless Steel
Spring..... Stainless Steel
Pin..... Stainless Steel
Gasket..... Neoprene

Specifications

Operating Temperature..... 240°F max
115°C max
Pressure..... 100 psi max
Flow Accuracy..... ±10%
Thermometer..... 0° to 250°F
-20° to 120°C
Pressure Gauge..... 0 to 100 psi
±3% accuracy full scale

Flowmeter Only



2-20 GPM

Inlet Size	Part Number	Price
3/4 NPT	F6A20	163.00
1 NPT	F8A20	163.00

Flowmeter & Temperature



2-20 GPM

Inlet Size	Part Number	Price
3/4 NPT	F6B20	189.00
1 NPT	F8B20	189.00

Flowmeter & Pressure



2-20 GPM

Inlet Size	Part Number	Price
3/4 NPT	F6F20	189.00
1 NPT	F8F20	189.00

Flowmeter Temperature & Pressure



2-20 GPM

Inlet Size	Part Number	Price
3/4 NPT	F6C20	215.00
1 NPT	F8C20	215.00

Mechanical Flowmeters

40, 100, & 150 G.P.M. Models

Wetted Parts and Materials

Body..... Anodized Aluminum
Sight Glass..... Polysulfone
Vane..... Stainless Steel
Spring..... Stainless Steel
Pin..... Stainless Steel
Gasket..... Neoprene

Specifications

Operating Temperature..... 240°F max
115°C max
Pressure..... 100 psi max
Flow Accuracy..... ±10%
Thermometer..... 0° to 250°F
-20° to 120°C
Pressure Gauge..... 0 to 100 psi
±3% accuracy full scale

Flowmeter Only



10-40 GPM

Inlet Size	Part Number	Price
1 NPT	F8A40	168.00
1-1/4 NPT	F10A40	180.00
1-1/2 NPT	F12A40	190.00
2 NPT	F16A40	202.00

20-100 GPM

Inlet Size	Part Number	Price
1-1/2 NPT	F12A100	190.00
2 NPT	F16A100	202.00

50-150 GPM

Inlet Size	Part Number	Price
2 NPT	F16A150G	213.00

Flowmeter & Temperature



10-40 GPM

Inlet Size	Part Number	Price
1 NPT	F8B40	194.00
1-1/4 NPT	F10B40	206.00
1-1/2 NPT	F12B40	216.00
2 NPT	F16B40	216.00

20-100 GPM

Inlet Size	Part Number	Price
1-1/2 NPT	F12B100	216.00
2 NPT	F16B100	228.00

50-150 GPM

Inlet Size	Part Number	Price
2 NPT	F16B150G	239.00

Flowmeter & Pressure



10-40 GPM

Inlet Size	Part Number	Price
1 NPT	F8F40	194.00
1-1/4 NPT	F10F40	206.00
1-1/2 NPT	F12F40	216.00
2 NPT	F16F40	216.00

20-100 GPM

Inlet Size	Part Number	Price
2 NPT	F16F150G	239.00

50-150 GPM

Inlet Size	Part Number	Price
2 NPT	F16F150G	239.00

Flowmeter Temperature & Pressure



10-40 GPM

Inlet Size	Part Number	Price
1 NPT	F8C40	222.00
1-1/4 NPT	F10C40	232.00
1-1/2 NPT	F12C40	243.00
2 NPT	F16C40	254.00

20-100 GPM

Inlet Size	Part Number	Price
1-1/2 NPT	F12C100	243.00
2 NPT	F16C100	254.00

50-150 GPM

Inlet Size	Part Number	Price
2 NPT	F16C150G	265.00