

# Models 65, F65, 150 & F150

## Purgemeters

### Customer Value Proposition:

Porter variable area flowmeters include 65mm and 150mm scale length tube assemblies and are available in either forged body or side-plate construction. Forged body models feature a wrap-around window for full 180° tube visibility and an attractive forged one-piece back anodized aluminum body. Side-plate constructed models are conveniently interchangeable with competitive designs.

Porter control valves, including the exclusive Torque Guard cartridge, can be added to either style flowmeter for precise flow indication and control in one economical unit. Multi-tube side-plate models, ranging from two to six tubes, are available with or without control valves and can include individual inlet and outlet connections or manifold ports according to your specifications.



### Contact Information: Product Features:

Parker Hannifin Corporation  
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[www.parker.com/porter](http://www.parker.com/porter)

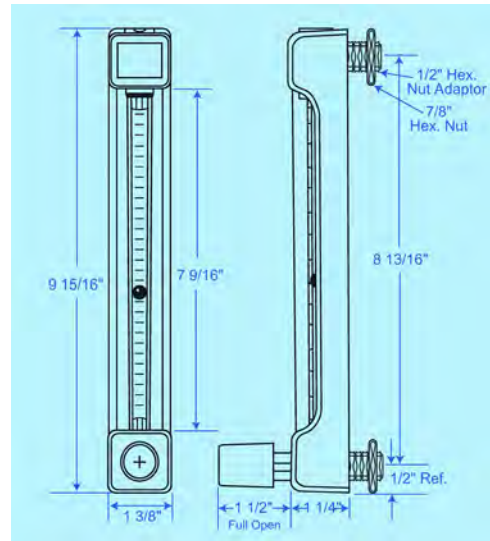
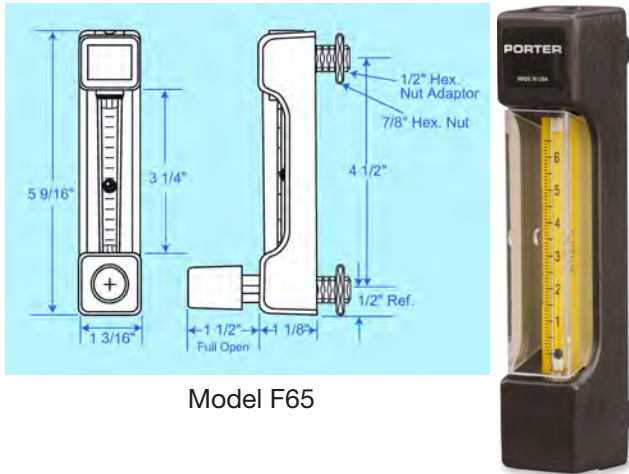
- Interchangeable flow tube assemblies and valves allow configuration changes without removal from process system
- Rib-guided, compression sealed flow tubes for maximum float stability
- Ceramic scales fired on flow tubes against a contrasting background provide high visibility and durability
- Standard or high-resolution metering valves available on inlet or outlet
- Ten-to-one rangeability



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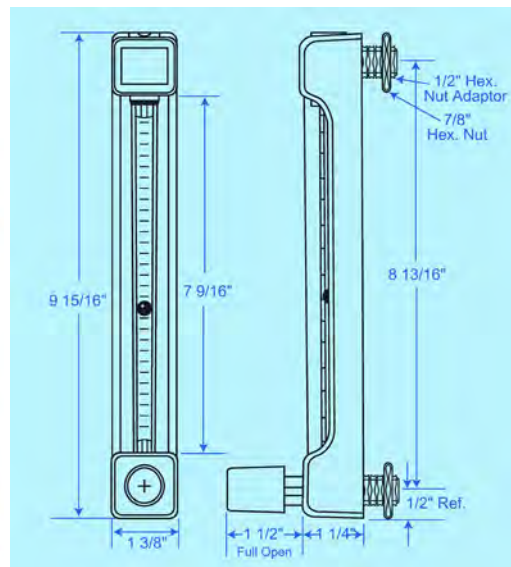
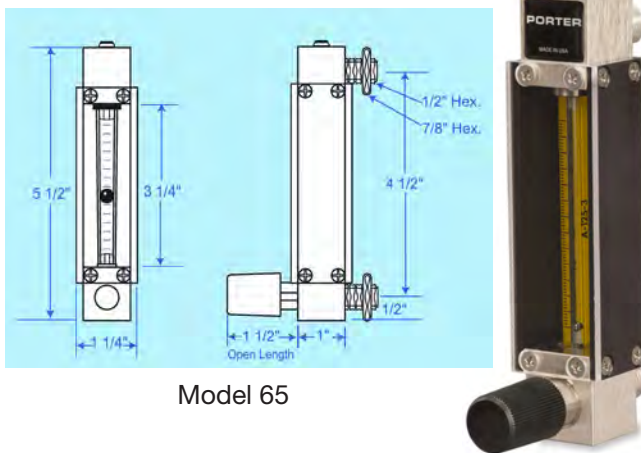
## Forged Body Flowmeters

The Porter models F65 and F150 forged body flowmeters feature a compact, one-piece, black anodized forged aluminum body with wraparound window for full 180° visibility of the flow tubes. These units are available with aluminum, brass or 316 stainless steel wetted parts.



## Side Plate Flowmeters

The Porter models 65 and 150 side plate constructed flowmeters combine a traditional body style with innovative design features. They are available with aluminum, brass or 316 stainless steel wetted parts. Multi-tube (2 to 6 tube) versions are available with optional valves and manifold inlet/outlet ports.



## Specifications

### Capacities-

Length: Models F65 and 65- 65mm; Models F150 and 150- 150mm.

Type: Fused on metering tube with contrasting yellow background

Graduations: Standard- Models F65 and 65: 0-65mm w/ calibration data; Models F150 and 150: 0-150mm w/ calibration data.

Optional: Direct reading scales

Ratings- Pressure/Temperature: Neoprene packing/ Buna N O-rings- 200 psig at temperatures up to 160°F Viton® packing/Viton O-rings-200 psig at temperatures up to 200°F

Performance- Accuracy: Models F65 and 65: ± 10% full scale; Models F150 and 150: ± 5% full scale. Accuracy specified for 100%- 10% of scale reading ( 10 to 1 rangeability).  
Repeatability: Models F65 and 65: ± 0.5% of full scale reading; Models F150 and 150: ±0.25% of full scale reading.

Connections- Standard: 1/8" female NPT threaded adaptors with locknuts for front panel mounting. Optional: 1/8" compression fitting; 1/4" compression fitting; 1/4" NPT female; 1/4" I.D.Hose.

## To order, Specify:

- Model Number
- Tube Number
- Float Material
- Connections (Type & Size)
- Fluid Specifications (Specific gravity & viscosity)
- Flow Rate
- Operating Pressure
- Operating Temperature
- Material of Construction for
  - a) End fitting
  - b) Side plates or meter body
  - c) Elastomers

## Materials of Construction

Metering Tube- Borosilicate glass

Floats- Standard: glass, stainless steel. Optional: Sapphire, carboloy and tantalum

### Structual Members-

Metering body: (F65 and F150) black anodized aluminum. Optional: stainless steel.

Wetted Parts: Aluminum, brass or 316 stainless steel

End Fittings: Black anodized aluminum or chrome plated brass or 316 stainless steel

Shields- Clear polycarbonate

Tube packing and O-Rings- Standard: Neoprene packing and Buna N O-Rings with aluminum or brass construction. Viton packing and Viton O-rings with stainless steel construction. Optional Materials: Teflon®

## Ordering Information

Model Numbers and Description

Example:

F65	A	V	2
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**Basic Model** \_\_\_\_\_  
F65-65mm Forged Body  
F150-150mm Forged Body  
65-65mm Side Plate Body  
150-150mm Side Plate Body

**Body Material** \_\_\_\_\_  
A- Aluminum  
B- Brass  
S- Stainless Steel

**Valve** \_\_\_\_\_  
O- No Valve  
V- Standard Cartridge Control Valve  
HR- High Resolution Control Valve

**Valve Size** \_\_\_\_\_  
0 thru 6 High Resolution Control Vale  
1 thru 3 Standard Cartridge Valve  
1-TG Torque Guard Taper 1  
2-TG Torque Gurad Taper 2



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To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

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# P430 Series

## Glass Tube Flow Meters



Parker P Series glass tube flowmeters deliver unsurpassed performance and value in a wide variety of gas and liquid applications. P430 Series flow meters feature borosilicate glass tubes with stainless steel frames and horizontal connections and are available with 65mm and 150mm scale sizes. Available Fiber-Optic or Inductive Ring Sensor Alarms, as well as integrated metering valves provide the needed versatility for many industrial process and sample handling applications.



### Contact Information:

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www.parker.com

### Product Features and Options:

- Borosilicate glass metering tube.
- Max temperature: 250°F (121°C) for gases 200°F (93°C) for liquids
- Max Pressure: 200 PSIG (see specifications)
- Optional inductive ring and fiber optic alarm sensors available.
- Certified calibrations conforming to ISA RP 16.6 available.
- Direct reading detachable scales available in any volumetric unit.



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# Specifications

## Materials

<b>Metering Tube</b>	Borosilicate Glass
<b>Internal Components</b>	316L Stainless Steel, Black Glass, Sapphire, Carboly, Tantalum
<b>Inlet/Outlet Fittings</b>	1/8" and 1/4" FNPT, Horizontal Control Valve Optional
<b>Fitting Material</b>	316L Stainless Steel
<b>Elastomers</b>	Standard: Viton® Optional: Buna, EPR, and Kalrez®

## Options

<b>Alarm</b>	Fiber-Optic or Inductive Ring Sensor (see details)
<b>Certified Calibrations</b>	Conform to ISA RP 16.6
<b>Scales</b>	Can be produced in any volumetric unit

Viton® and Kalrez® are registered trademarks of DuPont Performance Elastomers L.L.C.

## Performance

<b>Capacities</b>	Water .72 to 1,800 cc/mn Air 66 to 70,000 cc/mn
<b>Scale</b>	65mm, 150mm Direct reading, detachable
<b>Accuracy</b>	65mm ±6% of Full Scale Flow 150mm ±4% of Full Scale Flow
<b>Turndown</b>	10:1 to 12.5:1, unless otherwise indicated
<b>Repeatability</b>	1%
<b>Maximum Temperature</b>	Gases 250°F (121°C) Liquids 200°F (93°C)
<b>Maximum Pressures</b>	316L SS Fittings 200 psig PVC Fittings 130 psig PVDF Fittings 150 psig
<b>Ambient Temperature</b>	33°F to 125°F (1°C to 52°C)

## Alarm Options:

### Inductive Ring Sensor

Inductive ring sensors are designed to be used with a remote intrinsic safety barrier/switch isolator. These sensors are able to detect the metal float by producing an electromagnetic field within the ring. Ring sensors are available in either proximity or latching format for the P430 Series.

### Sensor Specifications

<b>Power Supply</b>	5-25 VDC (from Switch Isolator)
<b>Maximum Current</b>	Target Present: 1 mA Target Absent: 15 mA
<b>Temperature Limits</b>	-14°F to +158°F (-26°C to +70°C)
<b>Output</b>	NAMUR
<b>Repeatability</b>	0.01mm
<b>Switching Frequency</b>	2 kHz (.125"), 1.5 kHz (.25")
<b>Sensor Approvals</b>	UL Listed: General Purpose FM Approved: Intrinsically Safe* CSA Certified: Intrinsically Safe* Genelec: Intrinsically Safe*

\*Additional cost, call for pricing

### Float/Sensor Compatibility

Type	Tube Sizes	Float Material
<b>Proximity</b>	.125" .25"	SS, CB
<b>Latching</b>	.125" .25"	SS, CB

### Fiber Optic Sensor

The fiber optic sensor is housed in a junction box attached to the side of a P430 Series flowmeter. The sensor uses a pair of fiber optic cables, an emitter and receiver to transmit the light across the metering tube and back to the sensor. If the light beam is blocked by the float, the sensor output will change. The sensor provides a transistor output that switches the common or negative voltage (NPN) or positive voltage (PNP) to the load. The fiber optic sensor is compatible with all P430 Series float types.

### Sensor Specifications

<b>Supply Voltage</b>	10-30 VDC
<b>Current Consumption</b>	25 mA
<b>Temperature Limits</b>	-14°F to +212°F (-26C to +100°C)
<b>Offstate Leakage Current</b>	1 microamp at 30 VDC
<b>Output Saturation Voltage</b>	1 V at 10 mA DC < 1.5 V at 150 mA DC

**Note:** Sapphire floats are not compatible with Fiber Optic Sensor

## Flow Ranges

65mm Scale Flow Ranges							
Tube Number	Float Material	Air (STP)			Water (70°F)		
		CC/ MIN	SCFH	SLPH	CC/ MIN	GPH	LPH
A1	Glass	66	.14	4.0	0.72	.011	.042
	Sapphire	105	.22	6.2	1.3	.021	.078
	Stainless Steel	200	.42	12.0	3.3	.052	.190
	Carboloy	340	.70	20.0	7.0	.110	.420
	Tantalum	350	.74	21.0	7.8	.125	.460
A2	Glass	76	.16	4.6	1.15	.018	.068
	Sapphire	120	.25	7.2	2.10	.032	.125
	Stainless Steel	230	.50	14.0	4.20	.068	.260
	Carboloy	400	.85	24.0	9.0	.145	.560
	Tantalum	440	.90	26.0	10.0	.165	.620
A3	Glass	525	1.1	31	9.0	.140	.540
	Sapphire	700	1.5	42	15.5	.240	.950
	Stainless Steel	1130	2.4	68	29.0	.460	1.7
	Carboloy	1600	3.4	95	46.0	.720	2.8
	Tantalum	1700	3.6	100	50.0	.780	3.0
A4	Glass	2000	4.2	120	44	.700	2.6
	Sapphire	2600	5.4	150	68	1.05	4.0
	Stainless Steel	3800	8.2	230	110	1.70	6.6
	Carboloy	5600	12.0	340	170	2.70	10.5
	Tantalum	6000	13.0	360	180	2.90	11.0
A5	Glass	6800	14.5	400	160	2.60	9.5
	Sapphire	9200	19.5	540	240	3.80	14.5
	Stainless Steel	13,000	28.0	800	400	6.40	24.0
	Carboloy	19,000	40.0	1100	600	9.50	36.0
	Tantalum	20,000	42.0	1200	640	10.00	38.0
A6	Glass	19,000	40.0	1150	520	8.25	31.0
	Sapphire	25,000	52.0	1500	740	11.50	44.0
	Stainless Steel	42,500	90.0	2550	1200	19.00	72.0
	Carboloy	60,000	125.0	3600	1700	27.00	105.0
	Tantalum	70,000	145.0	4200	1800	29.00	110.0

150mm Scale Flow Ranges							
Tube Number	Float Material	Air (STP)			Water (70°F)		
		CC/MIN	SCFH	SLPH	CC/ MIN	GPH	LPH
B1	Carboloy	280	.580	16.5	5.00	.0780	.300
	Tantalum	300	.620	17.5	5.20	.0840	.320
B2	Glass	106	.225	6.4	1.24	.0195	.074
	Sapphire	165	.35	10	2.35	.0380	.145
	Stainless Steel	320	.68	19	5.60	.0900	.340
	Carboloy	540	1.14	32	12.4	.1950	.740
B3	Tantalum	580	1.24	35	13.5	.2100	.820
	Glass	350	.74	21	4.7	.074	.28
B4	Sapphire	500	1.06	30	10.0	.160	.60
	Stainless Steel	820	1.75	50	20.5	.330	1.25
	Carboloy	1,250	2.6	76	34.0	.540	2.05
	Tantalum	1,350	2.9	80	36.0	.560	2.15
B5	Glass	850	1.8	50	16.5	.26	1.0
	Sapphire	1,100	2.3	66	27.0	.42	1.6
	Stainless Steel	1,600	3.4	100	46.0	.72	2.7
	Carboloy	2,300	4.9	140	72.0	1.15	4.4
	Tantalum	2,450	5.2	155	80.0	1.25	4.8
B6	Glass	2,150	4.6	130	52	.84	3.1
	Sapphire	2,800	6.0	170	78	1.24	4.7
	Stainless Steel	4,400	9.2	260	130	2.05	7.8
	Carboloy	6,200	13.5	380	205	3.20	12.5
B7	Tantalum	6,750	14.0	400	210	3.30	12.5
	Glass	3,800	8.2	230	86	1.35	5.2
	Sapphire	5,000	10.6	300	130	2.05	7.8
	Stainless Steel	7,500	16.0	450	220	3.40	13.0
	Carboloy	10,600	22.5	640	330	5.20	20.0
B8	Tantalum	11,500	24.0	680	360	5.60	21.5
	Glass	9,000	19.0	540	215	3.40	13.0
	Sapphire	11,400	24.5	700	320	5.00	19.0
	Stainless Steel	17,000	36.0	1,000	520	8.20	31.0
	Carboloy	24,000	50.0	1,450	760	12.2	46.0
	Tantalum	25,000	54.0	1,500	820	13.0	49.0
B9	Glass	20,500	43.0	1,220	470	7.5	28.0
	Sapphire	26,000	56.0	1,550	700	11.0	42.0
	Stainless Steel	38,000	82.0	2,300	1120	18.0	68.0
	Carboloy	54,000	116.0	3,300	1650	26.0	100.0
	Tantalum	60,000	125.0	3,500	1750	28.0	106.0

# Ordering Information

Use the following guide to determine the specific product number you require.

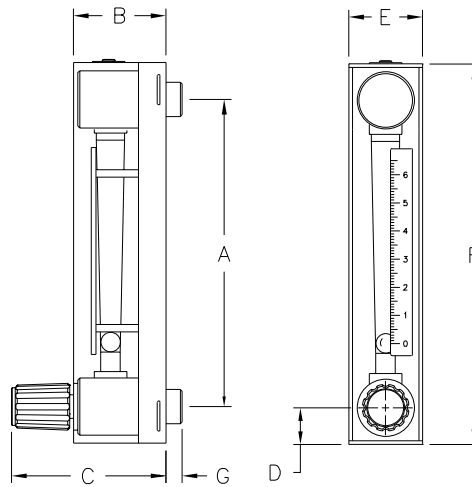
The following example describes a P430 series flow meter, tube number A1, with a glass float, 1/4" FNPT fitting of 316L stainless steel, a Buna O-ring, with a scale in millimeters and 316L stainless steel inlet valve. It does not have an optional alarm.

**Example:** P430A1123110

P430	A1	1	2	3	1	1	0
Meter Series	Tube Number	Float Material	Fitting Material	O-Ring Material	Scale	Valve Option	Optional Alarm Switch
P430	See Flow Ranges Table	1 Glass 2 Sapphire 3 316 Stainless Steel 4 Carboly 5 Tantalum	1 316L Stainless Steel – 1/8" FNPT 2 316L Stainless Steel – 1/4" FNPT 3 PVC – 1/4" FNPT 4 PVC – 1/8" FNPT 5 PVDF – 1/4" FNPT 6 PVDF – 1/8" FNPT 7 Hastelloy® C – 1/4" FNPT 8 Hastelloy® C – 1/8" FNPT	1 Ethylene Propylene Rubber 2 Buna 3 Viton® 4 Kalrez® with No Valve 5 Kalrez® with Valve	1 Millimeter 2 GPH Water @ 70°F (21°C) 3 LPH Water @ 70°F (21°C) 4 cc/min Water @ STP 5 SCFH Air @ STP 6 SLPH Air @ STP 7 scc/min Air @ STP 8 Non-Standard	1 Inlet 316L Stainless Steel 2 Outlet 316L Stainless Steel 3 No Valve 4 Inlet PVC 5 Outlet PVC 6 Inlet PVDF 7 Outlet PVDF 8 Inlet Hastelloy® C 9 Outlet Hastelloy® C	0 No Alarm 1 Fiber Optic NPN (Proximity) 2 Fiber Optic PNP (Proximity) 3 Inductive Ring Sensor (Proximity) 4 Inductive Ring Sensor (Latching)

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# Dimensions



## Dimensions (inches)

	Scale Length	
	65mm	150mm
A*	4.53	8.826
B	1.56	1.56
C	2.90	2.90
D	0.73	0.73
E	1.50	1.50
F	6.05	10.25
G	0.50	.05

\*The FNPT fittings have a 3/4 – 16 O.D. thread with mounting nuts installed.

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# P210 Series

## Glass Tube Variable Area Flowmeter



The P210 Series Flowmeters are designed for low flow rates of both liquids and gases.

They cover a broad range of applications, from purging to monitoring of industrial processes.

The P210 Series offers 316 Stainless Steel construction for all wetted parts.

For challenging corrosive applications, the P210 offers PTFE seals as an option.



### Contact Information:

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### Product Features:

- Ideal for general purpose use, as well as use for field test equipment
- Suitable for both liquids and gases
- 316 Stainless Steel construction for all wetted parts
- PTFE seals are available as an option
- Front panel mounting hardware
- Easy-to-read scale
- Scale tube length of 45mm
- Optional alarm output

# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>• 316 Stainless Steel</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	316 Stainless Steel, Glass, PTFE or Ruby
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>• NBR(Nitrile Rubber)</li> </ul> Optional: <ul style="list-style-type: none"> <li>• FPM(Fluorinated Propylene Monomer)</li> <li>• CR(Neoprene)</li> <li>• PTFE( Polytetrafluoroethylene)</li> </ul>
<b>Fitting</b>	Standard: <ul style="list-style-type: none"> <li>• 316 Stainless Steel</li> </ul>
<b>Valve</b>	Standard: <ul style="list-style-type: none"> <li>• 316 Stainless Steel</li> </ul>
Non-wetted	
<b>Cover</b>	Polycarbonate
<b>Support</b>	Aluminum
<b>Connection Size and Type</b>	Standard: <ul style="list-style-type: none"> <li>• NPT or RC 1/4" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

## Performance

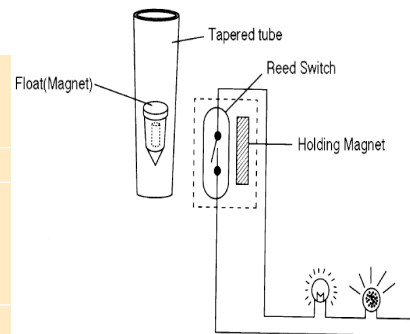
Flowrate Scale Ranges	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	0.1–0.8 Gal/h (0.3–3 L/h)
<b>Maximum</b>	6.3–32 Gal/h (24–120 L/h)
<b>Air<sup>2</sup></b>	
<b>Minimum</b>	0.01–0.04 ft <sup>3</sup> /h (0.2–1.2 L/h) (nor)
<b>Maximum</b>	11–106 ft <sup>3</sup> /h (300–3000 L/h) (nor)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±5% F.S.
<b>Approximate Weight</b>	1.1 lbs. (0.5 kg)
<b>Flow Direction</b>	Bottom Rear to Top Rear
<b>Alarm Type</b>	Self-holding Reed Switch
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg) (72.5 psig) (5 barg) when PTFE packing material is used
<b>Max. Operating Temperature</b>	<ul style="list-style-type: none"> <li>• NBR(Nitrile Rubber)</li> <li>• CR(Neoprene)</li> </ul> 176°F (80°C)
	<ul style="list-style-type: none"> <li>• PTFE(Polytetrafluoroethylene)</li> <li>• FPM(Fluorinated Propylene Monomer)</li> </ul> 248°F (120°C)

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

## Reed Switch Specification

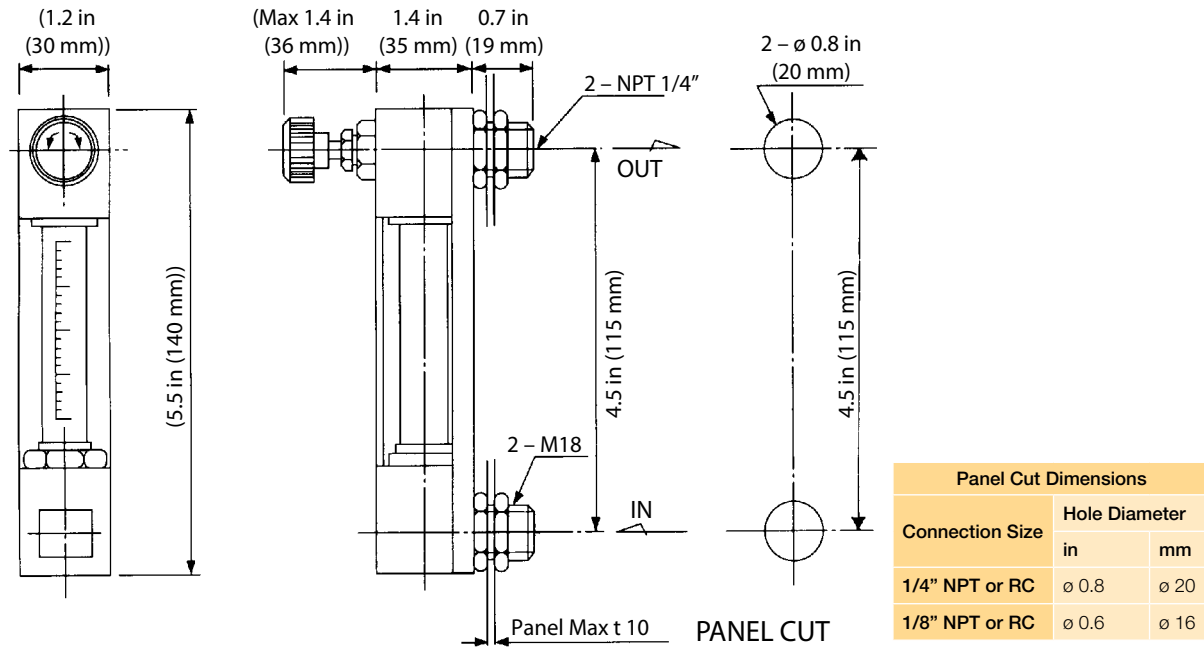
<b>Number Of Point</b>	1 point(High or Low) 2 point alarm also available as an option. Consult factory for details.
<b>Alarm Setting Range</b>	Standard 20 to 80% of full scale(H:50 to 80%, L:20 to 50%)
<b>Contact</b>	Reed switch(Self-holding type) Max. Contact capacity: AC10VA, DC10W Max. Voltage: AC125V, DC100V Max. Current: 0.5A
<b>Connection</b>	Lead wire connection of 50cm. (2m is also available)
<b>Reset-Span</b>	25% Full Scale
<b>Ambient Temperature</b>	-10 to 60°C



Caution must be taken when mounting multiple alarmed meters. Close proximity may cause interference with alarm signal.

# Dimensional Drawing

Standard Valve provided at outlet, with locknuts for front panel mounting



Use non-magnetized material for panel with Reed Switch alarm output

# Flow Range Alarm Settings

Air <sup>1</sup> Flow Rate Table			
If LO, LC, HO, or HC Alarm Output			
Air		Alarm Setting Range	
ft <sup>3</sup> /h	L/h (nor)	ft <sup>3</sup> /h	L/h (nor)
0.1–1.1	3–30	0.2–0.8	6–24
0.2–2.1	6–60	0.4–1.7	12–48
0.4–4.2	12–120	0.8–3.4	24–96
0.6–6.4	18–180	1.3–5.1	36–144
1.3–13	36–360	2.1–11	60–300
2.1–21**	60–600**	4.2–17	120–480
6.4–32	180–900	6.4–25	180–720
13–64	360–1800	13–51	360–1440
17–85	480–2400	17–68	480–1920

Water <sup>2</sup> Flow Rate Table			
If LO, LC, HO, or HC alarm output			
Water		Alarm Setting Range	
Gal/h	L/h	Gal/h	L/h
0.1–0.8	0.3–3	0.2–0.6	0.6–2.4
0.2–1.6	0.6–6	0.3–1.3	1.2–4.8
0.8–3.2	3–12	1.3–2.5	4.8–9.6
0.5–4.8	1.8–18	1–3.8	3.6–14
0.8–7.9	3–30	1.6–6.3	6–24
1.6–16	6–60	3.2–13	12–48

<sup>2</sup>Water measured with viscosity of 1 mPa·s

\*10:2 if range is more than 16 Gal/h (60 L/h)

<sup>1</sup>Air measured at 0 psig and 32°F (0°C)

When PTFE is used, a flowmeter with a valve cannot be manufactured for a flow rate less than 2.1 ft<sup>3</sup>/h (60 L/h) (nor).

\*\*10:2 if range is less than 0.2 ft<sup>3</sup>/h (6 L/h) (nor)

\*\*10:2 if range is more than 21 ft<sup>3</sup>/h (600 L/h) (nor)

# Part Number Selection

Model: P21

## Application Information:

Flow / Direction	1	Bottom rear to top rear Air flow rates >18 L/hr up to 1200 L/hr Water flow rates from 0.3-3 L/hr to 24-120 L/hr
	2	Bottom rear to top rear Air flow rates < 18 L/hr
	3	Bottom rear to top rear Air flow rates >1200 L/hr up to 3000 L/hr
	Z	Special
Valve	A	None
	B	Bottom
	C	Top
	Z	Special
Alarm Output	1	None
	2	Reed Switch - Contact closes (becomes ON) when value is more than set point
	3	Reed Switch - Contact opens (becomes OFF) when value is more than set point
	4	Reed Switch - Contact closes (becomes ON) when value is less than set point
	5	Reed Switch - Contact opens (becomes OFF) when value is less than set point
	Z	Special
Wetted Parts	A	316 Stainless Steel (Standard)
	Z	Special
Packing Material	1	Fluorinated Propylene Monomer (FPM/FKM)
	2	Nitrile (NBR)
	3	Neoprene (CR)
	4	Polytetrafluoroethylene (PTFE)
	Z	Special
Connection Type	A	NPT thread (standard)
	B	RC thread (Typical for Non-USA Market)
	Z	Special
Connection Size	1	1/8"
	2	1/4"
	Z	Special
Mounting Options	A	None (Standard with locknuts for front panel mounting)
	Z	Special

**Example: P21 1 A 1 A 1 A 1 A**

Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp  
Gases equivalent to Air @ 0 °C 1 atm

**Fluid Name:**

**Operating Density or Specific Gravity:**

**Viscosity:**

### Flowrate

**Maximum:**

**Operating Or Normal:**

**Scale Range:**

### Pressure

**Maximum:**

**Operating or Normal:**

### Temperature

**Maximum:**

**Operating or Normal:**

### Alarm Settings

**Alarm 1:**

**Alarm 2:**

### Other Options

### WARNING - USER RESPONSIBILITY

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# P220 Series

## Glass Tube Variable Area Flowmeter



The P220 Series Flowmeters are designed for low flow rates of both liquids and gases.

The P220 Series covers a broad range of applications, from purging to monitoring of industrial processes.

The P220 offers 316 Stainless Steel construction for all wetted parts.

For challenging corrosive applications, the P220 offers PTFE seals as an option.



### Contact Information: Product Features:

Parker Hannifin Corporation  
**Porter Instrument Division**  
245 Township Line Road  
Hatfield PA, 19440

**Phone 215 723 4000**  
**Fax 215 723 2199**  
**industrial@parker.com**

[www.porterinstrument.com](http://www.porterinstrument.com)

- Ideal for general purpose use, as well as use for field test equipment
- Suitable for both liquids and gases
- 316 Stainless Steel construction for challenging corrosive applications
- Front panel mounting hardware
- Easy-to-read scale
- Scale tube length of 100mm
- Optional alarm output



# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	316 Stainless Steel, Glass, PTFE or Ruby
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>NBR (Nitrile Rubber)</li> </ul> Optional: <ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> <li>CR (Neoprene)</li> </ul>
<b>Fitting</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
<b>Valve</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
Non-wetted	
<b>Cover</b>	Polycarbonate
<b>Support</b>	Aluminum
<b>Connection Size and Type</b>	Standard: <ul style="list-style-type: none"> <li>NPT or RC 1/4" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

## Performance

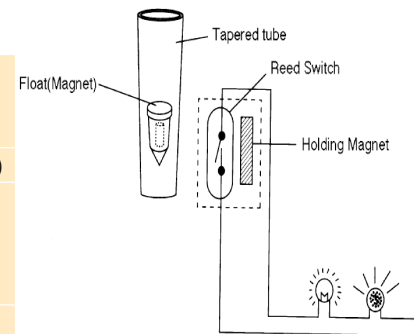
Flowrate Scale Ranges	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	0.1–0.8 Gal/h (0.3–3 L/h)
<b>Maximum</b>	6.3–32 Gal/h (24–120 L/h)
<b>Air<sup>2</sup></b>	
<b>Minimum</b>	0.01–0.1 ft <sup>3</sup> /h (0.3–3 L/h) (nor)
<b>Maximum</b>	13–127 ft <sup>3</sup> /h (360–3600 L/h) (nor)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±3% F.S.
<b>Approximate Weight</b>	1.3 lbs. (0.6 kg)
<b>Flow Direction</b>	Bottom Rear to Top Rear
<b>Alarm Type</b>	Self-holding Reed Switch
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg)
<b>Max. Operating Temperature</b>	<ul style="list-style-type: none"> <li>NBR (Nitrile Rubber) 176°F (80°C)</li> <li>CR (Neoprene) 176°F (80°C)</li> <li>FPM (Fluorinated Propylene Monomer) 248°F (120°C)</li> </ul>

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

## Reed Switch Specification

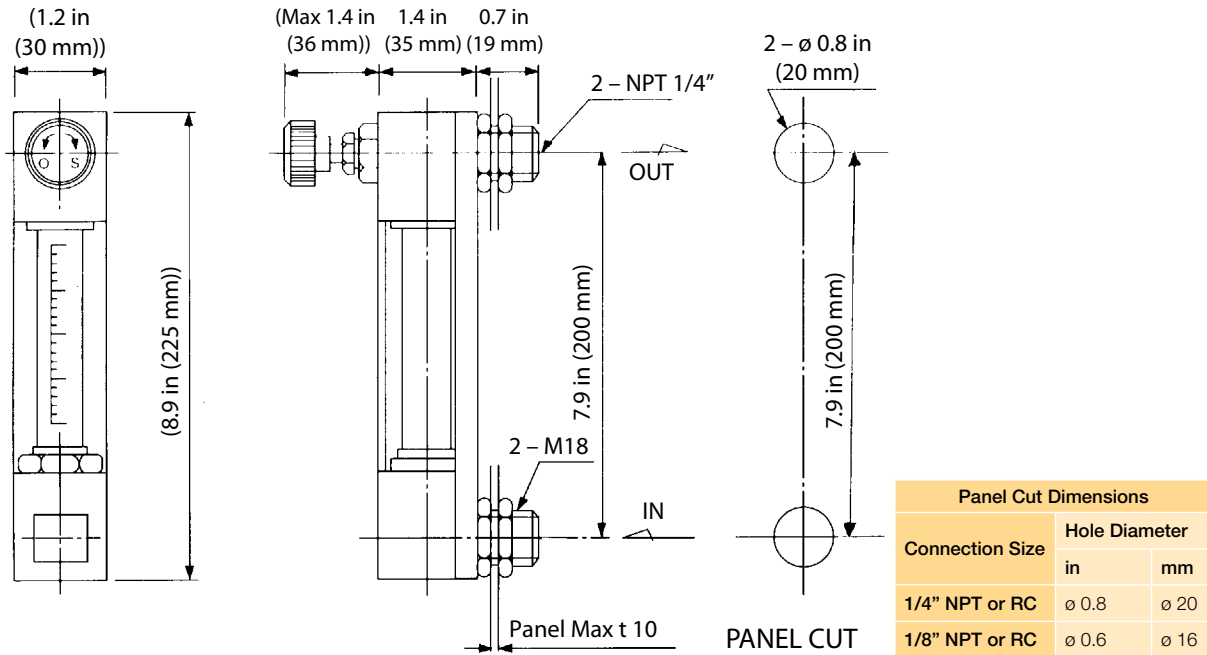
<b>Number Of Point</b>	1 point(High or Low) 2 point alarm also available as an option. Consult factory for details.
<b>Alarm Setting Range</b>	Standard 20 to 80% of full scale(H:50 to 80%, L:20 to 50%)
<b>Contact</b>	Reed switch(Self-holding type) Max. Contact capacity: AC10VA, DC10W Max. Voltage: AC125V, DC100V Max. Current: 0.5A
<b>Connection</b>	Lead wire connection of 50cm. (2m is also available)
<b>Reset-Span</b>	25% Full Scale
<b>Ambient Temperature</b>	-10 to 60°C



Caution must be taken when mounting multiple alarmed meters. Close proximity may cause interference with alarm signal.

# Dimensional Drawing

Standard Valve provided at outlet, with locknuts for front panel mounting



Use non-magnetized material for panel with Reed Switch alarm output

# Flow Range Alarm Settings

Air <sup>1</sup> Flow Rate Table			
If LO, LC, HO, or HC alarm output			
Air		Alarm Setting Range	
ft <sup>3</sup> /h	L/h (nor)	ft <sup>3</sup> /h	L/h (nor)
0.1-1.1	3-30	0.2-0.8	6-24
0.2-2.1	6-60	0.4-1.7	12-48
0.4-4.2	12-120	0.8-3.4	24-96
0.6-6.4	18-180	1.3-5.1	36-144
1.1-11	30-300	2.1-8.5	60-240
2.1-21	60-600	4.2-17	120-480
4.2-42	120-1200	8.5-34	240-960
6.4-64	180-1800	13-51	360-1440
8.5-85*	240-2400*	17-68	480-1920
21-106	600-3000	21-85	600-2400

Water <sup>2</sup> Flow Rate Table			
If LO, LC, HO, or HC alarm output			
Water		Alarm Setting Range	
Gal/h	L/h	Gal/h	L/h
0.1-0.8	0.3-3	0.2-0.6	0.6-2.4
0.2-1.6	0.6-6	0.3-1.3	1.2-4.8
0.3-3.2	1.2-12	0.6-2.5	2.4-9.6
0.5-4.8	1.8-18	1-3.8	3.6-14
0.8-8.9	3-30	1.6-6.3	6-24
1.6-16	6-60	3.2-13	12-48

<sup>2</sup>Water measured with viscosity of 1 mPa·s

<sup>1</sup>Air measured at 0 psig and 32°F (0°C)

\*10:2 if range is more than 85 ft<sup>3</sup>/h (nor) (2400 L/h) (nor)

# Part Number Selection

Model: P22

Application Information:

Flow / Direction	1	Bottom rear to top rear Gas flow rates >30 L/hr up to 3600 L/hr All Liquids ranges from 0.3-3 L/hr to 12-120 L/hr
	2	Bottom rear to top rear Gas flow rates < 30 L/hr
	Z	Special
Valve	A	None
	B	Bottom
	C	Top
	Z	Special
Alarm Output	1	None
	2	Reed Switch - Contact closes (becomes ON) when value is more than set point
	3	Reed Switch - Contact opens (becomes OFF) when value is more than set point
	4	Reed Switch - Contact closes (becomes ON) when value is less than set point
	5	Reed Switch - Contact opens (becomes OFF) when value is less than set point
	Z	Special
Wetted Parts	A	316 Stainless Steel (Standard)
	Z	Special
Packing Material	1	Fluorinated Propylene Monomer (FPM/FKM)
	2	Nitrile (NBR)
	3	Neoprene (CR)
	Z	Special
Connection Type	A	NPT thread (standard)
	B	RC thread (Typical for Non-USA Market)
	Z	Special
Connection Size	1	1/8"
	2	1/4"
	Z	Special
Mounting Options	A	None (Standard with locknuts for front panel mounting)
	Z	Special

Fluid Name:
Operating Density or Specific Gravity:
Viscosity:

Flowrate
Maximum:
Operating Or Normal:
Scale Range:

Pressure
Maximum:
Operating or Normal:

Temperature
Maximum:
Operating or Normal:

Alarm Settings
Alarm 1:
Alarm 2:

Other Options

**Example: 22 1 A 1 A 1 A 1 A**

Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp  
Gases equivalent to Air @ 0 °C 1 atm

## WARNING - USER RESPONSIBILITY

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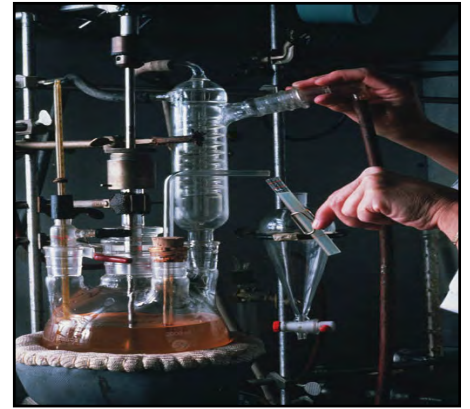
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# P230 Series

## Glass Tube Variable Area Flowmeter



The P-230 Series Flowmeters are highly reliable and accurate flowmeters commonly used in industrial production processes.

They feature SCS14 (Equivalent to 316 SS) construction for use with many types of corrosive gases and liquids, making them optimal for demanding industrial applications.

They are available in a variety of operating flow ranges.



### Contact Information:

Parker Hannifin Corporation  
**Porter Instrument Division**  
245 Township Line Road  
Hatfield PA, 19440

**Phone 215 723 4000**  
**Fax 215 723 2199**  
**industrial@parker.com**

[www.porterinstrument.com](http://www.porterinstrument.com)

### Product Features:

- Standard construction utilizes SCS14 (Equivalent to 316 SS) wetted parts for use in most any application including corrosive applications
- Industry standard lay lengths for 65mm and 150mm scales
- CR (Neoprene) packing material available for ammonia gas

# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>SCS14 (Equivalent to 316 SS)</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	316 Stainless Steel, Glass, PTFE or Ruby
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> </ul> Optional: <ul style="list-style-type: none"> <li>CR (Neoprene)</li> </ul>
<b>Spindle</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
<b>Fitting</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
<b>Valve</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
Non-wetted	
<b>Cover</b>	Acrylic
<b>Mounting Board</b>	SPCC (Cold Rolled Carbon Steel Sheets)
<b>Connection Size and Type</b>	Standard: <ul style="list-style-type: none"> <li>NPT or RC 1/4" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

## Performance

Flowrate Scale Ranges	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	0.08-0.8 Gal/h (0.3-3 L/h)
<b>Maximum</b>	6.3-32 Gal/h (24-120 L/h)
<b>Air<sup>2</sup></b>	
<b>Minimum</b>	0.01-0.04 ft <sup>3</sup> /h (0.2-1.2 L/h) (nor)
<b>Maximum</b>	25-127 ft <sup>3</sup> /h (720-3600 L/h) (nor)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±5% F.S. for 65mm Tube ±3% F.S. for 150mm Tube
<b>Approximate Weight</b>	1.3 lbs. (0.5 kg)
<b>Flow Direction</b>	Bottom to Top
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg)
<b>Max. Operating Temperature</b>	
<ul style="list-style-type: none"> <li>CR (Neoprene)</li> </ul>	176°F (80°C)
<ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> </ul>	248°F (120°C)

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

# Standard Flow Capacity Ranges

Air <sup>1</sup> Flow Rate Table	
Air	
ft <sup>3</sup> /h	L/h (nor)
0.01-0.04	0.2-1.2
0.01-0.06	0.4-1.8
0.02-0.1	0.6-3
0.02-0.2*	0.6-6*
0.04-0.4	1.2-12
0.06-0.6	1.8-18
0.1-1.1	3-30
0.2-2.1	6-60
0.4-4.2	12-120
0.6-6.4	18-180
1.1-11	30-300
2.1-21***	60-600***
4.2-42	120-1200
6.4-64**	180-1800**
21-106	600-3000
25-127	720-3600

<sup>1</sup>Air measured at 0 psig and 32°F (0°C)

\*10:2 if range is less than 0.2 ft<sup>3</sup>/h (6 L/h) (nor)

\*\*10:2 if range is more than 64 ft<sup>3</sup>/h (1800 L/h) (nor)

\*\*\*10:2 if range is more than 21 ft<sup>3</sup>/h (600 L/h) (nor)

Water <sup>2</sup> Flow Rate Table	
Water	
Gal/h	L/h
0.08-0.8	0.3-3
0.2-1.6	0.6-6
0.3-3.2	1.2-12
0.5-4.8	1.8-18
0.8-7.9	3-30
1.6-16	6-60
4.8-24*	18-90*
6.3-32	24-120

<sup>2</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0 cp

\*10:2 if range is more than 24 Gal/h (90 L/h)

\*\* 10:2 if range is more than 16 Gal/h (60 L/h)



# Part Number Selection

Model: P23

	Size	Range	Direction	
Flow/Direction	1	65 mm	Air: 0.24-1.2 L/hr up to 720-3600 L/hr Water: 0.3-3 L/hr up to 24-120 L/hr	Bottom Rear to Top Rear (Standard)
	2	150 mm	Air: 0.24-1.2 L/hr up to 720-3600 L/hr Water: 0.3-3 L/hr up to 24-120 L/hr	Bottom Rear to Top Rear (Standard)
	Z		Special	
Valve	A		None	
	B		Precision Valve - Bottom	
	C		Precision Valve - Top	
	D		Standard Valve - Bottom	
	E		Standard Valve - Top	
	Z		Special	
Alarm Output	1		None	
	Z		Special	
Wetted Parts	B		SCS14 (Equivalent to 316 SS)	
	Z		Special	
Packing Material	1		Fluorinated Propylene Monomer (FPM/FKM)	
	3		Neoprene (CR)	
	Z		Special	
Connection Type	A		NPT thread (standard)	
	B		RC thread (Typical for Non-USA Market)	
	Z		Special	
Connection Size	2		1/4"	
	Z		Special	
Mounting Options	A		None (Standard with locknuts for front panel mounting)	
	Z		Special	

**Example: P23 1 A 1 B 1 A 2 A**

Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp  
Gases equivalent to Air @ 0 °C 1 atm

## Required Information:

Fluid Name:

Operating Density or Specific Gravity:

Viscosity:

### Flowrate

Maximum:

Operating Or Normal:

Scale Range:

### Pressure

Maximum:

Operating or Normal:

### Temperature

Maximum:

Operating or Normal:

### Alarm Settings

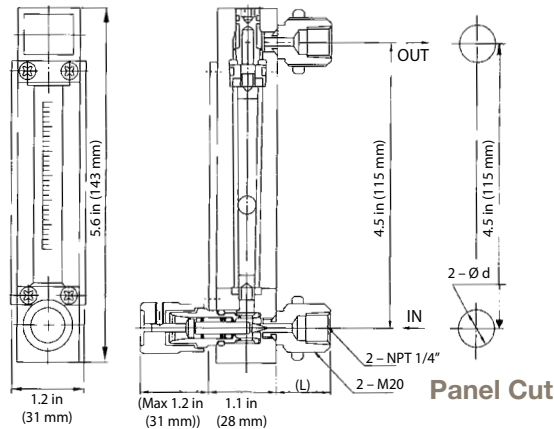
Alarm 1:

Alarm 2:

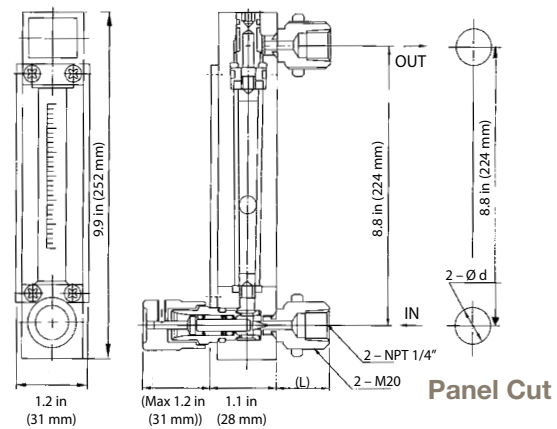
# Dimensional Drawing

Standard NPT 1/4" connection, needle valve provided at inlet, locknuts for front panel mounting

65 MM



150 MM



Connection Size	Hole Diameter (d)		Rear Length (L)	
	in	mm	in	mm
NPT 1/4	0.9	22	0.9	22

## ⚠ WARNING - USER RESPONSIBILITY

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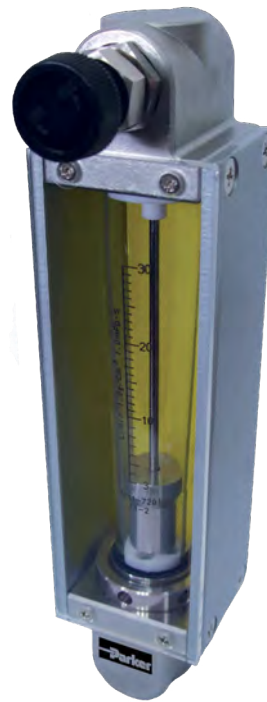
# P240 Series

## Glass Tube Variable Area Flowmeter



The P240 Series Flowmeters are designed to extend the flow capacity of a traditional purgemeter given an outstanding performance for a wide range of liquids and gases.

The SCS14 (Equivalent to 316 SS) construction allows for usage with many types of corrosive gases and liquids making it optimal for demanding industrial applications.



### Contact Information:

Parker Hannifin Corporation  
**Porter Instrument Division**  
245 Township Line Road  
Hatfield PA, 19440

**Phone 215 723 4000**  
**Fax 215 723 2199**  
**industrial@parker.com**

[www.porterinstrument.com](http://www.porterinstrument.com)

### Product Features:

- Ideal for general purpose use, as well as use for industrial process applications
- SCS14 (Equivalent to 316 SS) construction for challenging corrosive applications
- Front panel mounting hardware
- Easy-to-read scale
- Suitable for both liquids and gases
- Optional alarm output

# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>SCS14 (Equivalent to 316 SS)</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	304 Stainless Steel and PTFE (316 Stainless Steel available)
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>NBR(Nitrile Rubber)</li> </ul> Optional: <ul style="list-style-type: none"> <li>FPM(Fluorinated Propylene Monomer)</li> <li>CR(Neoprene)</li> <li>EPDM(Ethylene Propylene Diene Monomer)</li> </ul>
<b>Spindle</b>	Standard: <ul style="list-style-type: none"> <li>304 Stainless Steel</li> </ul>
<b>Valve</b>	Standard: <ul style="list-style-type: none"> <li>304 Stainless Steel</li> </ul>
Non-wetted	
<b>Mounting Board</b>	Standard: <ul style="list-style-type: none"> <li>SPCC(Cold Rolled Carbon Steel Sheets and Strip)</li> </ul> Optional: <ul style="list-style-type: none"> <li>(304 Stainless Steel available)</li> </ul> Consult Factory for details
<b>Cover</b>	Acrylic
<b>Connection Type and Size</b>	Standard: <ul style="list-style-type: none"> <li>NPT or RC 3/8" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

## Performance

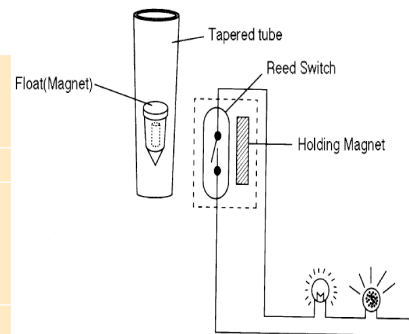
Flowrate Scale Ranges	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	1.6–16 Gal/h (6–60 L/h)
<b>Maximum</b>	48–476 Gal/h (180–1800 L/h)
<b>Air<sup>2</sup></b>	
<b>Minimum</b>	5.3–53 ft <sup>3</sup> /h (150–1500 L/h) (nor)
<b>Maximum</b>	127–1271 ft <sup>3</sup> /h (3600–36000 L/h) (nor)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±5% F.S.
<b>Approximate Weight</b>	4.4 lbs. (2 kg)
<b>Alarm Type</b>	Self-holding Reed Switch
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg)
<b>Max. Operating Temperature</b>	
<ul style="list-style-type: none"> <li>NBR(Nitrile Rubber)</li> <li>CR(Neoprene)</li> <li>EPDM(Ethylene Propylene Diene Monomer)</li> </ul>	176°F (80°C)
<ul style="list-style-type: none"> <li>FPM(Fluorinated Propylene Monomer)</li> </ul>	248°F (120°C)

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

## Reed Switch Specification

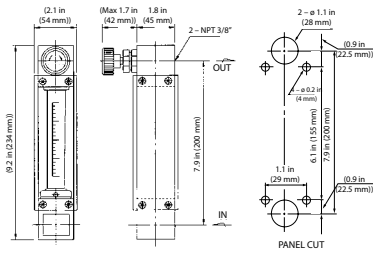
<b>Number Of Point</b>	1 point(High or Low) 2 point alarm also available as an option. Consult factory for details.
<b>Alarm Setting Range</b>	Standard 20 to 80% of full scale(H:50 to 80%, L:20 to 50%)
<b>Contact</b>	Reed switch(Self-holding type) Max. Contact capacity: AC10VA, DC10W Max. Voltage: AC125V, DC100V Max. Current: 0.5A
<b>Connection</b>	Lead wire connection of 50cm. (2m is also available)
<b>Reset-Span</b>	25% Full Scale
<b>Ambient Temperature</b>	-10 to 60°C



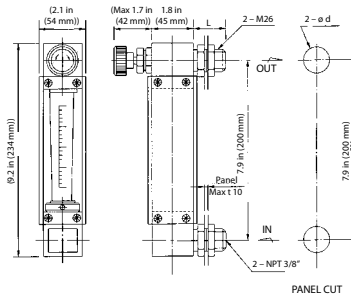
Caution must be taken when mounting multiple alarmed meters. Close proximity may cause interference with alarm signal.

# Dimensional Drawing

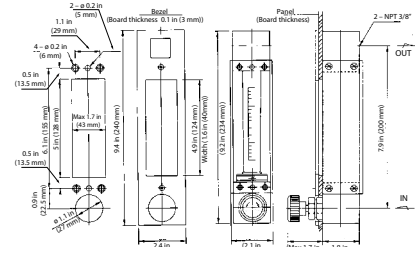
Standard Valve provided at outlet, panel front thread (M3) mounting type



Panel Front Installation Valve provided at outlet, Standard with locknuts for front panel mounting



Bezel Valve provided at outlet, bezel installation, mounting option code C



Connection Size		Rear Length (L)		Hole Dia. ø	
in	mm	in	mm	in	mm
NPT 3/8	10	1	26	1.1	28

# Flow Range Alarm Settings

Water <sup>1</sup> Flow Rate Table			
If LO, LC, HO, or HC alarm output			
Water		Alarm Setting Range	
Gal/h	L/h	Gal/h	L/h
3.2–32*	12–120*	6.3–25	24–96
4.8–48	18–180	9.5–38	36–144
7.9–79	30–300	16–63	60–240
16–159	60–600	32–127	120–480
24–238	90–900	48–190	180–720
32–317	120–1200	63–254	240–960
48–476**	180–1800**	95–380	360–1440

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

\*Float material should be PVC.

\*\*Available for viscosity 1 cP only

Air <sup>2</sup> Flow Rate Table			
If LO, LC, HO, or HC Alarm Output			
Air		Alarm Setting Range	
ft <sup>3</sup> /h	L/h (nor)	ft <sup>3</sup> /h	L/h (nor)
11–106*	300–3000*	21–85	600–2400
21–212	600–6000	42–170	1200–4800
42–424	1200–12000	85–339	2400–9600
64–636	1800–18000	127–509	3600–14400
85–848	2400–24000	170–678	4800–19200
106–1059	3000–30000	212–848	6000–24000
127–1271	3600–36000	254–1017	7200–28800

<sup>2</sup>Air measured at 0 psig and 32°F (0°C)

\*Float material should be PVC.



# Part Number Selection

Model: P24

## Required Information:

Flow / Direction	1	Bottom rear to top rear (standard) Air flow rates from 150-1500 L/hr up to 3600-36000 L/hr Water flow rates from 6-60 L/hr up to 180-1800 L/hr
	2	Bottom to top Air flow rates from 150-1500 L/hr up to 3600-36000 L/hr Water flow rates from 6-60 L/hr up to 180-1800 L/hr
	Z	Special
Valve	A	None
	B	Bottom
	C	Top
	Z	Special
Alarm Output	1	None
	2	Reed Switch - Contact closes (becomes ON) when value is more than set point
	3	Reed Switch - Contact opens (becomes OFF) when value is more than set point
	4	Reed Switch - Contact closes (becomes ON) when value is less than set point
	5	Reed Switch - Contact opens (becomes OFF) when value is less than set point
	Z	Special
Wetted Parts	B	SCS14 (Equivalent to 316 SS)
	Z	Special
Packing Material	1	Fluorinated Propylene Monomer (FPM/FKM)
	2	Nitrile (NBR)
	3	Neoprene (CR)
	5	Ethylene Propylene Diene Monomer (EPDM)
	Z	Special
Connection Type	A	NPT thread (Standard)
	B	RC thread (Typical for Non-USA Market)
	Z	Special
Connection Size	3	3/8" (Standard)
	4	1/2" (Not available for RC thread connection type)
	5	3/4"
	6	1"
	Z	Special
Mounting Options	A	None (Standard with locknuts for front panel mounting)
	B	Panel Rear Installation
	C	Bezel Installation
	Z	Special

Fluid Name:

Operating Density or Specific Gravity:

Viscosity:

### Flowrate

Maximum:

Operating Or Normal:

Scale Range:

### Pressure

Maximum:

Operating or Normal:

### Temperature

Maximum:

Operating or Normal:

### Alarm Settings

Alarm 1:

Alarm 2:

### Other Options

**Example: P24 1 A 1 B 1 A 3 A**

Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0 cp  
Gases equivalent to Air @ 0 °C 1 atm

### WARNING - USER RESPONSIBILITY

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# P250 Series

## Glass Tube Variable Area Flowmeter



The P250 Series Flowmeters are designed to extend the flow capacity of a traditional purgemeter given an outstanding performance for a wide range of water applications.

All wetted materials are constructed of SCS14 (Equivalent to 316 SS).

Laser engraved graduations and a magnifying lens provides users with a quick, precise, easy and accurate reading of the flow measurement scale.



### Contact Information:

Parker Hannifin Corporation  
**Porter Instrument Division**  
245 Township Line Road  
Hatfield PA, 19440

**Phone 215 723 4000**  
**Fax 215 723 2199**  
**industrial@parker.com**

[www.porterinstrument.com](http://www.porterinstrument.com)

### Product Features:

- Ideal for general purpose use, as well as use for industrial process applications
- SCS14 (Equivalent to 316 SS) construction for challenging corrosive applications
- Front panel mounting hardware
- Easy-to-read scale
- Designed for accurate flow measurement of water applications

# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>SCS14 (Equivalent to 316 SS)</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	316 Stainless Steel
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>NBR (Nitrile Rubber)</li> </ul> Optional: <ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> </ul>
<b>Spindle</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
<b>Valve</b>	Standard: <ul style="list-style-type: none"> <li>316 Stainless Steel</li> </ul>
Non-wetted	
<b>Support</b>	304 Stainless Steel
<b>Connection Size and Type</b>	Standard: <ul style="list-style-type: none"> <li>NPT or RC 3/8" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

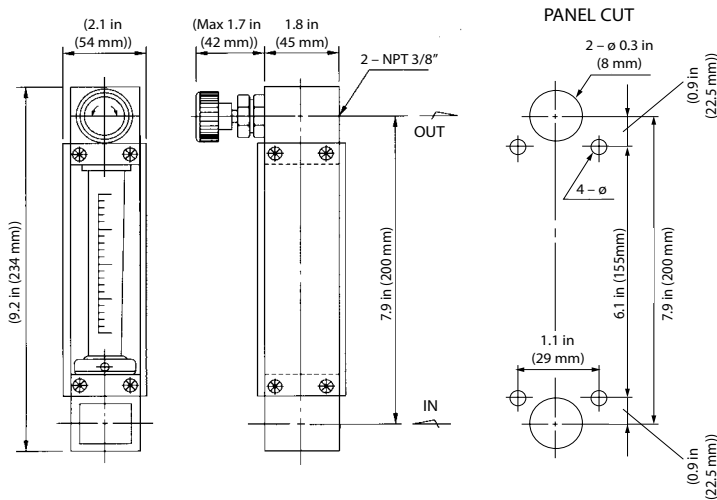
## Performance

Scale Range (water)	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	1.6-16 Gal/h (6-60 L/h)
<b>Maximum</b>	48-476 Gal/h (180-1800 L/h)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±5% F.S.
<b>Approximate Weight</b>	4 lbs. (2 kg)
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg)
<b>Max. Operating Temperature</b>	
<ul style="list-style-type: none"> <li>NBR (Nitrile Rubber)</li> </ul>	176°F (80°C)
<ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> </ul>	248°F (120°C)*

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp  
\*Maximum 80°C in case of water

# Dimensional Drawing

Standard Type Valve Provided at Outlet, Panel Front Thread



Panel Cut Dimensions

Connection	Hole Diameter		Rear Diameter	
	in	mm	in	mm
NPT 3/8"	ø 1.1	ø 28	1	26

# Part Number Selection

Model: P25

Flow / Direction	1	Bottom rear to top rear (standard)
	Z	Water <sup>1</sup> flow rates from 6-60 L/hr up to 180-1800 L/hr Special
Valve	A	None
	B	Bottom
	C	Top
	Z	Special
Alarm Output	1	None
	Z	Special
Wetted Parts	B	SCS14 (Equivalent to 316 SS)
	Z	Special
Packing Material	1	Fluorinated Propylene Monomer (FPM/FKM)
	2	Nitrile (NBR)
	Z	Special
Connection Type	A	NPT thread (standard)
	B	RC thread (Typical for Non-USA Market)
	Z	Special
Connection Size	3	3/8" (Standard)
	4	1/2"
	Z	Special
Mounting Options	A	None (Standard with locknuts for front panel mounting)
	Z	Special

Example: P25 1 A 1 B 1 A 3 A

Water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

## Required Information:

Fluid Name:

Operating Density or Specific Gravity:

Viscosity:

Flowrate

Maximum:

Operating Or Normal:

Scale Range:

Pressure

Maximum:

Operating or Normal:

Temperature

Maximum:

Operating or Normal:

Alarm Settings

Alarm 1:

Alarm 2:

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# P260 Series

## Glass Tube Variable Area Flowmeter



The P260 Series Flowmeters are optimized for measuring low flow rates of water, air, and nitrogen, making it ideal for OEM applications.

Laser engraved graduations and a magnifying lens provides users with a quick, precise, easy and accurate reading of the flow measurement scale.



### Contact Information: Product Features:

Parker Hannifin Corporation  
**Porter Instrument Division**  
245 Township Line Road  
Hatfield PA, 19440

**Phone 215 723 4000**  
**Fax 215 723 2199**  
**industrial@parker.com**

[www.porterinstrument.com](http://www.porterinstrument.com)

- Valve can be placed in bottom or top position
- Laser engraved graduations and magnifying lens make reading flow measurement scale quick and easy
- Ideal for OEM applications
- Standard ranges for N2, Air and Water

# Specification

## Materials

Wetted	
<b>Body</b>	Standard: <ul style="list-style-type: none"> <li>SCS14 (Equivalent to 316 SS)</li> </ul>
<b>Tapered Tube</b>	Heat-resistant Glass
<b>Float</b>	304 Stainless Steel, Glass, PTFE or Ruby
<b>Packing</b>	Standard: <ul style="list-style-type: none"> <li>NBR(Nitrile Rubber)</li> </ul> Optional: <ul style="list-style-type: none"> <li>FPM (Fluorinated Propylene Monomer)</li> </ul>
Non-wetted	
<b>Support</b>	6063-T5 Aluminum
<b>Front Panel</b>	Acrylonitrile Butadiene Styrene (ABS)
<b>Scale Panel</b>	Polycarbonate
<b>Connection Size and Type</b>	Standard: <ul style="list-style-type: none"> <li>NPT or RC 1/4" With locknuts for front panel mounting</li> </ul>

Proper material to be selected according to the specification.

## Performance

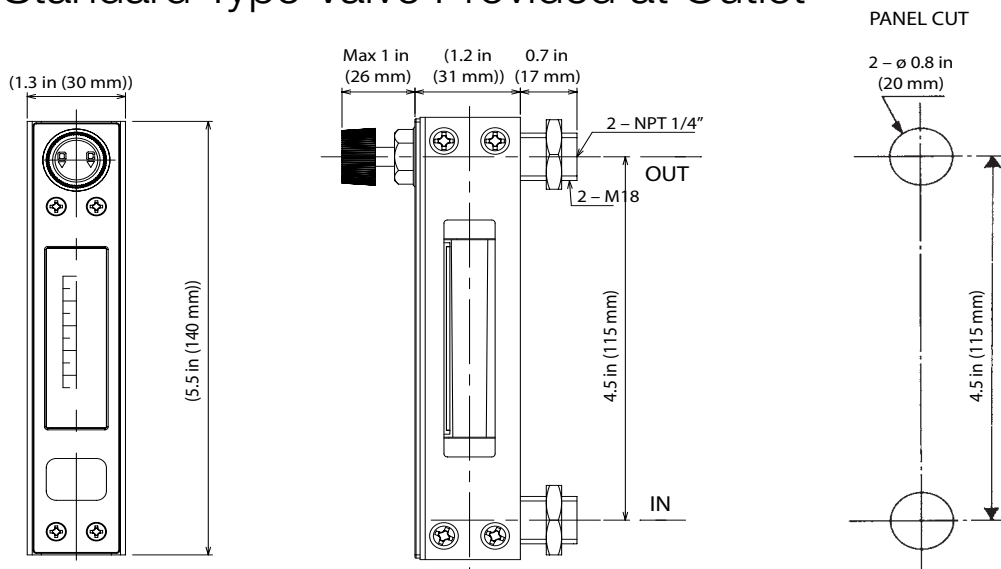
Flowrate Scale Ranges	
<b>Water<sup>1</sup></b>	
<b>Minimum</b>	0.1–0.8 Gal/h (0.3–3 L/h)
<b>Maximum</b>	6.3–32 Gal/h (24–120 L/h)
<b>Air<sup>2</sup></b>	
<b>Minimum</b>	0.02–2.1 ft <sup>3</sup> /h (6–60 L/h) (nor)
<b>Maximum</b>	11–106 ft <sup>3</sup> /h (300–3000 L/h) (nor)
<b>Turndown</b>	10:1
<b>Accuracy</b>	±5% F.S.
<b>Approximate Weight</b>	1.1 lbs. (0.5 kg)
<b>Flow Direction</b>	Bottom Rear to Top Rear
Operating Conditions	
<b>Max. Operating Pressure</b>	116 psig (8 barg)
<b>Max. Operating Temperature</b>	
<ul style="list-style-type: none"> <li><b>NBR (Nitrile Rubber)</b></li> </ul>	176°F (80°C)
<ul style="list-style-type: none"> <li><b>FPM (Fluorinated Propylene Monomer)</b></li> </ul>	248°F (120°C)

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

# Dimensional Drawing

Standard Type Valve Provided at Outlet





# Standard Flow Capacity Ranges

Flow Rate Table			
Water <sup>1</sup>		Air <sup>2</sup>	
Gal/h	L/h	ft <sup>3</sup> /h	L/h (nor)
0.1-0.8	0.3-3	0.2-2.1	6-60
0.2-1.6	0.6-6		
0.3-3.2	1.2-12	0.6-6.4	18-180
0.5-4.8	1.8-18		
0.8-7.9	3-30	1.1-11	30-300
1.6-16	6-60	2.1-21	60-600
		4.2-42	120-1200
		6.4-64	180-1800
4.8-24	18-90	8.5-85	240-2400
6.3-32	24-120	11-106	300-3000

<sup>1</sup>Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp

<sup>2</sup>Gases equivalent to Air @ 0 °C 1 atm

## Part Number Selection

Model: P26

Flow / Direction	1	Bottom rear to top rear (standard) Air flow rates from 6-60 L/hr up to 300-3000 L/hr Water flow rates from 0.3-3 L/hr up to 24-120 L/hr
	Z	Special
Valve	A	None
	B	Bottom
	C	Top
	Z	Special
Alarm Output	1	None
	Z	Special
Wetted Parts	B	SCS14 (Equivalent to 316 SS)
	Z	Special
Packing Material	1	Fluorinated Propylene Monomer (FPM/FKM)
	2	Nitrile (NBR)
	Z	Special
Connection Type	A	NPT thread (standard)
	B	RC thread (Typical for Non-USA Market)
	Z	Special
Connection Size	2	1/4" (Standard)
	Z	Special
Mounting Options	A	None (Standard with locknuts for front panel mounting)
	Z	Special

**Example: P26 1 A 1 B 1 A 2 A**

Liquid equivalent to water density 1.0g/cm<sup>3</sup>, viscosity 1.0cp  
Gases equivalent to Air @ 0 °C 1 atm

### Required Information:

Fluid Name:
Operating Density or Specific Gravity:
Viscosity:

Flowrate
Maximum:
Operating Or Normal:
Scale Range:

Pressure
Maximum:
Operating or Normal:

Temperature
Maximum:
Operating or Normal:

Alarm Settings
Alarm 1:
Alarm 2:

Other Options

 **WARNING – USER RESPONSIBILITY**

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