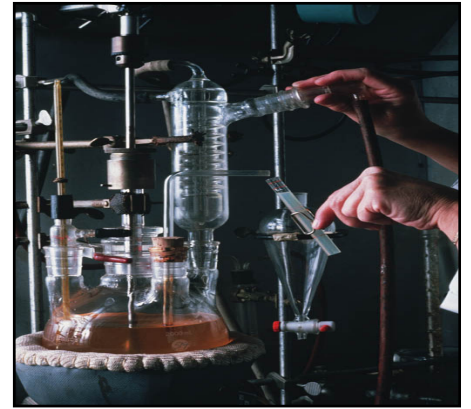


P230 Series

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.



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

Proper material to be selected according to the specification.

Performance

Flowrate Scale Ranges	
Water¹	
Minimum	0.08-0.8 Gal/h (0.3-3 L/h)
Maximum	6.3-32 Gal/h (24-120 L/h)
Air²	
Minimum	0.01-0.04 ft ³ /h (0.2-1.2 L/h) (nor)
Maximum	25-127 ft ³ /h (720-3600 L/h) (nor)
Turndown	10:1
Accuracy	±5% F.S. for 65mm Tube ±3% F.S. for 150mm Tube
Approximate Weight	1.3 lbs. (0.5 kg)
Flow Direction	Bottom to Top
Operating Conditions	
Max. Operating Pressure	116 psig (8 barg)
Max. Operating Temperature	
<ul style="list-style-type: none"> CR (Neoprene) 	176°F (80°C)
<ul style="list-style-type: none"> FPM (Fluorinated Propylene Monomer) 	248°F (120°C)

¹Liquid equivalent to water density 1.0g/cm³, viscosity 1.0cp

²Gases equivalent to Air @ 0 °C 1 atm

Standard Flow Capacity Ranges

Air ¹ Flow Rate Table	
Air	
ft ³ /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

¹Air measured at 0 psig and 32°F (0°C)

*10:2 if range is less than 0.2 ft³/h (6 L/h) (nor)

**10:2 if range is more than 64 ft³/h (1800 L/h) (nor)

***10:2 if range is more than 21 ft³/h (600 L/h) (nor)

Water ² 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

²Liquid equivalent to water density 1.0g/cm³, 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/cm³, 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

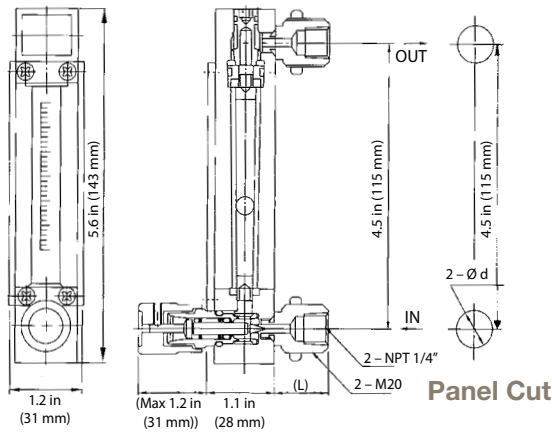
Alarm 1:

Alarm 2:

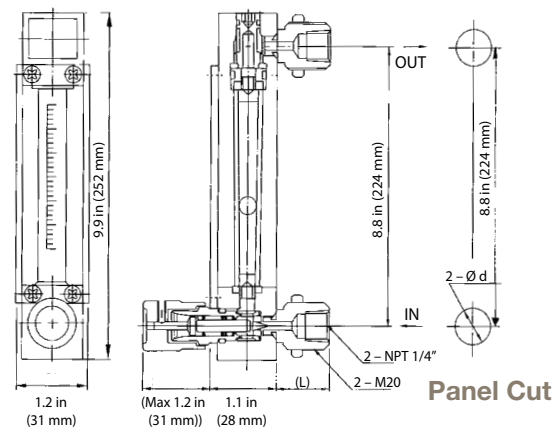
Dimensional Drawing

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

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