Glass Tube Rotameter — 7470 Series

Model Number Chart — See Example Below

747	**Base Model Number**	
Code	**Fitting Type and Material**	
1	Vertical Female NPT – 316L SS	
2	Horizontal Female NPT – 316L SS	
3	150# Vertical Flange – 316L SS	
4	300# Vertical Flange – 316L SS	
5	150# Horizontal Flange – 316L SS	
6	#300 Horizontal Flange – 316L SS	
7	Vertical Female NPT – PVC (not for compressed gas service)	
	Code	**Float Material**
	2	316L SS
	4	Hastelloy® C-276
		Code **O-Ring Material**
		1 EPR
		2 Buna-N
		3 Viton®
		4 Kalrez®
		Code **Range Code from Table on Page 2**
		Code **Alarm Option**
		0 Without Alarm
		1 With Alarm

747 1 2 3 84W 0 ◄ Typical Model Number

Glass Tube Rotameter

Description / Materials

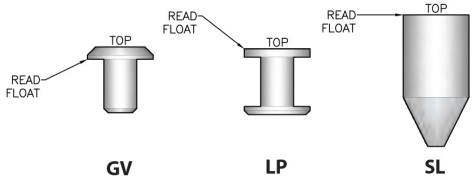
Metering Tube	Borosilicate Glass
Internal Components	316L SS Optional : Hastelloy® C-276
Fitting Material	316L SS Optional : PVC (vertical connections only)
Inlet / Outlet Fittings	FNPT or Flange, vertical or horizontal
O-Ring	Standard: Viton® Optional : EPR, Buna-N, Kalrez®
Case and Covers	304 SS case Polycarbonate shield

Performance

Capacities	Water 0.25 to 116 GPM Air 1 to 245 SCFM
Scale	127 mm (5”) direct reading, detachable
Accuracy	+/- 3% of full scale flow
Turndown	10:1
Repeatability	0.5%
Max Temperature	316L SS Fittings only Gases 250°F (121°C) 316L SS Fittings Liquids 200°F (93°C) PVC Fittings Liquids 110°F (43°C)
Max Pressure	316L SS 250 psig size 3&4 316L SS 200 psig size 5&6 316L SS 150 psig size 8&9 PVC Fittings 150 psig
Ambient Temperature	33°F to 125°F (1°C to 52°C)

Float

Options for rotameter float materials and designs extend flow ranges for different fluids within a given rotameter tube design



Options

Alarm	Latching Reed Switch
Certified Calibrations	Conform to ISA RP 16.6
Scales	Any volumetric unit

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Flow Ranges

Order Number	Full Scale Flow USGPM - Water	Order Number	Full Scale Flow SCFM - Air[1]	Pressure Drop in W.C.[2]	Tube Size[3]	Connection Options
31W	.25	31A	1.0	-	3G (⅜")	¾" FNPT Vertical or Horizontal or ½" Flange Vertical or Horizontal 150# or 300#
32W	.36	32A	1.5	2		
33W	.74	33A	3.0	5		
41W	1.0	41A	4.2	6	4G (½")	
43W	2.0	43A	8.2	10		
51W	1.5	51A	6.0	3	5G (¾")	
52W	3.8	52A	16.0	10		
53W	5.0	53A	21.5	14		
61W	6.0	61A	25.5	5	6P (1")	¾" FNPT Vertical or Horizontal or 1" Flange Vertical or Horizontal 150# or 300#
62W	7.4	62A	30.0	6		
63W	9.6	63A	40.0	10		
64W	11.0	64A	45.0	13		
65W	14.0	65A	62.0	24		
66W	20.0	66A	90.0	39		
67W	26.0	-	-	45		
81W	22.0	81A	90.0	16	8P (1½")	1½" FNPT Vertical or Horizontal or 1½" Flange Vertical or Horizontal 150# or 300#
82W	30.0	82A	125.0	23		
83W	44.0	83A	180.0	30		
84W	50.0	84A	200.0	35		
85W	61.0	85A	250.0	40		
91W	41.0	91A	160.0	5	9P (2")	
92W	60.0	92A	245.0	16		
93W	86.0	-	-	25		
94W	116.0	-	-	45		

[1] Because of the compressible nature of gas, meters used in this service may be subject to float bounce if:

- the meter is used in very flow pressure applications
- There are more than two pipe diameters between the meter and a control valve.
- The gas being metered is a low Specific Gravity
- The meter is operating below 20% of full scale flow

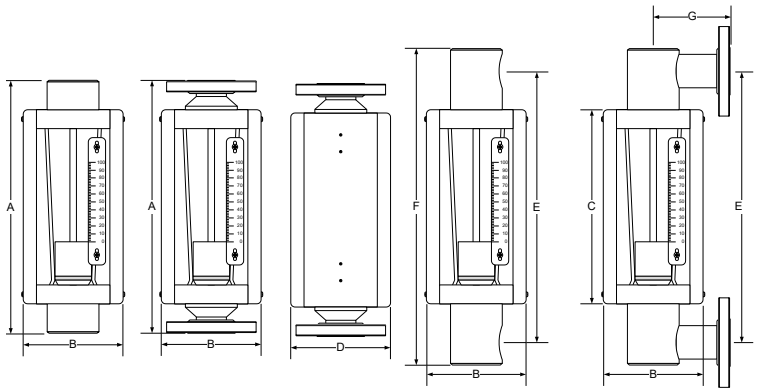
Back pressure is insufficient to stabilize the float

[2] Vertical Connections

[3] Tubes with the designation "G" (e.g. 3G) have rib guided floats. Tubes designated "P" (e.g. 6P) have pole guided floats.

Dimensions

Tube Size	Detail Letter							Connections	
	A	B	C	D	E	F	G	FNPT	Flange
3	14.78	4.22	10.13	4.22	12.50	14.32	3.56	.75	.50
4	14.78	4.22	10.13	4.22	12.50	14.32	3.56	.75	.50
5	14.78	4.22	10.13	4.22	12.50	14.32	3.56	.75	1.00
6	14.78	4.22	10.13	4.22	12.50	14.32	3.56	.75	1.00
8	13.86	5.90	10.18	5.90	14.50	17.25	5.00	1.50	1.50
9	13.86	5.90	10.18	5.90	14.50	17.25	5.00	1.50	1.50



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Latching Reed Switch alarm available for 7310, 7330, 7470, 7480, 7610, 7910 Series

7330 with Latching Reed Switch

A latching reed switch is available for 7310, 7330, 7470, 7480, 7610, 7910 Series flowmeters. Operating temperature range is -40°C to 125°C.

The switch assembly is mounted on the side of the metering tube by a dovetail or guide rod. The switch can be positioned to trip at any point on the scale.

The switch is a reed type and uses a biassing magnet to give it the latching feature. The float contains hermetically sealed magnet(s), so when the float comes in close proximity to the switch it closes and remains closed (latched) when the float moves past the switch. When the flow returns to normal and the float moves below the switch it resets itself. Multiple switches can be used.

Electrical Specifications for Latching Reed Switch

Switch Type	SPDT, Latching
Max Contact Voltage	100 VDC
Max Contact Current	0.2 A DC
Max Contact Power	4 Watts DC
Breakdown Voltage	200 VDC
Initial Contact Resistance	0.15 OHMS
Standard Pull-In Range	15 - 40 ampere turns
Intrinsically Safe Wiring	With switch Isolator 3 conductor, 22 Awg, 2' long 1) White, N.O. switch output 1 2) Red, common 3) Black, N.C. switch output 2

Switch Isolator Option

Latching reed switches can be used as stand alone devices, or may be connected to a switch isolator for intrinsically safe applications. The purpose of the switch isolator is to supply electrical signals between safe and hazardous areas in either direction while limiting the amount of energy that can be transferred even under fault conditions. Switch isolators are available with 220 VAC, 110 VAC or 24 VD supply voltage requirements, contain single pole double throw (SPDT) relays, and are DIN rail mountable. See switch isolator specifications for electrical connections and further details.

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