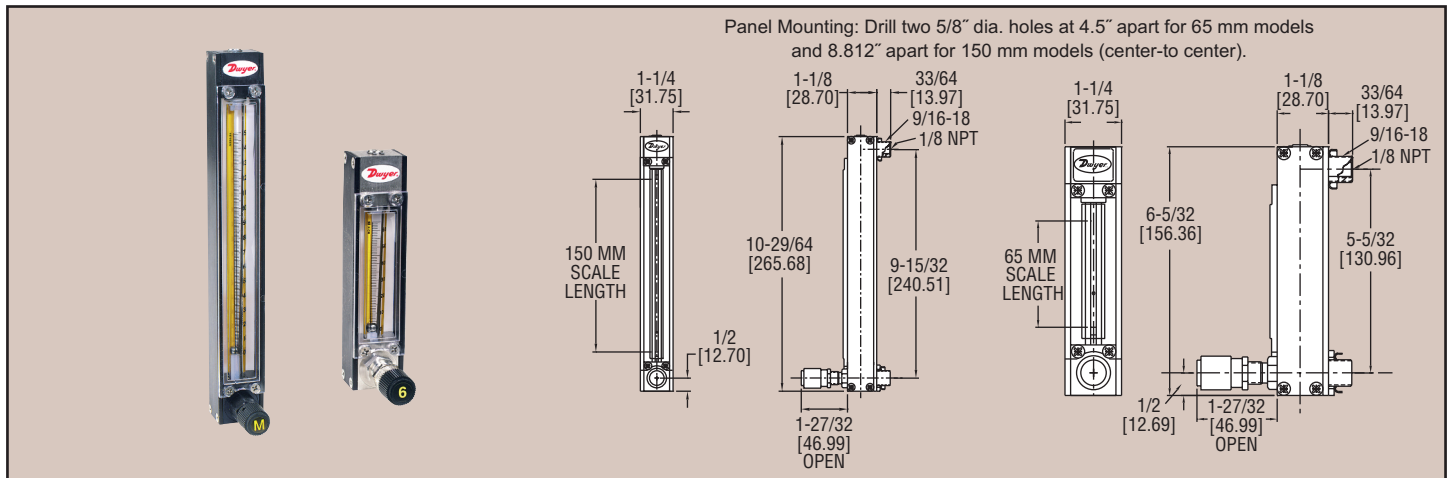




Series
VA

Variable Area Glass Flowmeters

65 mm and 150 mm, ±2% FS Accuracy, Interchangeable Flowtubes



Accurately measure flow rates of air, water, and other commonly used gases with the Series VA Variable Area Glass Flowmeters. Flowmeters are designed with an easy-to-read universal mm scale and supplied with a correlation chart containing calibration data for air and water. Correlation data for other gases and liquids are available. Permanently fused ceramic scale with vertical locator line reduces parallax and eye fatigue. Thick polycarbonate front shield protects tube from breakage and also serves as a magnifying lens to enhance reading resolution.

Glass flowmeters are suitable for metering carrier gases, liquid and gas measurement in pilot plants, laboratories, process flow and level indicating. Units are equipped with a standard 6-turn needle valve for flow rate control. High precision metering valves with non-rising stems (sold separately) are available for high sensitivity control and resolution - particularly suited for very low flow rates.

Flowmeters are shipped completely assembled and ready for panel mounting. Use an optional acrylic tripod base to convert to self-standing bench mounting.

SPECIFICATIONS

Service: Compatible gases or liquids.

Wetted Materials:

- Flowtube: Borosilicate glass;
- Floats: Glass or stainless steel (sapphire, Carboloy and tantalum are optional);
- Float stops: PTFE;
- End fittings: Anodized aluminum, 316 SS or brass;
- Packings: Fluoroelastomer;
- O-rings: Buna-N on aluminum models and brass models, and fluoroelastomer on stainless steel models.

Temperature Limits: 250°F (121°C).

Pressure Limits: 200 psig (13.8 bar).

Accuracy: ±2% FS @ 70°F (21.1°C) and 14.7 psia (1 atm absolute).

Repeatability: ±0.25% full scale.

Scales: Universal 65 mm or 150 mm with correlation charts.

Turn-down Ratio: 10:1; 20:1 with combinations of two floats installed in meter.

Connections: Two 1/8" female NPT.

Mounting: Vertical.

Valve: 6-turn needle (standard), optional 16-turn high precision valve.

Valve Orifice: Acetal on aluminum models and brass models, PCTFE on stainless steel models.

Model 65 mm Scale				Maximum	Maximum
Aluminum Fittings	SS Fittings	Brass Fittings	Float	Flow Rate (Air) scfh (ml/min)	Flow Rate (H ₂ O) gph (ml/min)
VA1043	VA1243	VA1343	Glass	0.104 (49)	0.009 (0.55)
VA1044	VA1244	-	SS	0.307 (145)	0.038 (2.38)
VA1045	VA1245	VA1345	Glass	0.220 (104)	0.028 (1.8)
VA1046	VA1246	-	SS	0.633 (299)	0.122 (7.7)
VA1047	VA1247	VA1347	Glass	0.43 (202)	0.041 (2.6)
VA1048	VA1248	-	SS	1.1 (522)	0.19 (12.0)
VA1049	VA1249	VA1349	Glass	2.09 (986)	0.325 (20.5)
VA10410	VA12410	-	SS	4.12 (1946)	0.881 (55.6)
VA10411	VA12411	VA13411	Glass	2.65 (1249)	0.428 (27)
VA10412	VA12412	-	SS	5.34 (2520)	1.125 (71)
VA10413	VA12413	VA13413	Glass	4.32 (2040)	0.63 (40)
VA10414	VA12414	-	SS	8.45 (3990)	1.71 (108)
VA10417	VA12417	VA13417	Glass	13.4 (6318)	2.33 (147)
VA10418	VA12418	-	SS	25.5 (12058)	5.77 (364)
VA10419	VA12419	VA13419	Glass	27.9 (13153)	4.9 (309)
VA10420	VA12420	-	SS	52.3 (24680)	11.81 (745)
VA10421	VA12421	VA13421	Glass	49.1 (23169)	8.27 (522)
VA10422	VA12422	-	SS	89.2 (42094)	19.97 (1260)

Model 150 mm Scale				Maximum	Maximum
Aluminum Fittings	SS Fittings	Brass Fittings	Float	Flow Rate (Air) scfh (ml/min)	Flow Rate (H ₂ O) gph (ml/min)
VA20429	VA22429	VA23429	Glass	0.792 (374)	0.087 (5.5)
VA20430	VA22430	-	SS	1.725 (814)	0.323 (20.4)
VA20433	VA22433	VA23433	Glass	4.9 (2313)	0.848 (54)
VA20434	VA22434	-	SS	9.67 (4562)	2.067 (130)
VA20435	VA22435	VA23435	Glass	8.07 (3807)	1.336 (84)
VA20436	VA22436	-	SS	16.08 (7590)	3.34 (217)
VA20437	VA22437	VA23437	Glass	18.38 (8678)	3.32 (210)
VA20438	VA22438	-	SS	35.5 (16737)	8.02 (506)
VA20439	VA22439	VA23439	Glass	49.9 (23564)	9.0 (568)
VA20440	VA22440	-	SS	93.9 (44336)	21.7 (1370)

ACCESSORIES

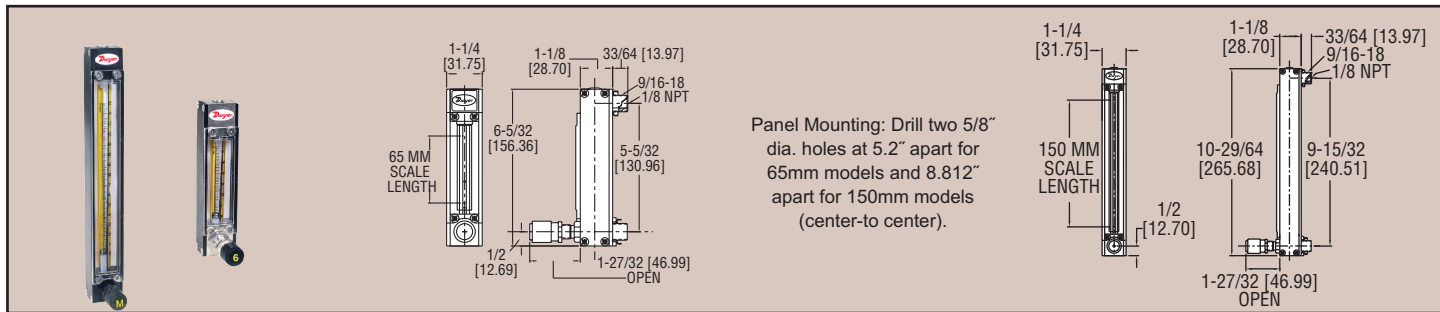
- VA81, High precision valve, 316 SS, 0.42 scfh capacity
- VA82, High precision valve, 316 SS, 0.85 scfh capacity
- VA83, High precision valve, 316 SS, 2.12 scfh capacity
- VA84, High precision valve, 316 SS, 4.87 scfh capacity
- VA85, High precision valve, 316 SS, 13.14 scfh capacity
- VA86, High precision valve, 316 SS, 45.55 scfh capacity
- VA7, Acrylic tripod for single meter



Series
VA

PTFE/Glass Flowmeters

Variable Area, Universal 65 mm and 150 mm Scales, $\pm 2\%$ FS Accuracy



Panel Mounting: Drill two 5/8" dia. holes at 5.2" apart for 65mm models and 8.812" apart for 150mm models (center-to-center).

Measure flow of corrosive or ultra-pure liquids or gases with the Series VA Variable Area PTFE/Glass Flowmeters. Flowmeters are constructed of chemically inert materials and housed in a rigid anodized aluminum frame with a polycarbonate safety shield. Units are designed with an easy-to-read universal mm scale and supplied with a correlation chart containing calibration data for air and water. Correlation data for other gases and liquids are available.

ACCESSORY

VA7, Acrylic tripod for single meter

Model		65 mm scale		
Valve	No Valve	Float	Flow Rate (Air) scfh (ml/min)	Flow Rate (H ₂ O) gph (ml/min)
VA1545	VA1505	Glass	0.220 (104)	0.028 (1.8)
VA1547	VA1507	Glass	0.428 (202)	0.047 (2.95)
VA15411	VA15011	Glass	2.646 (1249)	0.428 (27)
VA15413	VA15013	Glass	4.322 (2040)	0.630 (39.7)
VA15417	VA15017	Glass	13.39 (6318)	2.33 (147)
VA15419	VA15019	Glass	27.9 (13153)	4.9 (309)
VA15421	VA15021	Glass	49 (23169)	8.27 (522)

SPECIFICATIONS

Service: Compatible gases or liquids.

Wetted Materials:

Flowtube: Borosilicate glass;
Float: Glass (sapphire optional);
Float stops and end fittings: PTFE;
O-rings and packings: PTFE.

Temperature Limits: -15 to 150°F (-26 to 65°C).

Pressure Limits: 100 psi (6.7 bar).
Accuracy: $\pm 2\%$ FS @ 70°F (21.1°C) and 14.7 psia (1 atm absolute).

Repeatability: $\pm 0.25\%$.

Leak Integrity: 1 x 10⁻⁷ sccs of helium.

Scales: Universal 65 mm or 150 mm with correlation charts.

Turn-down ratio: 10:1, 20:1 with combinations of two floats installed in meter.

Connections: Two 1/8" female NPT.

Mounting: Vertical.

Valve: 6-turn needle.

Valve Orifice: PTFE.

Model		150 mm scale		
Valve	No Valve	Float	Flow Rate (Air) scfh (ml/min)	Flow Rate (H ₂ O) gph (ml/min)
VA25425	VA25025	Glass	0.104 (49)	0.01 (0.61)
VA25429	VA25029	Glass	0.792 (374)	0.087 (5.5)
VA25431	VA25031	Glass	1.75 (825)	0.262 (16.5)
VA25435	VA25035	Glass	8.07 (3807)	1.34 (84.3)
VA25437	VA25037	Glass	18.39 (8678)	3.32 (209)