



Series  
VF

# Visi-Float® Flowmeters

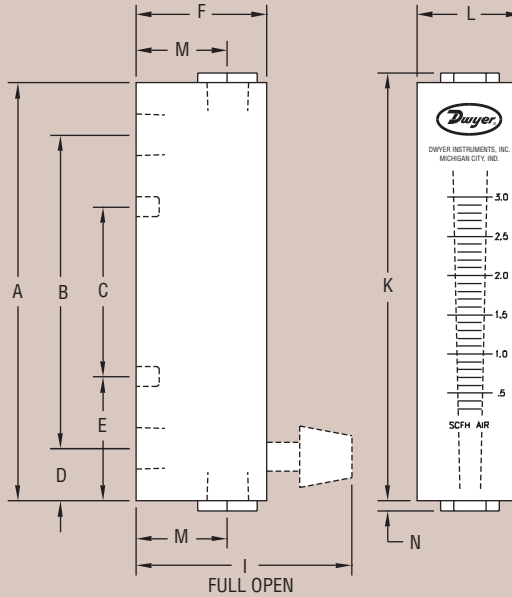
Used to Indicate or Manually Control Air or Water Flow



Model VFB



Model VFA-SSV



Flowmeter Dimensions		
	Model VFA	Model VFB
A	4 (101.6)	6-1/2 (165.1)
B	3 (76.20)	5-1/2 (139.7)
	1/8 NPT CONN.	1/8 NPT CONN.
C	1-5/8 (41.28)	3-1/2 (88.90)
	10-32 THD	10-32 THD
D	1/2 (12.70)	1/2 (12.70)
E	1-3/16 (30.16)	1-1/2 (38.10)
F	1-1/4 (31.75)	1-1/4 (31.75)
I	2-1/16 (52.39)	2-1/16 (52.39)
	OPEN	OPEN
K	4-3/32 (104.0)	6-11/16 (169.9)
L	1 (25.40)	1-3/8 (34.93)
M	7/8 (22.23)	7/8 (22.23)
	1/8 NPT	1/8 NPT
N	3/32 (2.381)	3/32 (2.381)

The Visi-Float® flowmeter bodies are cut and precision machined from solid, clear acrylic plastic blocks. This construction not only produces a handsome finished product, but permits complete visual inspection. As a result, the Visi-Float® flowmeters are especially popular for medical and laboratory equipment applications.

**Scales are easy to read** – The front scale location and white background provides excellent visibility. The direct reading scales are hot stamped into the plastic and will not wear off. Mid-range calibration is established with a master flowmeter. Accuracy is  $\pm 5\%$  of full-scale for VFA models,  $\pm 3\%$  for VFB. Scales average 2" long on the VFA models, 4" long on VFB.

**Durable and attractive construction** – The machined acrylic bodies of the Visi-Float® flowmeters are practically unbreakable. Fabrication is backed by over 60 years of experience in acrylic instrument machining. The tapered bore is precision machined to a smooth surface that provides perfect visibility of the indicating float. The VFA and VFB models are available with either brass or stainless steel inlet and outlet connections and are tapped for 1/8" NPT thread. VFB models 85 and 86 have either 1/4" back or 3/8" end connections. All standard models employ Buna-N O-rings for leak proof operation and are available with either back or end connections for horizontal or vertical piping. Precision metering valves in brass or stainless steel are available for most VFA and VFB models.

**Easy installation** – All Visi-Float® flowmeters have metal mounting inserts on rear for panel mounting. They can also be supported directly by system piping.

## SPECIFICATIONS

**Service:** Compatible gases & liquids.

### Wetted Materials:

- Body: Acrylic plastic;
- O-ring: Buna-N (fluoroelastomer available);
- Metal parts: Brass standard, SS optional;
- Float: SS, black glass, aluminum, K monel depending on range.

### Temperature & Pressure Limits:

- Without Valve: 100 psig (6.9 bar) @ 150°F (65°C); 150 psig (10 bar) @ 100°F (38°C);
- With Valve: 100 psig (6.9 bar) @ 120°F (48°C).

**Accuracy:** VFA = 5% of full-scale; VFB = 3% of full-scale.

**Process Connection:** 1/8" female NPT. VFB ranges 85 and 86 have 1/4" NPT back connections or 3/8" NPT end connections. These ranges not available with brass valves.

**Scale Length:** VFA 2" typical length; VFB 4" typical length.

**Mounting Orientation:** Mount in vertical position.

**Weight:** VFA: 4.0 to 4.8 oz (.11 to .14 kg); VFB: 7.2 to 8.8 oz (.20 to .25 kg).

FLOW

Flowmeters, Variable Area

### How To Order

Series—Range No. ("X")—Valve—Option

**Example:** VFA-9-BV

Series VFA with 20-200 SCFH Air Range & Brass Valve

### VFA

Model	Description
VFA-X	Standard VFA
VFA-X-SS*	VFA with Stainless Metal Wetted Parts
VFA-X-BV‡	VFA with Brass Valve
VFA-X-SSV‡	VFA with Stainless Steel Valve
VFA-X-EC	VFA with End Connections
VFA-X-EC-SS	VFA with End Connections and Stainless Steel Metal Wetted Parts

### VFB

Model	Description
VFB-X*	Standard VFB
VFB-X-SS	VFB with Stainless Metal Wetted Parts
VFB-X-BV	VFB with Brass Valve
VFB-X-SSV	VFB with Stainless Steel Valve
VFB-X-EC	VFB with End Connections
VFB-X-EC-SS	VFB with End Connections and Stainless Steel Metal Wetted Parts

\* Shown model

‡ Valve is designed for flow adjustment only, not intended to be used as an open/shut-off valve.

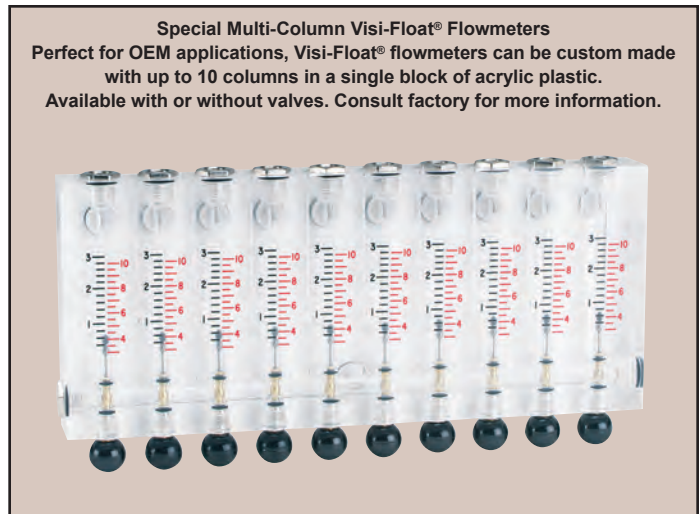
### Popular Ranges

Model VFA — 2" Scale			
Range No.	Range SCFH Air	Range No.	Range LPM Air
1	.1-1	21	.06-0.5
2	.2-2	22	.15-1
3	.6-5	23	.6-5
4	1-10	24	1-10
5	2-20	25	3-25
6	4-30	26	6-50
7	5-50	27	10-100
8	10-100		
9	20-200		
	<b>CC Water per min.</b>		<b>Gal. Water per hour</b>
32	6-50	41	.6-5
33	10-100	42	2-10
34	20-200	43	3-20
		44	8-40

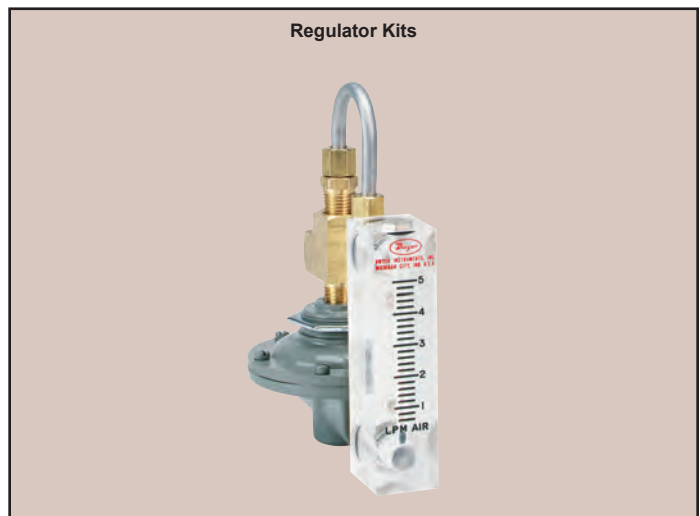
Model VFB — 4" Scale			
Range No.	Range SCFH Air	Range No.	LPM Air
50	.3-3	65	.2-4
91+	1-10	66	1-10
51+	2-20	67	1-20
52	4-40	68	3-30
53+	10-100	69	4-40
54+	10-150		<b>CC/Min. Water</b>
55+	20-200	82	2-30
	<b>SCFM Air</b>		<b>GPH Water</b>
90	.3-3	80+	.5-12
	<b>CC/Min. Air</b>	83+	1-20
60	100-1000	84	6-40
		81	6-60
			<b>GPM Water</b>
		85*	.2-2
		86*	.6-5

\* For dual range models in English and Metric add "D" to end of Range No.

### OPTIONS & ACCESSORIES



**OEM Specials** – Special flowmeter designs can be supplied to meet a wide range of requirements and specific applications. These include: on-off plunger and push-to-test valves, special gas or fluid calibration, special ranges, scales, name brand or other identification. Pointer flags can be furnished for instant visual reference. For specific information, please supply an outline of your requirements.



**Regulator Kits** – Available as optional extras for both Rate-Master® Flowmeters and Visi-Float® Flowmeters models. This view shows Model VFA Visi-Float® flowmeter with integrally connected constant differential pressure regulator. Recommended for use where inlet air pressure fluctuates widely and constant flow is required.

The regulator maintains a constant pressure differential of approximately  $3 \pm .15$  psig. Supply pressure must be at least 3 psig above the flowmeter discharge to operate. The standard regulator may be used with any Dwyer Series RM or VF flowmeter up to 200 scfh. For higher flow rates consult the factory.

**Model RKA**, Regulator Kit for VFA Series

**Model RK-VFB**, Regulator Kit for VFB Series

### OPTIONS

- PF, Red ABS Plastic Pointer Flag
- VIT, Fluoroelastomer O-rings
- NIST, NIST traceable calibration certificate