



See-Flo[®] Meters indicate flow rate and permit visual inspection of water, air or other transparent fluids. For general purpose industrial service, See-Flo[®] meters handle a wide range of process fluids in vertical or horizontal piping runs.

The wedge shape of the meter housing makes See-Flo® practically self-cleaning. Where periodic maintenance might be necessary, the tempered glass window is easily removed and replaced.

Features

- O Instantaneous flow rate measurement.
- O Observe fluid conditions for color, clarity and flow.
- O Use in horizontal or vertical piping systems.
- O Individually calibrated for fluid and operating conditions.
- User selectable 10:1 turndown flow ranges. (See Meter Rangeability Sizing Tables)
- User selectable units of measure including dual units of measure.
- No floats to get stuck, tubes to break or dynamic seals to leak.
- O Low pressure loss.
- O Simple design with few parts for long service life.

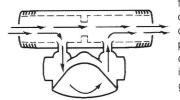
Principle of Operation

See-Flo® meters are variable area flow rate meters ("rotameter").

The internal volume of the housing enlarges from the inlet to the outlet. The primary element is a tempered alloy vane with one end affixed to the apex of the meter housing. As the flow rate changes, the vane is flexed in direct proportion.



The $\frac{1}{2}$ ", $\frac{3}{4}$ ", and 1" connections typically have female threaded ends. Sizes $\frac{1}{4}$ " through 12" utilize an integral by-pass housing enables larger connection sizes in the



format of a spool with a consistant 12" end to end dimension. In addition, it permits a wide variety of connection types which include threaded, flanged, grooved ends and tri-clamp.

Applications

- O Water
- O Air
- O Nitrogen
- O Vacuum service
- O Other transparent liquids or gases.

Specifications

Accuracy:	± 2% full scale					
Repeatability:	±1% full scale					
Scales:	Direct reading					
Resolution:	Maximum - 30 divisions					
	Minimum - 15 divisions					
Materials of Construction: (wetted parts)						
Housing:	aluminum, brass or 316 stainless steel					
Shunt:	housing material or carbon steel					
Window:	tempered glass					
Vane:	17-7 ph stainless steel					
"O" Rings:	buna-n, ethylene propylene, Viton®					
	or perfluoroelastomer					

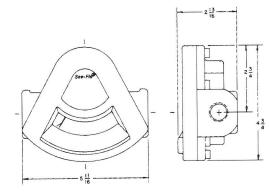


www.flowfactor.com

See-Flo®

Meters

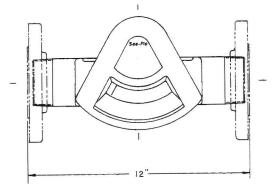
1/2", 3/4", & 1" connections



Piping Connections:

1/2" to 1" NPT Female 1¼" to 4" NPT Male 1/2" to 3" Tri-clamp 11/4" to 6" Grooved 11/4" to 6" Beveled 1/2" to 12" 150#/300# RF/FF ANSI Flanges (carbon stl) 1/2" to 12" 150# RF ANSI Flanges (stainless steel) 1/2" to 6" 150#/300# RF ANSI Flanges (aluminum) 1/2" to 6" 150# FF ANSI Flanges (brass) 15 to 25 mm DIN 2999/BS21/ISO R7 Female threaded 15 to 150 mm DIN PN 10 Flanges (316 stainless stl & carbon stl)

11/4" to 6" connections



Pressure Limits: 200 psig (13.8 bar)

Temperature Limits:

-23 to 85°C (-10 to 185°F) with polycarbonate window. -23 to 121°C (-10 to 250°F) with buna-n o-ring. -23 to 204°C (-10 to 400°F) with Viton®, ethylene propylene or perfluoroelastomer o-ring

Not intended for use with opaque liquids or steam. ERDCO reserves the right to alter design and/or specifications without notice. Viton® is a registered trademark of E.I. duPont de Nemours and Co.

Model Number System

The example 3221-12F5-11 describes a 3200 Series See-Flo® meter with a brass body/carbon steel shunt for left to right flow, glass window and EPM O-Ring. Connections are 3" 150# raised face carbon steel flanges.

<u>32</u> Series	<u>2</u> Housing Material	<u>1</u> – Flow Direction	<u>12</u> Size	<u>Е</u> Туре	5 – Shunt Material	<u>1</u> Window	<u>1</u> O-Ring
32- 3200	1-Aluminum 2-Brass 6-Stainless Stl	1-L to R 2-R to L 3-Up 4-Down	02-½" (15mm) 03-½" (20mm) 04-1" (25mm) 05-1½" (32mm) 06-1½" (40mm) 08-2" (50mm) 10-2½" (65mm) 12-3" (80mm) 16-4" (100mm) 20-5" (125mm) 24-6" (150mm) *32-8" *40-10"	T-NPT End R-NPT Back S-Tri-clamp G-Grooved X-Beveled W-Socket (½"-1") F-Flange 150#FF J-Flange 150#FF J-Flange 300#FF K-Flange 300#FF L-Flange DIN PN16 M-BSPT End N-BSPT Back	0-None 1-Aluminum 2-Brass 5-Carbon Stl 6-Stainless Stl	1 Glass 2 Polycarbonate	1 EPM 2 Viton [®] 3 Buna-N 4 Perfluoroelastomer

