See-Flo®

Meters

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.
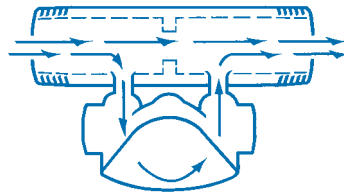
Features

◯ Instantaneous flow rate measurement.

◯ Observe fluid conditions for color, clarity and flow.

◯ Use in horizontal or vertical piping systems.

◯ 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.

◯ Low pressure loss.

◯ 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 ½", ¾", and 1" connections typically have female threaded ends. Sizes 1¼" 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.
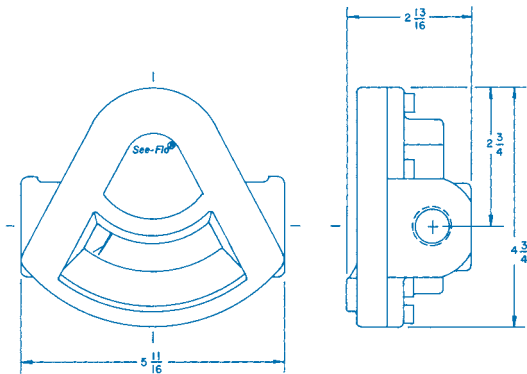
Applications

◯ Water

◯ Air

◯ Nitrogen

◯ Vacuum service

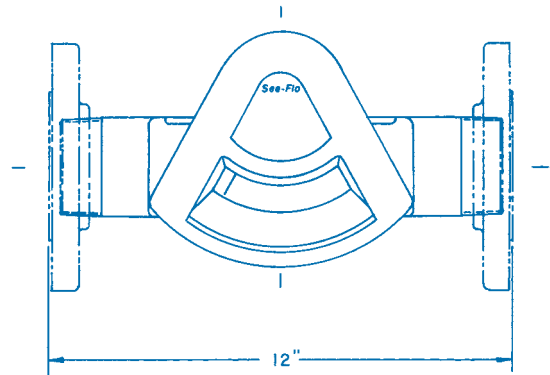◯ Other transparent liquids or gases.

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

ERDCO®

½", ¾", & 1" connections

1¼" to 6" connections

Piping Connections:

½" to 1" NPT Female
1¼" to 4" NPT Male
½" to 3" Tri-clamp
1¼" to 6" Grooved
1¼" to 6" Beveled
½" to 12" 150#/300# RF/FF ANSI
 Flanges (carbon stl)
½" to 12" 150# RF ANSI
 Flanges (stainless steel)
½" to 6" 150#/300# RF ANSI
 Flanges (aluminum)
½" 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)

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>F</u> Type	<u>5</u> – Shunt Material	<u>1</u> Window	<u>1</u> O-Ring
32-3200	**1**-Aluminum	**1**-L to R	**02**-½" (15mm)	**T**-NPT End	**0**-None	**1** Glass	**1** EPM
	2-Brass	**2**-R to L	**03**-¾" (20mm)	**R**-NPT Back	**1**-Aluminum	**2** Polycarbonate	**2** Viton®
	6-Stainless Stl	**3**-Up	**04**-1" (25mm)	**S**-Tri-clamp	**2**-Brass		**3** Buna-N
		4-Down	**05**-1¼" (32mm)	**G**-Grooved	**5**-Carbon Stl		**4** Perfluoroelastomer
			06-1½" (40mm)	**X**-Beveled	**6**-Stainless Stl		
			08-2" (50mm)	**W**-Socket (½"-1")			
			10-2½" (65mm)	**F**-Flange 150#RF			
			12-3" (80mm)	**H**-Flange 150#FF			
			16-4" (100mm)	**J**-Flange 300#RF			
			20-5" (125mm)	**K**-Flange 300#FF			
			24-6" (150mm)	**L**-Flange DIN PN16			
			*****32**-8"	**M**-BSPT End			
			*****40**-10"	**N**-BSPT Back			
			*****48**-12"				

*gas applications only

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