

# **CORROSIVE SERIES PRECISION TURBINE FLOWMETERS**



- **High Accuracy**
- **Simple Installation**
- **Versatile Mounting**
- **Low Pressure Drop**
- **Flexible Applications**

## THE SPONSLER CORROSIVE SERIES PRECISION TURBINE FLOWMETER . . .

combines the proven design of our Standard Line Turbine Flowmeter with new materials of construction. This combination makes our corrosive series Precision Turbine Flowmeters compatible with most corrosive medias. Now the reliability, accuracy and small size of our Precision Turbine Flowmeters can be used to accurately measure such hard to handle liquids as Hydrochloric acid, Chlorine, Muriatic and Sulfuric acid.

Materials of construction can be Teflon, CPVC, Kynar, etc. Typical applications include rate indication and totalization for batching, blending, filling and process control.

The Sponsler Corrosive Series Precision Turbine Flowmeter produces an AC sine wave signal output proportional to volumetric flow rate. When combined with our electronic controls these devices can be used for a variety of applications.

Let Sponsler design a flow measuring system specifically tailored to your specifications. Contact our sales department for details on specific applications.

### FEATURES

- **High Accuracy:** Each meter is calibrated over a ten point flow curve within  $\pm 0.5\%$  linearity and  $\pm 0.1\%$  repeatability to insure a correct reading every time.
- **Custom and Standard Design:** Allows meter to be designed and fabricated to fit your specific application.
- **Simple Installation:** Mount flowmeter in line and connect leads. Light weight and small size save time and money.
- **Versatile Mounting:** Meter may be mounted in vertical or horizontal positions to accommodate your application without affecting accuracy. No expensive piping changes are needed.
- **Materials of Construction:** A wide variety of corrosion resistant materials allows meters to be matched to your specific application.
- **Low Pressure Drop:** 4 PSI at maximum flow. Large, high pressure pumps are not necessary.
- **Flexible Applications:** Directly interfaces with all SCI instrumentation. A variety of amplifiers are available for direct interface with existing instrumentation.
- **Manufactured in USA.**

### SPECIFICATIONS

- **Linearity:**  $\pm 0.5\%$
- **Temperature:** Maximum 280°F
- **Repeatability:**  $\pm 0.1\%$
- **Pressure Drop:** 4 PSI
- **Outputs:** Minimum 30MV peak to peak amplitude at minimum flow range
- **Components:**
  - Body: Standard: CPVC, Teflon, Kynar, Polypropylene (for others consult factory)
  - Shaft: Standard: Hastelloy B, Hastelloy C, Titanium, Tantalum, and Stainless steel (for others consult factory)
  - Bearings: Teflon and Kynar (for others consult factory)
  - End Connections: Flanged



**Teflon  
Corrosive  
Flowmeter**



**Kynar  
Corrosive  
Flowmeter**



**CPVC  
Corrosive  
Flowmeter**

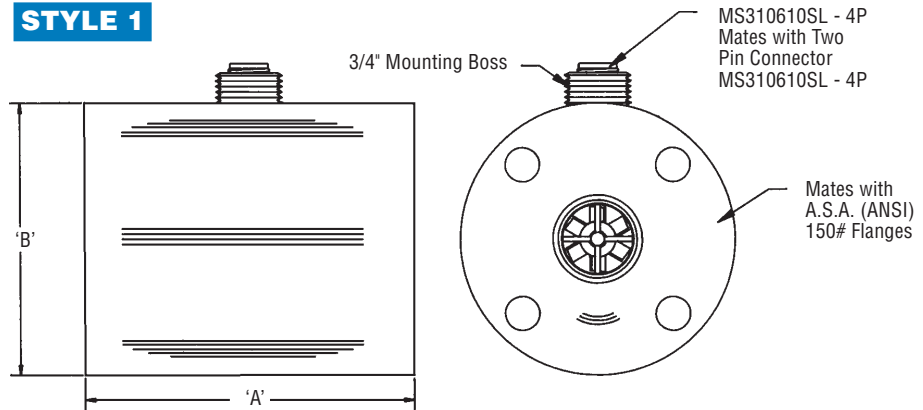
Size inches (cm)	Nominal Flow Ranges				Nominal Meter "K" Factor	Approx. Meter Weight with Pickup Coil
	GPM (LPM)					
	Minimum Repeat	Linear Minimum	Linear Maximum	Extended Maximum	Pulses Per US Gal	LBS/KG
1/4" (0.635 cm)	.25 (0.95)	.25 (0.95)	2.5 (9.46)	3.5 (13.25)	1200	0.5 / .23
3/8" (0.953 cm)	0.3 (1.135)	.75 (2.84)	5.0 (18.93)	6.0 (22.71)	1000	0.5 / .23
1/2" (1.27 cm)	0.6 (2.27)	1.25 (4.73)	9.5 (35.96)	12 (45.42)	950	0.75 / .34
5/8" (1.59 cm)	0.9 (3.407)	1.75 (6.62)	16 (60.567)	20 (75.71)	700	0.75 / .34
3/4" (1.905 cm)	1.5 (5.678)	2.50 (9.46)	29 (109.78)	35 (132.49)	620	1.0 / .48
1" (2.54 cm)	2.0 (7.571)	4.0 (15.142)	60 (227.13)	75 (283.91)	300	1.25 / .57
1 1/4" (3.175 cm)	3.0 (11.36)	6.0 (22.71)	93 (352.04)	115 (435.33)	160	1.5 / .68
1 1/2" (3.81 cm)	5.0 (18.93)	8.0 (30.283)	130 (492.104)	175 (662.45)	80	2.5 / 1.13
2" (5.08 cm)	11 (41.64)	15 (56.78)	225 (851.72)	275 (1040.99)	35	3.5 / 1.58
2 1/2" (6.35 cm)	15 (56.78)	25 (94.64)	400 (1514.16)	500 (1892.71)	15	5.0 / 2.27
3" (7.62 cm)	20 (75.71)	40 (151.42)	650 (2460.52)	800 (3028.33)	8	10.0 / 4.54
4" (10.16 cm)	50 (189.27)	75 (283.91)	1250 (4731.77)	1500 (5678.12)	4	20.0 / 9.07

NOTE: Table based on cpvc. For other materials, consult factory.

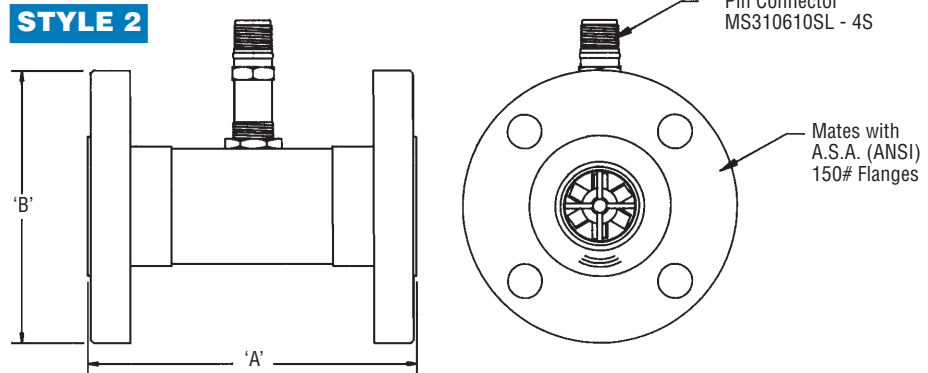
## INSTALLATION DIMENSIONS

Size	A	B
1/4-1/2"	5.000	3.500
*5/8"	5.500	3.875
3/4"	5.500	3.875
1"	5.500	4.250
1 1/4"	6.000	4.625
1 1/2"	6.000	5.000
2"	6.500	6.000
2 1/2"	7.000	7.000
3"	10.000	7.500
4"	12.000	9.000

### STYLE 1



### STYLE 2



\*Mates to 3/4" 150# A.S.A. (ANSI) flanges.

All meter bodies constructed to **Style 1** except for 1"—4" CPVC and 2 1/2"—4" KYNAR; reference **Style 2**.

Dimensions are in inches.

## MODEL SELECTION GUIDE

### METER MODEL NUMBERING SYSTEM

CS(Size) - (Bearing Type) - (Shaft) - (Endfitting) - (Component Material) - (Options) - (Boss)

EXAMPLE: CS2

TS

TA

150

CP

X

**BEARING TYPE:**

**COMPONENT MATERIAL:**

**SHAFT:**

**END FITTING:**

**MOUNTING BOSS:**

Teflon Sleeve = TS	CPVC = CP	Hastelloy B = HB	150 lb RF = 150	3/4" MNPT = X
Kynar Sleeve = K	Kynar = KY	Hastelloy C = HC	Special = S	
Fluorosint Sleeve = FS	Kel-f = KF	Tantalum = TA		
Peek Sleeve = PK	Polypropylene = PP	Titanium = TI		
	Special = S	304 = 4		
	Teflon = TF	316 = 6		
		Special = S		
		Monel = MN		
		Inconel = IN		