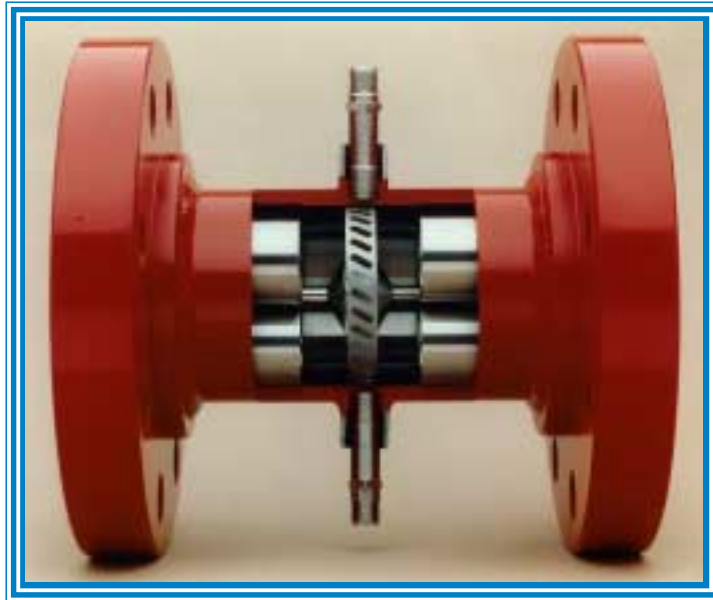


# Custody Transfer LC Precision Turbine Flowmeters



*Liquid Controls Stainless Steel Flanged  
Precision Turbine Flowmeters with Rim Rotor*

## DESIGN FEATURES:

- Output Linear with Flow Rate
  - Linearity: +/- 0.15
  - Rangeability of 10:1
- Explosion Proof Amplifier Housing
- Superior Accuracy and Repeatability
  - Self Lubricating Carbide Bearings
- Built in Accordance with API Standard 2534  
(Measurement of Liquid Hydrocarbons by Turbine Meter Systems)
- Built in Accordance with API Standard 2531  
(Mechanical Displacement Meter Provers)

# Custody Transfer LC Precision Turbine Flowmeters

*The LC Precision Turbine Flowmeter* measures volume by a contour mounted turbine in the flow system. The AC signal output is detected by a transducer and interpreted by various electronic devices used for flow rate indication and totalization. LC Precision Turbine Flowmeters are engineered and manufactured to provide high accuracy flow measurement over a broad range of product viscosities, temperatures, and flow rates. The compact, rugged design has established a new standard for flow measurement by exceeding the expectations of our industry for higher accuracy and reliability in all operating conditions.

- **APPLICATIONS**

**Pipeline Control and Custody Transfer:** Tanker and barge loading, unloading, product loss control, security (safety), accounting, sales, and tax.

**Blending:** Medium and light crude oils and finished (hydrocarbon) products.

- **MATERIALS OF CONSTRUCTION**

**Body (all sizes):** Stainless steel

**Internals (3" and 4"):** Stainless steel

**Body and Internals:** Stainless steel (optional Carbon Steel) Flanges

**Bearing:** Tungsten Carbide or Stainless Steel Ball

- **PERFORMANCE SPECIFICATIONS**

**FLOWMETER**

**Linearity:** +/- 0.15%

**Repeatability:** +/- 0.02%

**Output:** 15 to 20 mv ac at minimum flow; 2 to 3 v ac at maximum flow

**SP714 AMPLIFIER** see Bulletin 5004-CD

# Custody Transfer LC Precision Turbine Flowmeters

## RATINGS:

- **Temperature:** -450°F to 450°F standard with optional 1000 °F (-267.8°C to 232.2°C standard with optional 537.8°C)
- **Pressure Drop:** 4 psi maximum at maximum flow rate (based on gasoline)
- **End-Fittings:** ANSI flanges Pressure-Temperature Rating Corresponding to Flanges used. Others available upon request.

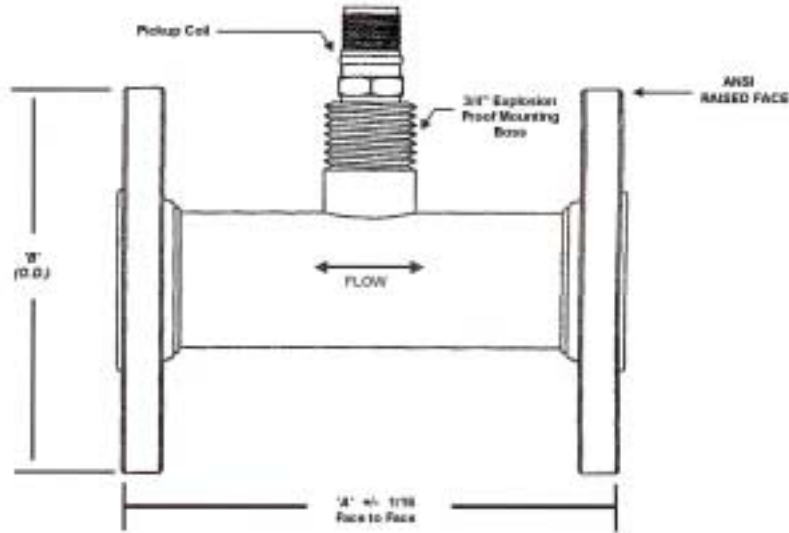
## CONNECTIONS:

- **Electrical:** Class 1, Group D, Division 1, Explosion Proof Condulet with Terminal Strip Connections
- **Mechanical:** 150 lb., 300 lb., 400 lb., and 600 lb. ANSI R.F. Flanges
- **Rotor Rim:** Standard

## FLOW RANGES

Size	Flow Range Gallons Per Minute	Electrical Output Pulses / Gallon (K)
3"	60 - 600	47.6
4"	129.5 - 1,295	23.8
6"	294 - 2,940	23.8
8"	595 - 5,950	11.9
10"	840 - 8,400	11.9
12"	1,260 - 12,600	6

## Custody Transfer LC Precision Turbine Flowmeters



### Installation Dimensions

LINE SIZE	150# ASA (ANSI)		300# ASA (ANSI)		400# ASA (ANSI)		600# ASA (ANSI)	
	A	B	A	B	A	B	A	B
3"	10	7 1/2	10	8 1/4	10	8 1/4	10	8 1/4
4"	12	9	12	10	12	10	12	10 3/4
6"	14	11	14	12 1/2	14	12 1/2	14	14
8"	16	13 1/2	16	15	16	15	16	16 1/2
10"	20	16	20	17 1/2	20	17 1/2	20	20
12"	24	19	24	20 1/2	24	20 1/2	24	22