

6" 700 series rotary meter Data-sheet



The 6" 700 series flow meter is a simple and efficient design. The meter consists of two identical fluid chambers (double capsule) each containing a single blocking rotor and two displacement rotors whose rotation is synchronized with mating gears. At the same time, the rotors located in the two separate metering chambers are connected to each other through short adaptors allowing a perfect rotational synchronism in both housing chambers. As the fluid enters the fluid chambers, the blocking rotors are forced to rotate. The displacement rotors, also rotating in conjunction with the blocking rotor help direct the fluid flow through the chamber and to the outlet. The linear flow of the fluid is thus translated into rotary motion in the meter. The output of the meter is picked up from the rotation of the blocking rotors and transmitted to a register or pulse transmitter. The rotors in the meter are designed to operate at close tolerances to one another and the wall of the fluid chamber. There are slight gaps between the rotors and the chamber wall. Because of this, it is important that the meter be properly applied for the flow rate and operating pressure of the system. The meter design uses high quality long life materials for the rotor bearings and journals. Since there is no contact between the rotors and the fluid chamber wall, these critical components have a long life expectancy.

Technical features

- Produced in two versions: 700-60 & 700-65.
- Only in SPA (Standard Petroleum/Aviation) type.
Metallurgy: aluminum
(ductile iron —SPD type — available by end of 2015)
- Flow-rates ranges =>
700-60: 300 to 3028LPM (80 to 800 USGPM)
700-65: 378 to 3785LPM (100 to 1000 USGPM)
- Linearity: 10:1 Turndown - capable of $\pm 0.15\%$ of maximum nominal flow rate
- Repeatability: capable of 0.02% over the entire range of flow range





"The Standard of Measurement"

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Technical features (continuation)

- Viscosity range: will accurately measure liquids up to 1200 m.Pa.s (to be confirmed)
- Manifold's connection: 4" & 6".
Type: ANSI 150 RF flanges
- Pressure rating: 150 PSI (10.5 BAR)
- Pressure drop at 3875LPM (1000USGPM): around 8.5PSI
- Temperature rating: -40°F to 160°F (-40°C to 71°C)
- Sustained accuracy: no metal-to-metal contact inside the measuring chamber means minimal wear and deterioration in accuracy over time, fewer recalibrations

Material of Construction

Meter type	Housing	Rototrs	Bearing	Bearing	Journals	Timing	Internal	Seal
SPA	Anodized aluminum	Anodized aluminum	NI-RESIST	Carbon Graphite	Hardchrome stainless steel	stainless steel	stainless steel	FKM

SPA Standard Petroleum (Aviation): For metering refined petroleum products; such as Aviation Gasoline, Jet Fuel, Regular and Unleaded Gasoline, Diesel, Bio-Diesel, Naptha, Kerosene, etc

Ancillary product

- 6" in line ductile iron air –eliminator - strainer assembly **(in final stage of designing)**