Technical Data

Mechanical BiRotor

Model B040 [2"]
Model B048 [2"]

General
The BiRotor Meter is a positive displacement meter utilized in the most demanding applications requiring accuracy, long life and ruggedness.

Long Life
Long life is assured because the meter does not contain any oscillating, reciprocating, sliding parts or cranks to wear or disturb the balanced rotary action. In addition, the materials incorporated within the meter assembly are selected specifically for the wide range of petroleum and industrial liquid applications.

Accuracy
The accuracy is attained by the unique BiRotor design which features two finely balanced rotors. An adjustor, incorporated on the meter, is used to assure maximum accuracy within the meter's flow range.

Accessories
- Preset Counters
- Control Valves
- Large Numerical Registers
- Pulse Transmitters
- Ticket Printers
- Strainers

Design Features
- Double case design
- Extremely long service life
- Economical Low maintenance
- Two simple rotors with no metal-to-metal contact
- No oscillating, reciprocating or sliding parts or cranks to wear or disturb the balanced rotary action
- Sustained Measurement Accuracy
- Conforms with International standards of flowmeter accuracy

Principle of Operation
The two spiral fluted rotors within the measuring chamber are dynamically balanced, but hydraulically unbalanced. (Refer to Figure 1). As the product enters the intake of the measuring unit chamber, the two rotors divide the product into precise segments of volume momentarily and then return these segments to the outlet of the measuring unit chamber. During this "liquid transition", the rotation of the two rotors is directly proportional to the flow rate of liquid thruput. A gear train located outside the measuring unit chamber conveys mechanical rotation of the rotors to a mechanical or electronic register for totalization of liquid thruput.

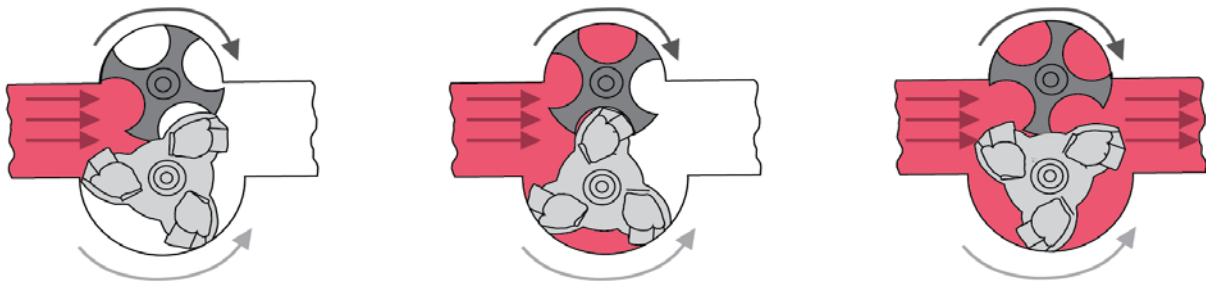


Figure 1 - BiRotor Meter Principle of Operation Diagram

Materials of Construction

Housing:
Welded Steel Construction Combining Steel Castings and Drawn Steel Plate

Measuring Unit:
Rotors: Aluminum (Standard)
Rotor Shafts: E.T.D. 150
Rotor Bearings: Stainless Steel
Body and End Covers: Cast Iron

Counter Base Plate:
Body: Steel
O-Ring: Viton
Drive Shafts, Drive Gears and Ball Bearings

Ordering Information

In order to accurately process an order, such information as product to be metered, product viscosity, product temperature range, ambient temperature range, rate of flow, operating pressure, units of registration, accessories required, and optional features needed must be specified by the customer.

Flow Capacity

Meter Models B04X		
	Max. Flow	Min. Flow
GPM	100	20
LPM	378	76

Shipping Weight And Volume (Approximate)

B040	70 lbs. @ 1.7 Cu. Feet
	32 kgs. @ 0.05 Cu. Meters
B048	70 lbs. @ 1.7 Cu. Feet
	32kgs. @ 0.05 Cu. Meters

Accuracy:

Capable of +/- 0.15%; Contact Factory for viscosity corrections.

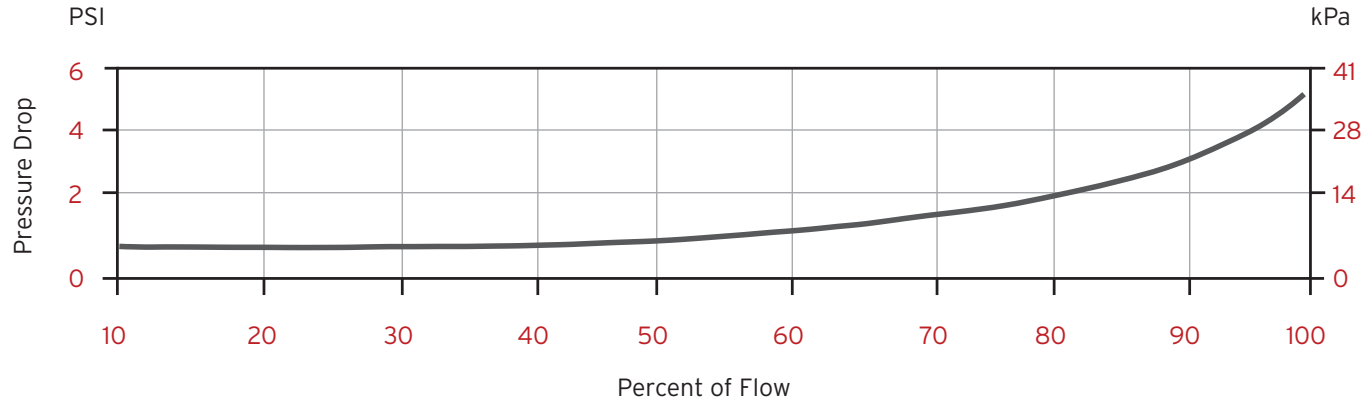
Flange Connections

Models	Connections	Max Working Pressures @100F	DIN Connections	Max working pressure
B040	2" 150 lb. ANSI	150 psi	DN 50 PN 16	10.3 Bar
B048	2" NPT Companion	150 psi	-	13 Bar

Temperature Range: -20°F to 150°F (-29°C to 66°C) Optional 450°F (232°C)

Typical Pressure drop curve

Test Solution: Mineral Spirits



NOTE:
Do not operate this instrument in excess of the specifications listed. Failure to heed this warning could result in serious injury and/or damage to the equipment.

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