



Specifications

MP-180 Meter

Liquid Controls MP Series Bi-Rotor Positive Displacement (PD) Meters offer the ultimate in measurement accuracy for custody transfer of petroleum and aviation fuels.

Superior performance features

Low pressure drop – the straight-through path and floating rotor design creates a very low pressure drop at maximum flow.

Sustained accuracy – no metal-to-metal contact inside the measuring chamber means minimal wear and deterioration in accuracy over time, fewer recalibrations and a longer service life.

Wide viscosity range – LC meters can accurately meter products up to 1000 cP (please consult factory for higher viscosity).

Compact design – no upstream or downstream pipe lengths are necessary.

Double case construction – the measuring unit is removable, as a single subassembly, from the outer flanged.

Low piping vibration – the bi-rotor design produces very low piping vibrations permitting to reach higher flowrates.

Accuracy/Performance

Repeatability

Mechanical registration: capable of 0.05% of reading over entire range
Electronic registration: capable of 0.03% of reading over entire range

Linearity

Over 5:1 range

Mech. registration: capable of $\pm 0.125\%$ or better from max. nom. flow rate
Elect. registration: capable of $\pm 0.10\%$ or better from max. nom. flow rate

Over 10:1 range

Mech. registration: capable of $\pm 0.22\%$ or better from max. nom. flow rate
Elect. registration: capable of $\pm 0.10\%$ or better from max. nom. flow rate

Over 40:1 range

Mech. registration: capable of $\pm 0.5\%$ or better from max. nom. flow rate
Elect. registration: capable of $\pm 0.15\%$ or better from max. nom. flow rate

Temperature range

-2.2° F to 356° F (-29° C to 180° C)

Note: with POD installed directly on the meter, temperature range is reduced to: -2.2° F to 185°F (-29° C to 85° C)

Industries served

LC MP-Series meters are well-suited for use in industries requiring precise flow measurement and reliable, extended service life:

- Refined petroleum products
- Crude oil
- LPG
- Power plant
- Petrochemicals

Construction Class 1, 8, 14

External housing:

Carbon steel ASTM A216 WCB

External cover:

Carbon steel ASTM A216 WCB

Housing:

Cast iron (1, 14)
316 stainless steel (8)

Bearing plate:

Cast iron (1, 14)
316 stainless steel (8)

Sleeve bearing:

Carbon/420 stainless steel (1, 14)
Carbon/316 stainless steel (8)

Rotors:

Cast iron (1, 14)
316 stainless steel (8)

Gear:

420 stainless steel (1, 14)
316 stainless steel (8)

Internal hardware:

Stainless steel

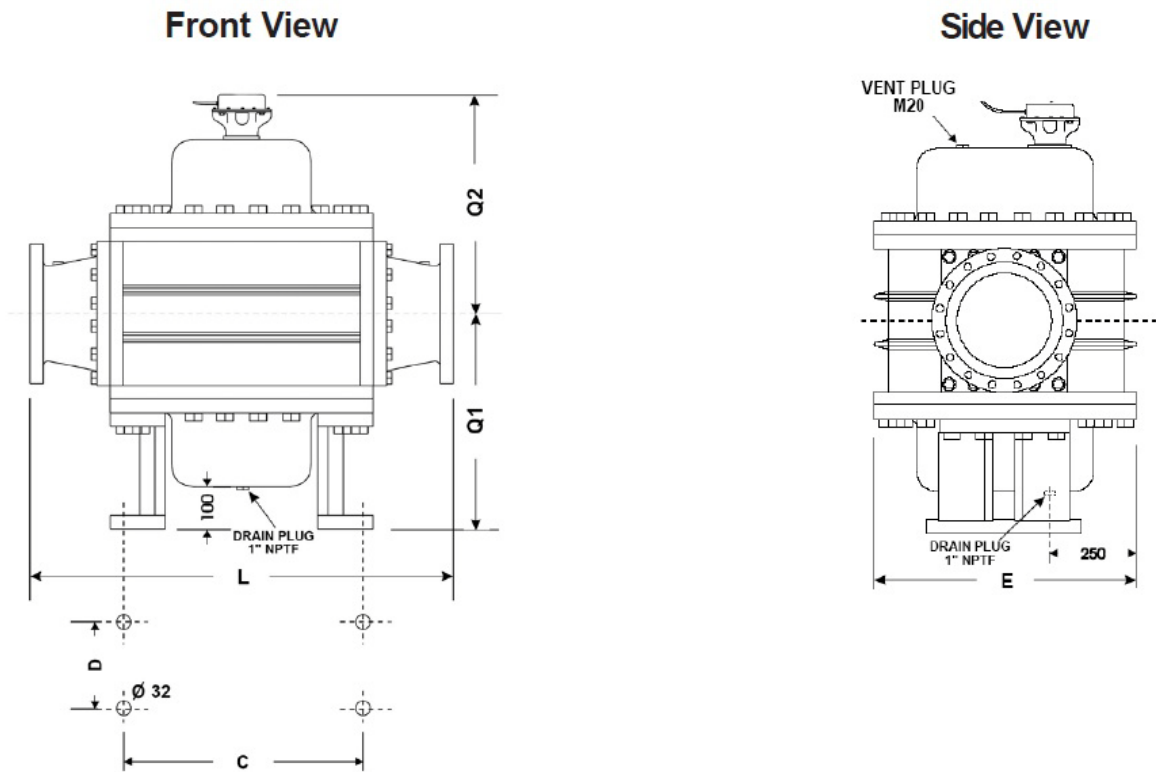
Seal material:

Teflon

Packing gland:

Stainless steel/teflon

Dimensions: flow meters with pulse transmitter

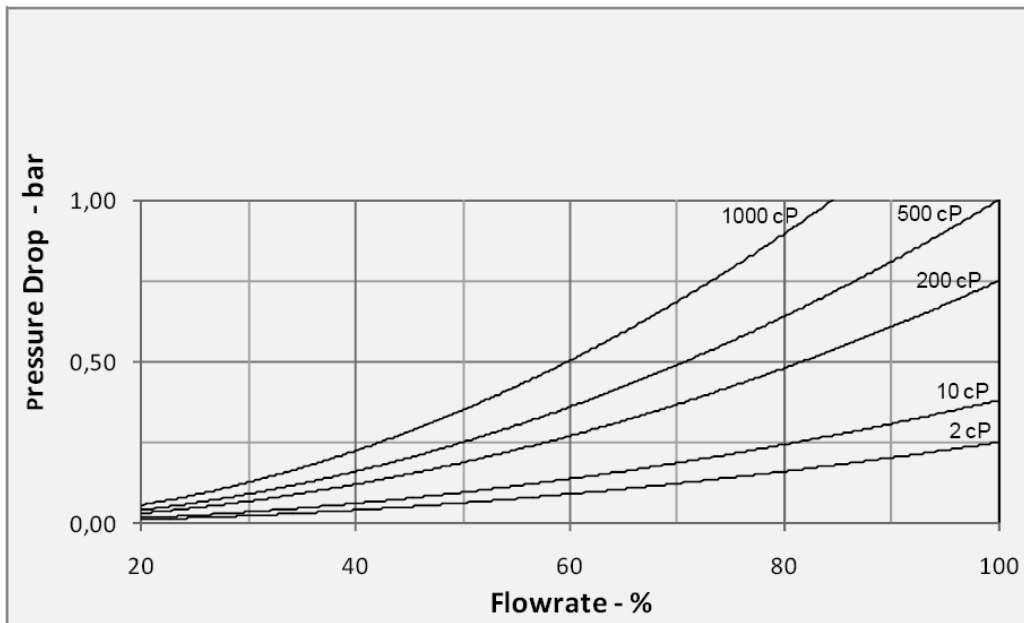


| Model | Flow rate | Flange size | Net weight | Max working pressure |
|-------|---|--------------|-----------------------|-------------------------|
| MP180 | Intermittent (1): 7926 GPM (1800 m ³ /h) | 16" ANSI 150 | 3968 lbs (1800 kg) | 19 bar @ -29°C to 38°C |
| | | | | 18 bar @ -29°C to 85°C |
| | | | | 14 bar @ -29°C to 180°C |
| | Nominal (2): 6341 GPM (1440 m ³ /h) | 16" ANSI 300 | 4189 lbs (1900 kg) | 49 bar @ -29°C to 38°C |
| | | | | 47 bar @ -29°C to 85°C |
| | | | | 44 bar @ -29°C to 180°C |

| Dimensions | | | | | | | |
|------------|------|------|------|------|------|------|--|
| | C | D | E | Q1 | Q2 | L | |
| in | 23.6 | 13.8 | 27.3 | 32.6 | 34.3 | 55.1 | |
| mm | 600 | 350 | 693 | 828 | 871 | 1400 | |
| in | 23.6 | 13.8 | 27.3 | 32.6 | 34.3 | 55.1 | |
| mm | 600 | 350 | 693 | 828 | 871 | 1400 | |
| in | 23.6 | 13.8 | 27.3 | 32.6 | 34.3 | 56.7 | |
| mm | 600 | 350 | 693 | 828 | 871 | 1440 | |
| in | 23.6 | 13.8 | 27.3 | 32.6 | 34.3 | 56.7 | |
| mm | 600 | 350 | 693 | 828 | 871 | 1440 | |
| in | 23.6 | 13.8 | 27.3 | 32.6 | 34.3 | 56.7 | |
| mm | 600 | 350 | 693 | 828 | 871 | 1440 | |

Note (1): Maximum intermittent flow rate (batch use) means 8/24 hours of operation per day.

Note (2): Maximum nominal flow rate (continuous use) means 24/24 hours of operation per day.



Construction and application classes

LC MP series PD meters are suitable for metering a broad range of products as listed below. The appropriate meter class can be used to specify a desired meter by using the table below.

| Class | Description |
|-------|--|
| 1 | Refined petroleum products |
| 8 | Acid pH liquids includes: nitric, phosphoric, glacial acetic acids, citric juices, vinegar |
| 14 | Crude oil |

Ordering Information MP180

Company Name: _____

Contact: _____

Service Description: _____

Flowrates: Max.: _____ Normal _____ Min. _____

Operating temperatures: Max.: _____ Normal _____ Min. _____

Maximum non-shock operating pressure: _____

Maximum viscosity: _____ @ _____ (Temp°/F or C)

Specific gravity: _____ @ _____ (Temp°/F or C)

Class: 1 8 14

Direction of flow: L to R R to L

Unit of Measure: Decaliter m³/h US Barrel

Flange size: 16"

Flange type: ANSI150 ANSI300

Options: _____