

LIQUID CONTROLS



MP Series Meters



Reliable, High Volume Metering

The MP Series of positive displacement flow meters are an ideal addition to Liquid Controls' long tradition of durable, accurate flow meters. MP Series flow meters excel in high volume transfer applications where extreme operating conditions are present. They are perfectly suited to measure refined petroleum products as well as more viscous products, such as crude oil and fuel oil. And like all Liquid Controls positive displacement flow meters, MP Series flow meters are designed with no metal-to-metal contact in the measuring chamber, providing years of sustained accuracy and trouble-free service.

Industries

- Refined petroleum products
- Bunkering
- Power plants
- Refinery
- Oil Pipeline

MP Series Benefits

- Sustained accuracy & repeatability
- Long service life
- Low maintenance
- Stable calibrations



Construction Materials

Meter Body and Rotors:
Cast Iron, Stainless Steel, Steel

Seal Materials:
PTFE/Viton

End Connections
8, 10, 12, and 16 inch; 150# or 300# ANSI

Maximum Nominal Flow Rate
6,350 GPM (1440 m3/h)

Maximum Operating Temperature
356 °F (180 °C) *with extension kit*

Maximum Operating Pressure
740 PSI (51 bar)

Maximum Viscosity
500 cSt *at maximum nominal flow rate*
5,000 cSt *at reduced flow rate*

Repeatability
Mechanical Registration
Capable of 0.05% of reading over entire range

Electronic Registration
Capable of 0.03% of reading over entire range

Features

- Low pressure drop
- Wide viscosity range
- Low piping vibration
- High flow rates
- Minimal wear to meter internals
- Horizontal (8-10") or vertical (12-16") style construction
- Compact design & easy installation *no upstream or downstream pipe lengths necessary*
- Electronic calibration *mechanical optional*
- Double case construction
- No metal-to-metal contact

Linearity

OVER 5:1 RANGE
Mechanical Registration
Capable of $\pm 0.125\%$ or better from maximum nominal flowrate

Electronic Registration
Capable of $\pm 0.1\%$ or better from maximum nominal flowrate

OVER 10:1 RANGE
Mechanical Registration
Capable of $\pm 0.22\%$ or better from maximum nominal flowrate

Electronic Registration
Capable of $\pm 0.1\%$ or better from maximum nominal flowrate

OVER 40:1 RANGE
Mechanical Registration
Capable of $\pm 0.5\%$ or better from maximum nominal flowrate

Electronic Registration
Capable of $\pm 0.15\%$ or better from maximum nominal flowrate

MP Series Design Principles & Accessories

MP Series flow meters are distinguished by the simplicity of their floating, bi-rotor design and the advantages of their double-case construction. The floating, bi-rotor design produces excellent metering accuracy and extends the flow meter's service life. The double-case construction is easy to service and allows MP Series flow meters to perform in process conditions unattainable by standard positive displacement meters.

Excellent accuracy and repeatability

The floating rotors of MP Series flow meters never touch each other or the measuring chamber walls. While metering product, a continuous capillary seal forms between the rotors and the measuring chamber, separating the unmetered upstream product from the metered downstream product. The continuous capillary seal preserves an exact constant volume between the rotor and the measuring chamber wall, maintaining excellent accuracy without metal-to-metal contact. With no metal-to-metal contact, the rotors are not subject to wear. No wear means no increase in slippage, and no increase in slippage means no deterioration in accuracy as well as no recalibrations due to wear.

Long, trouble-free service life

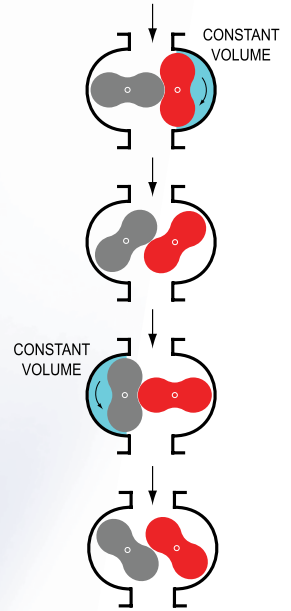
Since the rotors are not subject to wear, MP Series flow meters provide a long life of trouble-free service in the field.

Reduced maintenance

Servicing MP Series flow meters requires minimum plant downtime. The double-case construction allows service technicians to remove the measuring unit as a single subassembly while the outer housing remains flanged in the pipeline.

Application-based construction

MP Series flow meters are custom-manufactured for their intended application. In order to meter at maximum accuracy, internal rotor clearances are factory-machined specifically for the product viscosity and the temperature of your application.



MP Series Flow Meter Operating Scheme

MP Series Accessories

FMP Strainers



End Connections

8, 10, 12, and 16 inch; 150# or 300# ANSI

Maximum Pressure

203 PSI (14 bar) 150# ANSI @ -20 to 356° F
638 PSI (44 bar) 300# ANSI @ -20 to 356° F

Maximum Flow Rate

6340 GPM (1440 m³/h)

Features

Air eliminator available

Conforms to PED regulations (ASME and ATEX on request)

G.I.E. Pulse Generator



Voltage

8 to 24 VDC

Output Signal Resolution

2 channels, 100 pulses per revolution on each channel

Pulse Output Device (POD)

Available only for 150# ANSI flanged horizontal flow meters without extension kit



Voltage

9 to 30 VDC

Output Signal Resolution

2 channels, 100 pulses per channel per revolution, unscaled

Extension Kit



The extension kit provides an extension for high temperature applications with operating temperatures of up to 356 °F (180 °C). It is available for mechanical applications or electronic applications with a remote pulse device.

LectroCount LCR-II Electronic Register



Mechanical Register





The Liquid Controls Group

The Liquid Controls Group provides custody transfer solutions for the control and management of high-value fluids and gases. In 2001, IDEX combined Corken, Liquid Controls and Sampi to form the Liquid Controls Group. Together, they used their combined resources to design valuable new products and offer cost-effective pump and meter solutions. They laid the foundation for LCG's successful program of collaboration and innovation. With the additions of Sponsler, Toptech Systems and Faure Herman, LCG quickly became a dependable, single source provider, large enough to supply comprehensive solutions yet flexible enough to customize solutions for unique needs. Today, the Liquid Controls Group has a strong global presence with seven business units in five countries, over 500 distributors on six continents, and six industry leading brands.



Your Customers—Our Customers

The Liquid Controls Group (LCG) is part of the IDEX Corporation, a diversified, engineered products company. IDEX leverages the resources of high quality, similar-profile businesses to innovate solutions that bring real and lasting value to you, our customer. At LCG and IDEX, the voice of our customers is our driving force. We are committed to helping you develop better products and services to meet your customers' needs.

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