

Wichita / Sydney / Mexico City

GREAT PLAINS INDUSTRIES



FLOWMEC[®]

FLOWMETERS



PRODUCT OVERVIEW

2018



QSE MAG METER

Non-Intrusive (No moving parts)
Electromagnetic Flow Meter

ELECTROMAGNETIC

Turf / Irrigation

- Agriculture Irrigation
- Turf Irrigation Systems
- Micro Irrigation Systems
- HVAC
- EMS (Energy Management Systems)
- BAS (Building Automation Systems)

Institutional

- Chilled water
- Domestic water (hot and cold)
- Micro Irrigation Systems
- Energy sub-merging (BTU hot and cold)
- Process (blow down, make up, boiler feed, etc.)



| | |
|------------------------|------------------------------------------------------------------------------------------------------------------------|
| Accuracy: | +/- 0.5% of reading (from 0.25 to 15 fps [0.08 to 4.57 m/s]) |
| Flow Range: | 0.16 to 600 GPM (0.63 to 2270 L/min) |
| Operating Temperature: | ½" to 2": 32° to 210° F (0° to 99° C) 3" - 4": 32° to 180° F (0° to 82° C) |
| Ambient Temperature: | 0° to 140° F (-18° to 60° C) |
| Pressure: | 150 psi @ 73° F (10 bar @ 23° C) |
| Line Sizes: | ½", ¾", 1", 1 ½", 2", 3", 4" |
| Meter Body Materials: | Noryl™ housing and flow tube |
| Fitting Connections: | ½" to 2" - NPT (Male), BSPP (Male) (ISO 228) 3" & 4" ANSI Flanged - Polymer or Steel 3" & 4" DIN Flanged - Steel |

QSTAR ULTRASONIC METER

Non-Intrusive Flow Measurement

- Power Stations
- Food & Beverage
- Building Services Engineering
- Water / Waste Water
- Large Pipe Applications
- Chemicals & Petrochemicals

| | |
|-------------------------|---------------------------------|
| Accuracy: | Up to +/- 1% of reading |
| Flow Velocity Range: | +/- 98.42 ft/sec (30 m/s) |
| Operating Temperature: | -4° to 140° F (-20° to 60° C) |
| Transducer Temperature: | -40° to 300° F (-40° to 150° C) |
| Pipe Sizes: | ½" to 240" (10 mm to 6 m) |



ULTRASONIC

OM SERIES

Medium to Heavy Viscosity Fluids

- Oils
- Fuel
- Diesel
- Batching
- Molasses
- Chemical Additive Injection
- Bunker C Fuel Oil
- Clean Fluids
- Oil-Based Paints
- Industrial Fluids
- Truck Metering
- Chemical Feed Lines

| | |
|-----------------------|-------------------------------------------------------------------|
| Accuracy: | +/- 1% of reading (1/8" to 3/8") +/- 0.5% of reading (1/2" to 4") |
| Flow Range: | 0.26 GPH to 660 GPM (1 L/hr to 2,500 L/min) |
| Temperature: | -40° to 300° F (-40° to 150° C) |
| Pressure: | 70 to 5,800 psi (5 to 400 bar) |
| Meter Sizes: | 1/8" to 4" (4 mm to 100 mm) |
| Meter Body Materials: | Aluminum, Stainless Steel and PPS |
| Fitting Connections: | NPT, BSPP, Sanitary and Flange |
| Output Options: | Pulse and 4-20mA |



POSITIVE DISPLACEMENT
(Oval Gear)



EGM SERIES

High to Low Viscosity Fluids

- Chemical Additive Injection
- Bunker C Fuel Oil
- Clean Fluids
- Oil-Based Paints
- Industrial Fluids
- Truck Metering
- Chemical Feed Lines
- Batching
- Molasses
- Oils
- Fuel
- Diesel

| | |
|-----------------------|----------------------------------------------------------------------------------------|
| Accuracy: | +/- 1% of reading (1/8" to 3/8") +/- 0.5% of reading (1/2" to 3/4") |
| Flow Range: | 0.26 GPH to 21.1 GPM (1 L/hr to 80 L/min) |
| Temperature: | 5° to 176° F (-15° to 80° C) |
| Max. Pressure (AL): | 1/8" to 3/8": 500 psi (34 bar), 1/2" to 3/4": 290 psi (20 bar) |
| Max. Pressure (SS): | 1/8" to 1/4": 800 psi (55 bar), 3/8": 500 psi (34 bar), 1/2" to 3/4": 290 psi (20 bar) |
| Meter Sizes: | 1/8" to 3/4" (4 to 20 mm) |
| Meter Body Materials: | Aluminum and Stainless Steel |
| Fitting Connections: | NPT and BSPP |



POSITIVE DISPLACEMENT
(Oval Gear)



FUEL CONSUMPTION SYSTEM OPTIONS

Marine (SS) or Land and Gen-Sets (AL)

A complete fuel monitoring system that includes 2 EGM meters (SS or AL depending on kit) and a net use display for accurate measurement of fuel consumption rates and total fuel consumption.

 **Not Available in the U.S.A.**



The Fuel Consumption System is designed for Diesel Fuel. Diesel fuel is not considered a flammable fluid in most of the world, but it is in the USA. **The Fuel Consumption System does not have FM Approval and should not be sold for use in the USA.**

POSITIVE DISPLACEMENT (Oval Gear)



AIM BLOCK (Additive Injection Manifold)

- Lubricants
- Dyes & Colorings
- Denaturants
- Detergents
- Odorizing
- Anti-freeze
- Anti-corrosion
- Anti-static
- Anti-detonating
- Anti-icing
- Anti-foaming
- Emulsifiers

| | |
|----------------------------|---------------------------------------------------------------------------|
| Accuracy: | ± 1% @3cP |
| Repeatability: | 0.25% reading |
| Flow Range: | 0.26 - 145 GPM (1 - 550 L/min) |
| Temperature: | 5° to 149° F (-15° to 65° C) |
| Meter Sizes: | 1/8" - 3/8" (4 mm - 8 mm) |
| Meter Body Materials*: | Stainless Steel |
| Max. Pressure (Static): | 440 psi (30 bar) |
| Max. Pressure (Operating): | DC Solenoid Coils; 100 psi (7 bar) AC Solenoid Coils; 295 psi (20 bar) |

D SERIES DIESEL METER
High accuracy oval gear technology with low pressure drop



- Fleet Depots
- Mine Sites
- Construction Sites
- Farms
- Marine Facilities
- Portable Fueling Applications

| | |
|--------------------|-------------------------------------------------------------------------------------|
| Accuracy: | ± 1% of reading |
| Flow Range: | 0.26 - 660 GPM (1 - 2500 L/min) |
| Temperature: | 5° to +176° F (-15° to +80° C) |
| Meter Sizes: | 1/2" - 4" (15 mm - 100 mm) |
| Wetted Materials*: | Aluminium, stainless steel, hardened steel, PPS, Viton, Nitrile |
| Compatible Fluids: | Diesel, Gasoline (Intrinsically Safe electronic display only), Kerosene, Light Oils |

**Typical wetted materials - subject to change and may vary between models*

POSITIVE DISPLACEMENT (Oval Gear)

 **Not Available in the U.S.A.**



The D-Series is designed for Diesel Fuel. Diesel fuel is not considered a flammable fluid in most of the world, but it is in the USA. **The D-Series meter does not have FM Approval and should not be sold for use in the USA.**

TURBINE Flowmeters

G SERIES

Thin Viscosity Fluids Under 100 Centipoise



- Food & Beverage
- Petro Chemicals
- Fuel
- Pharmaceuticals
- Batching
- Process Control
- Chemical Feed Lines
- Irrigation
- High Water Volume Mixing

| | |
|-----------------------|-----------------------------------------|
| Accuracy: | +/- 0.5% of reading |
| Flow Range: | 0.6 to 600 GPM (2.2 to 2,271 L/min) |
| Temperature: | -450° to 800° F (-268° to 426° C) |
| Pressure: | 2,500 to 5,000 PSI (170 to 340 Bar) |
| Meter Sizes: | 1/2" to 3" (15 to 80 mm) |
| Meter Body Materials: | Stainless Steel |
| Fitting Connections: | NPT, BSPT, BSPP, Sanitary & ANSI Flange |
| Output Options: | Pulse and 4-20mA |

- ✓ High Precision
- ✓ High Pressure

TP SERIES

Low Viscosity Fluids



- Fuel
- Alcohols
- Solvents
- Insecticides
- Water
- Light Hydraulic Oils

∅ **Not Available in the U.S.A.**

TURBINE Flowmeters

| | |
|-------------------|-------------------------------------------------------------------------|
| Accuracy: | +/- 0.5% of reading |
| Flow Range: | 0.5 to 1200 GPM (1.8 to 4500 L/min) |
| Temperature: | -40° to +450° F (-40° to +232° C) |
| Max. Pressure: | 3625 psi (250 bar) |
| Suits Pipe Sizes: | ½" to 4" (15 mm - 100 mm) |
| Pipe Connections: | NPT, BSP, ANSI #150, ANSI #300, PN16 DIN |
| Wetted Materials: | 316 SS bearing support and body, 431 SS rotor, tungsten carbide bearing |

TURBINE Flowmeters

G2 SERIES

General Purpose Meter



"Look for the blue label."

- Batching
- Blending
- Water
- Food & Beverage Processing
- Harsh Chemicals (Sulfuric Acid & Bleach)
- Monitoring Clean Fluids
- Chemical Feed Lines
- Industrial Fluids
- Plant Process Water

| | |
|-----------------------|---------------------------------------------------------------------------------------|
| Accuracy: | +/- 1.5% to 0.75% of reading (Depending on Pipe Size) |
| Flow Range: | 1.0 to 200 GPM (3.8 to 760 L/min) |
| Temperature: | -40° to 250° F (max 140° F with display) (-40° to 121° C [max 60° C with display]) |
| Pressure: | 100 to 3,000 psi (6.9 to 207 bar) |
| Meter Sizes: | 1/2" to 2" (15 mm to 50 mm) |
| Meter Body Materials: | Aluminum, Stainless Steel, Brass and PVDF |
| Fitting Connections: | NPT, ISO, Sanitary, 150# ANSI and True Union |
| Output Options: | Pulse and 4-20mA |

Integrated Display • Output Options

A1 SERIES RATE & TOTAL METER

Self-Contained Application Specific Meters



"Look for the silver label."

- Fuel Transfer
- Plant Process Water
- Batching / Blending
- Chemical Feed Lines
- **Aluminum** - Fuel Products
- **Nylon** - Water / Non-Aggressive Chemicals
- Ag Chemicals
- Solvents / Glycol

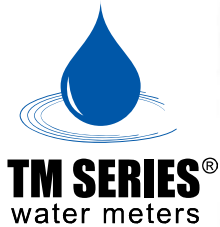
✓ **Field Calibration**

✓ **Higher Accuracy**

| MODEL: | A025, A100 (1") & A200 (2") | N025 & N100 (1") |
|-----------------------|---------------------------------|------------------------------|
| Accuracy: | +/- 1.5% of reading | |
| Flow Range: | 0.3-300 GPM (1-1135 L/min) | 0.3 - 50 GPM (1 - 190 L/min) |
| Temperature: | -40° to 250° F (-40° to 121° C) | |
| Temp. w/Display: | 14° to 140° F (-10° to 60° C) | |
| Pressure: | 300 psi (21 bar) | 150 psi (10.3 bar) |
| Meter Sizes: | 1" to 2" (25 mm to 50 mm) | 1" (25 mm) |
| Meter Body Materials: | Aluminum | Nylon |
| Fitting Connections: | NPT and ISO | |

TURBINE Flowmeters

TURBINE Flowmeters



TM SERIES

Light-Weight, In-Line Water Meter

- Batching
- Irrigation
- Blending
- Water Treatment Processing
- Water Based Cooling Systems
- Sub-Metering of Facility Water Usage
- Plant Process Water
- Monitoring Clean Fluids

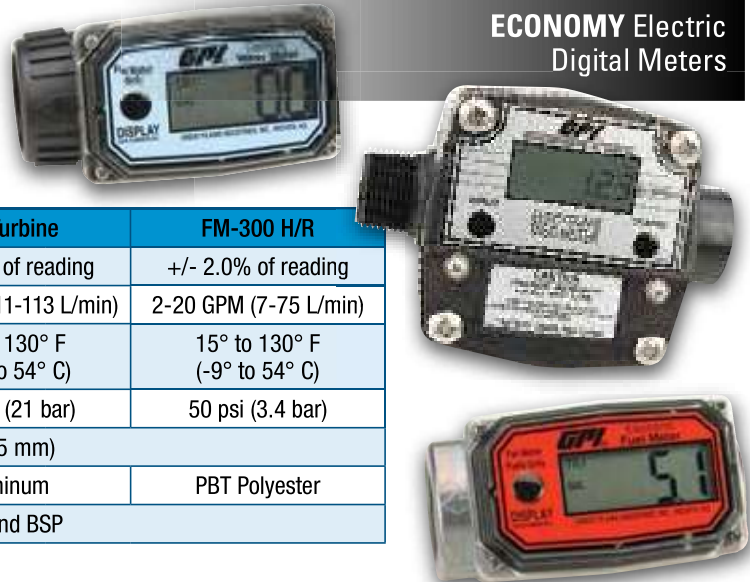
| | |
|-------------------------|---------------------------------------------------|
| Accuracy: | +/- 3% of reading |
| Flow Range: | 1 to 600 GPM (3.8 to 2271 L/min) |
| Temperature: | 32° to 140° F (0° to 60° C) |
| Pressure: | 225 psi at 73° F (15.3 bar at 23° C) |
| Meter Sizes: | 1/2 to 4" (15 to 100 mm) |
| Meter Body Materials: | PVC Plastic (Schedule 80) |
| Fitting Connections: | NPT, BSP, #150 ANSI or DIN Flange and Spigot |
| Display/Output Options: | Blind Pulse, Display with Pulse, and Display only |

01N, 01A & FM-300

Thin Viscosity Fluids Under 100 Centipoise

- Water
- Fuel
- Chemicals

| MODEL: | 01N Turbine | 01A Turbine | FM-300 H/R |
|-----------------------|----------------------------------|----------------------------------|---------------------------------|
| Accuracy: | +/- 5.0% of reading | +/- 5.0% of reading | +/- 2.0% of reading |
| Flow Range: | 3-30 GPM (11-113 L/min) | 3-30 GPM (11-113 L/min) | 2-20 GPM (7-75 L/min) |
| Temperature: | 14° to 130° F (-10° to 54° C) | 14° to 130° F (-10° to 54° C) | 15° to 130° F (-9° to 54° C) |
| Pressure: | 150 psi (10.3 bar) | 300 psi (21 bar) | 50 psi (3.4 bar) |
| Meter Sizes: | 1" (25 mm) | | |
| Meter Body Materials: | Nylon | Aluminum | PBT Polyester |
| Fitting Connections: | NPT and BSP | | |



ECONOMY Electric Digital Meters

"Look for the red label."

02N & 02A SCALED PULSE

Works with an Endless Variety of Applications

ECONOMY
Electric Digital
Meters

- Irrigation
- Data Logger
- Wireless Communications
- Programmable Logic Controller (Batch Control)
- OEM (Connect to Flow Switch - Low Cost Meter)
- Building Automation (Chillers)



| MODEL: | 02N Turbine | 02A Turbine |
|-----------------------|-------------------------------|------------------|
| Accuracy: | +/- 5.0% of reading | |
| Flow Range: | 3 - 30 GPM (11 - 113 L/min) | |
| Temperature: | 14° to 130° F (-10° to 55° C) | |
| Pressure: | 150 psi (10.3 bar) | 300 psi (21 bar) |
| Meter Sizes: | 1" (25 mm) | |
| Meter Body Materials: | Nylon | Aluminum |
| Fitting Connections: | NPT, BSPP and BSPT | |

Water • Fuel • Chemicals

LM51DN LUBE METER

Maximum 1,000 Centipoise

- Engine Oils
- Hydrocarbons
- Transmission Fluid
- Paints
- Lubricants
- Liquid Soaps

| | |
|-----------------------|-------------------------------|
| Accuracy: | +/- 0.5% of reading |
| Flow Range: | 0.25 - 8 GPM (1 - 30 L/min) |
| Temperature: | -4° to 140° F (-20° to 60° C) |
| Pressure: | 1,500 psi (103 bar) |
| Meter Body Materials: | Aluminum |
| Fitting Connections: | 1/2" NPT |



ECONOMY Positive
Displacement Meter



INSERTION IMPELLER Meter

DP SERIES

Simple Flow Measurement for Clear Fluid Applications

- Batching / Blending
- Irrigation
- Industrial Chemicals
- Water/Waste Water Treatment Processing
- HVAC (Hot & Chilled Water)
- Municipal & Industrial Water

| | |
|-----------------------|-----------------------------------|
| Accuracy: | +/- 1.5% of reading |
| Flow Velocity Range: | 3 to 33 ft/s (1 to 10 m/s) |
| Temperature: | -40° to 300° F (-40° to 150° C) |
| Pressure: | 1,160 psi (80 bar) |
| Pipe Sizes: | 1-1/2" to 100" (40 mm to 2500 mm) |
| Meter Body Materials: | Stainless Steel |

Water • Large Pipes • Industrial Chemicals

ELECTRONIC Choices

09 Display

- Total & Rate
- Gallons & Litres Calibration
- Field Calibration Capability

QSI Interface Board

- Communication options available: Modbus® RTU and BACnet® MS/TP (pending)
- Built-in Bluetooth® Wireless Technology
- External Programming FLOMEC® App available for Mobile Devices
- Receive in-field firmware updates
- Standard process outputs: Pulse out and 4-20mA



QSI Interface Board



09 Display

RT40

- Total & Rate

RT14

- Total & Rate
- Signal Outputs
- High & Low Alarm Outputs
- 4-20 mA Output
- Intrinsically Safe (Optional)



RT40



RT14

EB10

- Batch Controller
- Total & Rate
- Signal Outputs



EB10

E Series (E018)

- Total & Rate
- Signal Outputs
- Explosion Proof Display
- 4-20 mA (Isolated)
- HART Protocol (E018)



E018

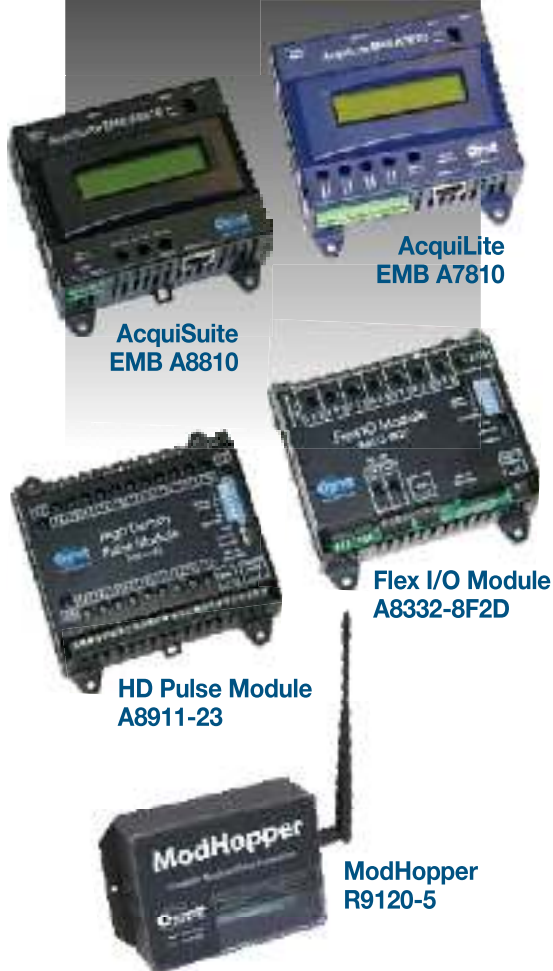
F Series (F018 / F115 / F127 / F130)

- Total & Rate
- Pulse Outputs
- High / Low Alarm Outputs (F018)
- 4-20 mA Output (F018)
- Batching (F130)
- HART Protocol (F018)
- Temperature Compensation (F127)



F018 / F115 / F127 / F130

WIRELESS Metering & Data Acquisition



FLOMEC® has partnered with Obvius, a leading energy solutions provider, to offer the optimum solutions for data collection and connectivity.

Obvius manufactures data acquisition and wireless connectivity products specifically for energy management.

Solutions offered include:

- Data Acquisition
- Wireless Communication
- Meters & Sensors
- Custom Packaged Solutions
- Integration & Software Partners

Data Acquisition Servers

AcquiSuite EMB A8810

- Collect energy data from meters and environmental sensors
- Designed to connect to IP-based applications

AcquiLite EMB A7810

- Collect energy data from pulse output meters
- Designed to connect to IP-based applications

Data Acquisition Modules

Flex I/O Module A8332-8F2D

- Cost-effective way to collect data from meters or sensors
- Can be incorporated with data acquisition and wireless metering devices

HD Pulse Module A8911-23

- Cost-effective, simple way to collect data from multiple pulse meters
- Can be incorporated with meter enclosures, data acquisition and wireless metering

Wireless Metering

ModHopper R9120-5

- Breakthrough mesh technology design that makes connecting Modbus and pulse devices simple and cost effective
- Eliminate the need for costly wiring runs
- Collect meter points in existing buildings with minimum down-time or disruption of day-to-day operations

BETTER
performance

HIGHER
quality

LOWER
cost

GREAT PLAINS INDUSTRIES



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