

Wichita · Sydney

GREAT PLAINS INDUSTRIES



 **AutoControl**  
Systems

EC8391 AU38483 MRB6313

***FLOWMEC***®

**FLOWMETERS**



**PRODUCT OVERVIEW**



## ULTRASONIC

### QS200 INSERTION ULTRASONIC METER

#### Non-Intrusive Flow Measurement

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Agriculture Irrigation</li> <li>• Turf / Landscape Irrigation Systems</li> <li>• Micro Irrigation Systems</li> <li>• Groundwater Monitoring</li> </ul> | <p><b>Sub-Metering Applications</b></p> <ul style="list-style-type: none"> <li>• High Rise Tenant Buildings</li> <li>• Apartment Complex</li> <li>• Universities</li> <li>• Commercial Businesses</li> <li>• Processing Facilities</li> </ul> |
|---|---|

- Compatible with common irrigation controllers
- "Insert Retrofit" - Replacement of existing paddlewheel flow sensors
- No moving parts (low-maintenance)
- No damage from blowing out irrigation lines
- Provides extended leak protection down to 0.1 fps (0.03 m/s) - As low as 0.22 GPM (0.83 L/min)
- LED light indicators (green for power and amber for pulse)

<b>Accuracy:</b>	Typically +/- 2% of reading
<b>Flow Range:</b>	0.1 to 15 fps (0.03 to 4.6 m/s)
<b>Operating Temperature:</b>	-40° to 140° F (-40° to 60° C)
<b>Pressure:</b>	150 psi @ 73° F (10 bar @ 23° C)
<b>Line Sizes:</b>	1", 1.5", 2", 3" and 4"
<b>Tee Housing Material:</b>	Schedule 80 PVC
<b>Wetted Parts:</b>	Body = PPS (Ryton R-4); Sensor = PEI (Ultem 100); O-Ring = EPDM

### QSTAR ULTRASONIC METER

#### Non-Intrusive Flow Measurement

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Power Stations</li> <li>• Food &amp; Beverage</li> <li>• Building Services Engineering</li> </ul> | <ul style="list-style-type: none"> <li>• Water / Waste Water</li> <li>• Large Pipe Applications</li> <li>• Chemicals &amp; Petrochemicals</li> </ul> |
|--|--|

<b>Accuracy:</b>	Up to +/- 1% of reading
<b>Flow Velocity Range:</b>	+/- 98 ft/sec (30 m/s)
<b>Operating Temperature:</b>	-4° to 140° F (-20° to 60° C)
<b>Transducer Temperature:</b>	-40° to 300° F (-40° to 149° C)
<b>Pipe Sizes:</b>	½" to 240" (10 mm to 6 m)




**ULTRASONIC**

# QSE MAG METER

**Non-Intrusive (No moving parts)  
Electromagnetic Flow Meter**



**ELECTROMAGNETIC**

<p><b>Turf / Irrigation</b></p> <ul style="list-style-type: none"> <li>• Agriculture Irrigation</li> <li>• Turf Irrigation Systems</li> <li>• Micro Irrigation Systems</li> </ul> <p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>• Chilled water</li> <li>• Domestic water (hot and cold)</li> <li>• Micro Irrigation Systems</li> </ul>	<ul style="list-style-type: none"> <li>• HVAC</li> <li>• EMS (Energy Management Systems)</li> <li>• BAS (Building Automation Systems)</li> </ul> <ul style="list-style-type: none"> <li>• Energy sub-merging (BTU hot and cold)</li> <li>• Process (blow down, make up, boiler feed, etc.)</li> </ul>		<b>Accuracy:</b>	+/- 0.5% of reading (from 0.25 to 15 fps [0.08 to 4.6 m/s])
			<b>Flow Range:</b>	0.16 to 600 GPM (0.63 to 2271 L/min)
			<b>Operating Temperature:</b>	½" to 2": 32° to 210° F (0° to 99° C) 3" - 4": 32° to 180° F (0° to 82° C)
			<b>Ambient Temperature:</b>	0° to 140° F (-18° to 60° C)
			<b>Pressure:</b>	150 psi @ 73° F (10 bar @ 23° C)
			<b>Line Sizes:</b>	½", ¾", 1", 1 ½", 2", 3", 4"
			<b>Wetted Materials:</b>	Noryl™ Body, 316 L SS Electrodes, EPDM O-Rings
			<b>Fitting Connections:</b>	½" to 2" - NPT (Male), BSPP (Male) (ISO 228) 3" & 4" ANSI Flanged - Polymer or Steel 3" & 4" DIN Flanged - Steel

# 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

<b>Accuracy:</b>	+/- 1% of reading (1/8" to 3/8"), and all mechanical +/- 0.5% of reading (½" to 4")
<b>Flow Range:</b>	0.26 GPH to 660 GPM (1 L/hr to 2,500 L/min)
<b>Temperature:</b>	-40° to 300° F (-40° to 150° C)
<b>Pressure:</b>	70 to 5,800 psi (5 to 400 bar)
<b>Meter Sizes:</b>	1/8" to 4" (4 mm to 100 mm)
<b>Meter Body Materials:</b>	Aluminum, Stainless Steel and PPS
<b>Fitting Connections:</b>	NPT, BSPP, Sanitary and Flange
<b>Output Options:</b>	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 GPH (1 - 550 L/hr)
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

<ul style="list-style-type: none"> <li>• Fleet Depots</li> <li>• Mine Sites</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Sites</li> <li>• Farms</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Facilities</li> <li>• Portable Fueling Applications</li> </ul>
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:	½" - 4" (15 mm - 100 mm)	
Wetted Materials*:	Aluminium, stainless steel, hardened steel, PPS, Viton, Nitrile	
Compatible Fluids:	Diesel, 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



- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Food &amp; Beverage</li> <li>• Petro Chemicals</li> <li>• Fuel</li> </ul> | <ul style="list-style-type: none"> <li>• Pharmaceuticals</li> <li>• Batching</li> <li>• Process Control</li> </ul> | <ul style="list-style-type: none"> <li>• Chemical Feed Lines</li> <li>• Irrigation</li> <li>• High Water Volume Mixing</li> </ul> |
|--|--|---|

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

**✓ 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:	7 to 1200 GPM (27 to 4500 L/min)
Temperature:	-40° to +450° F (-40° to +232° C)
Max. Pressure:	3625 psi (250 bar)
Suits Pipe Sizes:	1" to 4" (15 mm - 100 mm)
Pipe Connections:	NPT, BSPP, 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

- 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



"Look for the blue label."

**Integrated Display • Output Options**

# A1 SERIES RATE & TOTAL METER

## Self-Contained Application Specific Meters

- 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**



*"Look for the silver label."*

<b>MODEL:</b>	A025, A100 (1") & A200 (2")	N025 & N100 (1")
<b>Accuracy:</b>	+/- 1.5% to 5% of reading	
<b>Flow Range:</b>	0.3-300 GPM (1-1135 L/min)	0.3 - 50 GPM (1 - 190 L/min)
<b>Temperature:</b>	-40° to 250° F (-40° to 121° C)	
<b>Temp. w/Display:</b>	14° to 140° F (-10° to 60° C)	
<b>Pressure:</b>	300 psi (21 bar)	150 psi (10.3 bar)
<b>Meter Sizes:</b>	1" to 2" (25 mm to 50 mm)	1" (25 mm)
<b>Meter Body Materials:</b>	Aluminum	Nylon
<b>Fitting Connections:</b>	NPT and ISO	

### TURBINE Flowmeters

### TURBINE Flowmeters



**TM SERIES®**  
water meters



## 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

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

## 01N, 01A & FM-300

Thin Viscosity Fluids Under 100 Centipoise

- Water
- Fuel
- Chemicals



**ECONOMY** Electric Digital Meters



*"Look for the red label."*

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 (10-100 L/min)	3-30 GPM (10-100 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 BSPT	NPT, BSPP, and BSPT	NPT

## 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 and BSPT	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

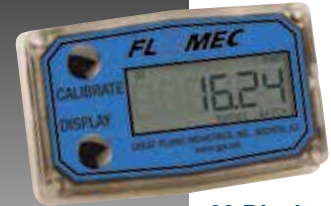
- Total and rate
- Gallons and Litres calibration
- Field calibration capability

### QSI Interface Board

- Communication options available: Modbus® RTU and BACnet® MS/TP
- 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
- Data logger
- Temperature inputs
- BTU (heat) calculator



QSI Interface Board



09 Display

### RT40

- Total and rate

### RT14

- Total and rate
- High and low alarm outputs
- Pulse output
- 4-20 mA output
- Intrinsically safe (optional)



RT40



RT14

### E Series (E018)

- Explosion proof display
- Total and rate
- Pulse or alarm outputs (selectable)
- 4-20 mA (isolated)
- HART protocol



E018

### F Series (F018 / F115 / F127 / F130)

- Total and rate
- Pulse outputs
- High / low alarm outputs (F018)
- 4-20 mA output (F018)
- Batching (F130)
- HART protocol (F018)
- Temperature compensation (F127)
- Net use (F127)
- Bi-directional (F115)



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*

 **AutoControl**  
Systems

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