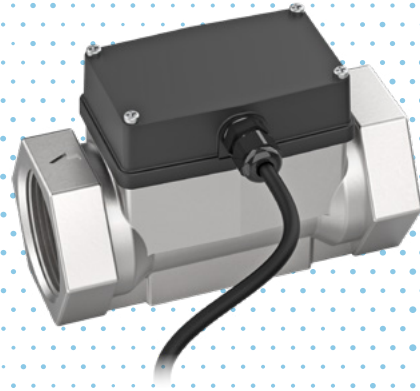


GREAT PLAINS INDUSTRIES



FLOW METER CATALOG

VERSION 1.1



GREAT PLAINS INDUSTRIES



PUBLISHED BY GREAT PLAINS INDUSTRIES - WICHITA, KS

JUNE 13 2025

ONLINE RESOURCES

MY METER

A comprehensive online resource for GPI®, GPRO®, and FLOMEC® meter information.

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A collection of CAD models to add the products directly into your design, along-side more thorough dimensioning resources to ensure correct fitment.



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GREAT PLAINS INDUSTRIES



FEATURED METER MARKETS

To aid in flow meter selection, we have labeled each meter series with market segment icons. Look for these icons on product pages of this catalog and on individual data sheets.



FOOD & BEVERAGE MARKET

Production and/or consumption of juices, milk, beer, wine, baked goods, soups, soft drinks, purified water and other hygienic fluids.



OIL & GAS MARKET

Downstream oil and gas for the treatment, blending and formulation of fuels, additives and petrochemicals. Along with non-custody transfer of bulk supply and/or the final consumption of the above liquids.



CHEMICAL MARKET

Production, non-custody transfer and final consumption of adhesives, solvents, coatings, inorganic chemicals, cosmetics, cleaning solutions and pharmaceuticals.



WATER TREATMENT MARKET

Industrial and municipal water treatment for both potable (NSF rating) and non-potable water. Additionally, the monitoring and control of the water usages for non-custody transfer.



GREENHOUSE & IRRIGATION MARKET

Monitoring and controlling water and other liquids such as pesticides and herbicides in both greenhouses and standard irrigation for agriculture, horticulture and landscaping.

MORE THAN PRODUCT. WE ARE A FAMILY OF INNOVATION.

Did you know that Great Plains Industries was founded by an engineer? GPI® founder Charlie Peer took a career downturn and turned it into an opportunity for countless people, including its current third generation of family leadership. In 1968, Charlie started his first business, Aerospace Systems and Components, by designing an air mixing valve for Learjet. After years of dedication to research and development and building a team filled with entrepreneurial spirit, Great Plains Industries is home to the GPI®, FLOMEC®, and GPRO® brands that serve Industrial, Commercial and Retail customers in many applications: fuel, agriculture, chemicals, manufacturing, construction, mining, oil and gas, and many more.



In 2013 the Company acquired Trimec Industries of Sydney, Australia. Trimec is a leading Australian manufacturer of positive displacement oval gear, insertion and impeller flow meters, ancillary flow hardware and dedicated electronic flow instrumentation with markets in Asia and Europe. Trimec is now named Great Plains Industries Australia. Both Great Plains Industries and Great Plains Industries Australia are known for superior engineering and durability in its products along with strong customer relationships that reflect the Companies’ family-owned heritage, strong work ethics and “Midwestern” and “Down Under” values. Great Plains Industries and our global channel benefit from having two sales and manufacturing locations.

Backed by the strength of our holding company, Great Plains Ventures, we are poised to transition with the future needs of markets. As manufacturing is GPV’s heritage, there is an ongoing effort to invest in its companies, improving the state of manufacturing processes and development of teams. GPV also actively pursues acquisition opportunities to complement its manufacturing operations.

We value the success of our employees and of you – our PARTNERS!

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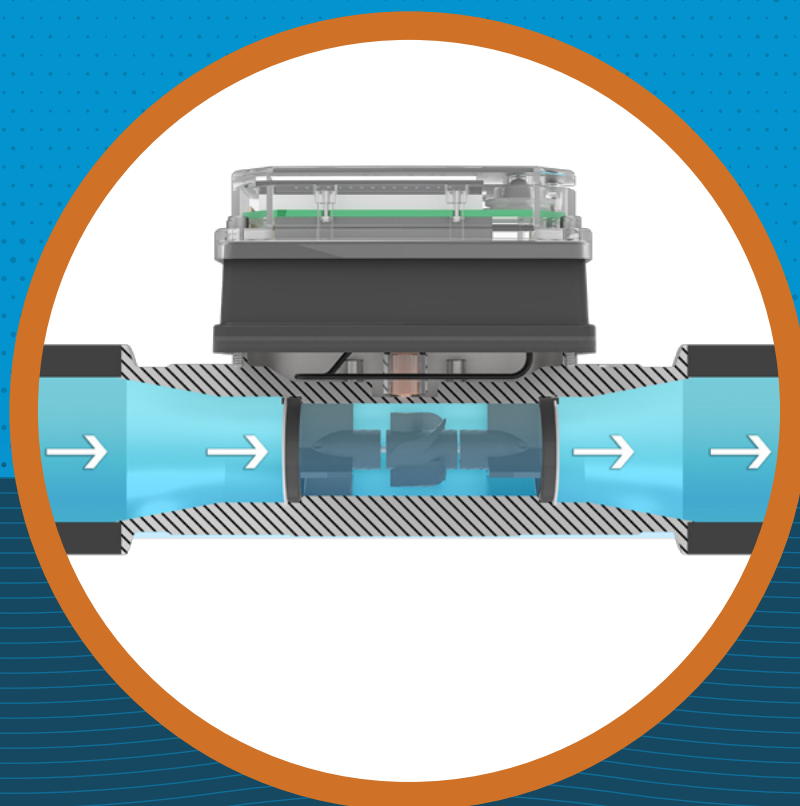
TURBINE

Turbine flow meters use the mechanical energy of the fluid to rotate a “pinwheel” (rotor) in the flow stream. Blades on the rotor are angled to transform energy from the flow stream into rotational energy. The rotor shaft spins on bearings. When the fluid moves faster, the rotor spins proportionally faster.

Turbine flow meters excel in applications requiring high accuracy and wide flow range capabilities.

- Extremely versatile design accurately measures high and low viscosity fluids
- High accuracy and repeatability measures every drop and saves waste in your process

See how a turbine meter works.



TECHNOLOGY



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TURBINE METER MARKETS

Global customers use our meters in a wide range of applications.
Here are featured markets our TURBINE meters excel in.

GSCPS
G2 Series

01A
A1A
G2A
G2S (DEF)
01N

TM Series
A1 Series
G2 Series

01N
TM Series
A1 Series
G2 Series

01N
TM Series
A1N

01 SERIES
ELECTRONIC FLOW METER



SPECIFICATIONS

| | | |
|------------------------------|-------------------------------|-------------------------------|
| Technology: | | Turbine |
| Line Size: | | 1" |
| Accuracy (% of Reading): | | ± 5% (Nylon) |
| | | ± 2.5% (Aluminum) |
| Material Housing: | 01A31GM 01A31LM 01A12LM | Corrosion-resistant aluminum |
| | 01A31GMME | Nickel plated aluminum |
| | 01N31GM | Nylon |
| | 01N31GM-U 01N31LM-U | Nylon |
| | | |
| Fitting Type: | | 12 = 1 inch ISO (Female) |
| | | 31 = 1 inch NPT (Female) |
| Flow Range: | | 3-30 GPM (10-100 L/min) |
| Pressure Rating: | Nylon | 150 psi (10.34 bar) |
| | Aluminum | 300 psi (20.7 bar) |
| Operating Temperature: | | 14°F to 130°F (-10°C to 55°C) |
| Wetted Materials (Aluminum): | Housing: | Aluminum |
| | Bearings: | Ceramic |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| | Signal Generator: | Ferrite |
| Wetted Materials (Nylon): | Housing: | Nylon |
| | Bearings: | Ceramic |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| | Signal Generator: | Ferrite |

GPI® 01 Series Meters are a great economical choice for monitoring, and indicating fluid usage.

- Available in Aluminum, Nickel plated aluminum or Nylon
- Choice of gallon or litre measurement
- Powered by two easily replaceable AAA batteries
- Batteries Included

FEATURES / BENEFITS

- Complete meter, including turbine assembly, microprocessor and LCD readout
- Works well on any pump or gravity feed system with at least 3-30 GPM (10-113 L/min) flow range
- Aluminum model is lightweight, accurate, and reliable with a rugged aluminum housing and rubber bumper, protecting the meter from damage
- Nylon model is a simple, small and sturdy Electronic Digital Water meter, with rugged nylon housing
- Two Totals - Cumulative Total and Batch Total (resettable)

APPLICATIONS (Typical application but not limited to)

- Water
- Fuel
- Light Chemicals

APPROVALS[†] / WARRANTY



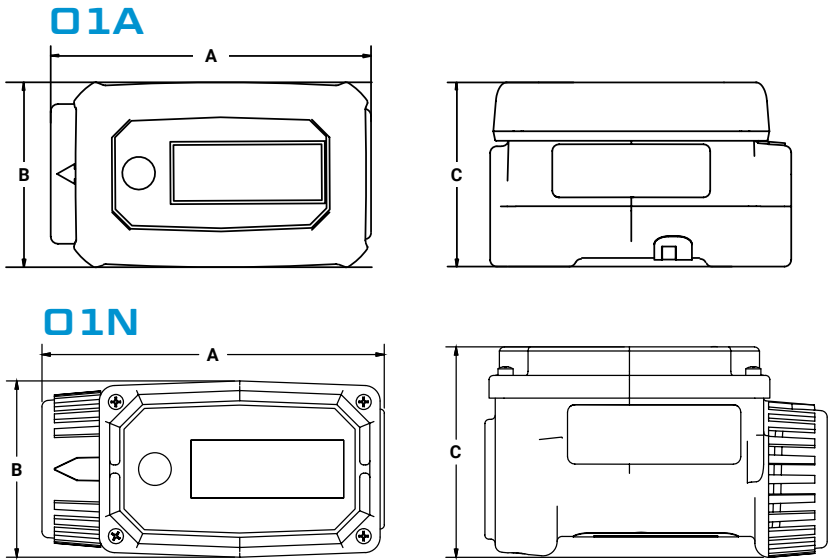
[†]FM approvals are only tied to 01A**** Meters



01 SERIES
ELECTRONIC FLOW METER

DIMENSIONS

| Meter Size | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|----------------------|---------------------|---------------------|
| 01A | 4.0 in. (10.2 cm) | 2.0 in. (5.1 cm) | 2.5 in. (6.4 cm) |
| 01N | 4.0 in. (10.2 cm) | 2.0 in. (5.1 cm) | 2.5 in. (6.4 cm) |



A1 SERIES
NYLON TURBINE METER



SPECIFICATIONS

| | | |
|--------------------------------|---------------------------------------|---|
| Technology: | | Turbine |
| Line Size: | | 1 in. |
| Accuracy (% of Reading): | | ± 1.5% |
| Fitting Type: | | NPT (Female) |
| Flow Range: | | (10) 3-50 GPM (11-190 L/min) |
| Pressure Rating: | | 150 psi (10.3 bar) |
| Operating Temperature: | | -40°F to 250°F (-40°C to 121°C) |
| w/ Safe Area Only Display: | | 0°F to 140°F (-18°C to 60°C) |
| w/ Intrinsically Safe Display: | | 0°F to 129°F (-18°C to 54°C) |
| Typical K-Factor: | | 730 PPG (193 Pulses/L) |
| Wetted Materials: | Housing: | Nylon |
| | Bearings: | Ceramic (96% Alumina) |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| Out Frequency: | | 36.5-608.3 Hz @ 3-50 GPM (11-190 L/min) |
| Recommended Filtration: | | 35 mesh (500 µm) |
| Calibration Report: | Comes standard with A1 Series meters. | |
| | N.I.S.T. – Certification available. | |

Field calibration is recommended for best accuracy.

FLOMEC® A1 Series Turbine Meters are designed as self-contained, battery-powered units. Select the A1 Nylon Series when you need an accurate meter for water or non-aggressive chemical applications. Intrinsically safe for use in hazardous areas.[†]

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- Lightweight, compact design allows for easy installation
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration
- AAA Alkaline battery life: 2 years

APPLICATIONS (Typical application but not limited to)

- Plant Process Water
- Batching / Blending
- Water / Non-Aggressive Chemicals
- Ag Chemicals
- Solvents / Glycol
- Chemical Feed Lines

APPROVALS[†] / WARRANTY

CE

NEMA
4

IP65

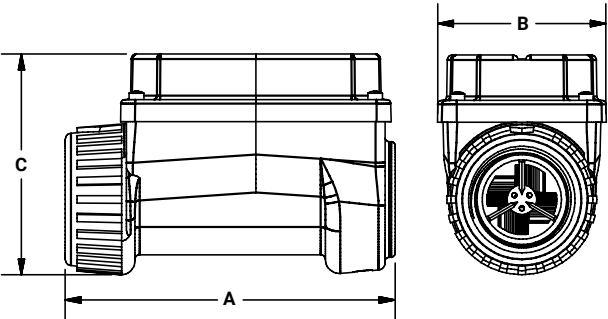
[†]If the meter includes any modules (4-20 mA and Pulse Out) that introduces external power, then all intrinsic safety approvals are voided.



A1 SERIES
NYLON TURBINE METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|----------------------|---------------------|
| 4.0 in. (10.2 cm) | 2.0 in. (5.08 cm) | 2.5 in. (6.4 cm) |



ACCESSORIES

113275-10
FM Approved* Remote Kit

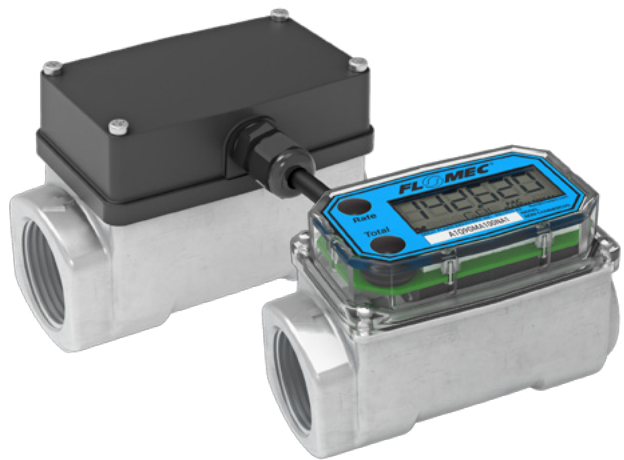
113435-10
Conditioned Signal Module

125100-10
4-20 mA Module

125260-02
90° Display Adapter Kit

*Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved

A1 SERIES
ALUMINUM TURBINE METER



SPECIFICATIONS

| | | |
|--------------------------------|-----------|---|
| Technology: | | Turbine |
| Line Size: | | 1 in. |
| Accuracy (% of Reading): | | ± 1.5% |
| Repeatability: | | ± 0.2% |
| Fitting Type: | | NPT (Female) |
| Flow Range: | | (10) 3-50 GPM (11-190 L/min) |
| Pressure Rating: | | 300 psi (21 bar) |
| Operating Temperature: | | -40°F to 250°F (-40°C to 121°C) |
| w/ Safe Area Only Display: | | 0°F to 140°F (-18°C to 60°C) |
| w/ Intrinsically Safe Display: | | 0°F to 129°F (-18°C to 54°C) |
| Typical K-Factor: | | 730 PPG (193 Pulses/L) |
| Wetted Materials: | Housing: | Aluminum |
| | Bearings: | Ceramic (96% Alumina) |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| Out Frequency: | | 36.5-608.3 Hz @ 3-50 GPM (11-190 L/min) |
| Recommended Filtration: | | 35 mesh (500 µm) |
| Calibration Report: | | N.I.S.T. – Certification available. |

Field calibration is recommended for best accuracy.



FLOMEC® A1 Series Turbine Meter for accurate measurement of thin petroleum-based fluid applications. A1’s lightweight, compact design allows for easy installation.

A1A-10-N-Q MODEL WITH DISPLAY

A1 Aluminum featuring the Q9 Display is designed as self-contained, battery-powered unit. Intrinsically safe for use in hazardous areas.†

FEATURES / BENEFITS

- Unique package combines Turbine and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration
- AAA Alkaline battery life: 2 years

A1A-10-N-P MODEL (BLIND)

A1 Aluminum with Conditioned Signal Output Module (Blind). Conditioned signal module is not FM approved. The conditioned signal output module is not intrinsically safe, and not approved for use in hazardous areas.

FEATURES / BENEFITS

- Provides an NPN Open Collector pulse that can communicate with most process control devices
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play
- External 9 to 35 V (DC), approximately 1mA
- 10 ft. (3 m) 3-wire with strain relief
- Factory calibration

APPLICATIONS (Typical application but not limited to)

- Fuel Transfer
- Batching / Blending
- Chemicals compatible with aluminum

APPROVALS† / WARRANTY

CE

NEMA 4

IP65

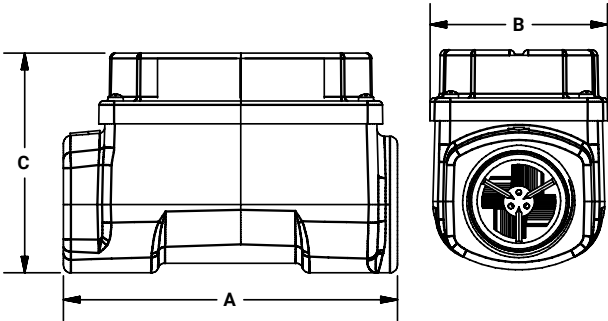
†If the meter includes any modules (4-20 mA and Pulse Out) that introduces external power, then all intrinsic safety approvals are voided.



A1 SERIES
ALUMINUM TURBINE METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|----------------------|---------------------|
| 4.0 in. (10.2 cm) | 2.0 in. (5.08 cm) | 2.5 in. (6.4 cm) |



ACCESSORIES

113275-10
FM Approved* Remote Kit

113435-10
Conditioned Signal Module

125100-10
4-20 mA Module

125260-02
90° Display Adapter Kit

*Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved

TM SERIES
WATER METERS



FLOMEC® TM Series Water Meters are accurate, economical and designed to last. Choose TM Water Meters for water processing and irrigation applications:

- Meets Schedule 80 PVC specifications
- Standard low-profile display
- Seven sizes with three fitting types available
- Flow rates from 1 to 600 gallons per minute (3.8 to 2271 L/min)

FEATURES / BENEFITS

- Easy to install
- 11 preprogrammed engineering units plus 1 custom option: gallon, liter, imperial gallon, quart, ounce, acre-foot, milliliter, cubic foot, cubic centimeter, cubic meter, barrel
- Indicates Batch, Cumulative Totals and Rate of Flow
- Available in Spigot, NPT, BSP, and 150# ANSI Flange (see fitting type table)
- Non-volatile totals means amounts are retained when batteries are replaced or power is lost
- Alkaline AAA battery life: 2 years

APPLICATIONS (Typical application but not limited to)

- OEM water treatment equipment / skids
- Sub-metering of facility water usage
- Waste water treatment equipment
- Irrigation, Greenhouse and Growhouse
- Plant process water
- Water based cooling systems
- Chemical feed systems
- Metering clean fluids

APPROVALS / WARRANTY



SPECIFICATIONS

| | | |
|-------------------------------|---|----------------------------------|
| Technology: | Turbine | |
| Line Size: | ½ in., ¾ in., 1 in., 1½ in., 2 in., 3 in., 4 in. | |
| Accuracy (% of Reading): | ± 3.0% | |
| Material Housing: | Schedule 80 PVC | |
| Fitting Type: | Schedule 80 Spigot (Pipe) End (½ in. through 4 in.) | |
| | NPT (Female) (½ in. through 4 in.) | |
| | BSP (Female) (1 in., 1½ in., & 2 in. meters only) | |
| | 150# ANSI Flange (3 & 4 in. meters only) | |
| Flow Range: | (05) ½ in. | 1-10 GPM (3.8-38 L/min) |
| | (07) ¾ in. | 2-20 GPM (7.6-76 L/min) |
| | (10) 1 in. | 5-50 GPM (19-190 L/min) |
| | (15) 1½ in. | 10-100 GPM (38-380 L/min) |
| | (20) 2 in. | 20-200 GPM (76-760 L/min) |
| | (30) 3 in. | 40-400 GPM (151-1514 L/min) |
| | (40) 4 in. | 60-600 GPM (227-2271 L/min) |
| Pressure Rating (½ - 2 in.): | Spigot/NPT | 225 psi (15.3 bar) @ 73°F (23°C) |
| | BSP | 150 psi (10.3 bar) @ 73°F (23°C) |
| Pressure Rating (3 - 4 in.): | Spigot/NPT | 225 psi (15.3 bar) @ 73°F (23°C) |
| | ANSI | 135 psi (9.1 bar) @ 73°F (23°C) |
| Operating Temperature: | +32°F to +140°F (0°C to +60°C)** | |
| Typical K-Factor: | (05) ½ in. | 2,500 PPG (660 Pulses/L) |
| | (07) ¾ in. | 1,100 PPG (291 Pulses/L) |
| | (10) 1 in. | 565 PPG (149 Pulses/L) |
| | (15) 1½ in. | 215 PPG (57 Pulses/L) |
| | (20) 2 in. | 100 PPG (26 Pulses/L) |
| | (30) 3 in. | 43 PPG (11 Pulses/L) |
| | (40) 4 in. | 17 PPG (4.5 Pulses/L) |
| Wetted Materials (½ - 2 in.): | Housing: | PVC |
| | Bearings: | 96% Alumina Ceramic |
| | Shaft: | Tungsten Carbide |
| | Rotor: | PVDF |
| | Rings: | 316 Stainless Steel |
| Wetted Materials (3 - 4 in.): | Housing: | PVC |
| | Bearings: | PEEK |
| | Shaft & Thrust Washers: | Stainless Steel |
| | Rotor & Nose Cone: | Acetal |
| | Signal Generator: | Ferrite |
| Calibration Report: | N.I.S.T. – Certification available | |

**PVC pressure rating will incrementally decrease above 73°F (23°C).



TM SERIES
WATER METERS

DIMENSIONS

| Meter Size & Fitting | | Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|-------------|--------------------|-------------------|-------------------|
| 05 | Spigot | 4.3 in. (10.9 cm) | 2.1 in. (5.3 cm) | 2.5 in. (6.4 cm) |
| | NPT | 6.0 in. (15.2 cm) | 2.1 in. (5.3 cm) | 2.7 in. (6.9 cm) |
| 07 | Spigot | 4.4 in. (11.2 cm) | 2.1 in. (5.3 cm) | 2.7 in. (6.9 cm) |
| | NPT | 6.1 in. (15.5 cm) | 2.1 in. (5.3 cm) | 2.9 in. (7.4 cm) |
| 10 | Spigot | 4.5 in. (11.4 cm) | 2.1 in. (5.3 cm) | 2.9 in. (7.4 cm) |
| | NPT/ BSP | 6.5 in. (16.5 cm) | 2.1 in. (5.3 cm) | 3.1 in. (7.9 cm) |
| 15 | Spigot | 5.4 in. (13.7 cm) | 2.1 in. (5.3 cm) | 3.6 in. (9.1 cm) |
| | NPT/ BSP | 7.6 in. (19.3 cm) | 2.3 in. (5.8 cm) | 3.8 in. (9.7 cm) |
| 20 | Spigot | 5.5 in. (14 cm) | 2.4 in. (6.1 cm) | 4.1 in. (10.4 cm) |
| | NPT/ BSP | 7.9 in. (20.1 cm) | 3.5 in. (8.9 cm) | 4.4 in. (11.2 cm) |
| 30 | Spigot | 11.5 in. (29.2 cm) | 3.5 in. (8.9 cm) | 5.3 in. (13.6 cm) |
| | NPT | 14.7 in. (37.3 cm) | 4.4 in. (11.2 cm) | 5.8 in. (14.7 cm) |
| | ANSI Flange | 12.0 in. (30.5 cm) | 7.5 in. (19.1 cm) | 7.5 in. (19.1 cm) |
| 40 | Spigot | 13.5 in. (34.3 cm) | 4.5 in. (11.4 cm) | 6.3 in. (16.1 cm) |
| | NPT | 17.0 in. (43.2 cm) | 5.9 in. (15 cm) | 6.7 in. (17 cm) |
| | ANSI Flange | 14.0 in. (35.6 cm) | 9.0 in. (22.9 cm) | 9.0 in. (22.9 cm) |

Length guidelines are estimates; actual length can vary up to ± ½ in. (1.3 cm). 4-20mA Module adds 0.90 in. (2.3 cm) to height.

ACCESSORIES

113275-10*
FM Approved Remote Kit



*Will not make meter FM Approved

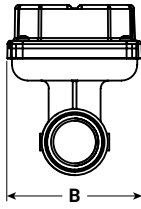
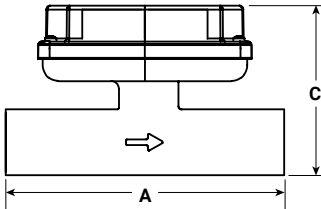
125100-10
4-20 mA Module/
Pulse Output Module



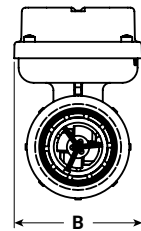
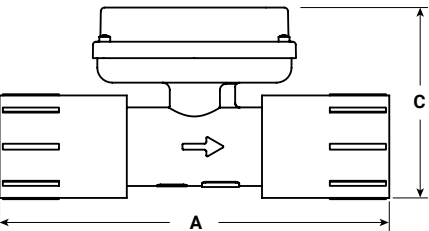
125260-02
90° Display Adapter Kit



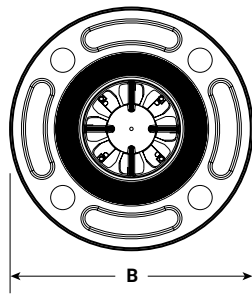
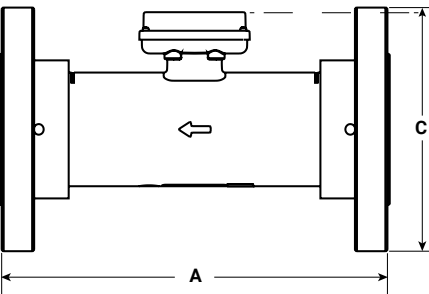
½ in. through 4 in.



½ in. through 4 in.



3 in. & 4 in.



G2 SERIES
HAZARDOUS AREA
INTRINSICALLY SAFE



SPECIFICATIONS

| | | | | | | |
|--------------------------------|--|---|-------|--------|---------------------|--------|
| Technology: | | Turbine | | | | |
| Line Size: | | ½ in. | ¾ in. | 1 in. | 1½ in. | 2 in. |
| Tri-Clamp Fitting: | | ¾ in. | 1 in. | 1½ in. | 2 in. | 2½ in. |
| Accuracy (% of Reading): | | Turbine Only | | | Turbine w/ Computer | |
| | (05) ½" | ± 2.0% | | | ± 1.5% | |
| | (07) ¾" | ± 1.5% | | | ± 1.0% | |
| | (10) 1" | ± 1.5% | | | ± 1.0% | |
| | (15) 1½" | ± 1.0% | | | ± 0.75% | |
| | (20) 2" | ± 1.0% | | | ± 0.75% | |
| Repeatability: | | ± 0.1% (PVDF ± 0.3%) | | | | |
| Material Housing: | | 316 Stainless Steel, Aluminum, PVDF | | | | |
| Fitting Type: | NPT or ISO (Female) BSPT (ISO 7 designation is RC) | | | | | |
| | 150# ANSI (S10, S15, S20 only) | | | | | |
| | Tri-Clamp (Stainless Steel only) - Fitting size is one size bigger than meter size | | | | | |
| Flow Range: | (05) ½" | 1-10 GPM (3.8-38 L/min) | | | | |
| | (05) ½" PVDF Only | 1.2-12 GPM (4.5-45 L/min) | | | | |
| | (07) ¾" | 2-20 GPM (7.6-76 L/min) | | | | |
| | (10) 1" | 5-50 GPM (19-190 L/min) | | | | |
| | (15) 1½" | 10-100 GPM (38-380 L/min) | | | | |
| | (20) 2" | 20-200 GPM (76-760 L/min) | | | | |
| Pressure Rating: | | | | | | |
| Stainless Steel 316 SS | | 1,500 psi (102 bar) | | | | |
| Aluminum | | 300 psi (21 bar) | | | | |
| PVDF | | 100 psi (6.9 bar) | | | | |
| ANSI Flange 316 SS | | Flange Rule | | | | |
| Sanitary Flange 316 SS | | Limited by fitting, clamp size, & temperature | | | | |
| Operating Temperature: | | -40°F to 250°F (-40°C to 121°C) | | | | |
| Turbine without display: | | -20°F to 180°F (-28°C to 82°C) (PVDF) | | | | |
| w/ Intrinsically Safe Display: | | 0°F to +129°F (-18°C to +54°C) | | | | |



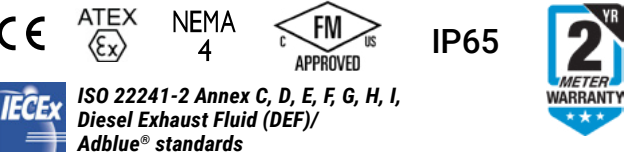
A full line of FLOMEC® G2 Series Turbine Meters are available in a variety of housing materials. Rugged and dependable, the G2 Series offers:

- Stainless Steel for most water and chemical products
- Aluminum for fuels and petroleum-based products
- PVDF for aggressive chemicals

FEATURES / BENEFITS

- Features highly visible Q9, battery-powered, LCD display; 2-year battery life
- 11 pre-programmed engineering units plus 1 custom option: gallon, litre, imperial gallon, quart, ounce, acre-foot, millilitre, cubic foot, cubic centimetre, cubic metre, barrel
- High accuracy meter – view SPECIFICATIONS of each SKU once meter options are selected
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play *output modules and sensors will remove approvals.
- Internal parts are simple to replace for easy maintenance
- NPT, ISO 7, #150 ANSI Flange, and Tri-clamp fitting options
- Tri-clamp (not food grade) options available:
 - ¾ inch fitting for ½ inch meter
 - 1 inch fitting for ¾ inch meter
 - 1½ inch fitting for 1 inch meter
 - 2 inch fitting for 1½ inch meter
 - 2½ inch fitting for 2 inch meter

APPROVALS† / WARRANTY



†If the meter includes any modules (4-20 mA and Pulse Out) that introduces external power or adds the high temp riser, then all intrinsic safety approvals are voided.



G2 SERIES
HAZARDOUS AREA
INTRINSICALLY SAFE

SPECIFICATIONS CONTINUED

| | | |
|-----------------------|---------------------------------------|--|
| Typical K-Factor: | (05) ½" | 2,500 PPG (660 Pulses/L) |
| | (05) ½" | 2,400 PPG (633 Pulses/L) (PVDF) |
| | (07) ¾" | 1,100 PPG (291 Pulses/L) |
| | (10) 1" | 565 PPG (149 Pulses/L) |
| | (10) 1" | 540 PPG (142 Pulses/L) (PVDF) |
| | (15) 1½" | 215 PPG (57 Pulses/L) |
| | (20) 2" | 100 PPG (26 Pulses/L) |
| Wetted Materials: | Housing: | 316 Stainless Steel or Aluminum |
| | Bearings: | 96% Alumina Oxide Ceramic |
| | Shaft: | Tungsten Carbide |
| | Rotor: | PVDF |
| Wetted Material PVDF: | Rings: | 316 Stainless Steel |
| | Housing: | PVDF (15% Carbon Fiber Filled) |
| | Bearings & Shaft: | 98% Alumina Ceramic |
| | Rotor: | PVDF |
| Out Frequency: | Rings: | Fluorocarbon (Optional PTFE) |
| | (05) ½" | 42-420 Hz @ 1-10 GPM (3.8-38 L/min) / 45-450 Hz @ 1.2-12 GPM (4.5-45 L/min) (PVDF) |
| | (07) ¾" | 37-370 Hz @ 2-20 GPM (7.6-76 L/min) |
| | (10) 1" | 47-470 Hz @ 5-50 GPM (19-190 L/min) / 45-475 Hz @ 5-50 GPM (19-190 L/min) (PVDF) |
| | (15) 1½" | 36-360 Hz @ 10-100 GPM (38-380 L/min) |
| | (20) 2" | 33-330 Hz @ 20-200 GPM (76-760 L/min) |
| Calibration Report: | Comes standard with G2 Series meters. | |
| | N.I.S.T. – Certification available. | |

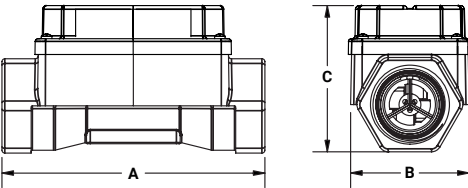
APPLICATIONS (Typical application but not limited to)

- Batching/Blending
- Water Metering
- Plating solutions
- Fuel products
- Metering clean fluids
- Plant process water
- Chemical feed lines
- Harsh chemicals (sulfuric acid and bleach)
- DEF (Diesel Exhaust Fluid)
- Food and beverage processing (non 3A applications)

DIMENSIONS NOTE: 4-20mA module adds 0.9 in. (2.3 cm) to height

Aluminum / Stainless Steel Models

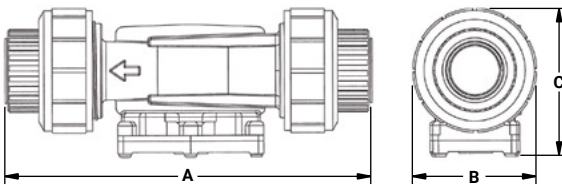
| | S05, ½ in. | S07, ¾ in. | S10, 1 in. | S15, 1½ in. | S20, 2 in. |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Dimension "A" | 4.2 in. (10.7 cm) | 4.3 in. (10.9 cm) | 4.5 in. (11.4 cm) | 5.3 in. (13.5 cm) | 6.3 in. (16 cm) |
| Dimension "B" | 2.0 in. (5.1 cm) | 2.0 in. (5.1 cm) | 2.0 in. (5.1 cm) | 2.7 in. (6.9 cm) | 3.4 in. (8.6 cm) |
| SS Dimension Q9 - "C" | 2.1 in. (5.3 cm) | 2.3 in. (5.8 cm) | 2.6 in. (6.6 cm) | 3.3 in. (8.4 cm) | 3.8 in. (9.7 cm) |
| SS Dimension Blind - "C" | 2.3 in. (5.8 cm) | 2.5 in. (6.4 cm) | 2.8 in. (7.1 cm) | 3.5 in. (8.9 cm) | 4.0 in. (10.2 cm) |
| Aluminum Dimension Q9 - "C" | 2.5 in. (6.4 cm) | 2.7 in. (6.9 cm) | 2.9 in. (7.4 cm) | 3.5 in. (8.9 cm) | 3.9 in. (9.9 cm) |
| Aluminum Dimension Blind - "C" | 2.7 in. (6.9 cm) | 3.0 in. (7.6 cm) | 3.1 in. (7.9 cm) | 3.7 in. (9.4 cm) | 4.1 in. (10.4 cm) |



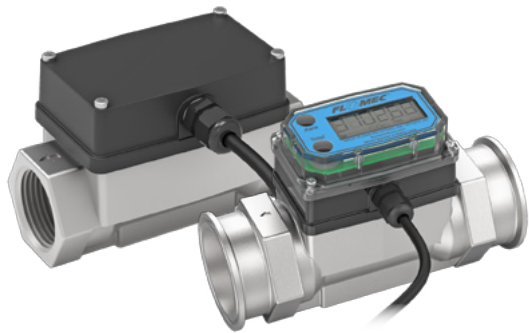
PVDF Models

| | P05, ½ in. | P10, 1 in. |
|-----------------------|-------------------|-------------------|
| Dimension "A" | 7.3 in. (18.5 cm) | 8.1 in. (20.6 cm) |
| Dimension "B" | 2.1 in. (5.3 cm) | 2.8 in. (7.1 cm) |
| Dimension Q9 - "C" | 3.9 in. (9.9 cm) | 4.0 in. (10.2 cm) |
| Dimension Blind - "C" | 4.1 in. (10.4 cm) | 4.2 in. (10.7 cm) |

NOTE: For representation purpose only. Actual product models vary in shape, design, etc.
ANSI Flange and Sanitary Flange dimensions not shown. For those dimensions, please refer to product manuals or our website GreatPlainsIndustries.com.



G2 SERIES
NON-HAZARDOUS AREA
(SAFE AREA ONLY)



SPECIFICATIONS

Table with specifications for FLOMEC G2 Series Turbine Meters, including Technology, Line Size, Tri-Clamp Fitting, Accuracy, Repeatability, Material Housing, Fitting Type, Flow Range, Pressure Rating, and Operating Temperature.

*See Ambient and Fluid Temperature Limits graph on the operating temperature range. Shown on next page.



A full line of FLOMEC® G2 Series Turbine Meters are available in a variety of housing materials. Rugged and dependable, the G2 Series offers:

- Stainless Steel for most non-volatile products
- Aluminum for non-volatile petroleum-based products
- PVDF for aggressive chemicals

FEATURES / BENEFITS

- Features highly visible Q9, battery-powered, LCD display; 2-year battery life
- Add the 4-20mA / Scaled Pulse Module to your turbine meter display electronics to provide an industry-standard analog signal for connection to a variety of chart recorders, display equipment, and process control equipment. See Optional Output Module details.
- 11 preprogrammed engineering units plus 1 custom option: gallon, liter, imperial gallon, quart, ounce, acre-foot, milliliter, cubic foot, cubic centimeter, cubic meter, barrel
- High accuracy meter – view SPECIFICATIONS of each SKU once meter options are selected
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play
- Internal parts are simple to replace for easy maintenance
- NPT, ISO 7, #150 ANSI Flange, and Tri-clamp fitting options
- Tri-clamp (not food grade) options available:
 - ¾ inch fitting for ½ inch meter
 - 1 inch fitting for ¾ inch meter
 - 1½ inch fitting for 1 inch meter
 - 2 inch fitting for 1½ inch meter
 - 2½ inch fitting for 2 inch meter

APPROVALS / WARRANTY



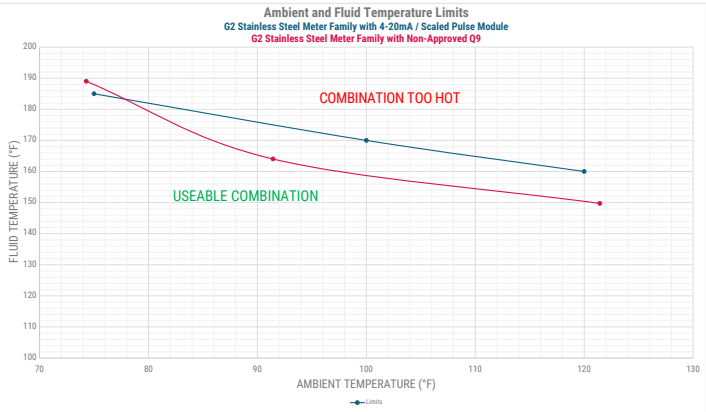
G2 SERIES
NON-HAZARDOUS AREA
(SAFE AREA ONLY)

SPECIFICATIONS CONTINUED

Continuation of specifications table, including Typical K-Factor, Wetted Materials, Wetted Materials PVDF, Out Frequency, and Calibration Report.

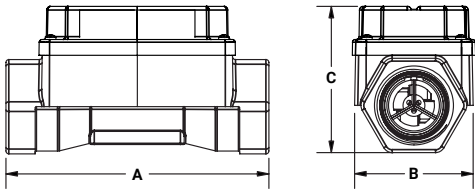
APPLICATIONS (Typical application but not limited to)

- Batching/Blending
- Water metering
- Industrial fluids
- Plating solutions
- Food and beverage processing (non 3A applications)
- Metering clean fluids
- Plant process water
- Chemical feed lines
- Harsh chemicals (sulfuric acid and bleach)



DIMENSIONS NOTE: 4-20mA module adds 0.9 in. (2.3 cm) to height

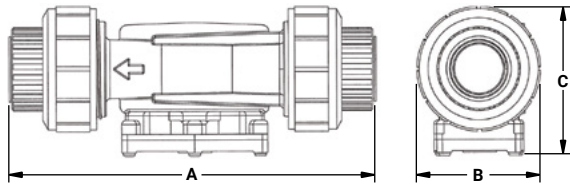
Table of dimensions for Aluminum / Stainless Steel Models, including dimensions A, B, C, and SS Dimension Q9 - "C" for various line sizes.



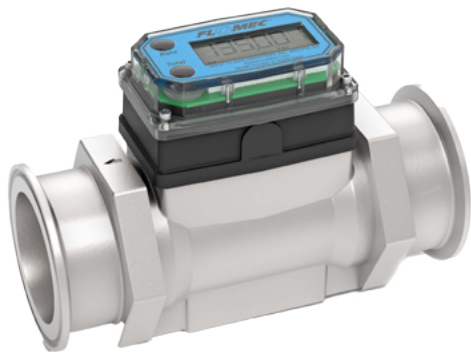
PVDF Models

Table of dimensions for PVDF Models, including dimensions A, B, C, and SS Dimension Q9 - "C" for P05 and P10 line sizes.

NOTE: For representation purpose only. Actual product models vary in shape, design, etc. ANSI Flange and Sanitary Flange dimensions not shown. For those dimensions, please refer to product manuals or our website GreatPlainsIndustries.com.



G2 SERIES
HIGH-TEMP BREW METER



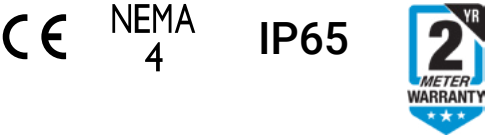
The **FLOMEC® G2 Brew Meter** features a high-temperature riser and tri-clamp fittings. It is suitable for use with strike water, hot water flow, and brewing liquids.

FEATURES / BENEFITS

Features highly visible Q9, battery-powered, LCD display; 2-year battery life

- High accuracy meter
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play
- Internal parts are simple to replace for easy maintenance
- 11 pre-programmed engineering units plus 1 custom option: gallon, litre, imperial gallon, quart, ounce, acre-foot, millilitre, cubic foot, cubic centimetre, cubic metre, barrel
- Tri-clamp, high temperature, sanitary fittings:
 - ¾ inch fitting for ½ inch meter
 - 1 inch fitting for ¾ inch meter
 - 1½ inch fitting for 1 inch meter
 - 2 inch fitting for 1½ inch meter
 - 2½ inch fitting for 2 inch meter
- Food and beverage pre-processing (applications not required to meet 3A sanitary standards)

APPROVALS / WARRANTY



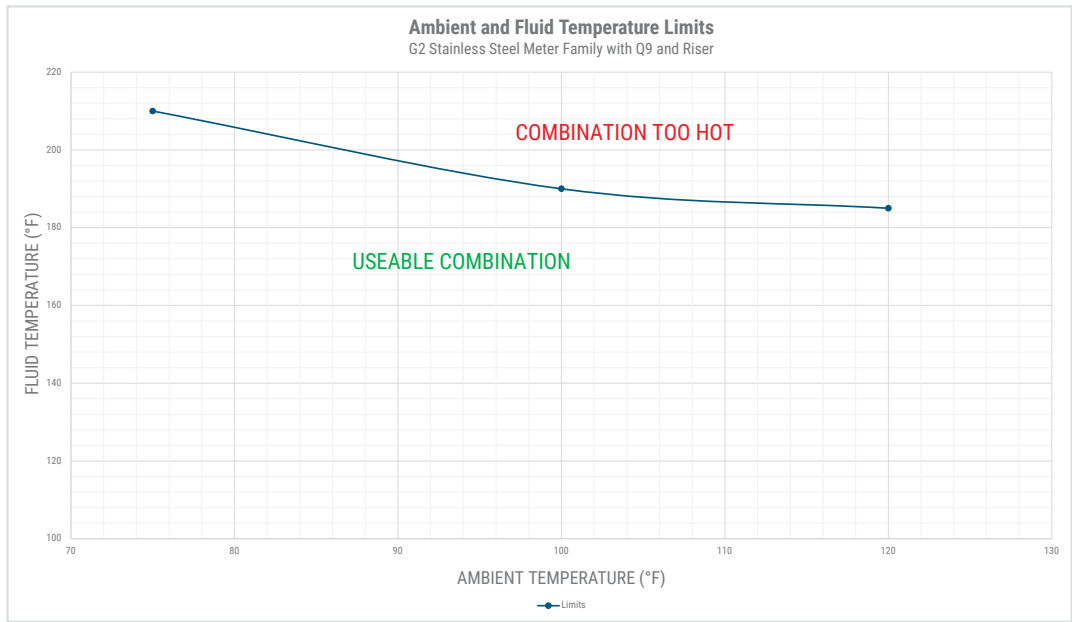
SPECIFICATIONS

| | | | | | | |
|--------------------------|--|---|-------|--------|---------|--------|
| Technology: | | Turbine | | | | |
| Line Size: | | ½ in. | ¾ in. | 1 in. | 1½ in. | 2 in. |
| Tri-Clamp Fitting: | | ¾ in. | 1 in. | 1½ in. | 2 in. | 2½ in. |
| Accuracy (% of Reading): | | (05) ½" | | | ± 1.5% | |
| | | (07) ¾" | | | ± 1.0% | |
| | | (10) 1" | | | ± 1.0% | |
| | | (15) 1½" | | | ± 0.75% | |
| | | (20) 2" | | | ± 0.75% | |
| Repeatability: | | ± 0.1% | | | | |
| Material Housing: | | 316 Stainless Steel | | | | |
| Fitting Type: | Tri-Clamp (Stainless Steel only) - Fitting size is one size bigger than meter size | | | | | |
| Flow Range: | (05) ½" | 1-10 GPM (3.8-38 L/min) | | | | |
| | (07) ¾" | 2-20 GPM (7.6-76 L/min) | | | | |
| | (10) 1" | 5-50 GPM (19-190 L/min) | | | | |
| | (15) 1½" | 10-100 GPM (38-380 L/min) | | | | |
| | (20) 2" | 20-200 GPM (76-760 L/min) | | | | |
| Pressure Rating: | | | | | | |
| Sanitary Flange 316 SS | | Limited by fitting, clamp size, & temperature | | | | |
| Operating Temperature: | | 0°F to 210°F (-18°C to 99°C)* | | | | |
| Typical K-Factor: | (05) ½" | 2,500 PPG (660 Pulses/L) | | | | |
| | (07) ¾" | 1,100 PPG (291 Pulses/L) | | | | |
| | (10) 1" | 565 PPG (149 Pulses/L) | | | | |
| | (15) 1½" | 215 PPG (57 Pulses/L) | | | | |
| | (20) 2" | 100 PPG (26 Pulses/L) | | | | |
| Wetted Materials: | Housing: | 316 Stainless Steel or Aluminum | | | | |
| | Bearings: | 96% Alumina Oxide Ceramic | | | | |
| | Shaft: | Tungsten Carbide | | | | |
| | Rotor: | PVDF | | | | |
| | Rings: | 316 Stainless Steel | | | | |
| Out Frenquency: | (05) ½" | 42-420 Hz @ 1-10 GPM (3.8-38 L/min) / 45-450 Hz @ 1.2-12 GPM (4.5-45 L/min)(PVDF) | | | | |
| | (07) ¾" | 37-370 Hz @ 2-20 GPM (7.6-76 L/min) | | | | |
| | (10) 1" | 47-470 Hz @ 5-50 GPM (19-190 L/min) / 45-475 Hz @ 5-50 GPM (19-190 L/min) (PVDF) | | | | |
| | (15) 1½" | 36-360 Hz @ 10-100 GPM (38-380 L/min) | | | | |
| | (20) 2" | 33-330 Hz @ 20-200 GPM (76-760 L/min) | | | | |
| Calibration Report: | Comes standard with G2 Series meters. | | | | | |
| | N.I.S.T. – Certification available. | | | | | |

*See Ambient and Fluid Temperature Limits graph on the operating temperature range. Shown on next page.



G2 SERIES
HIGH-TEMP BREW METER

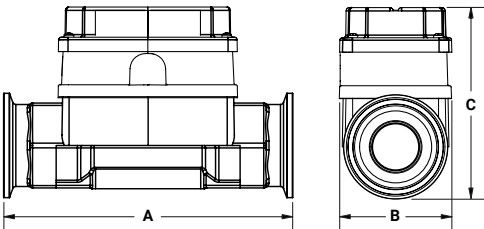


DIMENSIONS

| | 05, ½ in. | 07, ¾ in. | 10, 1 in. | 15, 1½ in. | 20, 2 in. |
|------------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| Dimension "A" | 5.0 in. (12.7 cm) | 5.0 in. (12.7 cm) | 5.5 in. (14 cm) | 6.5 in. (16.5 cm) | 7.0 in. (17.8 cm) |
| Dimension "B" | 2.1 in. (5.3 cm) | 2.1 in. (5.3 cm) | 2.1 in. (5.3 cm) | 2.7 in. (6.9 cm) | 3.4 in. (8.6 cm) |
| Dimension "C" | 3.0 in. (7.6 cm) | 3.6 in. (9.1 cm) | 3.7 in. (9.4 cm) | 4.2 in. (10.7 cm) | 4.7 in. (11.9 cm) |
| Fitting/ Clamp Size | ¾ in. | 1 in. | 1½ in. | 2 in. | 2½ in. |

NOTE: For representation purpose only. Actual product models vary in shape, design, etc.

Sanitary Flange dimensions not shown. For those dimensions, please refer to product manuals or our website GreatPlainsIndustries.com.



GSCPS - 3A FOOD & BEVERAGE
HIGH-PRECISION TURBINE METER



3A Turbine Meter with
2-Wire or 3-Wire Magnetic
Pickup Options



SPECIFICATIONS

| | | |
|--------------------------|--|----------------------------------|
| Technology: | Turbine | |
| Line Size: | 1 in., 1½ in., 2 in. | |
| Accuracy (% of Reading): | ± 0.5% | |
| Repeatability: | ± 0.1% | |
| Material Housing: | 316 Stainless Steel | |
| Fitting Type: | Sanitary Clamp | |
| Flow Range: | (100) 1" | 6.7-67 GPM (25-252 L/min) |
| | (150) 1½" | 17.7-177 GPM (67-670 L/min) |
| | (200) 2" | 33-330 GPM (125-1250 L/min) |
| Pressure Rating: | Limited by fitting size, clamp size and temperature. | |
| Operating Temperature: | RT14 | -22°F to 176°F (-30°C to 80°C) |
| | 2-Wire | -100°F to 250°F (-73°C to 121°C) |
| | 3-Wire | -40°F to 248°F (-40°C to 120°C) |
| Fluid Temperature: | RT14 | -22°F to 225°F (-30°C to 107°C) |
| For SIP (up to 1 hour): | 285°F (140°C) | |
| Typical K-Factor: | (100) 1" | 896 PPG (237 Pulses/L) |
| | (150) 1½" | 340 PPG (90 Pulses/L) |
| | (200) 2" | 181 PPG (48 Pulses/L) |
| Wetted Materials: | Housing: | 316 Stainless Steel |
| | Bushings & Bearings: | PEEK |
| | Shaft: | 316 Stainless Steel |
| | Rotor: | CD4MCu Stainless Steel |
| | Rotor Supports: | 316 Stainless Steel |
| Out Frequency: | (100) 1" | 100 - 1000 Hz |
| | (150) 1½" | 100 - 1000 Hz |
| Recommended Filtration: | 1" | 40 mesh (420 µm) |
| | 1½" | 18 mesh (1000 µm) |
| | 2" | 14 mesh (1410 µm) |
| Calibration Report: | Comes standard. | |
| | N.I.S.T. – Certification available. | |

The FLOMEC® GSCPS Series High Precision Meter is the most accurate of all FLOMEC® Turbine Meters. This meter was designed to meet the strict 3A Sanitary Standards for any food and beverage application.

The GSCPS turbine meter's robust design provides reliable performance while delivering economical operating costs. The internals of the 3A meter are machined and polished to meet 3A self-draining and cleaning requirements (Ra 32). Parts are easily replaceable making lifetime maintenance of the turbine meter a preferred choice.

FEATURES / BENEFITS

- Proven turbine design that provides the best total operating cost
- Meets Clean in Place (CIP), Steam in Place (SIP), and Clean Out of Place (COP) requirements to allow for any sanitary procedure that work best for plant managers
- +/- 0.5% accuracy of reading and +/- 0.1% repeatability providing reliable, accurate flow measurement
- Multiple blind pulse out options available for connection to a variety of PLC, display equipment, and process control equipment
- Factory installed local Rate and Totalizer display available with digital, analog and flow alarm outputs
- Wide temperature range to accommodate various stages of food and beverage processes
- Turbine capable of 285°F (140°C) temperature up to 1 hour for SIP sanitary procedures
- 4-20mA analogue output according to flow rate
- Scaled pulse output according to accumulative total

FLUIDS

- Milk
- Water
- Beer
- Alcohols
- Filtered Wine
- De-ionized Water
- Vinegar
- Light Oils
- Juice
- CIP Solution

APPROVALS / WARRANTY



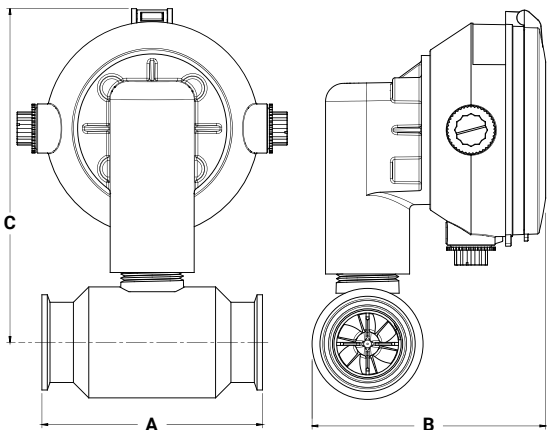
This meter meets the strict 3-A Sanitary Standards using the new "Third Party Verification" (TPV) program. Our methods of design, construction and traceability of components have been reviewed and approved.



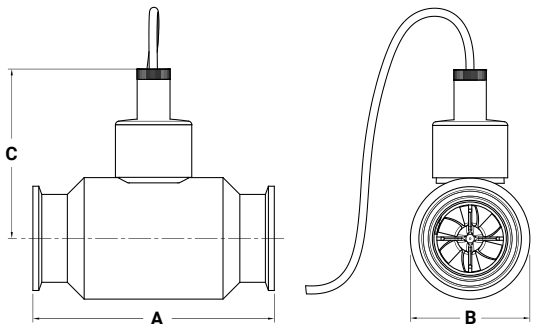
GSCPS - 3A FOOD & BEVERAGE
HIGH-PRECISION TURBINE METER

DIMENSIONS

| 3A Turbine RT14 Display | Dimension "A" | Dimension "B" | Dimension "C" |
|-------------------------|-------------------|-------------------|-------------------|
| GSCPS-100-RT14 | 3.6 in. (9.1 cm) | 4.7 in. (11.9 cm) | 7.7 in. (19.6 cm) |
| GSCPS-150-RT14 | 4.6 in. (11.7 cm) | 4.9 in. (12.4 cm) | 7.9 in. (20.1 cm) |
| GSCPS-200-RT14 | 6.0 in. (15.2 cm) | 5.2 in. (13.2 cm) | 8.2 in. (20.8 cm) |



| 3A Turbine 2-wire or 3-Wire | Dimension "A" | Dimension "B" | Dimension "C" |
|-----------------------------|-------------------|------------------|------------------|
| GSCPS-100-2 | 3.6 in. (9.1 cm) | 2.0 in. (5.1 cm) | 2.4 in. (6.1 cm) |
| GSCPS-100-3 | 3.6 in. (9.1 cm) | 2.0 in. (5.1 cm) | 3.0 in. (7.6 cm) |
| GSCPS-150-2 | 4.6 in. (11.7 cm) | 2.3 in. (5.8 cm) | 2.6 in. (6.6 cm) |
| GSCPS-150-3 | 4.6 in. (11.7 cm) | 2.3 in. (5.8 cm) | 3.2 in. (8.1 cm) |
| GSCPS-200-2 | 6.1 in. (15.5 cm) | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) |
| GSCPS-200-3 | 6.1 in. (15.5 cm) | 2.9 in. (7.4 cm) | 3.5 in. (8.9 cm) |



ACCESSORIES / ELECTRONICS

| | | |
|--|---|--|
| RT406D0FM* Rate/Totalizer, with Pulse Out (Remote) | RT142D0FM Rate/Totalizer, 4-20 mA, Pulse, Alarms (Remote) | EB112D0FM* Batch Controller (Remote) |
| | | |

*This enclosure is not approved for 3A applications. *This display is not approved for 3A applications.

OVAL GEAR

Oval gear flow meters are a type of Positive Displacement flow meter used to measure the volumetric flow of liquids. These meters directly measure the volume that passes through the meter rather than the velocity or some other physical characteristic of the liquid to calculate the volumetric flow rate, making them a volumetric meter.

- Accurate with clean, viscous fluids, unaffected by temperature changes
- No flow conditioning required, they can be placed directly after pumps or valves with no effect on accuracy
- Robust construction with a range of housing and wetted materials
- High turndown rates
- Low pressure drop
- Excellent for small volume additions

See how an oval gear meter works.



TECHNOLOGY



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OVAL GEAR METER MARKETS

Global customers use our meters in a wide range of applications.
Here are featured markets our OVAL GEAR meters excel in.

Standard
Intermediate
PPS (Chemical)

Mechanical
Standard
Intermediate
High
FCS
QM40
LM51 Lube

Standard
Intermediate
High
PPS (Chemical)
EGM

Standard
PPS (Chemical)

Standard
PPS (Chemical)

EGM SERIES
OVAL GEAR FLOW METER



SPECIFICATIONS

| | | |
|--------------------------|-----------------|---|
| Technology: | | Oval gear |
| Line Size: | | 1/8 in., 1/4 in., 3/8 in., 1/2 in. |
| Accuracy (% of Reading): | EGM004 | ± 1.0% |
| | EGM006 | ± 1.0% |
| | EGM008 | ± 1.0% |
| | EGM015 | ±0.5% |
| | EGM020 | ±0.5% |
| Repeatability: | | Typically ± 0.03% |
| Flow Range: | | 0.26-21.1 GPH (1-80 L/min) |
| Pressure Rating: | Aluminum | 500 psi (34 bar) |
| | Stainless Steel | 800 psi (55 bar) |
| Operating Temperature: | | 5°F - +176°F (-15°C - +80°C) |
| Pulse Output Type: | | NPN Open Collector (Hall Effect Sensor) |
| Voltage Pulse: | | 5 - 24 V (dc) |
| Current Draw: | | 20mA max. |
| Switching Current: | | 10mA max. |
| Recommended Filtration: | | 200 mesh [75 µm] |



All FLOMEC® EGM Series Pulse Meters are designed for volumetric flow measurement of clean liquids across a broad range of applications in the automotive, aviation, mining, power, chemical, pharmaceutical, and petroleum industries. The EGM Series will produce accurate and reliable measurements of almost all clean liquids, including but not limited to; alcohols, water based salts and solutions, corrosion inhibitors, brake and transmission fluids, greases, emulsifiers, adhesives, insecticides, and some aggressive chemicals.

FEATURES / BENEFITS

- Oval Gear technology for high accuracy and repeatability
- Direct volumetric measurement of flow
- Accuracy of reading is not affected by temperature and viscosity changes
- Measures high and low viscosity liquids
- Only two moving parts
- “Fuel Consumption” option can tolerate flow pulsations and has a built-in temperature sensor to correct for the fuel density changes (not available in the US)

FUEL CONSUMPTION

EGM Series flow meters with the Fuel Consumption option (Integral Option 2) are equipped with an integral PT100 temperature sensor which allows for accurate measurement of fuel consumption on combustion engines by correcting for temperature differences from the inlet to outlet of the engine. It also includes the Pulsating Flow electronics that eliminate the effect of pulsations in the flow.

APPLICATIONS (Typical application but not limited to)

- Petroleum Products
- Alcohols
- Saline Marine Environments

APPROVALS / WARRANTY



The Fuel Consumption System is designed for diesel fuel which is considered a flammable fluid by U.S. standards. **The Fuel Consumption System does not have FM Approval and should not be sold for use inside the U.S.**



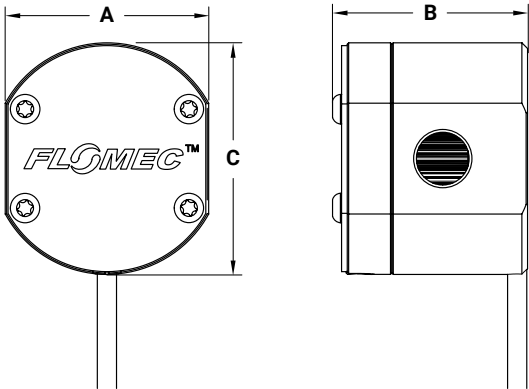
EGM SERIES
OVAL GEAR FLOW METER

| | | | | | |
|---|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Housing Material: | EGM004 | EGM006 | EGM008 | EGM015 | EGM020 |
| Nominal Size: | 1/8" [4 mm] | 1/4" [6 mm] | 3/8" [8 mm] | 1/2" [15 mm] | 3/4" [20 mm] |
| Nominal Flow Range* @ 3cP: | 0.26-9.5 GPH 1 - 36 L/hr | 0.5-27 GPH 2-100 L/hr | 4-145 GPH 15-550 L/hr | .26-10.6 GPM 1-40 L/min | 0.8-21 GPM 3-80 L/min |
| Flow Range @ 1cP | 0.25-6.34 GPH 2-24 L/hr | 1.32-21.13 GPH 5-80 L/hr | 4.76-116.24 GPH 18-440 L/hr | 0.39-8.45 GPM 1.5-32 L/min | 1.32-16.91 GPM 5-64 L/min |
| Flow Range @ 7cP | 0.13-9.51 GPH 0.5-36 L/hr | 0.26-26.42 GPH 1-100 L/hr | 3.96-145.29 GPH 15-550 L/hr | 0.13-10.57 GPM 0.5-40 L/min | 0.53-21.13 GPM 2-80 L/min |
| Flow Range @ 200cP | 0.10-9.51 GPH 0.4-36 L/hr | 0.18-26.42 GPH 0.7-100 L/hr | 1.58-145.29 GPH 6-550 L/hr | 0.10-10.56 GPM 0.4-40 L/min | 0.47-21.13 GPM 1.8-80 L/min |
| Flow Range @ 500cP | 0.06-7.13 GPH 0.25-27 L/hr | 0.13-19.81 GPH 0.5-75 L/hr | 0.25-145.29 GPH 2-550 L/hr | 0.08-10.56 GPM 0.3-40 L/min | 0.39-26.42 GPM 1.5-80 L/min |
| Flow Range @ 1000cP | 0.03-4.22 GPH 0.12-16 L/hr | 0.08-11.89 GPH 0.3-45 L/hr | 0.39-95.10 GPH 1.5-360 L/hr | 0.05-6.6 GPM 0.2-25 L/min | 0.26-13.21 GPM 1-50 L/min |
| Max. Pressure (Al meters): | 500 psi [34 bar] | 500 psi [34 bar] | 500 psi [34 bar] | 290 psi [20 bar] | 290 psi [20 bar] |
| Max. Pressure (SS meters): | 800 psi [55 bar] | 800 psi [55 bar] | 500 psi [34 bar] | 290 psi [20 bar] | 290 psi [20 bar] |
| Recommended Filtration: | 200 mesh [75 µm] | | | 100 mesh [150 µm] | |
| Pulse Output Resolution - Standard Pulse/USG [Pulse/L] | 10600 [2800] | 4012 [1060] | 2725 [720] | 644 [170] | 398 [105] |
| Pulse Output Resolution - Fuel Cons. Option Pulse/USG [Pulse/L] | 10600 [2800] | 4012 [1060] | 681 [180] | 161 [42.5] | 99.5 [26.3] |
| RTD Specification (Integral Option 2) | Platinum Resistance Thermometer 100 Ohms (PT100) Class F0.3 | | | | |

*Maximum flow reduces as viscosity increases, see flow de-rating guide. Max recommended Pressure drop is 14.5 psi (1 bar).
*When used to meter rate, at very low flow rates, the rate can jump, due to resolution (not accuracy).

DIMENSIONS

| Meter Size | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|---------------------|---------------------|---------------------|
| EGM004 | 1.8 in. (4.6 cm) | 2 in. (5.1 cm) | 1.4 in. (3.6 cm) |
| EGM006 | 2.3 in. (5.8 cm) | 2.5 in. (6.4 cm) | 1.5 in. (3.8 cm) |
| EGM008 | 2.3 in. (5.8 cm) | 2.5 in. (6.4 cm) | 1.9 in. (4.8 cm) |
| EGM015 | 2.8 in. (7.2 cm) | 3.2 in. (8.2 cm) | 2.6 in. (6.6 cm) |
| EGM020 | 2.8 in. (7.2 cm) | 3.2 in. (8.2 cm) | 3 in. (7.6 cm) |



LM SERIES
ELECTRONIC FLOW METER



SPECIFICATIONS

| | | |
|--------------------------|-------------|---------------------------------|
| Technology: | | Oval gear |
| Line Size: | | ½" NPT (Female) |
| Accuracy (% of Reading): | | ± 0.5% |
| Material Housing: | Housing: | Stainless steel 1.4301 |
| | Oval Gears: | Vectra (LCP-plastic) |
| | O-Ring: | Viton |
| Flow Range: | | 0.25-8 GPM (1-30 L/min) |
| Pressure Rating: | | 5-1500 psi (0.35-103 bar) |
| Operating Temperature: | | -4°F to +140°F (-20°C to +60°C) |

APPLICATIONS (Typical application but not limited to)

- Motor Oils (SAE 5-50)
- Windshield Wiper Fluid
- Brake Fluid
- Engine Coolant Solutions
- Gear Oils (SAE 80-240)
- Antifreeze (Ethylene Glycol)
- Automatic Transmission Fluid

APPROVALS / WARRANTY



The FLOMEC® LM51DN Positive Displacement Meter has a modular design, and is low cost, lightweight and rugged, making it the best choice for overhead reel systems. Perfect for metering engine oils or transmission fluids with a maximum viscosity of 1,000 cp.

The electronic register module contains a microprocessor board powered by a lithium battery. It can be programmed to measure in pints, quarts, liters, or US gallons. The meter calibration factor is determined during factory test. The meter can be recalibrated in the field for fluids or different viscosity if required. A 6-digit liquid crystal display, accurate to the second decimal place, shows the exact amount of fluid dispensed. The entire register module is protected from the wear and tear of normal shop use by a rugged, glass filled, shock resistant, nylon housing.

FEATURES / BENEFITS

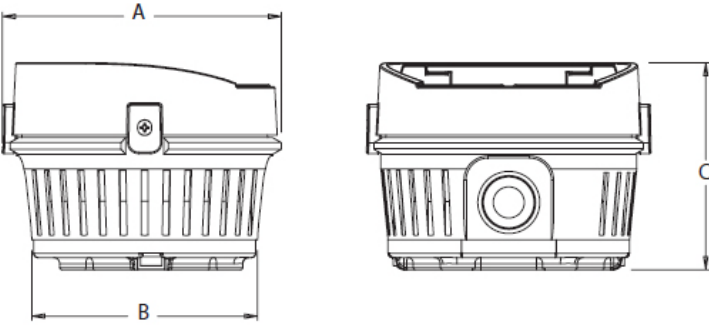
- 1500 psi rating
- NPT Threads
- Large 6-digit LCD display with two decimal-point precision
- Totalization in pints, quarts, US gallons or liters
- Unit of measure selectable from the front of register
- Resettable and non-resettable totalizer
- Display operation temperature range -4°F to +140°F (-20°C to +60°C)
- Low battery indicator
- Long life field replaceable top load battery
- Accuracy of ± 0.5%
- Calibration factor programmable from front of register
- Calibration factor saved in non-volatile memory



LM SERIES
ELECTRONIC FLOW METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|---------------------|-------------------|
| 4.0 in. (10.2 cm) | 3.3 in. (8.4 cm) | 3 in. (7.6 cm) |



QM40 SERIES
ALUMINUM OVAL GEAR METER



SPECIFICATIONS

| | |
|--------------------------|---|
| Technology: | Oval Gear |
| Line Size: | 1 in. |
| Accuracy (% of Reading): | ± 0.5% across flow range |
| Material Housing: | Corrosion-Resistant Aluminum |
| Fitting Type: | NPT (Female) |
| Flow Range: | 2-40 GPM (8-150 L/min) |
| Pressure Rating: | 50 psi (3.45 bar) |
| Operating Temperature: | -40°F to 125°F (-40°C to 52°C) |
| Wetted Materials: | |
| Housing/Cover/Fittings: | Corrosion-Resistant Die-cast Aluminum |
| Rotors: | PPS (Polyphenylene Sulfide) |
| Shafts/Strainer: | Stainless Steel |
| Seals: | NBR (Nitrile Butadiene Rubber) |
| Mag-Drive | Acetal, Stainless Steel and Neodymium (Nickel Plated) |

The **GPRO® QM40 Mechanical Fuel Meter** is designed for use with pump systems with a flow range of 2 to 40 GPM (8-150 L/min). This oval gear positive displacement meter provides precision fuel measurements and accurate readings for fleet operations, heavy equipment, and agricultural applications. It features a magnetic drive mechanism that prevents leaks and reduces drag which allows for more accurate readings. The QM40 easily attaches to modular fuel transfer pumps and filter adapters with the Quick-Fit modular feature, a simple four-bolt connection.

FEATURES / BENEFITS

- Oval gear technology is within +/- 1/2% across a flow range from 2 to 40 GPM.
- Register rotates to read easily in any application; four-digit display, twist knob reset
- Magnetic Drive eliminates drive shaft leaks
- Simple four-bolt flange connections allow the meter to be mounted in multiple directions. Connections are designed to bolt directly to the GPI® Quick-Fit Filter adapter, a GPI® Modular Pump or a GPRO® Modular Pump
- Threaded inlet and outlet adapters are included with each meter to accommodate installation with pipe fittings.

APPLICATIONS (Typical application but not limited to)

- Fuel Transfer
- Fuel Products

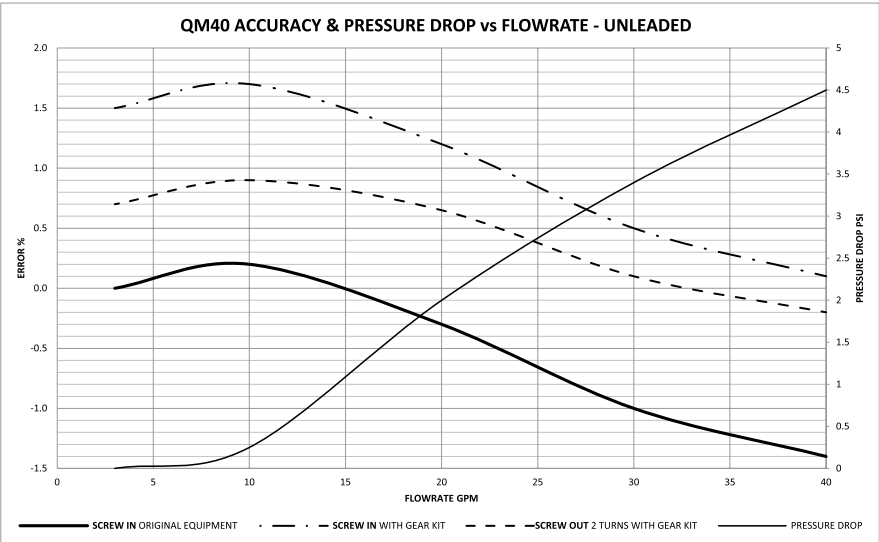
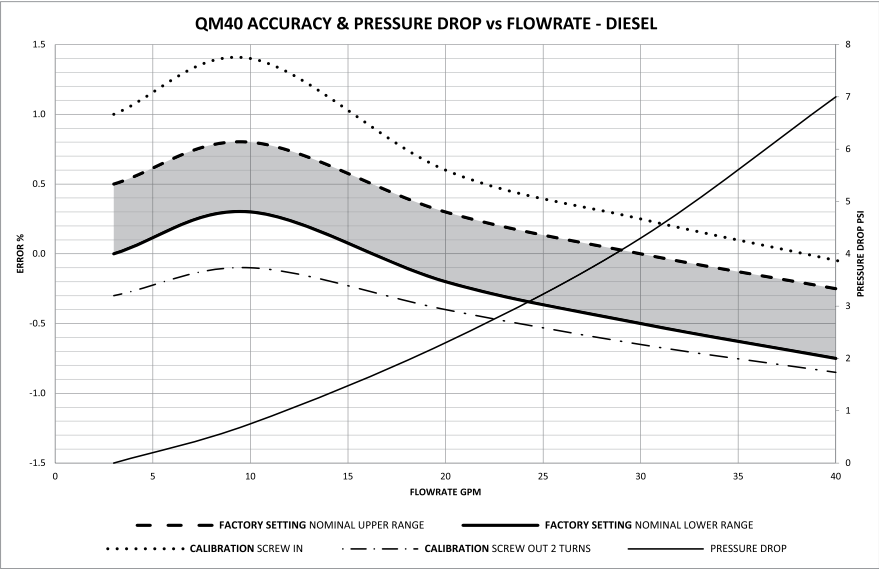
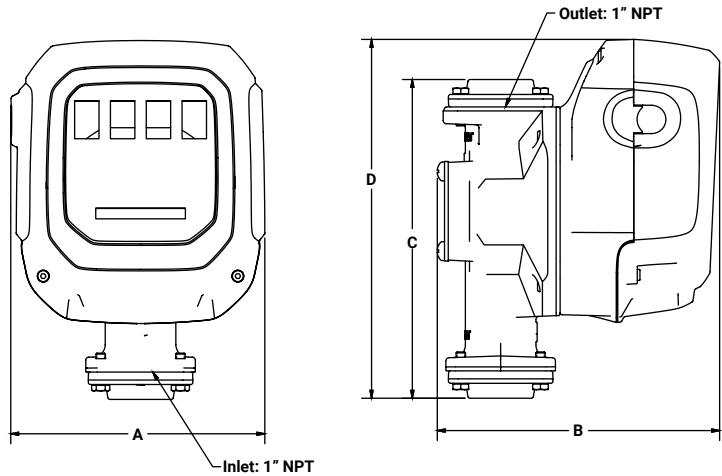
APPROVALS / WARRANTY



QM40 SERIES
ALUMINUM OVAL GEAR METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" | Dimension "D" |
|----------------------|--------------------|--------------------|--------------------|
| 6.4 in. (16.3 cm) | 7.1 in. (18 cm) | 8 in. (20.3 cm) | 9 in. (22.9 cm) |



*A gear replacement kit is available (P/N 139500-15) to convert the meter to unleaded fuels. Replacement gear kit will adjust entire flow curve up 1.5%.

OM SERIES
MECHANICAL FLOW METER



SPECIFICATIONS

| | | |
|-------------------------|---|------------------------------------|
| Technology: Oval Gear | | |
| Line Size Available: | ½" (4 mm) | |
| | 1" (25 mm) | |
| | 1½" (40 mm) | |
| | 2" (50 mm) | |
| | 3" (80 mm) | |
| | 4" (100 mm) | |
| Accuracy (%): | ±1% | |
| Repeatability: | Typically ± 0.03% of reading | |
| Material Housing: | Aluminum | |
| | 316L Stainless Steel | |
| Fitting Type: | 00 | No fittings (025-100E) |
| | 10 | BSPP (G) female threaded (ISO 228) |
| | 20 | NPT female threaded |
| | 40 | ANSI-150 RF Flanged |
| | 50 | ANSI-300 RF Flanged (015-050) |
| | 60 | PN16 DIN Flanged |
| Flow Range: | (015) ½" | 0.26-10.6 GPM (1-40 L/min) |
| | (025) 1" | 2.6-40 GPM (10-150 L/min) |
| | (040) 1½" | 4-66 GPM (15-250 L/min) |
| | (050) 2" | 8-130 GPM (30-500 L/min) |
| | (080) 3" | 10-200 GPM (35-750 L/min) |
| | (080E) 3" | 13-260 GPM (50-1000 L/min) |
| | (100) 4" | 20-400 GPM (75-1550 L/min) |
| | (100E) 4" | 40-660 GPM (150-2500 L/min) |
| Recommended Filtration: | ½", 1", 1½", 2" | 100 mesh [150 µm] |
| | 3" & 4" | 40 mesh [350 µm] |
| Pressure Rating: | 20-40 bar (285-580 psi) Size Dependent | |
| Operating Temperature: | 5°F - 176°F (-15°C - 80°C) | |



The FLOMEC® Mechanical Flow Meter provides precise volumetric flow measurement of clean liquids. Suitable for applications for safe area metering of lubricants, and other non-flammable viscous chemicals.

FEATURES / BENEFITS

- High accuracy oval gear technology with low pressure drop can be used in gravity-fed applications
- No requirement for flow conditioning or straight pipe runs makes them ideal for compact installations with limited space
- Robust aluminum mechanical registers
- Optional air eliminator/strainers

APPLICATIONS (Typical application but not limited to)

- Diesel fuel
- Biofuels
- Glycols / Anti-Freeze
- Lubricating oils and greases

APPROVALS / WARRANTY

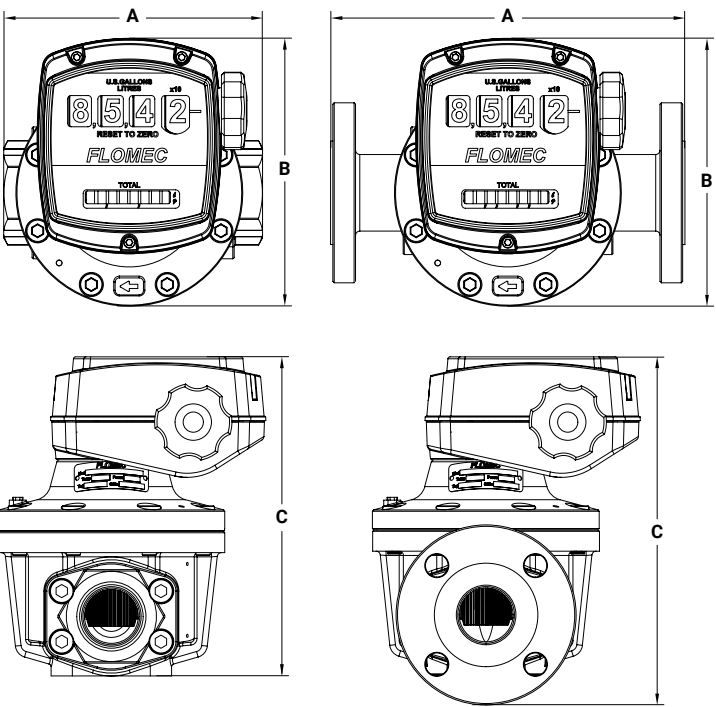


OM SERIES
MECHANICAL FLOW METER

DIMENSIONS

| Meter Size & Fitting | | Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|-------------|--------------------|-------------------|--------------------|
| 15 | NPT | 5.8 in. (14.7 cm) | 7.3 in. (18.5 cm) | 6.3 in. (16 cm) |
| 25 | NPT | 6.9 in. (17.5 cm) | 7.3 in. (18.5 cm) | 7 in. (17.8 cm) |
| | ANSI Flange | 9.3 in. (23.6 cm) | 7.3 in. (18.5 cm) | 8 in. (20.3 cm) |
| 40 | NPT | 7.2 in. (18.3 cm) | 7.4 in. (18.8 cm) | 8.9 in. (20.6 cm) |
| | ANSI Flange | 9.8 in. (24.9 cm) | 7.4 in. (18.8 cm) | 9.7 in. (24.6 cm) |
| 50 | NPT | 8.3 in. (21.1 cm) | 8.6 in. (21.8 cm) | 9.3 in. (23.6 cm) |
| | ANSI Flange | 10.9 in. (27.7 cm) | 7.8 in. (19.8 cm) | 10.4 in. (26.4 cm) |
| 80 | ANSI Flange | 10.7 in. (27.2 cm) | 7.8 in. (19.8 cm) | 9.5 in. (24 cm) |

*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended Pressure drop is 14.5 psi (1 bar).



OM SERIES
CHEMICAL FLOW METER



SPECIFICATIONS

| | | |
|--------------------------|--|---------------|
| Technology: | Oval Gear | |
| Line Size: | 025 | 1 in. (25 mm) |
| Accuracy (% of reading): | ±0.5% (±0.2% of reading with optional RT14) | |
| Repeatability: | Typically ± 0.03% of reading | |
| Material Housing: | PPS | |
| Fitting Type: | BSPP (RP) female threaded (ISO7) | |
| | NPT female threaded | |
| Flow Range: | 2.6 - 40 GPM (10-150 L/min) | |
| Pressure Rating: | 174 psi (12 bar) | |
| Burst Pressure: | 522 psi (36 bar) | |
| Operating Temperature: | 176°F (80°C) Maximum | |
| Temperature Range: | -40°C - +80°C (-40°F - +176°F) | |
| Electrical: | | |
| Output Pulse Resolution: | Pulses/gallon (Pulses / L) - Nominal | |
| Reed Switch: | 102 (27) | |
| Hall Effect: | 405 (107) | |
| QP Quadrature Pulse: | 204 (54) | |
| Reed Switch Output: | 30V (dc) x 200mA max. (maximum thermal shock 18°F [10°C] / minute) | |
| Hall Effect Output: | 3 wire open collector 5-24V (dc) max., 20mA max. | |
| Recommended Filtration: | 200 mesh [75 µm] | |



The **FLOMEC® Chemical Flow Meter** provides precise volumetric flow measurement of a broad range of clean water based products and aggressive chemicals as well as DEF and lubricating liquids. Applications include batching, dosing or packaging of various corrosive chemicals as a more economical alternative to a complete 316 stainless steel meter for liquids such as Diesel Exhaust Fluid (Adblue®).

FEATURES / BENEFITS

- Combination Reed Switch & Hall Effect Sensor
- PPS Rotors, No Bearing
- FKM (Viton™) 5°F minimum (-15°C) O-Ring material
- High accuracy & repeatability, direct reading flow meter
- No requirement for flow conditioning (straight pipe runs)
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow
- Meets DEF (Diesel Exhaust Fluid) / AdBlue® Standards

APPLICATIONS (Typical application but not limited to)

- Water (non-potable, demineralized, RO)
- Glycols / Anti-Freeze
- Diesel Exhaust Fluid (DEF / Adblue®)
- Fertilizers
- Herbicides
- Insecticides
- Also suitable for many non-flammable fuels and oils

APPROVALS / WARRANTY

CE

NEMA
4

IP65

2

METER
WARRANTY

★ ★ ★

ISO 22241-2 Annex C, D, E, F, G, H, I,
Diesel Exhaust Fluid (DEF)/ Adblue® standards



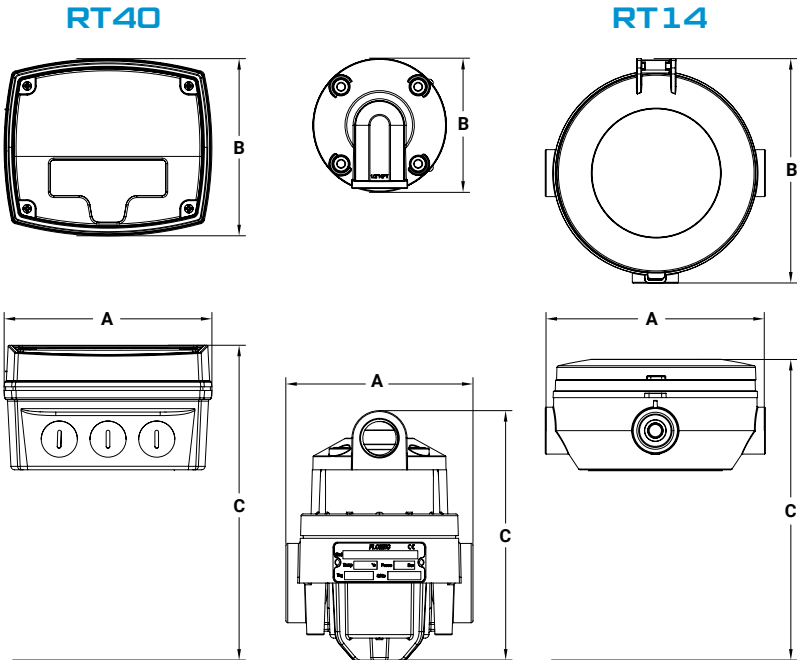
OM SERIES
CHEMICAL FLOW METER

METER SELECTION

- PPS meters are used for non-aromatic/non-halogenated organic chemicals, water based liquids, Diesel Exhaust Fluid and petroleum products including oils and grease. It is unsuitable for strong acids and oxidizers.
- PPS meters with standard ceramic rotor pins are suitable for applications where stainless steel is not suited or permitted.
- 1) Standard blind pulse meters come pre-configured with Reed Switch and Hall Effect outputs.
2) Blind Quadrature pulse options available.
3) Local display with standard pulse out or 4-20mA options available.

DIMENSIONS

| | Dimension "A" | Dimension "B" | Dimension "C" |
|-------------|----------------------|----------------------|----------------------|
| OM025P | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 5.4 in. (13.7 cm) |
| OM025P RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 6.6 in. (16.8 cm) |
| OM025P RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 6.9 in. (17.5 cm) |



FCS SERIES
FUEL CONSUMPTION KIT

KIT INCLUDES:

- (2x) EGM Series Electronic Flow meter
 - (1x) F127 Totalizer
 - (2x) Meter Brackets
- (2x) Fuel Strainer plus Connector
 - Cable Glands



SPECIFICATIONS

| | | |
|------------------------|------------|---|
| Technology: | | Oval Gear |
| Line Size: | | ¼" (6 mm) |
| | | ⅜" (8 mm) |
| | | ½" (15 mm) |
| | | ¾" (20 mm) |
| Material Housing: | | Aluminum (Land) |
| | | Stainless Steel 316 (Marine) |
| Fitting Type: | | BSPP (G) (female) (ISO 228) NPT (female) |
| Flow Range: | EGM006 | 0.5-27 GPH (2-100 L/hr) |
| | EGM008 | 4-145 GPH (15-550 L/hr) |
| | EGM015 | 0.26-10.6 GPM (1/40 L/hr) |
| | EGM020 | 0.5-21 GPM (3-80 L/min) |
| Operating Temperature: | | -40°F to 176°F (-40°C to +80°C) |
| Wetted Materials: | Rotor | PPS (Stainless Steel 316 for EGM006 meters) |
| | Materials: | |

KIT SELECTION

Although each Fuel Consumption Kit consists of the same items, the size of the meter and the process connections change depending on the rate of flow, which is a direct correlation to the size of the engine.

A typical diesel fuel loop system would on average have 3.5 times more fuel in its line than what the engine consumes at full load. With this in mind, selecting the right kit based on the engine's power output is important to ensure accuracy and the positive displacement meters' longevity.

The graph depicted on the next page should be used as a guide when determining the size of kit is required.



FLOMEC® Fuel Consumption System (FCS) is a complete fuel monitoring system that comprises 2x EGM positive displacement meters coupled with an F127 flow instrument for accurate measurement of fuel consumption rates and total fuel consumption. The FCS can accurately measure fuel consumption of combustion engines by correcting for temperature differences from the inlet to outlet of the engine. The EGM positive displacement meter provides accurate and economic fuel consumption measurement solutions for all engine sizes.

FEATURES / BENEFITS

EGM Flow meter

- Cable Length: 6.6 ft (2 meters) (can extend using cable connector)
- Pulsating flow electronics eliminates error due to fuel injection pulsation, coupled with integral PT100 resistance thermometers
- Engine Power: 7.5HP - 5000HP (Please consult distributor for larger engines)

F127 Totalizer

- Display: 7 digit resettable total, 11 digit accumulative total with backlight
- Casing: Robust IP66/IP67 field enclosure
- Required Power Supply: 8-24V (dc) (back up power supply built in to save settings in case of power failure)
- Output Options: 4-20mA and Pulse output available

APPLICATIONS (Typical application but not limited to)

- Diesel engine on a ship (see warning below)

APPROVALS / WARRANTY

NEMA 6P IP68

CE

2 YR METER WARRANTY

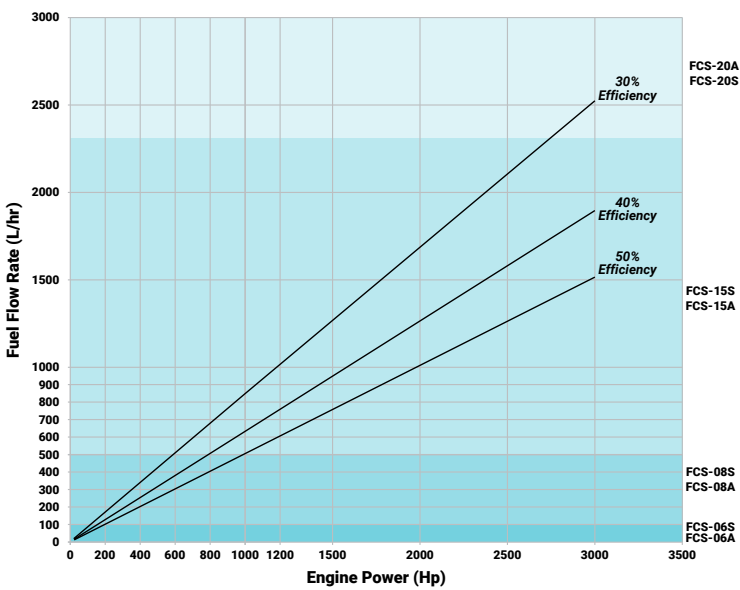
The Fuel Consumption System is designed for diesel fuel which is considered a flammable fluid by U.S. standards. **The Fuel Consumption System does not have FM Approval and should not be sold for use inside the U.S.**



FCS SERIES
FUEL CONSUMPTION KIT

KIT SELECTION (CONTINUED)

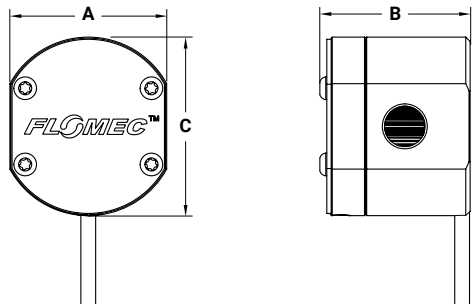
| Model: | Process Connections | Meter Specifications Size Flow Range | |
|----------|---------------------|---|-----------------------------|
| FCS-06AB | BSPP (G) (Female) | ¼ in. (6 mm) | 0.5-27 GPH 2-100 L/hr |
| FCS-06AN | NPT (Female) | | |
| FCS-06S | | | |
| FCS-08AB | BSPP (G) (Female) | ⅜ in. (8 mm) | 4-145 GPH 15-550 L/hr |
| FCS-08AN | NPT (Female) | | |
| FCS-08S | | | |
| FCS-15AB | BSPP (G) (Female) | ½ in. (15 mm) | 0.26-10.6 GPM 1-40 L/min |
| FCS-15AN | NPT (Female) | | |
| FCS-15S | | | |
| FCS-20AB | BSPP (G) (Female) | ¾ in. (20 mm) | 0.5-21 GPM 3-80 L/min |
| FCS-20AN | NPT (Female) | | |
| FCS-20S | | | |



DIMENSIONS

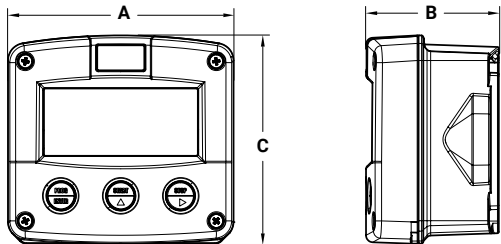
EGM Flow meter

| Meter Size | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|---------------------|---------------------|---------------------|
| EGM006 | 2.3 in. (5.8 cm) | 2.5 in. (6.4 cm) | 1.5 in. (3.8 cm) |
| EGM008 | 2.3 in. (5.8 cm) | 2.5 in. (6.4 cm) | 1.9 in. (4.8 cm) |
| EGM015 | 2.8 in. (7.2 cm) | 3.2 in. (8.2 cm) | 2.6 in. (6.6 cm) |
| EGM020 | 2.8 in. (7.2 cm) | 3.2 in. (8.2 cm) | 3 in. (7.6 cm) |



F127 Totalizer

| Model: | Dimension "A" | Dimension "B" | Dimension "C" |
|-----------|--------------------|-------------------|--------------------|
| Totalizer | 5.1 in. (13 cm) | 3 in. (7.6 cm) | 4.7 in. (12 cm) |



ACCESSORIES

| Part Number: | Item | Description |
|--------------|---------------------------------------|---|
| 1522056 | F-Series Wall Mount Kit | Stainless Steel wall mount kit for F127 totalizer, screws included |
| 1522052 | F-Series Pipe Mount Kit | Stainless Steel pipe mount kit for F127 totalizer, excludes worm clamps |
| 1522063 | Worm Clamp Kit, 1.0-1.57" (25-40 mm) | Includes 2pcs of stainless steel worm clamps to suit #1522052 and pipe. OD from 1-1.57" (25-40 mm) |
| 1522055 | Worm Clamp Kit, 1.81-2.76" (46-70 mm) | Includes 2pcs of stainless steel worm clamps to suit #1522052 and pipe. OD from 1.81-2.76" (46-70 mm) |
| 1519011 | M16 Cable Gland | Includes cable gland, locking nut and o-ring |
| 1519012 | M20 Cable Gland | Includes cable gland, locking nut and o-ring |
| 1519010 | Cable Connector | 7-Pin IP67 Polyamide Connector kit |

OM SERIES
STANDARD PRESSURE



FLOMEC® OM Standard Pressure Flow Meters provide highly accurate and repeatable volumetric measurement of clean viscous liquids. Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Measures both high and low viscosity liquids
- Optional Exd I/IIB approval (ATEX, IECEx)

INDUSTRIES

- Aviation
- Mining
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental

APPROVALS / WARRANTY



*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended Pressure drop is 14.5 psi (1 bar).



SPECIFICATIONS

| Oval Gear Meter | Nominal Size | Flow Range* |
|---|---|----------------------------|
| OM004 | ⅛" (4 mm) | 0.26-9.5 GPH (1-36 L/hr) |
| OM006 | ¼" (6 mm) | 0.5-27 GPH (2-100 L/hr) |
| OM008 | ⅜" (8 mm) | 4-145 GPH (15-550 L/hr) |
| OM015 | ½" (15 mm) | 0.26-10.6 GPM (1-40 L/min) |
| OM025 | 1" (25 mm) | 2.6-40 GPM (10-150 L/min) |
| OM040 | 1½" (40 mm) | 4-66 GPM (15-250 L/min) |
| OM050 | 2" (50 mm) | 8-120 GPM (30-450 L/min) |
| OM080 | 3" (80 mm) | 10-200 GPM (35-750 L/min) |
| OM080E | 3" (80 mm) | 13-260 GPM (50-1000 L/min) |
| OM100 | 4" (100 mm) | 20-400 GPM (75-1500 L/min) |
| Accuracy +@3cp: | ± 0.5% of reading (± 0.2% of reading with optional RT14) | |
| Repeatability: | Typically ± 0.03% of reading | |
| Operating Temperature: | -40°F to +300°F (-40°C to +150°C) refers to factory for lower temperature | |
| Standard Pressure Rating (Threaded Meter) | | |
| Aluminum: | 220 PSI (15 Bar) | OM004 |
| | | OM006 |
| | | OM008 |
| | 990 PSI (68 Bar) | OM015 |
| | | OM025 |
| | 435 PSI (30 Bar) | OM040 |
| | 285 PSI (20 Bar) | OM050 |
| | 175 PSI (12 Bar) | OM080 |
| | | OM080E |
| 145 PSI (10 bar) | OM100E | |
| 316 Stainless Steel: | 495 PSI (34 Bar) | OM004 |
| | | OM006 |
| | | OM008 |
| | 990 PSI (68 Bar) | OM015 |
| | | OM025 |
| | 435 PSI (30 Bar) | OM040 |
| | 550 PSI (38 Bar) | OM050 |
| | 175 PSI (12 Bar) | OM080 |



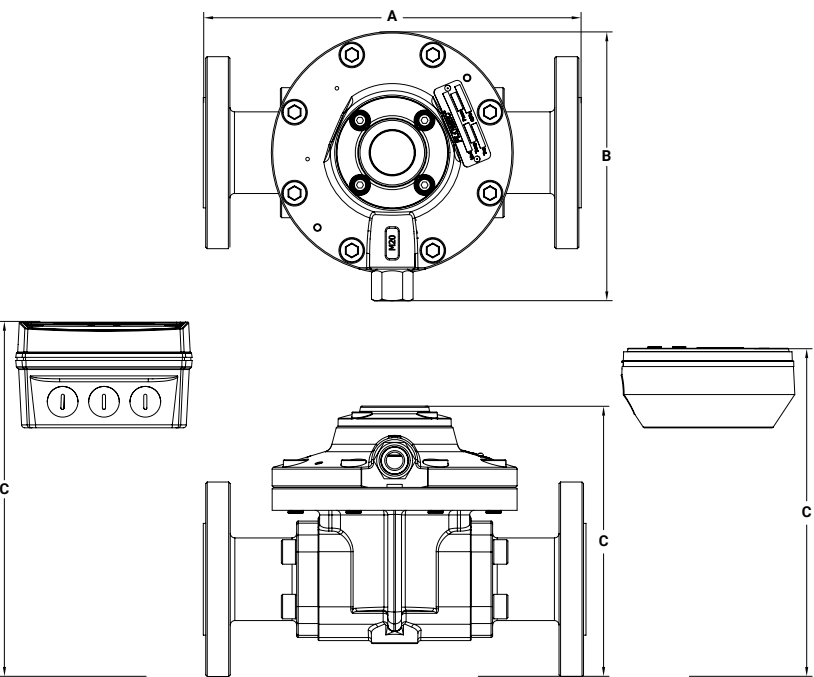
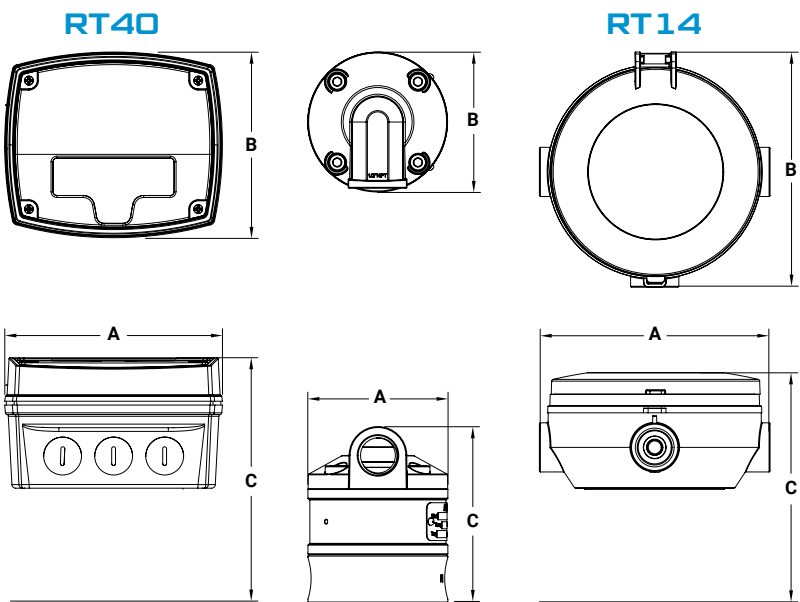
OM SERIES
STANDARD PRESSURE

DIMENSIONS REFERENCE THREADED

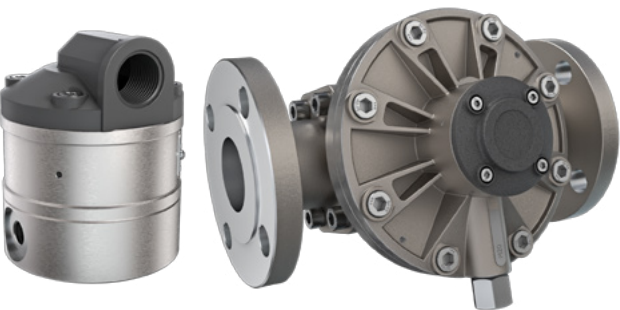
| | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|-------------------|-------------------|-------------------|
| OM004 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.7 in. (9.4 cm) |
| OM004 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.7 in. (11.9 cm) |
| OM004 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5 in. (12.7 cm) |
| OM006 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.7 in. (9.4 cm) |
| OM006 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.7 in. (11.9 cm) |
| OM006 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5 in. (12.7 cm) |
| OM008 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.9 in. (9.9 cm) |
| OM008 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.8 in. (12.2 cm) |
| OM008 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5.2 in. (13.2 cm) |
| OM015 | 4.4 in. (11.2 cm) | 5.1 in. (13 cm) | 3.9 in. (9.9 cm) |
| OM015 RT14 | 4.8 in. (12.2 cm) | 5.4 in. (13.7 cm) | 5.5 in. (14 cm) |
| OM015 RT40 | 4.5 in. (11.4 cm) | 5.1 in. (13 cm) | 6.1 in. (15.5 cm) |

DIMENSIONS REFERENCE FLANGE

| | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|--------------------|-------------------|-------------------|
| OM025 | 9.3 in. (23.6 cm) | 5.5 in. (14 cm) | 5.6 in. (14.2 cm) |
| OM025 RT14 | 9.3 in. (23.6 cm) | 5.7 in. (14.5 cm) | 7.2 in. (18.3 cm) |
| OM025 RT40 | 9.3 in. (23.6 cm) | 5.5 in. (14 cm) | 7.8 in. (19.8 cm) |
| OM040 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 7 in. (17.8 cm) |
| OM040 RT14 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 8.5 in. (21.6 cm) |
| OM040 RT40 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 9.2 in. (23.4 cm) |
| OM050 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 7.7 in. (19.6 cm) |
| OM050 RT14 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 9.3 in. (23.6 cm) |
| OM050 RT40 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 9.9 in. (25.1 cm) |
| OM080 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 7 in. (17.8 cm) |
| OM080 RT14 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 8.7 in. (22.1 cm) |
| OM080 RT40 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 9.4 in. (23.9 cm) |



OM SERIES
INTERMEDIATE PRESSURE



SPECIFICATIONS

| Oval Gear Meter | Nominal Size | Flow Range* |
|---|--------------------|----------------------------|
| OM004 | 1/8" (4 mm) | 0.26-9.5 GPH (1-36 L/hr) |
| OM006 | 1/4" (6 mm) | 0.5-27 GPH (2-100 L/hr) |
| OM008 | 3/8" (8 mm) | 4-145 GPH (15-550 L/hr) |
| OM015 | 1/2" (15 mm) | 0.26-10.6 GPM (1-40 L/min) |
| OM025 | 1" (25 mm) | 2.6-40 GPM (10-150 L/min) |
| OM040 | 1 1/2" (40 mm) | 4-66 GPM (15-250 L/min) |
| OM050 | 2" (50 mm) | 8-120 GPM (30-450 L/min) |
| OM080 | 3" (80 mm) | 10-200 GPM (35-750 L/min) |
| OM080E | 3" (80 mm) | 13-260 GPM (50-1000 L/min) |
| OM100 | 4" (100 mm) | 20-400 GPM (75-1500 L/min) |
| Accuracy +@3cp: ± 0.5% of reading (± 0.2% of reading with optional RT14) | | |
| Repeatability: Typically ± 0.03% of reading | | |
| Temperature Rating: -40°F to +300°F (-40°C to +150°C) refers to factory for lower temperature | | |
| Intermediate Pressure Rating (Threaded Meter) | | |
| Aluminum: | 2000 PSI (138 Bar) | OM025 |
| 316 Stainless Steel: | 1450 PSI (100 Bar) | OM004 |
| | | OM006 |
| | | OM008 |
| | | OM015 |
| | | OM025 |
| | 725 PSI (50 Bar) | OM040 |
| | | OM050 |



FLOMEC® OM Intermediate Pressure Flow Meters provide highly accurate and repeatable volumetric measurement of clean viscous liquids in higher pressure installations. Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Measures both high and low viscosity liquids
- Optional Exd I/IIB approval (ATEX, IECEx)

INDUSTRIES

- Aviation
- Mining
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental

APPROVALS / WARRANTY



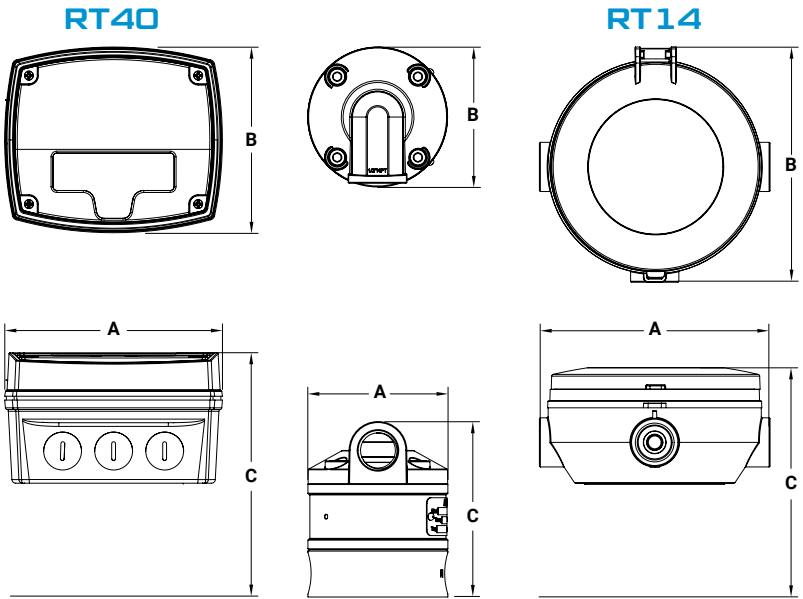
*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended Pressure drop is 14.5 psi (1 bar).



OM SERIES
INTERMEDIATE PRESSURE

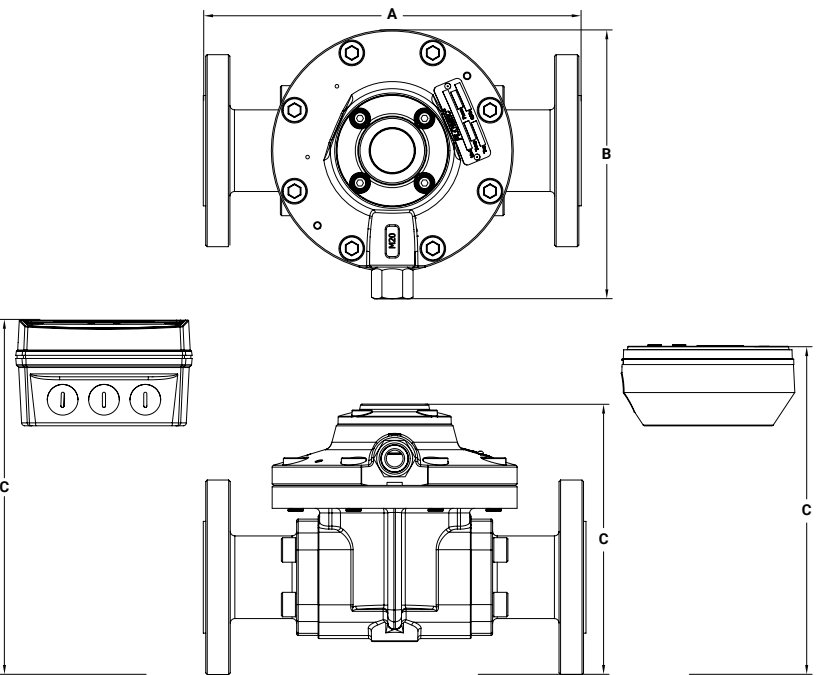
DIMENSIONS REFERENCE THREADED

| | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|-------------------|-------------------|-------------------|
| OM004 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.7 in. (9.4 cm) |
| OM004 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.7 in. (11.9 cm) |
| OM004 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5 in. (12.7 cm) |
| OM006 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.7 in. (9.4 cm) |
| OM006 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.7 in. (11.9 cm) |
| OM006 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5 in. (12.7 cm) |
| OM008 | 2.9 in. (7.4 cm) | 2.9 in. (7.4 cm) | 3.9 in. (9.9 cm) |
| OM008 RT14 | 4.8 in. (12.2 cm) | 4.9 in. (12.4 cm) | 4.8 in. (12.2 cm) |
| OM008 RT40 | 4.5 in. (11.4 cm) | 3.9 in. (9.9 cm) | 5.2 in. (13.2 cm) |
| OM015 | 4.4 in. (11.2 cm) | 5.1 in. (13 cm) | 3.9 in. (9.9 cm) |
| OM015 RT14 | 4.8 in. (12.2 cm) | 5.4 in. (13.7 cm) | 5.5 in. (14 cm) |
| OM015 RT40 | 4.5 in. (11.4 cm) | 5.1 in. (13 cm) | 6.1 in. (15.5 cm) |



DIMENSIONS REFERENCE FLANGE

| | Dimension "A" | Dimension "B" | Dimension "C" |
|------------|--------------------|-------------------|-------------------|
| OM025 | 9.3 in. (23.6 cm) | 5.5 in. (14 cm) | 5.6 in. (14.2 cm) |
| OM025 RT14 | 9.3 in. (23.6 cm) | 5.7 in. (14.5 cm) | 7.2 in. (18.3 cm) |
| OM025 RT40 | 9.3 in. (23.6 cm) | 5.5 in. (14 cm) | 7.8 in. (19.8 cm) |
| OM040 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 7 in. (17.8 cm) |
| OM040 RT14 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 8.5 in. (21.6 cm) |
| OM040 RT40 | 9.8 in. (24.9 cm) | 7 in. (17.8 cm) | 9.2 in. (23.4 cm) |
| OM050 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 7.7 in. (19.6 cm) |
| OM050 RT14 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 9.3 in. (23.6 cm) |
| OM050 RT40 | 10.9 in. (27.7 cm) | 7.9 in. (20.1 cm) | 9.9 in. (25.1 cm) |
| OM080 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 7 in. (17.8 cm) |
| OM080 RT14 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 8.7 in. (22.1 cm) |
| OM080 RT40 | 10.7 in. (27.2 cm) | 7.3 in. (18.5 cm) | 9.4 in. (23.9 cm) |



OM SERIES
HIGH PRESSURE



SPECIFICATIONS

| Oval Gear Meter | Nominal Size | Flow Range* |
|---------------------------------------|---|-----------------------------|
| OM004 | ⅛" (4 mm) | 0.26-9.5 GPH (1-36 L/hr) |
| OM006 | ¼" (6 mm) | 0.53-26.4 GPH (2-100 L/hr) |
| OM008 | ⅜" (8 mm) | 4-145 GPH (15-550 L/hr) |
| OM015 | ½" (15 mm) | 0.26-10.6 GPM (1-40 L/min) |
| OM025 | 1" (25 mm) | 2.6-10.6 GPM (10-150 L/min) |
| OM040 | 1 ½" (40 mm) | 4-66 GPM (15-250 L/min) |
| OM050 | 2" (50 mm) | 8-120 GPM (30-450 L/min) |
| | | |
| Accuracy +@3cp: | ± 0.5% of reading (± 0.2% of reading with optional RT14) | |
| Repeatability: | Typically ± 0.03% of reading | |
| Temperature Rating: | -40°F to +300°F (-40°C to +150°C) refers to factory for lower temperature | |
| High Pressure Rating (Threaded Meter) | | |
| 316 Stainless Steel: | 5800 PSI (400 Bar) | OM004 |
| | | OM006 |
| | | OM008 |
| | | OM015 |
| | | OM025 |
| | | OM040 |
| | 4350 PSI (300 Bar) | OM050 |



FLOMEC® OM High Pressure Flow Meters provide volumetric measurement of clean liquids for high pressure. Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Measures both high and low viscosity liquids
- Optional Exd I/IIB approval (ATEX, IECEx)
- High Pressure rated up to 5800 psi (400 bar) (4350 psi [300 bar] on 2" meter)

INDUSTRIES

- Aviation
- Mining Industries
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental

APPROVALS / WARRANTY



*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended Pressure drop is 14.5 psi (1 bar).



OM SERIES
HIGH PRESSURE

DIMENSIONS - COMING SOON

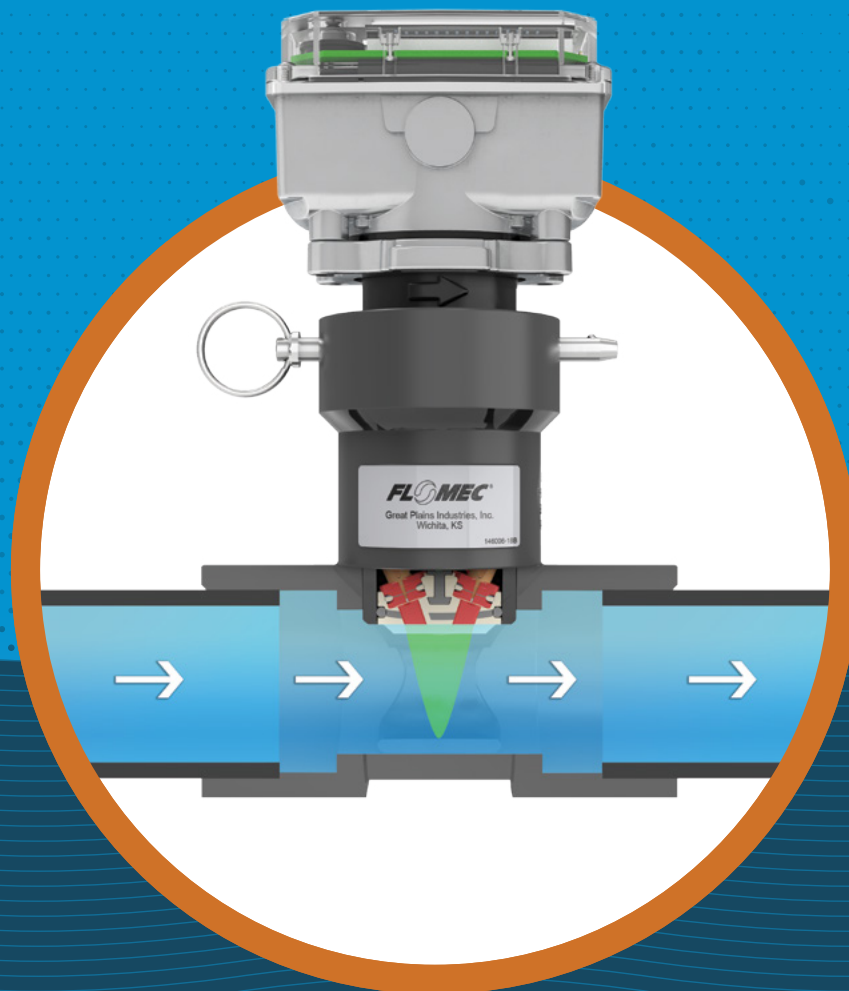
Contact Product Support for more information on High Pressure OM Meters and sizing.

ULTRASONIC

Ultrasonic flow meters transmit and receive a burst of ultrasound between two transducers. Transit time is measured in both directions. By analyzing the time it takes for the pulses to travel upstream and downstream, the velocity of the fluid can be calculated with exceptional accuracy. Since there are no moving parts required to detect flow, it continues to measure accurately in low-flow situations.

- Easy installation
- No moving, wearable parts; low-to-zero maintenance
- Low total cost of ownership
- High accuracy and repeatability

See how an ultrasonic meter works.



TECHNOLOGY



EXPLORE REAL-WORLD APPLICATION

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www.GreatPlainsIndustries.com

- Resources
- Downloads
- Application Briefs

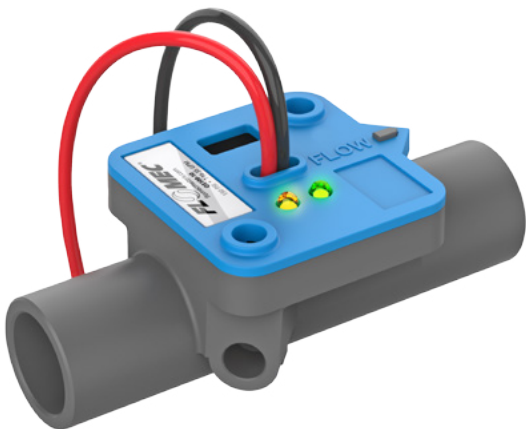


ULTRASONIC METER MARKETS

FLOMEC® ultrasonic meters are a trusted solution for measuring water consumption and detecting leaks in irrigation systems.

| | | | | |
|--|--|--|-----------|-----------------------------|
| | | | AQUAsonic | QS100 QS200 AQUAsonic |
|--|--|--|-----------|-----------------------------|

QS 100 SERIES
INLINE ULTRASONIC FLOW SENSOR



SPECIFICATIONS

| | | |
|--------------------------|---|---|
| Technology: | | Ultrasonic |
| Line Size: | | 1 in. |
| Accuracy (% of Reading): | | +/- 2% of Reading |
| Material Housing: | | Schedule 80 PVC |
| Fitting Type: | | 1 in. Spigot (male) |
| Flow Range: | | 0.1 to 15 fps (0.03 to 4.6 m/s) |
| Transducer Excitation: | ON State Current | (Supply Voltage / (Supply Impedance + 50Ω)) |
| | ON State V-Low | ON State Current × 50Ω |
| Pressure Rating: | | 150 PSI @ 70°F (10.3 bar @ 21°C) |
| Operating Temperature: | | +32°F to +140°F (0°C to +60°C) |
| Wetted Materials: | | PVC (Polyvinyl chloride) |
| Coverplate Materials: | | PC/ABS (Polycarbonate/Acrylonitrile Butadiene Styrene) |
| Out Frequency: | | 0 to 100 Hz |
| Output Pulse Width: | | 4 m Sec (Approx.) |
| Unit of Measure: | | Controller Dependant |
| Uncertainty: | | 0.04 GPM / 0.018 ft/sec |
| Field Calibration: | | No |
| Electrical: | | |
| Powered By: | DC power provided by customer controller 7.5V (DC) min to 36V (DC) max | |
| | OFF State Current | 200µA (Typical) |
| | OFF State V-High | Supply Voltage - (OFF State Current × Supply impedance) |

The FLOMEC® QS100 Flow Sensor is an economical and easy-to-use flow sensor designed for residential and commercial irrigation and sub-metering applications. Utilizing ultrasonic technology, the QS100 provides flow ranges of 0.22-33 GPM. This wide turndown (150:1 turndown ratio) makes it possible to accurately monitor all of your zones from small drips (minimum flow of 0.22 GPM detectable) to large sprayer applications. The meter can also detect small leaks. The QS100 is 100% maintenance-free with no moving parts and won't be damaged by debris and wintertime blowdowns.

FEATURES / BENEFITS

- High accuracy: +/- 2% of reading (compared to full scale on most other brands)
- Flow range of 0.22 to 33 GPM so you can monitor all of your zones with a single meter
- No moving parts for maintenance-free operation
- Can be used in above or below grade installations for maximum versatility
- A simple two wire connection for pulse and power make installation easy
- LED light indicators visually display power and operational mode
- Onboard diagnostics simplify system maintenance by utilizing the LED indicators to show low flow and high flow
- Compatible with most irrigation controllers
- Wire leads have UL Style 116666 direct burial insulation to ensure durability
- The QS100 is suitable for use with reclaimed water for those environmentally sensitive applications

APPLICATIONS (Typical application but not limited to)

- Agriculture Irrigation
- Turf / Landscape Irrigation Systems
- Greenhouse and Growhouse
- Micro Irrigation Systems
- Groundwater Monitoring

APPROVALS / WARRANTY

CE IP68



QS 100 SERIES
INLINE ULTRASONIC FLOW SENSOR

| Pipe Schedule | Typical ¹ K-Factor | Hydrawise® ² K-Factor (Litre/Pulse) | Rain Master® K-Factor | Offset | Reference | |
|---------------|-------------------------------|--|-----------------------|--------|------------|--------------|
| | | | | | Pulses/Gal | Pulses/Litre |
| Sch 40 | 0.4211* | 0.0266 | 115 | 0 | 142.5 | 37.6 |
| Sch 80 | 0.3963** | 0.0250 | 108 | 0 | 151.4 | 40.0 |

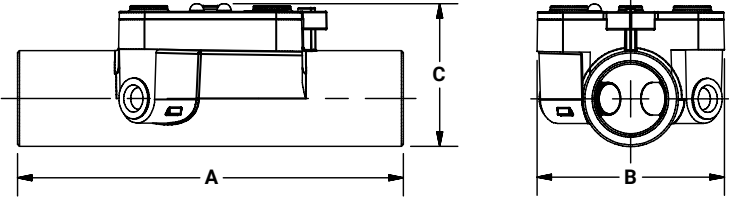
¹ Controller Brands: Baseline™, Calsense, Hunter®, HydroPoint® (WeatherTrak®), ©TUCOR, Rain Bird®, and Toro®. ² Hydrawise® HCC models only.
*Based on 142.5 pulses per gallon. **Based on 151.4 pulses per gallon.

K-Factor Information:
FLOMEC® ultrasonic meters use K-factor values for greater accuracy during calibration. These values are derived by calibrating the meters using NIST traceable instrumentation. The K-factor value for this meter is listed below.

IMPORTANT: The K-factor provided is for reference. Accuracy can be affected by plumbing configuration, fluid condition, adjoining pipe schedule, and entrapped air. Customers should always validate accuracy and adjust K-factor as needed using the K-factor adjustment menu of your controller.

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|---------------------|-------------------|
| 5.3 in. (13.5 cm) | 2.6 in. (6.6 cm) | 2 in. (5.1 cm) |



QS200 SERIES
INSERTION ULTRASONIC FLOW METER



The FLOMEC® QS200 Insertion Ultrasonic Flow Sensor provides an accurate reading of liquid flow rate and accumulative flow. Designed to support commercial irrigation applications, the QS200 is available in five pipe sizes, 1 to 4 in.

Can be a drop-in replacement for most insert paddle wheels that have been installed in a gray schedule 80 PVC tee (1.5" - 4" tee) with a quick release pin. Recommend tee and sensor replacement to ensure complete functionality and minimize false readings or fitment issues.

FEATURES / BENEFITS

- Low-cost, effective and easy installation
- No moving mechanical parts (low-maintenance)
- Conventional Irrigation: Two-wire connection (for power and pulse)
- Compatible with most irrigation controllers that have a flow sensor input. See our QS200 K-factor calculator for controller compatibility. <https://greatplainsindustries.com/pages/qs200-k-factor-calculator>
- High accuracy: ± 2.0% of reading (compared to full scale accuracy)
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- LED light indicators: (green for power and amber for pulse)
- Patented design
- External wiring: (direct burial wire)

INSERT DESCRIPTION

Designed for above and below grade applications, such as irrigation, municipal and underground monitoring where the flow rates are between 0.1 to 15 fps (0.03 to 4.6 m/s) and temperatures are below 140°F (60°C). QS200 inserts are supplied with two single conductors, 18 AWG solid copper wire leads that are 36 inches (91.4 cm) in length with UL Style 116666 direct burial insulation.

APPLICATIONS (Typical application but not limited to)

- Turf / Landscape Irrigation Systems
- Agriculture Irrigation
- Micro Irrigation Systems
- Greenhouse and Growhouse
- Groundwater Monitoring
- Reclaimed (Recycled) Water
- Greywater



SPECIFICATIONS

| | |
|--|---|
| Technology: | Ultrasonic |
| Line Size: | 1 in., 1½ in., 2 in., 3 in., 4 in. |
| Accuracy (% of Reading): | Typically ± 2% |
| Material Housing: | Schedule 80 PVC |
| Fitting Type: | Socket (Female) |
| Flow Range: | 0.1 to 15 fps (0.03 to 4.6 m/s) |
| Transducer Excitation: | Supply Voltage: 7.5V (dc) min. to 36V (dc) max Quiescent Current: 200 µA (typical) |
| Operating Pressure: | 203 psi @ 73°F (14 bar @ 23°C) 150 psi @ 140°F (10 bar @ 60°C) |
| Operating Temperature: | 32°F to 140°F (0°C to 60°C) |
| Wetted Materials: | Body: PPS (Ryton® R-4) Sensor: PEI (Ultem 1000) O-Ring: EPDM |
| Out Frequency: | 0 to 100 Hz |
| Output Pulse Width: | 4 ms |
| Electrical Cable for Insert Electronics: | 36 inches (91.4 cm) of 18 AWG, solid copper, "Direct Burial" (UL 493 & 83) |

APPROVALS / WARRANTY

IP68



QS200 SERIES
INSERTION ULTRASONIC FLOW METER

FLOW INSERT SELECTION CHART

| Flow Sensor Model | Pipe Size | Operating Range (Min.) | Operating Range (Max.) | Adjoining Pipe | Typical ¹ K-Factor | Hydrawise® ² K-Factor (Litre/Pulse) | Rain Master® K-Factor | Offset | Reference | |
|-------------------|-------------|---|---|----------------|----------------------------------|--|-----------------------|--------|----------------------------------|--------------|
| | | | | | | | | | Pulses/Gal | Pulses/Litre |
| QS200-10 | 1 in. | 0.22 GPM (0.83 L/min) 0.1 ft/sec | 33 GPM (124.92 L/min) 15 ft/sec | Sch 40 | 0.5575 | 0.0352 | 152 | 0 | 107.62 | 28.43 |
| | | | | Sch 80 | 0.5354 | 0.0338 | 146 | 0 | 112.06 | 29.60 |
| QS200-15 | 1½ in. | 0.55 GPM (2.08 L/min) 0.1 ft/sec | 82 GPM (310.41 L/min) 15 ft/sec | Sch 40 | 0.7923 | 0.0500 | 216 | 0 | 75.73 | 20.00 |
| | | | | Sch 80 | 0.7860 | 0.0496 | 214 | 0 | 76.34 | 20.17 |
| QS200-20 | 2 in. | 0.92 GPM (3.48 L/min) 0.1 ft/sec | 138 GPM (522.39 L/min) 15 ft/sec | Sch 40 | 1.4610 | 0.0922 | 398 | 0 | 41.07 | 10.85 |
| | | | | Sch 80 | 1.4568 | 0.0919 | 397 | 0 | 41.19 | 10.88 |
| QS200-30 | 3 in. | 2.06 GPM (7.80 L/min) 0.1 ft/sec | 309 GPM (1169.70 L/min) 15 ft/sec | Sch 40 | 4.2630 | 0.2690 | 1163 | 0 | 14.07 | 3.72 |
| | | | | Sch 80 | 4.0850 | 0.2577 | 1114 | 0 | 14.69 | 3.88 |
| QS200-40 | 4 in. | 3.58 GPM (13.55 L/min) 0.1 ft/sec | 537 GPM (2032.78 L/min) 15 ft/sec | Sch 40 | 8.0881 | 0.5103 | 2206 | 0 | 7.42 | 1.96 |
| | | | | Sch 80 | 7.9062 | 0.4988 | 2156 | 0 | 7.59 | 2.00 |
| QS200 | Insert Only | | | Sch 80 | Use pipe size to determine value | | | 0 | Use pipe size to determine value | |

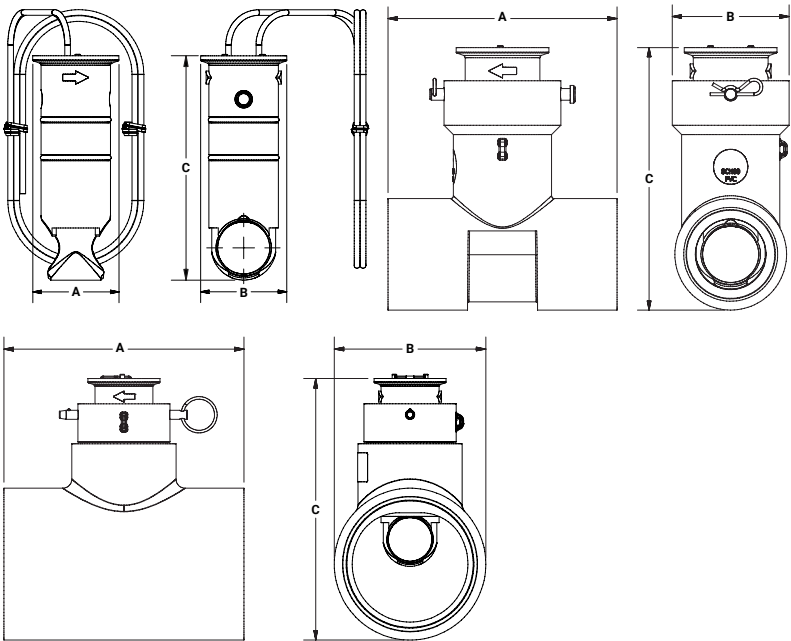
¹ Controller Brands: Baseline™, Calsense, Hunter®, HydroPoint® (WeatherTrak®), Rain Bird®, Toro®, @Tucor, and Weathermatic®. ² Hydrawise®HCC models only.

K-Factor Information:
NOTE: The meter size is molded on the vertical stem of the Tee.
FLOMEC® ultrasonic meters use K-Factor plus offset numbers for greater accuracy during calibration. These values are derived by calibrating the meters using N.I.S.T. traceable instrumentation. Using both sets of values to calibrate the meters provides greater accuracy than using only a K-factor value. The K-factor and offset values for each meter are listed above.

IMPORTANT: The K-factors provided are for reference. Accuracy can be affected by plumbing configuration, fluid condition, adjoining pipe schedule, type of meter tee (non-FLOMEC brand), and entrapped air. Customers should always validate accuracy and adjust K-factor as needed. If using non-FLOMEC tees, K-Factor will be different than those shown. Inconsistencies with these tees affect any stated value. Customers must verify accuracy if concerned.

DIMENSIONS

| | Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------------|-------------------|-------------------|-------------------|
| QS200 INSERT | 2.0 in. (5.1 cm) | 2.0 in. (5.1 cm) | 5.2 in. (13.2 cm) |
| QS200-10 QS200-10PW 1 in. | 4.3 in. (10.9 cm) | 2.5 in. (6.4 cm) | 5.4 in. (13.7 cm) |
| QS200-15 QS200-15PW 1½ in. | 4.9 in. (12.4 cm) | 2.5 in. (6.4 cm) | 5.6 in. (14.2 cm) |
| QS200-20 QS200-20PW 2 in. | 5.6 in. (14.2 cm) | 2.9 in. (7.4 cm) | 6.1 in. (15.5 cm) |
| QS200-30 QS200-30PW 3 in. | 6.6 in. (16.8 cm) | 4.2 in. (10.7 cm) | 7.2 in. (18.3 cm) |
| QS200-40 QS200-40PW 4 in. | 7.4 in. (18.8 cm) | 5.2 in. (13.2 cm) | 8.4 in. (21.3 cm) |



QS200 SADDLE SERIES
INSERTION ULTRASONIC FLOW METER



SPECIFICATIONS

| | |
|--|---|
| Technology: | Ultrasonic |
| Line Size: | 6 in., 8 in, 10 in, 12 in. |
| Accuracy (% of Reading): | Typically ±2% |
| Fitting Type: | Saddle |
| Flow Range: | 0.1 to 15 fps (0.03 to 4.6 m/s) |
| Transducer Excitation: | Supply Voltage: 7.5V (DC) min. to 36V (DC) max Quiescent Current: 200 µA (typical) |
| Operating Pressure: | 150 psi @ 73°F (10 bar @ 23°C) 100 psi @ 140°F (7 bar @ 60°C) |
| Operating Temperature: | 32°F to 140°F (0°C to 60°C) |
| Insert Wetted Materials: | Body: PPS (Ryton® R-4) Sensor: PEI (Ultem 1000) O-Ring: EPDM |
| Out Frequency: | 0 to 100 Hz |
| Output Pulse Width: | 4 ms |
| Electrical Cable for Insert Electronics: | 36 inches (91.4 cm) of 18 AWG, solid copper, "Direct Burial" (UL 493 & 83) |

APPROVALS / WARRANTY

IP68 CE



SADDLE FOR LARGE PIPE SIZES

The 6, 8, 10, and 12 inch saddles are designed exclusively for the **QS200 Insertion Ultrasonic Flow meter**. Supporting commercial and agricultural irrigation applications on large size pipes, the QS200 will accurately provide the information your controller needs to display the flow rate and accumulative total.

FEATURES / BENEFITS

- Low-cost, effective and easy installation
- No moving mechanical parts (low-maintenance)
- Conventional Irrigation: Two-wire connection (for power and pulse)
- Compatible with irrigation controllers (common name brands)
- High accuracy: ± 2.0% of reading (compared to full scale accuracy)
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- LED light indicators: (green for power and amber for pulse)
- Patented design
- Ideal for clean water flow measurement
- External wiring: (direct burial wire)

INSERT DESCRIPTION

Designed for above and below grade applications, such as irrigation, municipal and underground monitoring where the flow rates are between 0.1 to 15 fps (0.03 to 4.6 m/s) and temperatures are below 140°F (60°C). QS200 inserts are supplied with two single conductors, 18 AWG solid copper wire leads that are 36 inches (91.4 cm) in length with UL Style 116666 direct burial insulation.

APPLICATIONS (Typical application but not limited to)

- Turf / Landscape Irrigation Systems
- Agriculture Irrigation
- Micro Irrigation Systems
- Greenhouse and Growhouse
- Groundwater Monitoring
- Reclaimed (Recycled) Water
- Greywater

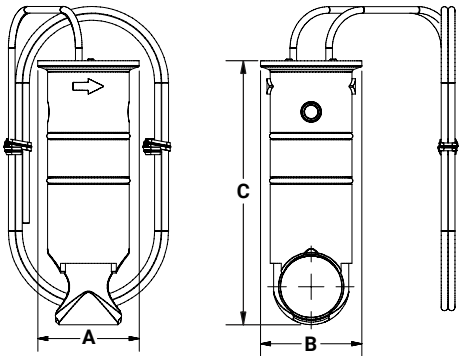


QS200 SADDLE SERIES
INSERTION ULTRASONIC FLOW METER

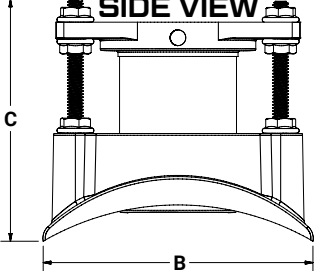
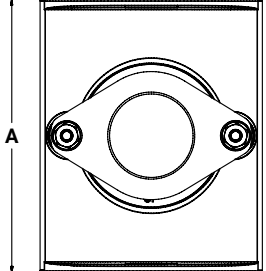
DIMENSIONS

| | Dimension "A" | Dimension "B" | Dimension "C" |
|--------------|----------------------|----------------------|----------------------|
| QS200 INSERT | 2.0 in. (5.1 cm) | 2.0 in. (5.1 cm) | 5.2 in. (13.2 cm) |
| SADDLE | 5.3 in. (13.5 cm) | 4.3 in. (10.9 cm) | 3.9 in. (9.9 cm) |

QS200 INSERT



SADDLE



SADDLE FAMILY LINE-UP (Shown on pipe. Pipe not included.)



The AQUAsonic® takes our highly accurate Ultrasonic insert and adds our very popular Q9 Display. The AQUAsonic provides an accurate reading of water flow rate and accumulative total. It is designed to support commercial and industrial applications. The AQUAsonic is available in five tee line sizes, 1 to 4 in. and 4 saddle line sizes 6, 8, 10, 12 in.

FEATURES / BENEFITS

- Low-cost, effective and easy installation
- No moving mechanical parts (low-maintenance)
- Pin protection, four digit user selectable
- 2 Totals (Batch Total and Accumulative Total); Rate of Flow
- Factory calibrated in gallons or litres
- Diagnostic Meter includes % of battery life
- High accuracy: ± 2.0% of reading (compared to full scale accuracy)
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- Patented design
- Many field configurable options for ease of operation

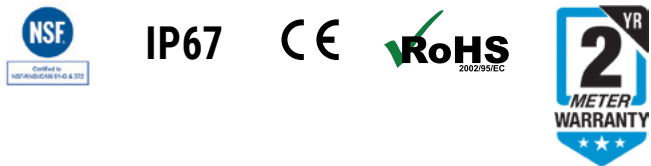
INSERT DESCRIPTION

Designed for above and below grade (IP67) applications, such as irrigation, municipal and underground monitoring where the flow rates are between 0.1 to 15 fps (0.03 to 4.6 m/s) and temperatures are below 140°F (60°C). Available in five tee line sizes.

APPLICATIONS (Typical application but not limited to)

- Irrigation & Fresh Water Pumping Station
- Industrial Effluent Water
- OEM Water Treatment equipment/skids
- Water Base Cooling System
- Groundwater Remediation
- Sub-metering of Facility Water System
- Plant Water System

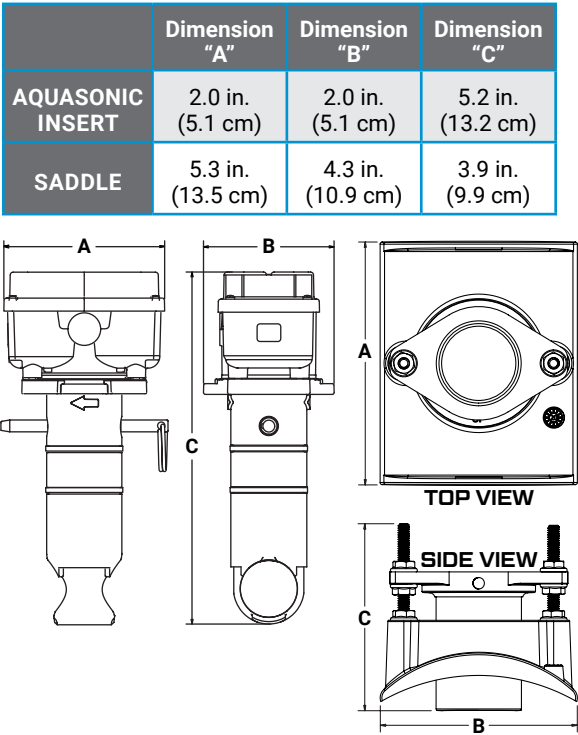
APPROVALS / WARRANTY



FLOW INSERT SELECTION CHART

| Description | Pipe Size | Operating Flow Range | Maximum Water Pressure | Meter Material | Tee Material |
|---------------------|-----------|--------------------------------------|-----------------------------------|----------------|--------------|
| Socket Tee | 1" | .1 to 15 ft/sec (.22 to 33 GPM)* | 203 psi @ 73°F (14 bar @ 23°C) | Ryton® | PVC |
| NPT/BSP Tee | 1" | .1 to 15 ft/sec (.22 to 33 GPM) | 150 psi @ 73°F (10 bar @ 23°C) | Ryton® | PVC |
| Socket Tee | 1½" | .1 to 15 ft/sec (.55 to 82 GPM) | 203 psi @ 73°F (14 bar @ 23°C) | Ryton® | PVC |
| NPT/BSP Tee | 1½" | .1 to 15 ft/sec (.55 to 82 GPM) | 150 psi @ 73°F (10 bar @ 23°C) | Ryton® | PVC |
| Socket Tee | 2" | .1 to 15 ft/sec (.92 to 138 GPM) | 203 psi @ 73°F (14 bar @ 23°C) | Ryton® | PVC |
| NPT/BSP Tee | 2" | .1 to 15 ft/sec (.92 to 138 GPM) | 150 psi @ 73°F (10 bar @ 23°C) | Ryton® | PVC |
| Socket Tee | 3" | .1 to 15 ft/sec (2.06 to 309 GPM) | 203 psi @ 73°F (14 bar @ 23°C) | Ryton® | PVC |
| NPT, ANSI & DIN Tee | 3" | .1 to 15 ft/sec (2.06 to 309 GPM) | 150 psi @ 73°F (10 bar @ 23°C) | Ryton® | PVC |
| Socket Tee | 4" | .1 to 15 ft/sec (3.58 to 537 GPM) | 203 psi @ 73°F (14 bar @ 23°C) | Ryton® | PVC |
| NPT, ANSI & DIN Tee | 4" | .1 to 15 ft/sec (3.58 to 537 GPM) | 150 psi @ 73°F (10 bar @ 23°C) | Ryton® | PVC |

DIMENSIONS



SADDLE WITH SENSOR SELECTION CHART

| Description | Pipe Outside Diameter (in.) | Operating Flow Range | Maximum Water Pressure** | Meter Material | Gasket Material | Saddle Material | Clamp Material |
|-----------------------|-----------------------------|--------------------------------------|-----------------------------------|----------------|-----------------|-----------------|-----------------|
| 6 in. Pipe (NPS/IPS) | 6.625 | .1 to 15 ft/sec (9 to 1350 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 8 in. Pipe (NPS/IPS) | 8.625 | .1 to 15 ft/sec (15 to 2300 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 10 in. Pipe (NPS/IPS) | 10.750 | .1 to 15 ft/sec (24 to 3650 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 12 in. Pipe (NPS/IPS) | 12.750 | .1 to 15 ft/sec (35 to 5300 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 6 in. Tube | 6.000 | .1 to 15 ft/sec (8 to 1230 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 8 in. Tube | 8.000 | .1 to 15 ft/sec (15 to 2200 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 10 in. Tube | 10.000 | .1 to 15 ft/sec (23 to 3500 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 12 in. Tube | 12.000 | .1 to 15 ft/sec (34 to 5100 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 6 in. PIP | 6.140 | .1 to 15 ft/sec (8 to 1230 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 8 in. PIP | 8.160 | .1 to 15 ft/sec (15 to 2200 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 10 in. PIP | 10.200 | .1 to 15 ft/sec (23 to 3500 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |
| 12 in. PIP | 12.240 | .1 to 15 ft/sec (34 to 5100 GPM)* | 150 PSI @ 73°F (10 bar @ 23°C) | Ryton® | Silicone | Aluminum | Stainless Steel |

*Nominal flow rate shown. Actual flow is dependent on pipe schedule (wall thickness).
** Maximum water pressure for larger line sizes would be based on the material of the sensor, adapter, and pipe. Pressure is also derated due to temperature (1.20 psi / °F).

AQUAsonic® SADDLE SERIES
INSERTION ULTRASONIC FLOW METER



SADDLE FOR LARGE PIPE SIZES

The AQUAsonic® meter takes our highly accurate Ultrasonic insert and adds our very popular Q9 Display. This meter provides an accurate reading of water flow rate and accumulative total. It is designed to support commercial and industrial applications. Our AQUAsonic is available in four saddle line sizes, 6, 8, 10, 12 in.

FEATURES / BENEFITS

- Low-cost, effective and easy installation
- No moving mechanical parts (low-maintenance)
- Pin protection, four digit user selectable
- 2 Totals (Batch Total and Accumulative Total); Rate of Flow
- Diagnostic Meter show % of battery life
- High accuracy: ± 2.0% of reading (compared to full scale accuracy)
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- Patented design
- Many field configurable options for ease of operation

SPECIFICATIONS

| | |
|--------------------------|--|
| Technology: | Ultrasonic |
| Line Size: | 6 in., 8 in., 10 in., 12 in. |
| Accuracy: | Typically ±2% of reading |
| Material Housing: | Aluminum |
| Fitting Type: | Saddle |
| Flow Range: | 0.1 to 15 fps (0.03 to 4.6 m/s) |
| Transducer Excitation: | Battery Power - Lithium C |
| Operating Pressure: | 150 psi @ 73°F (10 bar @ 23°C) 100 psi @ 140°F (7 bar @ 60°C) |
| Operating Temperature: | 32°F to 140°F (0°C to 60°C) |
| Insert Wetted Materials: | Body: PPS (Ryton® R-4) |
| | Sensor: PEI (Ultem 1000) |
| | O-Ring: EPDM |
| Saddle Wetted Materials: | Gasket: Silicone |
| | Saddle and Collar: Aluminum |
| Electronic Display: | Battery-Powered |

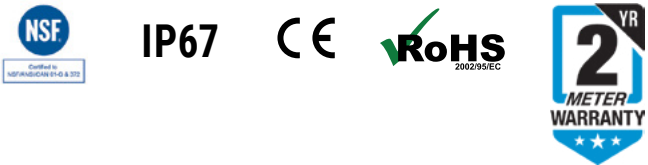
INSERT DESCRIPTION

Designed for above and below grade (IP67) applications, such as irrigation, municipal and underground monitoring where the flow rates are between 0.1 to 15 fps (0.03 to 4.6 m/s) and temperatures are below 140°F (60°C). Available in four saddle line sizes, 6, 8, 10, 12 in.

APPLICATIONS

- Agriculture Irrigation
- Turf / Landscape Irrigation Systems
- Micro Irrigation Systems
- Groundwater Monitoring
- Sub-Metering of Facility Water System

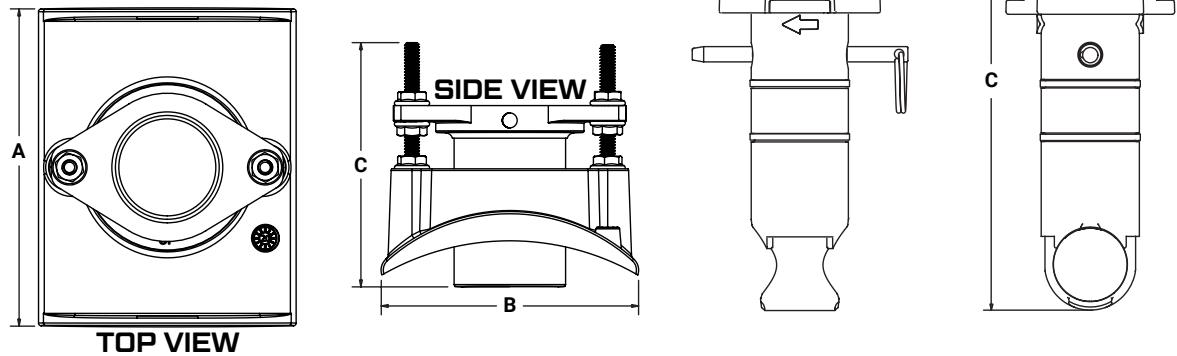
APPROVALS / WARRANTY



AQUAsonic® SADDLE SERIES
INSERTION ULTRASONIC FLOW METER

DIMENSIONS

| | Dimension "A" | Dimension "B" | Dimension "C" |
|------------------|----------------------|----------------------|----------------------|
| AQUASONIC INSERT | 2.0 in. (5.1 cm) | 2.0 in. (5.1 cm) | 5.2 in. (13.2 cm) |
| SADDLE | 5.3 in. (13.5 cm) | 4.3 in. (10.9 cm) | 3.9 in. (9.9 cm) |



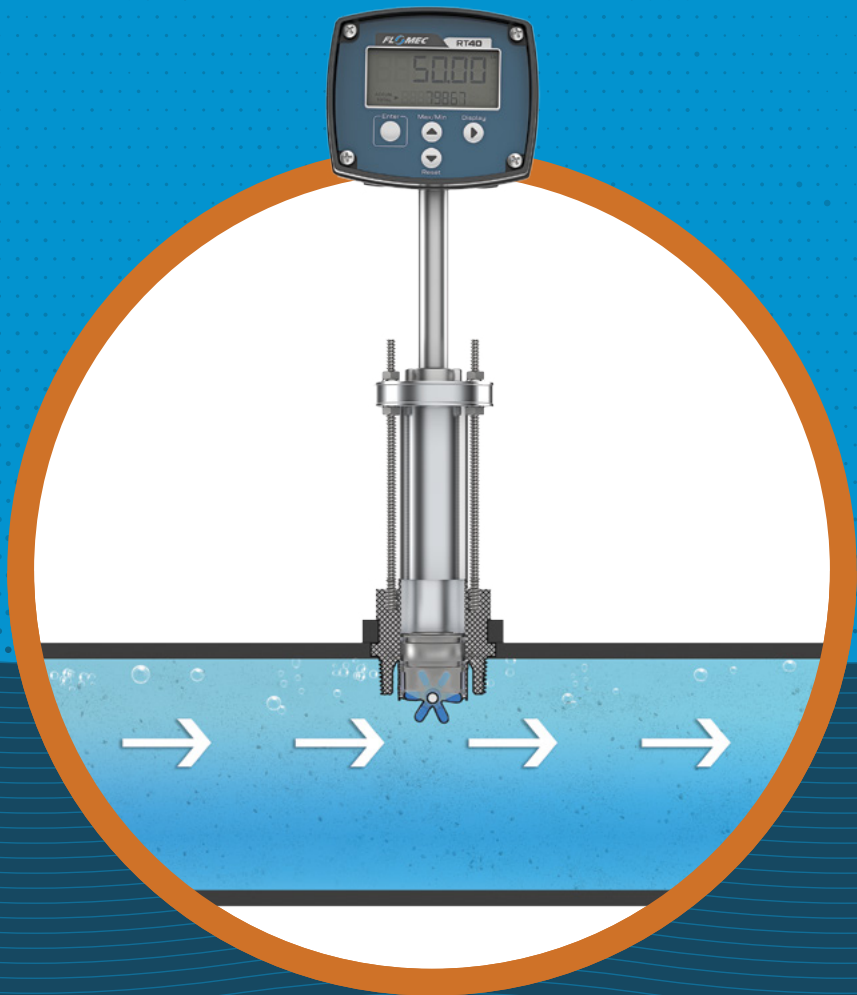
SADDLE FAMILY LINE-UP (Shown on pipe. Pipe not included.)

PADDLEWHEEL

Paddlewheel flow meters are mechanical meters with a freely rotating paddlewheel set in the path of a fluid stream. As the fluid pushes against the blades, the wheel rotates at a speed proportional to the flow rate by measuring this rotational speed, the flow rate can be accurately determined. Paddlewheel flow meters are known for their simplicity, cost-effectiveness, and reliability, making them ideal for application where moderate accuracy is sufficient.

- Measure the flow of water, fuel, and other low viscosity liquids
- Extremely versatile; suited for a huge variety of pipe sizes
- Only one moving part; provides a reliable product with minimal maintenance costs
- Simple, reliable, and cost-effective

See how a paddlewheel meter works.



TECHNOLOGY



EXPLORE REAL-WORLD APPLICATION

VISIT OUR WEBSITE:
www.GreatPlainsIndustries.com

- Resources
- Downloads
- Application Briefs



PADDLEWHEEL METER MARKETS

Global customers use our meters in a wide range of applications.
Here are featured markets our PADDLEWHEEL meters excel in.

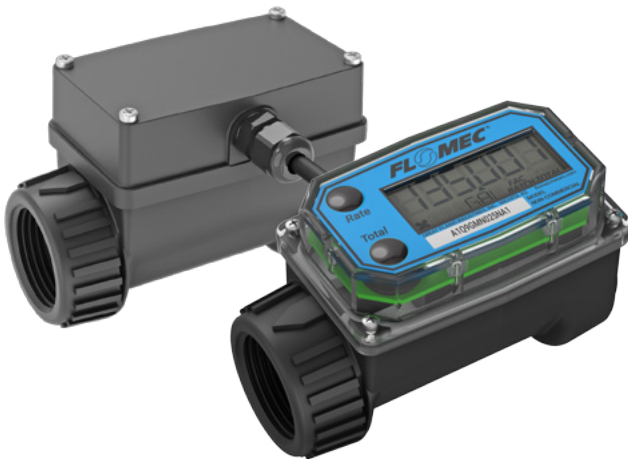
A1 LF Aluminum

A1 LF Nylon
A1 LF Aluminum

DP Series

DP Series
A1 LF Nylon

A1 SERIES LOW FLOW
NYLON PADDLEWHEEL METER



SPECIFICATIONS

| | | |
|--------------------------------|---------------------------------------|------------------------------------|
| Technology: | | Paddlewheel |
| Line Size: | | 1 in. |
| Accuracy (% of Reading): | | Application Dependent ¹ |
| Material Housing: | | Nylon |
| Fitting Type: | | NPT (Female) |
| Flow Range: | | 0.30-3 GPM (1-11 L/min) |
| Pressure Rating: | | 150 psi (10.3 bar) |
| Operating Temperature: | | -40°F to 250°F (-40°C to 121°C) |
| w/ Safe Area Only Display: | | 0°F to 140°F (-18°C to 60°C) |
| w/ Intrinsically Safe Display: | | 0°F to 129°F (-18°C to 54°C) |
| Typical K-Factor: | | 2200 PPG (581 Pulses/L) |
| Wetted Materials: | Housing: | Nylon |
| | Bearings: | Ceramic (96% Alumina) |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| Out Frequency: | | 11-110 Hz @ 0.3-3 GPM (1-11 L/min) |
| Recommended Filtration: | | 120 mesh (120 µm) |
| Calibration Report: | Comes standard with A1 Series meters. | |
| | N.I.S.T. – Certification available. | |

¹Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy.

APPROVALS[†] / WARRANTY



[†]If the meter includes any modules (4-20 mA and Pulse Out) that introduces external power, then all intrinsic safety approvals are voided.



FLOMEC® A1 Series Paddlewheel Meter for accurate measurement of water or non-aggressive chemical applications. For low flow applications: 0.30 - 3 GPM (1 to 11 L/min). Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy. A1's lightweight, compact design allows for easy installation.

A1N-10-N-L-Q MODEL WITH DISPLAY

A1 Nylon with Q9 Display is designed as a self-contained, battery-powered unit. Intrinsically safe for use in hazardous areas.[†]

FEATURES / BENEFITS

- Unique package combines Paddlewheel and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration
- AAA Alkaline battery life: 2 years

A1N-10-N-L-P MODEL (BLIND)

A1 Nylon with Conditioned Signal Output Module (Blind). Conditioned signal module is not FM approved. The conditioned signal output module is not intrinsically safe, and not approved for use in hazardous areas.

FEATURES / BENEFITS

- Provides an NPN Open Collector pulse that can communicate with most process control devices
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play
- External 9 to 35 V (DC), approximately 1mA
- 10 ft. (3 m) 3-wire with strain relief
- Factory calibration

APPLICATIONS (Typical application but not limited to)

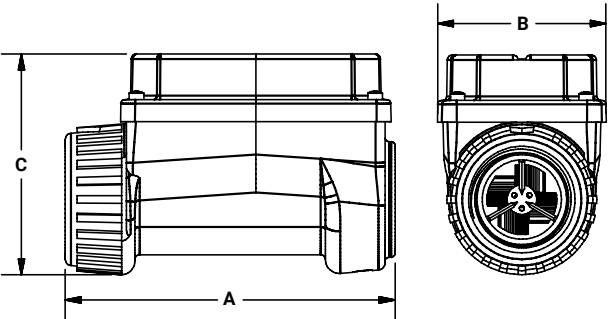
- Plant Process Water
- Batching / Blending
- Water / Non-Aggressive Chemicals
- Ag Chemicals
- Solvents / Glycol
- Chemical Feed Lines



A1 SERIES LOW FLOW
NYLON PADDLEWHEEL METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|----------------------|---------------------|
| 4.0 in. (10.2 cm) | 2.0 in. (5.08 cm) | 2.5 in. (6.4 cm) |



ACCESSORIES

113275-10
FM Approved* Remote Kit

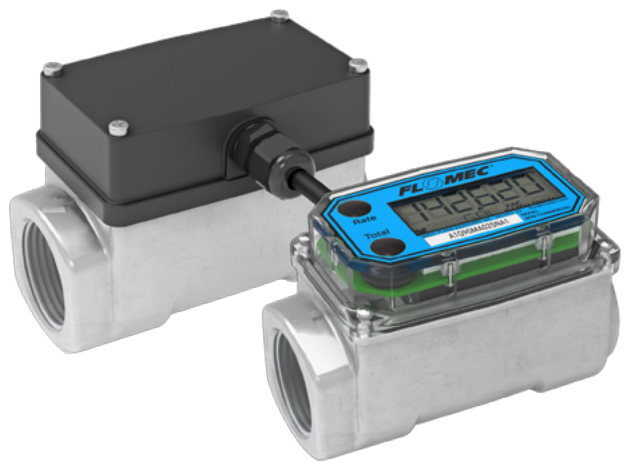
113435-10
Conditioned Signal Module

125100-10
4-20 mA Module

125260-02
90° Display Adapter Kit

*Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved

A1 SERIES LOW FLOW
ALUMINUM PADDLEWHEEL METER



SPECIFICATIONS

| | | |
|--------------------------------|-----------|--|
| Technology: | | Paddlewheel |
| Line Size: | | 1 in. |
| Accuracy (% of Reading): | | Application Dependent ¹ |
| Repeatability: | | ± 1.0% |
| Material Housing: | | Corrosion-Resistant Aluminum |
| Fitting Type: | | NPT (Female) |
| Flow Range: | | 0.30 - 3 GPM (1 - 11 L/min) |
| Pressure Rating: | | 300 psi (21 bar) |
| Operating Temperature: | | -40°F to 250°F (-40°C to 121°C) |
| w/ Safe Area Only Display: | | 0°F to 140°F (-18°C to 60°C) |
| w/ Intrinsically Safe Display: | | 0°F to 129°F (-18°C to 54°C) |
| Typical K-Factor: | | 2,200 PPG (581 Pulses/L) |
| Wetted Materials: | Housing: | Aluminum |
| | Bearings: | Ceramic (96% Alumina) |
| | Shaft: | Tungsten Carbide |
| | Rotor: | Nylon |
| | Rings: | 316 Stainless Steel |
| Out Frequency: | | 11-110 Hz @ 0.30 - 3 GPM (1-11 L/min) |
| Recommended Filtration: | | 120 mesh (120 µm) |
| Calibration Report: | | Comes standard with A1 Series meters. N.I.S.T. – Certification available. |

¹Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy.

APPROVALS[†] / WARRANTY

CE

NEMA
4

IP65

FM
APPROVED

IECEx

ATEX
Ex

2
YEAR
METER
WARRANTY

[†]If the meter includes any modules (4-20 mA and Pulse Out) that introduces external power, then all intrinsic safety approvals are voided.

FLOMEC® A1 Series Paddlewheel Meter for accurate measurement of thin petroleum-based fluid applications. For low flow applications: 0.30 - 3 GPM (1 to 11 L/min). Accuracy can vary up to ± 5% depending on installation and fluid type. Field calibration is recommended for best accuracy. A1's lightweight, compact design allows for easy installation.

A1A-10-N-L-Q MODEL WITH DISPLAY

A1 Aluminum with Q9 Display is designed as a self-contained, battery-powered unit. Intrinsically safe for use in hazardous areas.[†]

FEATURES / BENEFITS

- Unique package combines Paddlewheel and LCD into a self-contained, compact, economical meter
- Local Display Computer features: 2 Non-Volatile Totals (Batch Total = Resettable, Total = Non-resettable) and Rate of Flow
- Output capabilities available to communicate with process control equipment
- 12 selectable engineering units (gallons or liters are standard defaults)
- Factory calibration
- AAA Alkaline battery life: 2 years

A1A-10-N-L-P MODEL (BLIND)

A1 Aluminum with Conditioned Signal Output Module (Blind). Conditioned signal module is not FM approved. The conditioned signal output module is not intrinsically safe, and not approved for use in hazardous areas.

FEATURES / BENEFITS

- Provides an NPN Open Collector pulse that can communicate with most process control devices
- Modular design allows for use with output modules, sensors, and remote display kits; plug and play
- External 9 to 35 V (DC), approximately 1mA
- 10 ft. (3 m) 3-wire with strain relief
- Factory calibration

APPLICATIONS (Typical application but not limited to)

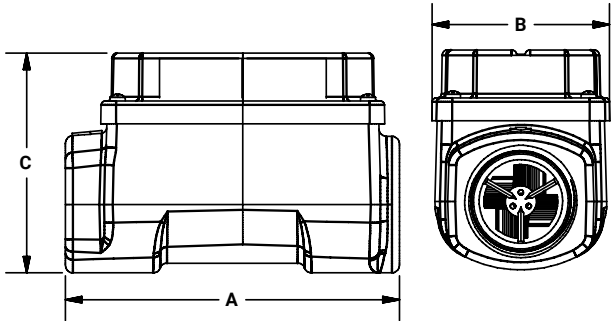
- Fuel Transfer
- Batching / Blending
- Fuel Products



A1 SERIES LOW FLOW
ALUMINUM PADDLEWHEEL METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|----------------------|---------------------|
| 4.0 in. (10.2 cm) | 2.0 in. (5.08 cm) | 2.5 in. (6.4 cm) |



ACCESSORIES

113275-10
FM Approved* Remote Kit

113435-10
Conditioned Signal Module

125100-10
4-20 mA Module

125260-02
90° Display Adapter Kit

*Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved

DP SERIES
INSERTION PADDLEWHEEL METER



FLOMEC® DP Series Insertion Meters use a paddlewheel design to measure the flow of water, fuels, and other low-viscosity liquids in pipe sizes from 1.5 in. to 100 in. (10 - 2500 mm). DP Series insertion meters are a versatile and economical solution for measuring flow in large pipes, offering moderately accurate readings at a very low cost of ownership. When using a FLOMEC® flow rate totalizer with the DP series, it creates a fully programmable self-powered local display. Typical applications include HVAC, irrigation, hot and cold water, fire systems, water distribution (management and treatment), boiler feed water, waste water and hydrant flow testing.

FEATURES / BENEFITS

- IP68 (NEMA6) submersible 316SS construction (cable connection only)
- Intrinsically safe option available
- DP525 version suitable for “hot tap” installations
- Quadrature pulse option available for bi-directional flow measurement
- 1.5% of reading accuracy provides exceptional measurement accuracy with limited investment
- Extremely versatile design means one product is suited for a huge variety of pipe sizes
- Only one moving part provides a reliable product with minimal maintenance costs
- IECEx/ATEX models available, making the product safe to use in flammable liquid applications

APPLICATIONS (Typical application but not limited to)

- HVAC
- Irrigation
- Hot and Cold Water
- Fire Systems
- Water Distribution (Management and Treatment)
- Boiler Feed Water
- Waste Water
- Hydrant Flow Testing

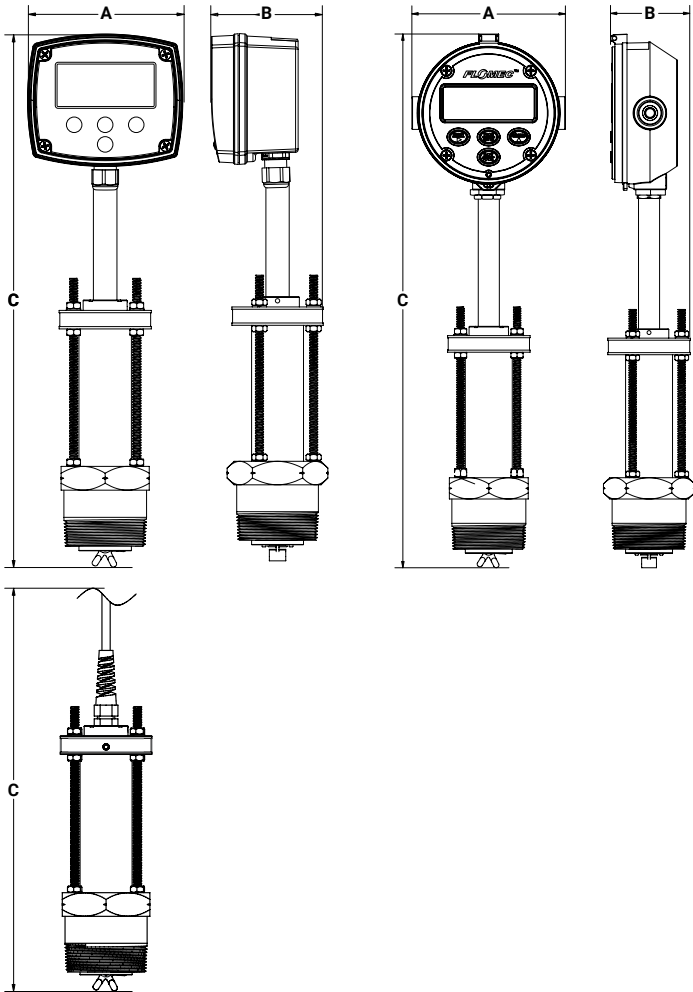
APPROVALS / WARRANTY



DP SERIES
INSERTION PADDLEWHEEL METER

DIMENSIONS

| | DP490 | DP525 |
|----------------------------|-------------------------|---------------------|
| Thread | 1.5 or 2 in. BSP or NPT | 2 in. BSP or NPT |
| Dimension “A” Flying Cable | 2.36 in. (6 cm) | 2.52 in. (6.4 cm) |
| Dimension “A” RT14 | 4.8 in. (12.2 cm) | 4.8 in. (12.2 cm) |
| Dimension “A” RT40 | 4.5 in. (11.4 cm) | 4.5 in. (11.4 cm) |
| Dimension “A” F018-F115 | 5.12 in. (13 cm) | 5.12 in. (13 cm) |
| Dimension “B” Flying Cable | 2.36 in. (6 cm) | 2.52 in. (6.4 cm) |
| Dimension “B” RT14 | 2.1 in. (5.3 cm) | 2.1 in. (5.3 cm) |
| Dimension “B” RT40 | 2.6 in. (6.6 cm) | 2.6 in. (6.6 cm) |
| Dimension “B” F018-F115 | 2.95 in. (7.5 cm) | 2.95 in. (7.5 cm) |
| Dimension “C” Flying Cable | 9.33 in. (23.7 cm) | 16.69 in. (42.4 cm) |
| Dimension “C” RT14 | 16.34 in. (41.5 cm) | 35.43 in. (90 cm) |
| Dimension “C” RT40 | 14.96 in. (38 cm) | 34.06 in. (86.5 cm) |
| Dimension “C” F018-F115 | 16.26 in. (41.3 cm) | 35.35 in. (89.8 cm) |



SPECIFICATIONS

| | | |
|--------------------------|---|----------------------------|
| Technology: | Paddlewheel | |
| Accuracy (% of Reading): | Typically ± 1.5% | |
| Housing Material: | DP490 | DP525 |
| Line Sizes: | 1.5-35 in. (40-900 mm) | 2-100 in. (50-2500 mm) |
| Pipe Connection: | 1.5" or 2" BSPT or NPT male thread | 2" BSPT or NPT male thread |
| Material Housing: | 316SS body and rotor shaft | |
| Flow Range: | 3 - 33 ft/sec (1 -10 m/s) | |
| Pressure Rating: | 1160 psi (80 bar) | |
| Operating Temperature: | -40°F to 300°F (-40°C to 150°C) | |
| Protection Class: | IP68 (NEMA 6), optional I.S (Intrinsically Safe) Integral options | |
| Pulse Outputs | | |
| Hall Effect: | 3 wire open collector, 5-24v (dc), 20mA max. Nom 0-240Hz | |
| Reed*: | 30v (dc), 200mA max. Nom 0-80Hz | |
| Voltage Pulse: | Self Generated voltage, Nom 0-240Hz | |
| Non-Magnetic Sensor: | 3 wire open collector, 5 - 24V (dc), 20mA max. Nom 0 - 240Hz | |
| Optional Outputs** | 4-20mA, scaled pulse, quadrature pulse | |

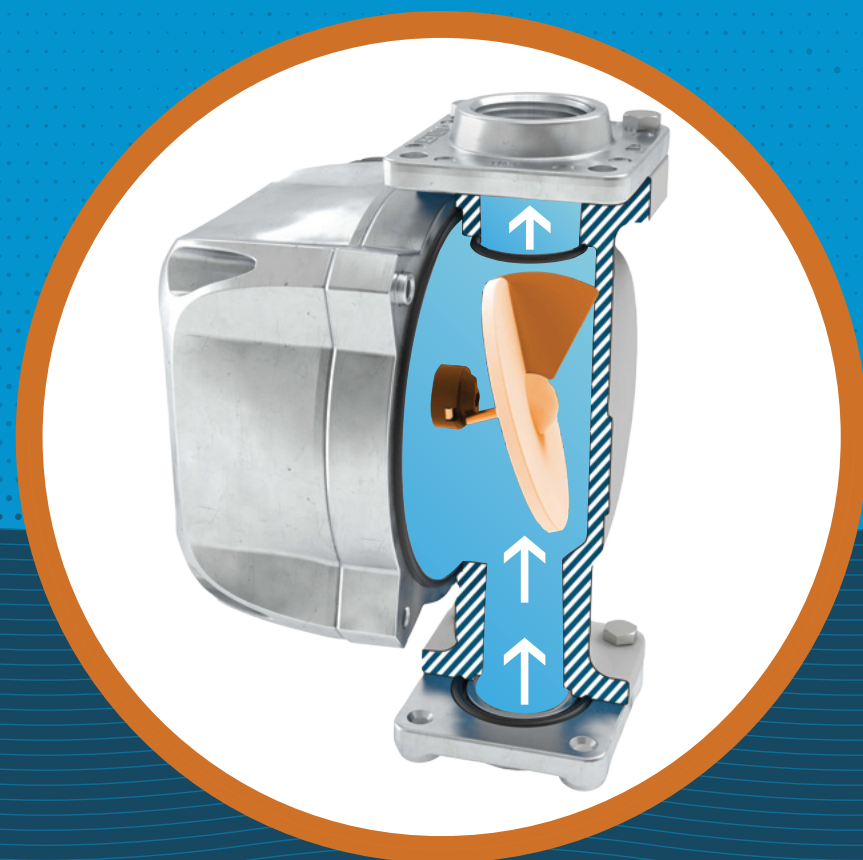
*Reed Switch resolution is 1/3 of the NPN Hall Effect or Voltage Pulse outputs
**Optional Integral option is required

NUTATING DISC

Nutating disc flow meters are one of the most common types of positive displacement flow meters. They operate by having a disc mounted to a central ball. When fluid enters the chamber, it causes the disc to wobble (nutate), transferring the displaced volume to the register.

- Measure the flow of water, glycols/anti-freeze, diesel exhaust fluid (DEF/ Adblue®), lubricating oils and greases, fertilizers, herbicides, insecticides and water based chemicals
- No requirement for flow conditioning or straight lengths of pipe before and after the meter
- Good turndown ratio of up to 100:1
- Can tolerate small particles such as sand and sediment
- Operational in only one direction

See how a nutating disc meter works.



TECHNOLOGY



EXPLORE REAL-WORLD APPLICATION

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NUTATING DISC METER MARKETS

Global customers use our meters in a wide range of applications. Here are featured markets our NUTATING DISC meters excel in.

FM300
M30

FM300

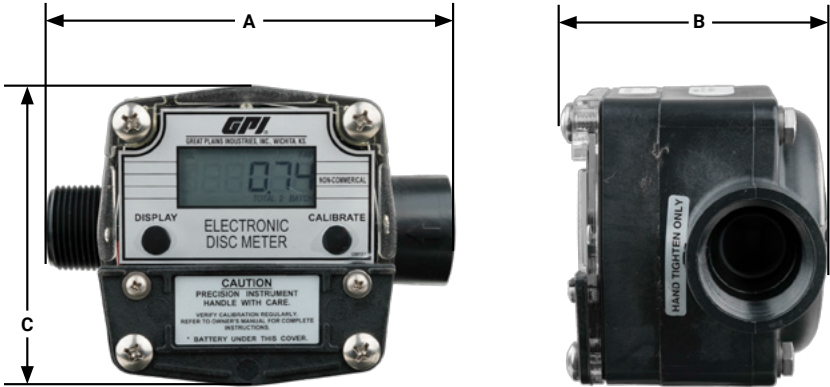
FM300

FM300



DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|--------------------|---------------------|----------------------|
| 6 in. (15.2 cm) | 3.1 in. (8.1 cm) | 4.0 in. (10.3 cm) |



SPECIFICATIONS

| | | |
|--------------------------|--|--------------------|
| Technology: | Nutating Disc | |
| Line Size: | 1 in. | |
| Accuracy (% of Reading): | ± 2.0% (Factory Calibration) ± 0.5% (Field Calibration) | |
| Material Housing: | PBT Polyester | |
| Fitting Type: | Inlet: | 1 in. NPT (Female) |
| | Outlet: | 1 in. NPT (Male) |
| Flow Range: | 2-20 GPM (7-76 L/min) | |
| Pressure Rating: | 50 PSI (3.45 bar) | |
| Operating Temperature: | 14°F to 130°F (-10°C to 55°C) | |
| Wetted Materials: | 303/304 Stainless Steel, Ferrite, PBT Polyester | |
| | Seal: Viton | |

The GPI® FM-300H Digital Chemical Meter is designed for use with most herbicides and other chemicals compatible with meter materials. This chemical meter measures flow rates from 2-20 GPM (7-76 L/min). The FM-300H mounts easily on hose end, pump, or fluid transfer system, and features an electronic display that keeps batch and cumulative totals.

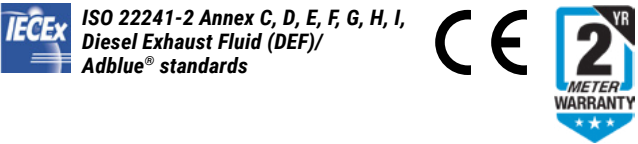
FEATURES / BENEFITS

- This meter is virtually maintenance free
- Electronic display keeps Batch & Cumulative totals
- Mounts easily on hose end, pump or fluid transfer system
- Designed for measuring a wide range of chemicals
- Equipped with a field replaceable 9-volt alkaline battery

APPLICATIONS

- Water
- Pesticides
- Fertilizers
- DEF (Diesel Exhaust Fluid)
- Mild Chemicals

APPROVALS / WARRANTY



M30 SERIES
MECHANICAL FUEL METER



The GPI® M30 Mechanical Fuel Meter is designed for the field measurement of thin viscosity petroleum fuel only and intended for use with pump systems in 5 to 30 GPM (19 to 114 L/min) flow range. This meter translates flow data from a nutating disk into calibrated units. The M30 is equipped with both NPT and Flange connections which allows it to be installed on all threaded pump outlets or modular GPI products. This quick-fit modular fuel meter is easy to install, easy to use, and easy to maintain.

FEATURES / BENEFITS

- Quick-Fit modular mounting easily attaches to compatible pumps and accessories
- 1" NPT inlet and outlet threaded adapters are included with each meter for installation with pipe fittings
- Features simple four-bolt connections that allow the meter to be mounted in multiple directions
- Unsurpassed accuracy. Meter is within a +/-2% accuracy across a flow range from 5 to 30 GPM.
- Durable aluminum housing; magnetic drive replaces the driveshaft and seal, eliminating driveshaft leaks
- Register rotates to read easily in any application; four-digit display, twist knob reset

APPLICATIONS (Typical application but not limited to)

- Agriculture
- Automotive
- Construction

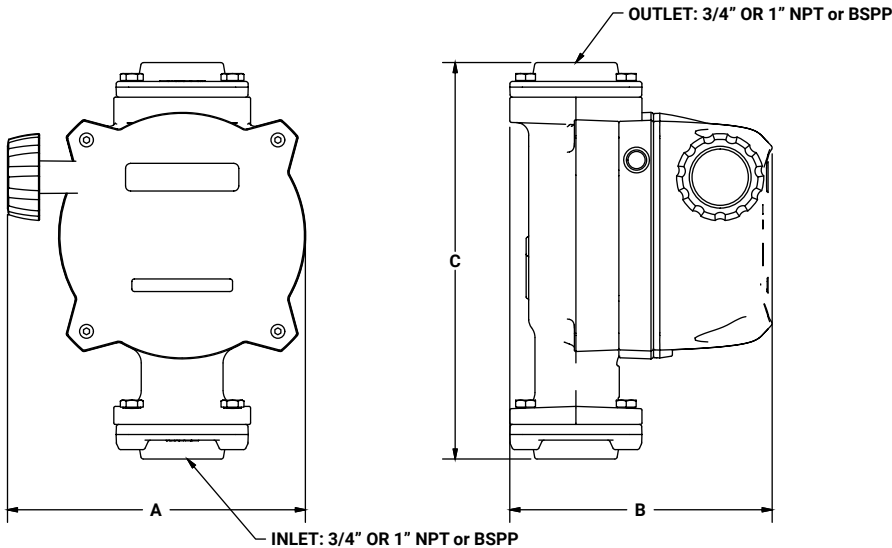
APPROVALS / WARRANTY



M30 SERIES
MECHANICAL FUEL METER

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|--------------------|----------------------|----------------------|
| 5.9 in. (15 cm) | 5.2 in. (13.2 cm) | 7.9 in. (20.1 cm) |



SPECIFICATIONS

| | | |
|-----------------------------|--------------------------------|--|
| Technology: | Nutating Disc | |
| Line Size: | ¾ in. & 1 in. | |
| Accuracy (% of Reading): | ± 2.0% | |
| Material Housing: | Die-Cast Aluminum | |
| Fitting Type: | ¾ in. NPT (female) | |
| | 1 in. NPT (female) | |
| | 1 in. BSPP | |
| Flow Range: | 5-30 GPM (19-114 L/min) | |
| Pressure Rating: | 50 PSI (3.45 bar) | |
| Pressure Drop (at Max Flow) | Diesel: 7.0 PSI / 0.5 Bar | |
| | Unleaded: 5.0 PSI / 0.3 Bar | |
| Operating Temperature: | -20°F to 125°F (-29°C to 52°C) | |
| Wetted Materials: | Nutator Assembly: | PBT (Polybutylene Terephthalate), Stainless Steel |
| | Seals | NBR (Nitrile Butadiene Rubber) |
| | Mag-Drive | Acetal, Stainless Steel, Neodymium (Nickel Plated) |

INSTRUMENTS

Flow meter instrumentations do the heavy lifting, while some meters can have a blind unscaled output signal most require some kind of computing, compiling and/ or filtering to generate something meaningful that can be used for human readable display and/ or connecting to an external PLC, data logger or even other flow meter instruments. Our collection consists of totalizers, rate/totalizers, batchers and signal converters that come in either blind or displayed configurations.

TOTALIZERS

MECHANICAL (QM40, M30, OM)
113294-01 - GPI3

BATCHERS

EB112D0MM - EB11
EB40 - **COMING SOON**

RATE / TOTALIZERS

145195-01 - Q9
RT142D0MM - RT14
RT401D0MA - RT40

SIGNAL CONVERTERS

113435-10 - Conditioned Signal Module
145195-01 + 125065-05 - 4-20mA w/ scaled pulse output module for Q9



113294-01
GPI3 Totalizer



145195-01
Q9 Rate / Totalizer



RT142D0MM
RT14 Rate / Totalizer



RT401D0MA
RT40 Rate / Totalizer



EB112D0MM
EB11 Batchers



113435-10
Conditioned Signal Module
on Turbine Meter



145195-01 + 125065-05
4-20mA w/ scaled pulse
output module for Q9

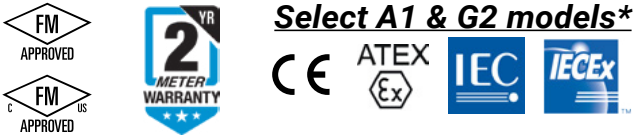
Q9
RATE / TOTALIZER



SPECIFICATIONS

| | |
|--|---|
| Temperatures: | |
| Operating Temperature (FM/ATEX Approved Meters): | 0°F to +129°F (-18°C to +54°C) |
| Operating Temperature (Non-Approved Meters): | 0°F to +140°F (-18°C to +60°C) |
| Storage Temperature: | -40°F to +158°F (-40°C to +70°C) |
| Standard Factory Configuration: | 2 Totals (1 Resettable, 1 Cumulative); Factory Calibration in gallons or litres; User Calibration and Rate of Flow Indication |
| Display Electronics: | Q9 Electronics can be used on G2, TM, A1, and QSE Series Meters |
| Totalizing Registers: | Cumulative and Batch |
| K-Factor Limits: | Min: 0.001 pulses/unit; Max: 999,999 pulses/unit |
| Readout Totals: | LCD with floating decimal: Minimum Display = 0.001 units; Maximum Display = 999,999 x 100 units (6 digits) |
| Input Pulse Rate: | Frequency Range is 0.25 Hz - 3 kHz |
| Internal Power Supply: | 2 Alkaline AAA batteries at 1.5 volts each |
| Alkaline Battery Life: | Typically 2 Years |
| Field Calibration: | Field calibrate by user methods: <ul style="list-style-type: none">• K-factor entry• Correction Factor (% Adjust)• Dispense Display |

APPROVALS** / WARRANTY



*See A1 & G2 Data Sheets for models that qualify for approvals.
**All Q9 Rate / Totalizer have the CE approval.



The **FLOMEC® Q9 Rate / Totalizer** is the latest version of the popular FLOMEC® computer displays. It incorporates many of the most requested features over the years including low battery indication and the ability to display custom units with a name label. Optional plug-in daughterboard for 4-20mA, scaled pulse, and external power supply are easily added as original equipment or as a retrofit in the field. All of the daughterboard parameters are addressable through the two buttons on the Q9 display. An additional new feature is the ability to display velocity as well as rate and totals. Packaged in the same form as the familiar FLOMEC display, the Q9 operates on two AAA batteries with approximately 2 years of operation and maintains all of the same intrinsically safe approvals of past products.

FEATURES / BENEFITS

- Highly Visible LCD characters against a yellow-tinted background
- Many Field Configurable options for ease of operation including diagnostic mode and custom unit name
- Easily retrofit to most existing FLOMEC® turbines
- Maximum versatility with optional pre-configured plug-in daughterboard to supply 4-20mA and Scaled Pulse
- Convenient Battery Power Level indication with automatic low battery warning
- Safety first design with FM Class 1, Div 1; ATEX; IECEx; cFM; CE approvals on select A1 and G2 models
- Providing operator consistency for all of your meters, the Q9 can be used with G2, TM, and A1 Series Meters
- Ultimate ease of operation with permanent preprogrammed 5 point factory calibration
- Accommodates a wide range of technical expertise with 3 Field calibration methods (K-Factor, Correction Factor or Dispense Display)
- For simple Plug and Play installation, the Q9 is factory calibrated set to display Cumulative Total, Re-Settable Batch Total and Rate

USER CONFIGURATION

- PIN Protected, four-digit user selectable
- 11 preprogrammed engineering units and one user-configurable custom unit
- Alphanumeric information line for on-screen instructions and custom unit name
- Four preprogrammed, user-selectable time bases (Day, Hour, Min., Sec.)
- Configurable screen update frequency
- A user-selectable low-frequency filter
- Field Calibration is retained when switched to Factory Cal so you can have two accessible calibrations available
- Three field calibration methods available (1 point Dispense Display, 5 point Correction Factor, 5 point K-Factor)
- Diagnostic mode shows % battery life remaining

Q9
RATE / TOTALIZER

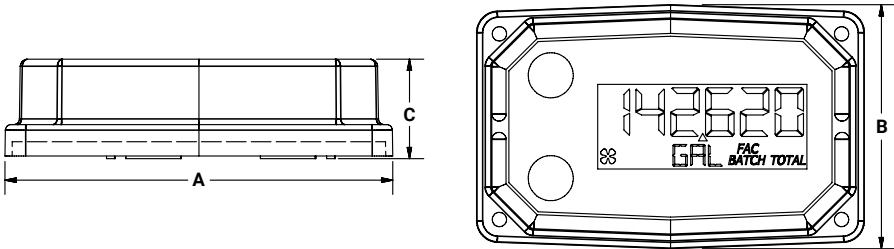
OTHER ELECTRONICS OPTIONS†

- 42** = 4-20 mA Module installed between the local display and the meter body
- Provides a 4–20 mA signal
 - Provides a Scaled NPN Open Collector Pulse
 - Can provide External Power to the local display
 - Comes with 10 feet of installed cable
- PO** = Pulse Output Module installed in place of the display (blind meter)
- Provides an Unscaled NPN Open Collector Pulse
- R9** = Replacement Q9 Computer Display for a meter body that has an old 09 display¹
- Comes with the extra parts required to retrofit a Q9 display in place of an 09 display

†Separate data sheets available.
¹FM/ATEX Approved when replacing a FM/ATEX Approved 09 display on a FM/ATEX Approved A1 or G2 meter.

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|---------------------|---------------------|----------------------|
| 3.4 in. (8.6 cm) | 2.1 in. (5.4 cm) | 0.85 in. (2.2 cm) |



RT40
RATE / TOTALIZER



PRODUCT MODELS

| Model No. | Description |
|-----------|---|
| RT401D0FA | Universal Mount - aluminum housing |
| RT401D0MA | Integral Meter Mount - aluminum housing |
| RT406D0FM | GRN - Universal Mount - glass-reinforced nylon housing |
| RT406D0MM | GRN Integral Meter Mount - glass-reinforced nylon housing |

APPROVALS / WARRANTY



The **FLOMEC® RT40 Rate / Totalizer** is a perfect choice for users who require a simple display to read flow rate or totalized volume from a flow meter. The configurable digital output (pulse or alarm) also makes the RT40 well-suited to use with a PLC or a remote data logger.

The RT40 is a cost-effective solution for economic operations, seamlessly integrating with FLOMEC Oval Gear, Turbine and Insertion meters equipped with a pulse output. This streamlined compatibility enhances data analysis at a glance, eliminating the necessity for intricate systems in simple installations.

The RT40 also features a large dual-line backlit LCD, which provides optimal readability from a distance or in low-light conditions. Robust aluminum or glass-reinforced nylon enclosure options make the product suitable for heavy-duty use in mine sites, truck installations, or in any industrial setting.

FEATURES / BENEFITS

- Economic and robust LCD display suitable for mining, truck, or industrial installations
- Large backlit LCD screen*
- Battery or externally powered; battery life span is five years under ideal conditions
- Robust IP66 (NEMA 4) Aluminum or IP66/67 glass reinforced nylon enclosures
- Configurable digital output* can be set as a pulse output for retransmitting flow readings to an FMS, PLC, or data logger
- Digital output can be set as a flow alarm to notify system faults, such as insufficient lubrication to a bearing
- Five-point linearization allows significant improvement in accuracy for most positive displacement or turbine flow meters
- Quadrature input allows measurement of bi-directional flow (with suitable flow meter)
- Universal inputs compatible with most positive displacement or turbine flow meters
- Intuitive user experience with in-built diagnostics for faster commissioning and troubleshooting of issues

*External power required.

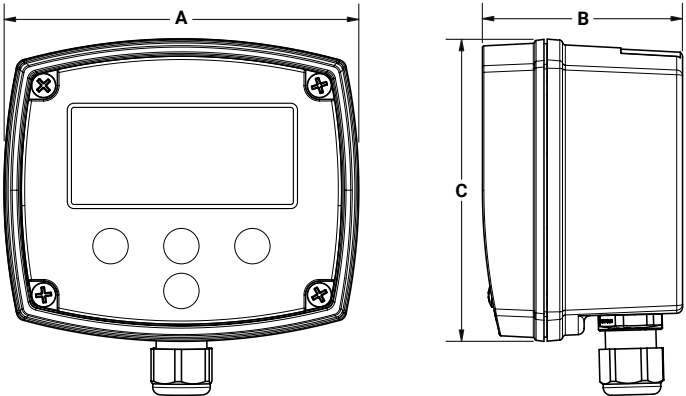
RT40
RATE / TOTALIZER

SPECIFICATIONS

| | |
|--------------------|--|
| Physical | Glass reinforced Nylon (PA6) with a Polycarbonate lens, Santoprene gasket, polyester decal. Enclosure provides an IP rating of IP65. Optional powder coated Aluminum enclosure |
| Temperature | Operating Temperature Range is -30°C - +80°C (-22°F - +176°F) |
| Electrical Entries | 3 entries - M16 x 1.5 |
| LCD Display | Large dual line LCD with 6 characters 17mm high on top line, 8 characters 7mm high on bottom line. Backlight available with external DC power. |
| Units | Total units are selectable for Litres, Cubic Metres, US Gallons, Imperial Gallons, Millilitres (Cubic Centimetres), Quarts, Fluid Ounces, Cubic Feet, Barrels, Kilograms, Pounds, or Custom. Units of mass are configured by setting a fixed specific gravity value in the configuration menu. |
| Input Signals | Two channel pulse/frequency input compatible with standard pulse signals or quadrature signals from most flow meters. |
| Compatible Sensors | Reed Switch - 120Hz maximum NPN (hall effect sensor) - 2kHz maximum Variable Reluctance Coils (Turbine Flow meters) - 2kHz maximum Weigand Sensors (voltage pulse signals) - 2kHz maximum Minimum signal amplitude for Coil signals is 15mV pk-pk |
| Sensor Power | 12V regulated sensor supply is available with external DC power applied. |
| Battery Power | AA (14505) 3.6V Lithium Thionyl Chloride Battery (Expected battery life under ideal conditions is 5 years.) |
| External DC Power | Regulated 12V - 30V DC (Typical current draw on external power is 100mA across this voltage range.) |
| Digital Output | NPN transistor output, 30Vdc / 1A maximum/100Hz maximum Digital output is configurable as Scaled Pulse, Unscaled Pulse, High Alarm Low Alarm, or High/Low Alarm. |

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|-----------------------|---------------------|---------------------|
| 4.5 in. (11.43 cm) | 2.6 in. (6.6 cm) | 3.9 in. (9.9 cm) |



RT14
RATE / TOTALIZER



PRODUCT MODELS

| Model No. | Description |
|-------------|---|
| RT142D0MM-I | GRN - Integral Meter Mount - Intrinsically Safe |
| RT142D0FM-I | GRN - Universal Mount - Intrinsically Safe |
| RT142D0MM | GRN - Integral Meter Mount - Safe Area Only |
| RT142D0FM | GRN - Universal Mount - Safe Area Only |

APPROVALS / WARRANTY



The FLOMEC® LCD display RT14 is a fully programmable self-powered rate / totalizer specifically designed for computing and displaying flow rates and totals from flow meters with pulse, sine wave or frequency outputs. The instrument displays resettable (batch) total, accumulative total and instantaneous flow rates in engineering units as programmed by the user. Flow meter inputs: suitable use with most pulse/frequency output meters such as reed switch, coil, voltage pulse (Wiegand), NPN and PNP.

FEATURES / BENEFITS

- Battery, external DC, or loop powered
- Easy to read backlit LCD display
- Robust IP66/67-NEMA4X universal mount glass reinforced nylon enclosure with rubberized buttons and polycarbonate lens
- Large selection of engineering units for flow rate and total
- Ten point linearization
- 4-20mA analogue output according to flow rate
- Flow alarm for high, low or high/low
- Scaled pulse output according to accumulative total
- Simple flow chart touch key programming
- Non volatile memory, long battery life
- Flow meter and pipe mount kits available
- Broad operating temperature range

CONTROL OUTPUTS

Scaled and unscaled pulse outputs allow transmission of accumulative flow data to remote control systems. Flow alarms are available to protect flow systems from flow rates that are 'high', 'low', or both, and an analogue 4-20mA signal offers flow rate monitoring and control by accurately transmitting flow rate readings from the flow meter to your PLC or PID control system.

PROGRAMMING

Simple PIN protected flow chart programming with English prompts guide you through the programming routine greatly reducing the need to refer to the instruction manual.

RT14
RATE / TOTALIZER

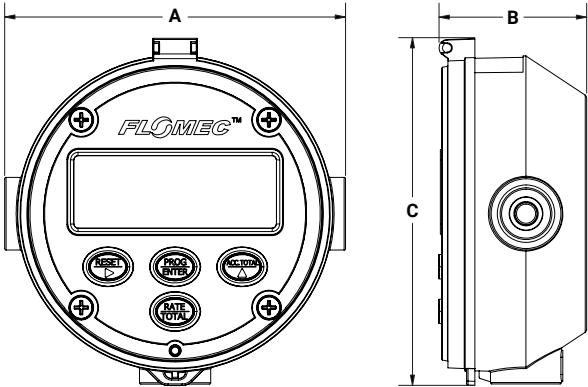
SPECIFICATIONS

| | |
|-----------------------------|---|
| LCD Display | 8 digit alpha-numeric LCD display with 12 mm characters with backlight* |
| Instantaneous Flow Rate | 8 digit to 3 decimal points |
| Engineering Units Displayed | Liter, mL, Gallon, Quart, Cubic Meter, Pounds, Kilograms or Nil |
| Input Types | Reed, NPN/PNP, mV sinewave (Turbine flow meters), Weigand Sensors (voltage pulse) |
| Input Frequency | 1.2 kHz (NPN/PNP), 2 kHz (Coil inputs), 120 kHz (Reed) |
| Input Scaling Range | 0.0001 ~ 9999999.9999 with 4 floating points |
| Linearization | 10 point correction |
| Pulse Outputs | One selectable digital output for scaled pulse, unscaled pulse, high, low or high/low alarms |
| Analogue Output | 12 bit 4-20mA (±0.05% FS at 25°C) |
| Operating Temperature | -22°F - +176°F (-30°C - +80°C) |
| Power Sources | AA 3.6V Lithium Thionyl Chloride Battery, external DC powered or loop powered (12 - 30V (DC)) |
| Enclosures | High impact glass reinforced Nylon (PA6) with a Polycarbonate lens, Nitrile O-Ring seals and Polyurethane gaskets, providing an IP rating of IP66/67^ |
| Mounting | Meter & stem mount, wall, pipe or panel mount^ |
| Approvals | Intrinsically Safe - IECEx / ATEX (optional) Ex ia IIB T4 Gb (-30°C <Ta <+70°C) |

* Backlight possible when connected to external power
^ Panel mount seal kit required to maintain IP66/67 rating when separating front and rear housing for mounting

DIMENSIONS

| Dimension "A" | Dimension "B" | Dimension "C" |
|----------------------|---------------------|----------------------|
| 4.8 in. (12.2 cm) | 2.1 in. (5.3 cm) | 4.9 in. (12.4 cm) |



ACCESSORIES

| | |
|---------|--------------------------------------|
| 1522001 | Stainless steel wall mount kit |
| 1522002 | Stainless steel 2 in. pipe mount kit |
| 1504003 | Panel Mount Seal Kit |

EB 11
BATCH CONTROLLER



PRODUCT MODELS

| Model No. | Description |
|-----------|---|
| EB112D0FM | GRN Universal Mount (Remote or Panel Mount) |
| EB112D0MM | GRN Integral Meter Mount (Local Mount) |

SPECIFICATIONS

| | |
|------------------------------|---|
| Display: | 0.47 in (12 mm) 7-digit batch total and 0.28 in (7 mm) 7-digit batch preset |
| Engineering Units: | Litres, gallons, cubic metre, pounds, kilograms or no engineering units |
| Input Types & Max Frequency: | Namur (4kHz), Reed-switch (120 Hz), NPN (6kHz), PNP (6kHz) and coil |
| Control Outputs: | GRN housing: 2x 300mA NPN Open Collectors, 24v (dc) |
| Operating Temperature: | Field Mount: 14°F - +140°F (-10°C - +60°C) |
| Enclosures: | Field Mount: GRN Housing, IP66 (NEMA4x) |
| Power Requirements: | Field Mount: 10-30v (dc) |
| Mounting Options: | Meter or stem mount, wall, surface, pipe or panel mount* |

*Panel mount seal kit required to maintain IP66/67 rating when separating from rear housing for mounting when using GRN housing.

The FLOMEC® EB11 Batch Controller is a dual stage batch controller designed to create an efficient and accurate dispensing experience. Mountable either directly onto a FLOMEC® flow meter or remotely, and compatible with multiple types of industry signals, the EB11 allows the user to control the volume of fluid dispensed into their process, while the large 7-digit display with back light enables easy reading of the batch status in either light or dark conditions. Housed in an IP66/67-NEMA4X rated Glass Reinforced Nylon enclosure for increased impact and corrosion resistance, particularly in washdown environments. The EB11 contains 2 digital NPN outputs with a current rating of up to 300mA for direct control of solenoid valves, or to connect to relays to allow for the control of large valves and pumps.

FEATURES / BENEFITS

- Easy to use 2 button controller
- Weather resistant and durable IP66/67 -NEMA4X enclosure
- Easy to read backlit 7-digit display
- Retained settings after power loss

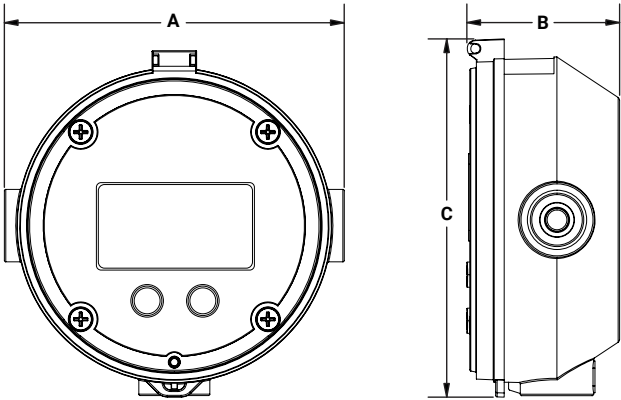
APPROVALS / WARRANTY



EB 11
BATCH CONTROLLER

DIMENSIONS

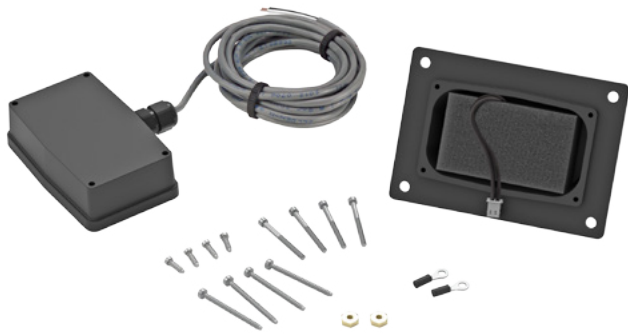
| Dimension "A" | Dimension "B" | Dimension "C" |
|-------------------|------------------|-------------------|
| 4.8 in. (12.2 cm) | 2.1 in. (5.3 cm) | 4.9 in. (12.4 cm) |



ACCESSORIES

| | |
|---------|--|
| 1522001 | Stainless steel wall mount kit |
| 1522002 | Stainless steel 2 in. pipe mount kit |
| 1502015 | Cooling fin kit for flow meters with integral instruments (for operating between 140°F (60°C) and 212°F (100°C)) |
| 1322039 | ADM M20-M16 metric adapter |
| 1319006 | M16 cable gland |
| 1511002 | 6-core screened instrument cable |

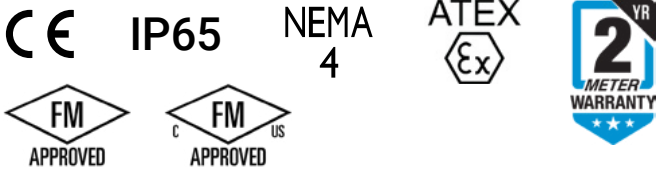
FM APPROVED REMOTE
KIT ASSEMBLY
DIGITAL METER MODULE
SKU 113275-10



SPECIFICATIONS

| | |
|------------------|--|
| Magnetic Pickup: | 1.3 k Ohm, 90 mH |
| Signal Type: | Sine Wave |
| Voltage: | Peak to Peak, 10 mV to 500 mV |
| Frequency: | 11 to 608 Hz |
| Cable: | 10 ft. (3 m), 2-conductor shielded, Belden #9501 |

APPROVALS[†] / WARRANTY



[†]Does not make Non-FM or Non-ATEX Approved meters FM or ATEX Approved

The **Factory Mutual (FM) Approved Remote Kit Assembly** modifies FLOMEC[®] electronic digital meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit provides the versatility of panel mounting of the LCD readout up to 100 feet (30 meters) from the turbine. This kit consists of a sensor module, a dust cover assembly, and 10 feet (3 meters) of cable. Requires a complete meter with display.

FEATURES / BENEFITS

- Maintains FM Approval
- Accommodates fluid temperatures from -40°F to +250°F (-40°C to +121°C) depending on meter
- This kit can upgrade an existing FLOMEC[®] meter (with Q9 display) or can be purchased with a new meter
- Battery powered display, no additional power required
- Use with the A1, G2, and TM meters
- Can remotely mount a Q9 display, or a Q9 display with a 4-20mA module



FM APPROVED
REMOTE KIT
ASSEMBLY

– Shown with a G2 Series Meter

CONDITIONED SIGNAL MODULE
TURBINE METER MODULE
SKU 113435-10



SPECIFICATIONS

| | |
|--------------|--|
| Connector: | Hubble PG7 |
| Signal Type: | Open Collector (NPN) |
| Power: | External 9 to 35 V (DC), approximately 1mA |
| Connection: | Three wire |
| Cable: | 10 ft. (3 m) Belden #9363 |

FLOMEC[®] Conditioned Signal Output Module provides an unscaled, amplified, signal capable of transmission up to 5,000 feet (1.5 kilometers). There is no need for additional signal conditioning or amplification devices to achieve the desired digital signal. Use on a blind (no display) G2, A1 or TM series meter. The kit comes with circuit assembly, enclosure, screws, and supplied with 10 feet of cable.

FEATURES / BENEFITS

- Provides a NPN Open Collector pulse that can communicate with most process control devices
- Operating temperature range of -40°F to +185°F (-40°C to +85°C)
- Provides a blind, pulse out only, option

APPROVALS / WARRANTY



CONDITIONED SIGNAL
OUTPUT MODULE

– Shown on a G2 Series Meter

4-20mA / SCALED PULSE MODULE
TURBINE METER MODULE
SKU 125100-10



SPECIFICATIONS

| | |
|----------------|--|
| Signal Type: | 4-20 mA / Open Collector (NPN) |
| Power: | 4-20 mA is Loop Powered (8 - 36 V (dc)) Open Collector (NPN or PNP) 3.3 - 36 V (dc) |
| Strain Relief: | Hubble PG7 |
| Cable: | 10 ft. (3 m) Belden #9363 |

APPROVALS / WARRANTY



Combine the FLOMEC® 4-20 mA Module with a turbine meter and display electronics to provide an industry standard analog signal for connection to a wide variety of chart recorders, display equipment and process control equipment.

This module outputs an analog signal which is directly proportional to the frequency of the digital output. With some simple adjustments, you can scale the module to represent whatever flow range is desired. The kit come with circuit assembly, enclosure, screws, and 10 feet of cable but can be extended up to 5,000 feet.

FEATURES / BENEFITS

- Communicates with most analog process devices
- Also provides a scaled or unscaled pulse output that can be connected to either sinking (NPN) input or sourcing (PNP) inputs
- Operating temperature range of 0°F to +140°F (-18°C to +60°C)
- Module installs between Turbine and Q9 Display
- Provides external power to the local Q9 display. The batteries are no longer needed



4-20 mA MODULE
– Shown on a G2 Series Meter with Q9 Display

INSTRUMENTS

SERVICE, PARTS AND KITS

Whether you are keeping your meter in good working order or want to enhance the capability of your meter and/or instrument we have the part and kit.

INSTRUMENTATION PARTS AND KITS

- Remote Mounting Kit
- 90 Degree Adapter Kit for Q9 Display
- High-Temp Riser
- Strainer
- Wire Cable
- Seal & Gasket Kits (see our website for options)

METER PARTS AND KITS

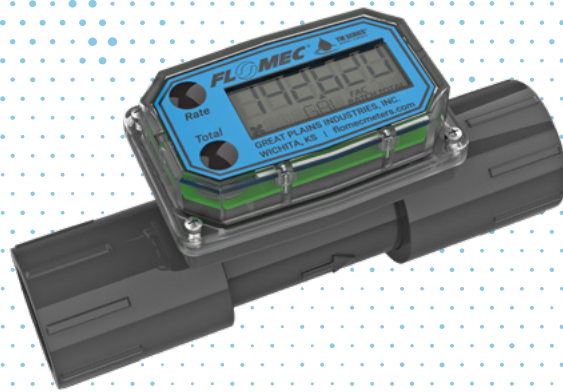
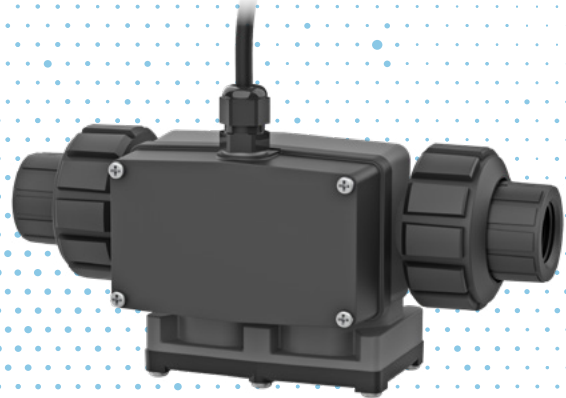
- Turbine Rotor Kit
- Oval Gear Overhaul Kit
- Replacement Turbine Body Assembly
- Replacement Tee for Insert Ultrasonic
- Replacement Saddle for Insert Ultrasonic
- Seal & Gasket Kit (see our website for options)

SERVICES

- NIST
- Re-Calibration
- Material Certification
- Certificate of Conformance
- Multi-Point Calibration - AUSTRALIA SERVICE
- Serial Match Instrumentation

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