PRODUCT OVERVIEW
ULTRASONIC

QS200 INSERTION ULTRASONIC METER
Non-Intrusive Flow Measurement

- Agriculture Irrigation
- Turf / Landscape Irrigation Systems
- Micro Irrigation Systems
- Groundwater Monitoring

Sub-Metering Applications
- High Rise Tenant Buildings
- Apartment Complex
- Universities
- Commercial Businesses
- Processing Facilities

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

Accuracy:
Typically +/- 2% of reading

Flow Range:
0.1 to 15 fps (0.03 to 4.6 m/s)

Operating Temperature:
-40° to 140° F (-40° to 60° C)

Pressure:
150 psi @ 73° F (10 bar @ 23° C)

Line Sizes:
1”, 1.5”, 2”, 3” and 4”

Tee Housing Material: Schedule 80 PVC

Wetted Parts:
Body = PPS (Ryton R-4); Sensor = PEI (Ultem 100); O-Ring = EPDM

QSTAR ULTRASONIC METER
Non-Intrusive Flow Measurement

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

Accuracy:
Up to +/- 1% of reading

Flow Velocity Range:
+/- 98 ft/sec (30 m/s)

Operating Temperature:
-4° to 140° F (-20° to 60° C)

Transducer Temperature:
-40° to 300° F (-40° to 149° C)

Pipe Sizes:
½” to 240” (10 mm to 6 m)
### Electromagnetic

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

<table>
<thead>
<tr>
<th>Turf / Irrigation</th>
<th>HVAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Agriculture Irrigation</td>
<td>• EMS (Energy Management Systems)</td>
</tr>
<tr>
<td>• Turf Irrigation Systems</td>
<td>• BAS (Building Automation Systems)</td>
</tr>
<tr>
<td>• Micro Irrigation Systems</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institutional</th>
<th>Energy sub-merging (BTU hot and cold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Chilled water</td>
<td>• Process (blow down, make up, boiler feed, etc.)</td>
</tr>
<tr>
<td>• Domestic water (hot and cold)</td>
<td></td>
</tr>
<tr>
<td>• Micro Irrigation Systems</td>
<td></td>
</tr>
</tbody>
</table>

**Accuracy:** +/- 0.5% of reading (from 0.25 to 15 fps [0.08 to 4.6 m/s])

**Flow Range:** 0.16 to 600 GPM (0.63 to 2271 L/min)

**Operating Temperature:**

- ½” to 2": 32°F to 210°F (0°C to 99°C)
- 3” - 4”: 32°F to 180°F (0°C to 82°C)

**Ambient Temperature:** 0°F to 140°F (-18°C to 60°C)

**Pressure:** 150 psi @ 73°F (10 bar @ 23°C)

**Line Sizes:** ½", ¾", 1", 1 ½", 2", 3", 4"

**Wetted Materials:** Noryl™ Body, 316 L SS Electrodes, EPDM O-Rings

**Fitting Connections:**
- ½" to 2" - NPT (Male), BSPP (Male) (ISO 228)
- 3" & 4" ANSI Flanged - Polymer or Steel
- 3" & 4" DIN Flanged - Steel

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### OM SERIES

**Medium to Heavy Viscosity Fluids**

<table>
<thead>
<tr>
<th>Oils</th>
<th>Fuel</th>
<th>Diesel</th>
<th>Batching</th>
<th>Molasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Additive Injection</td>
<td>Bunker C Fuel Oil</td>
<td>Clean Fluids</td>
<td>Oil-Based Paints</td>
<td></td>
</tr>
<tr>
<td>Industrial Fluids</td>
<td>Truck Metering</td>
<td>Chemical Feed Lines</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Accuracy:** +/- 1% of reading (1/8" to 3/8"), and all mechanical +/- 0.5% of reading (1/4" to 4")

**Flow Range:** 0.26 GPH to 660 GPM (1 L/hr to 2,500 L/min)

**Temperature:** -40°F to 300°F (-40°C to 150°C)

**Pressure:** 70 to 5,800 psi (5 to 400 bar)

**Meter Sizes:** 1/8" to 4" (4 mm to 100 mm)

**Meter Body Materials:** Aluminum, Stainless Steel and PPS

**Fitting Connections:** NPT, BSPP, Sanitary and Flange

**Output Options:** Pulse and 4-20mA

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### Positive Displacement

(Oval Gear)

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

- Energy sub-merging (BTU hot and cold)
- Process (blow down, make up, boiler feed, etc.)

**Accuracy:** +/- 0.5% of reading (from 0.25 to 15 fps [0.08 to 4.6 m/s])

**Flow Range:** 0.16 to 600 GPM (0.63 to 2271 L/min)

**Operating Temperature:**

- ½” to 2": 32°F to 210°F (0°C to 99°C)
- 3” - 4”: 32°F to 180°F (0°C to 82°C)

**Ambient Temperature:** 0°F to 140°F (-18°C to 60°C)

**Pressure:** 150 psi @ 73°F (10 bar @ 23°C)

**Line Sizes:** ½", ¾", 1", 1 ½", 2", 3", 4"

**Wetted Materials:** Noryl™ Body, 316 L SS Electrodes, EPDM O-Rings

**Fitting Connections:**
- ½" to 2" - NPT (Male), BSPP (Male) (ISO 228)
- 3" & 4" ANSI Flanged - Polymer or Steel
- 3" & 4" DIN Flanged - Steel
EGM SERIES
High to Low Viscosity Fluids

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

| Accuracy:         | +/- 1% of reading (1/8” to 3/8”) +/- 0.5% of reading (1/4” to 3/4”) |
| Flow Range:       | 0.26 GPH to 21.1 GPM (1 L/hr to 80 L/min) |
| Temperature:      | 5° to 176° F (-15° to 80° C) |
| Max. Pressure (AL): | 1/8” to 3/8”: 500 psi (34 bar), 1/4” to 5/8”: 290 psi (20 bar) |
| Max. Pressure (SS): | 1/8” to 1/4”: 800 psi (55 bar), 3/16” to 3/8”: 500 psi (34 bar), 1/2” to 3/4”: 290 psi (20 bar) |
| Meter Sizes:      | 1/4” to 3/4” (4 to 20 mm) |
| Meter Body Materials: | Aluminum and Stainless Steel |
| Fitting Connections: | NPT and BSPP |

FUEL CONSUMPTION SYSTEM OPTIONS
Marine (SS) or Land and Gen-Sets (AL)

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

Ø Not Available in the U.S.A.

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

AIM BLOCK
(Additive Injection Manifold)

| Accuracy: | ± 1% @3cP |
| Repeatability: | 0.25% reading |
| Flow Range: | 0.26 - 145 GPH (1 - 550 L/hr) |
| Temperature: | 5° to 149° F (-15° to 65° C) |
| Meter Sizes: | 1/8” - 3/8” (4 mm - 8 mm) |
| Meter Body Materials*: | Stainless Steel |
| Max. Pressure (Static): | 440 psi (30 bar) |
| Max. Pressure (Operating): | DC Solenoid Coils; 100 psi (7 bar) |
|                        | AC Solenoid Coils; 295 psi (20 bar) |
D SERIES DIESEL METER
High accuracy oval gear technology with low pressure drop

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

**Accuracy:** ± 1% of reading

**Flow Range:** 0.26 - 660 GPM (1 - 2500 L/min)

**Temperature:** 5° to +176° F (-15° to +80° C)

**Meter Sizes:** ½" - 4" (15 mm - 100 mm)

**Wetted Materials:** Aluminium, stainless steel, hardened steel, PPS, Viton, Nitrile

**Compatible Fluids:** Diesel, Kerosene, Light Oils

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

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POSITIVE DISPLACEMENT (Oval Gear)

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

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G SERIES
Thin Viscosity Fluids Under 100 Centipoise

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

**Accuracy:** +/- 0.5% of reading

**Flow Range:** 0.6 to 600 GPM (2.2 to 2,271 L/min)

**Temperature:** -450° to 800° F (-268° to 426° C)

**Pressure:** 2,500 to 5,000 PSI (170 to 340 Bar)

**Meter Sizes:** 1/2" to 3" (15 to 80 mm)

**Meter Body Materials:** Stainless Steel

**Fitting Connections:** NPT, BSPT, BSPP, Sanitary & ANSI Flange

**Output Options:** Pulse

☑️ High Precision
☑️ High Pressure
**FLUMECE®**

**G2 SERIES**
General Purpose Meter

- Batching
- Blending
- Water
- Food & Beverage Processing
- Harsh Chemicals (Sulfuric Acid & Bleach)
- Monitoring Clean Fluids

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

**TP SERIES**
Low Viscosity Fluids

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

Ø Not Available in the U.S.A.

**TURBINE Flowmeters**

**TP SERIES** (Low Viscosity Fluids)

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

**Accuracy:** +/- 1.5% of reading
**Flow Range:** 7 to 1200 GPM (27 to 4500 L/min)
**Temperature:** -40° to +450° F (-40° to +232° C)
**Max. Pressure:** 3625 psi (250 bar)
**Suits Pipe Sizes:** 1” to 4” (15 mm - 100 mm)
**Pipe Connections:** NPT, BSPP, ANSI #150, ANSI #300, PN16 DIN
**Wetted Materials:** 316 SS bearing support and body, 431 SS rotor, tungsten carbide bearing

**G2 SERIES** (General Purpose Meter)

- Batching
- Blending
- Water
- Food & Beverage Processing
- Harsh Chemicals (Sulfuric Acid & Bleach)
- Monitoring Clean Fluids

<table>
<thead>
<tr>
<th>Accuracy:</th>
<th>+/- 0.5% of reading</th>
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</thead>
<tbody>
<tr>
<td>Flow Range:</td>
<td>1.0 to 200 GPM (3.8 to 760 L/min)</td>
</tr>
<tr>
<td>Temperature:</td>
<td>-40° to 250° F (-40° to +121° C)</td>
</tr>
<tr>
<td>Max. Pressure:</td>
<td>3625 psi (250 bar)</td>
</tr>
<tr>
<td>Suits Pipe Sizes:</td>
<td>1” to 4” (15 mm - 100 mm)</td>
</tr>
<tr>
<td>Pipe Connections:</td>
<td>NPT, BSPP, ANSI #150, ANSI #300, PN16 DIN</td>
</tr>
<tr>
<td>Wetted Materials:</td>
<td>316 SS bearing support and body, 431 SS rotor, tungsten carbide bearing</td>
</tr>
</tbody>
</table>

**TURBINE Flowmeters**

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

**Accuracy:** +/- 0.5% of reading
**Flow Range:** 7 to 1200 GPM (27 to 4500 L/min)
**Temperature:** -40° to +450° F (-40° to +232° C)
**Max. Pressure:** 3625 psi (250 bar)
**Suits Pipe Sizes:** 1” to 4” (15 mm - 100 mm)
**Pipe Connections:** NPT, BSPP, ANSI #150, ANSI #300, PN16 DIN
**Wetted Materials:** 316 SS bearing support and body, 431 SS rotor, tungsten carbide bearing

“Look for the blue label.”

Integrated Display • Output Options
A1 SERIES RATE & TOTAL METER
Self-Contained Application Specific Meters

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

✔ Field Calibration
✔ Higher Accuracy

### TURBINE Flowmeters

#### A1 SERIES RATE & TOTAL METER

**MODEL:** A025, A100 (1”) & A200 (2”)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>N025 &amp; N100 (1”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>+/- 1.5% to 5% of reading</td>
</tr>
<tr>
<td>Flow Range</td>
<td>0.3 - 300 GPM (1-1135 L/min)</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40° to 250° F (-40° to 121° C)</td>
</tr>
<tr>
<td>Temp. w/Display</td>
<td>14° to 140° F (-10° to 60° C)</td>
</tr>
<tr>
<td>Pressure</td>
<td>300 psi (21 bar)</td>
</tr>
<tr>
<td>Meter Sizes</td>
<td>1” to 2” (25 mm to 50 mm)</td>
</tr>
<tr>
<td>Meter Body Materials</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Fitting Connections</td>
<td>NPT and ISO</td>
</tr>
</tbody>
</table>

#### TM SERIES

**Light-Weight, In-Line Water Meter**

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

**Accuracy:** +/- 3% of reading

**Flow Range:** 1 to 600 GPM (3.8 to 2271 L/min)

**Temperature:** 32° to 140° F (0° to 60° C)

**Pressure:** 225 psi at 73° F (15.3 bar at 23° C)

**Meter Sizes:** 1/2 to 4” (15 to 100 mm)

**Meter Body Materials:** PVC Plastic (Schedule 80)

**Fitting Connections:** NPT, BSP, #150 ANSI Flange and Spigot

**Display/Output Options:** Blind Pulse, Display with Pulse, and Display only
01N, 01A & FM-300
Thin Viscosity Fluids Under 100 Centipoise

- Water
- Fuel
- Chemicals

<table>
<thead>
<tr>
<th>MODEL:</th>
<th>01N Turbine</th>
<th>01A Turbine</th>
<th>FM-300 H/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy:</td>
<td>+/- 5.0% of reading</td>
<td>+/- 5.0% of reading</td>
<td>+/- 2.0% of reading</td>
</tr>
<tr>
<td>Flow Range:</td>
<td>3-30 GPM (10-100 L/min)</td>
<td>3-30 GPM (10-100 L/min)</td>
<td>2-20 GPM (7-75 L/min)</td>
</tr>
<tr>
<td>Temperature:</td>
<td>14° to 130° F (-10° to 54° C)</td>
<td>14° to 130° F (-10° to 54° C)</td>
<td>15° to 130° F (-9° to 54° C)</td>
</tr>
<tr>
<td>Pressure:</td>
<td>150 psi (10.3 bar)</td>
<td>300 psi (21 bar)</td>
<td>50 psi (3.4 bar)</td>
</tr>
<tr>
<td>Meter Sizes:</td>
<td>1&quot; (25 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meter Body Materials:</td>
<td>Nylon</td>
<td>Aluminum</td>
<td>PBT Polyester</td>
</tr>
<tr>
<td>Fitting Connections:</td>
<td>NPT and BSPT</td>
<td>NPT, BSPP, and BSPT</td>
<td>NPT</td>
</tr>
</tbody>
</table>

ECONOMY Electric Digital Meters

01N, 01A & FM-300
Thin Viscosity Fluids Under 100 Centipoise

- Water
- Fuel
- Chemicals

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

Water • Fuel • Chemicals
**LM51DN LUBE METER**  
Maximum 1,000 Centipoise

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

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>+/- 0.5% of reading</td>
</tr>
<tr>
<td>Flow Range</td>
<td>0.25 - 8 GPM (1 - 30 L/min)</td>
</tr>
<tr>
<td>Temperature</td>
<td>-4° to 140° F (-20° to 60° C)</td>
</tr>
<tr>
<td>Pressure</td>
<td>1,500 psi (103 bar)</td>
</tr>
<tr>
<td>Meter Body Materials</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Fitting Connections</td>
<td>1/2&quot; NPT</td>
</tr>
</tbody>
</table>

**ECONOMY Positive Displacement Meter**

**INSERTION IMPELLER Meter**

**DP SERIES**  
Simple Flow Measurement for Clear Fluid Applications

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

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>+/- 1.5% of reading</td>
</tr>
<tr>
<td>Flow Velocity Range</td>
<td>3 to 33 ft/s (1 to 10 m/s)</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40° to 300° F (-40° to 150° C)</td>
</tr>
<tr>
<td>Pressure</td>
<td>1,160 psi (80 bar)</td>
</tr>
<tr>
<td>Pipe Sizes</td>
<td>1-1/2&quot; to 100&quot; (40 mm to 2500 mm)</td>
</tr>
<tr>
<td>Meter Body Materials</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

- Water  
- Large Pipes  
- Industrial Chemicals
09 Display
- Total and rate
- Gallons and Litres calibration
- Field calibration capability

QSI Interface Board
- Communication options available:
  - Modbus® RTU and BACnet® MS/TP
  - Built-in Bluetooth® wireless technology
  - External programming FLOMEC® App available for mobile devices
  - Receive in-field firmware updates
- Standard process outputs: pulse out and 4-20mA
- Data logger
- Temperature inputs
- BTU (heat) calculator

RT40
- Total and rate

RT14
- Total and rate
- High and low alarm outputs
- Pulse output
- 4-20 mA output
- Intrinsically safe (optional)

E Series (E018)
- Explosion proof display
- Total and rate
- Pulse or alarm outputs (selectable)
- 4-20 mA (isolated)
- HART protocol

F Series (F018 / F115 / F127 / F130)
- Total and rate
- Pulse outputs
- High / low alarm outputs (F018)
- 4-20 mA output (F018)
- Batching (F130)
- HART protocol (F018)
- Temperature compensation (F127)
- Net use (F127)
- Bi-directional (F115)
FLOMEC® has partnered with Obvius, a leading energy solutions provider, to offer the optimum solutions for data collection and connectivity.

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

**Solutions offered include:**
- Data Acquisition
- Wireless Communication
- Meters & Sensors
- Custom Packaged Solutions
- Integration & Software Partners

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**Data Acquisition Servers**

**AcquiSuite EMB A8810**
- Collect energy data from meters and environmental sensors
- Designed to connect to IP-based applications

**AcquiLite EMB A7810**
- Collect energy data from pulse output meters
- Designed to connect to IP-based applications

**Data Acquisition Modules**

**Flex I/O Module A8332-8F2D**
- Cost-effective way to collect data from meters or sensors
- Can be incorporated with data acquisition and wireless metering devices

**HD Pulse Module A8911-23**
- Cost-effective, simple way to collect data from multiple pulse meters
- Can be incorporated with meter enclosures, data acquisition and wireless metering

**Wireless Metering**

**ModHopper R9120-5**
- Breakthrough mesh technology design that makes connecting Modbus and pulse devices simple and cost effective
- Eliminate the need for costly wiring runs
- Collect meter points in existing buildings with minimum down-time or disruption of day-to-day operations