



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 line sizes, 1 to 4 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 shows % of battery life
- High accuracy:  $\pm 2.0\%$  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

|                                 |                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Tee Housing Material:</b>    | Schedule 80 PVC                                                                                       |
| <b>Connection Type:</b>         | Socket, NPT, BSP, DIN, ANSI Flange                                                                    |
| <b>Meter Sizes Available:</b>   | 1 in., 1½ in., 2 in., 3 in., 4 in.                                                                    |
| <b>Insert Wetted Materials:</b> | Body: PPS (Ryton® R-4)                                                                                |
|                                 | Sensor: PEI (Ultram 1000)                                                                             |
|                                 | O-Ring: EPDM                                                                                          |
| <b>Temperature Rating:</b>      |                                                                                                       |
| <b>Operating:</b>               | 32°F to 140°F (0°C to 60°C)                                                                           |
| <b>Storage:</b>                 | -20°F to +160°F (-29°C to +71°C)                                                                      |
| <b>Flow Range:</b>              | 0.1 to 15 fps (0.03 to 4.6 m/s)                                                                       |
| <b>Accuracy:</b>                | Typically $\pm 2\%$ of reading                                                                        |
| <b>Operating Pressure:</b>      | 203 psi @ 73°F (14 bar @ 23°C) (Socket Tee only)<br>150 psi @ 140°F (10 bar @ 60°C) (Socket Tee only) |
| <b>Transducer Excitation:</b>   | Battery Power - Lithium C                                                                             |
| <b>Electronic Display:</b>      | 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 five tee line sizes.

## APPLICATIONS

- 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

## CERTIFICATIONS/WARRANTY



IP67

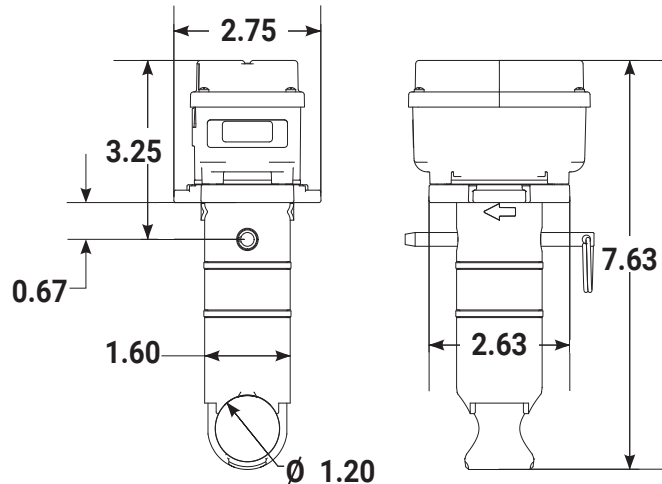


# AQUASONIC® INSERTION ULTRASONIC FLOW METER

## FLOW INSERT SELECTION CHART

| Pipe Size   | Operating Range (Min.)                  | Operating Range (Max.)                  | Adjoining Pipe   |
|-------------|-----------------------------------------|-----------------------------------------|------------------|
| 1 in.       | 0.22 GPM<br>(0.83 L/min)<br>0.1 ft/sec  | 33 GPM<br>(124.92 L/min)<br>15 ft/sec   | Sch 40<br>Sch 80 |
| 1-½ in.     | 0.55 GPM<br>(2.08 L/min)<br>0.1 ft/sec  | 82 GPM<br>(310.41 L/min)<br>15 ft/sec   | Sch 40<br>Sch 80 |
| 2 in.       | 0.92 GPM<br>(3.48 L/min)<br>0.1 ft/sec  | 138 GPM<br>(522.39 L/min)<br>15 ft/sec  | Sch 40<br>Sch 80 |
| 3 in.       | 2.06 GPM<br>(7.80 L/min)<br>0.1 ft/sec  | 309 GPM<br>(1169.70 L/min)<br>15 ft/sec | Sch 40<br>Sch 80 |
| 4 in.       | 3.58 GPM<br>(13.55 L/min)<br>0.1 ft/sec | 537 GPM<br>(2032.78 L/min)<br>15 ft/sec | Sch 40<br>Sch 80 |
| Insert Only |                                         |                                         | Sch 80           |

## DIMENSIONS



## AQUASONIC® INSERT

### 1, 1-½, & 2 INCH METERS

| Meter Size & Fitting | A. Length            | B. Height            | C. Width            |
|----------------------|----------------------|----------------------|---------------------|
| 1-Inch Socket        | 4.25 in.<br>(108 mm) | 7.63 in.<br>(194 mm) | 2.75 in.<br>(70 mm) |
| 1-Inch NPT           | 6.50 in.<br>(165 mm) | 7.63 in.<br>(194 mm) | 2.75 in.<br>(70 mm) |
| 1-Inch BSP           | 6.73 in.<br>(171 mm) | 7.63 in.<br>(194 mm) | 2.75 in.<br>(70 mm) |
| 1½-Inch Socket       | 4.90 in.<br>(125 mm) | 7.87 in.<br>(200 mm) | 2.75 in.<br>(70 mm) |
| 1½-Inch NPT          | 7.44 in.<br>(189 mm) | 7.91 in.<br>(201 mm) | 2.87 in.<br>(73 mm) |
| 1½-Inch BSP          | 7.40 in.<br>(188 mm) | 7.87 in.<br>(200 mm) | 2.75 in.<br>(70 mm) |
| 2-Inch Socket        | 5.56 in.<br>(141 mm) | 8.36 in.<br>(212 mm) | 2.88 in.<br>(73 mm) |
| 2-Inch NPT           | 8.22 in.<br>(209 mm) | 8.44 in.<br>(214 mm) | 3.55 in.<br>(90 mm) |
| 2-Inch BSP           | 8.09 in.<br>(205 mm) | 8.36 in.<br>(212 mm) | 2.88 in.<br>(73 mm) |

### 3 & 4 INCH METERS

| Meter Size & Fitting | A. Length             | B. Height             | C. Width             |
|----------------------|-----------------------|-----------------------|----------------------|
| 3-Inch Socket        | 6.63 in.<br>(168 mm)  | 9.45 in.<br>(240 mm)  | 4.18 in.<br>(106 mm) |
| 3-Inch NPT           | 14.06 in.<br>(357 mm) | 9.45 in.<br>(240 mm)  | 4.25 in.<br>(108 mm) |
| 3-Inch ANSI Flange   | 13.25 in.<br>(337 mm) | 11.11 in.<br>(282 mm) | 7.50 in.<br>(191 mm) |
| 3-Inch DIN Flange    | 13.25 in.<br>(337 mm) | 11.36 in.<br>(289 mm) | 8.00 in.<br>(203 mm) |
| 4-Inch Socket        | 7.38 in.<br>(188 mm)  | 10.66 in.<br>(271 mm) | 5.23 in.<br>(133 mm) |
| 4-Inch NPT           | 16.31 in.<br>(414 mm) | 10.66 in.<br>(271 mm) | 5.87 in.<br>(149 mm) |
| 4-Inch ANSI Flange   | 13.22 in.<br>(336 mm) | 12.55 in.<br>(318 mm) | 9.00 in.<br>(229 mm) |
| 4-Inch DIN Flange    | 13.22 in.<br>(336 mm) | 12.30 in.<br>(313 mm) | 8.50 in.<br>(216 mm) |

