

AQUAsonic® SERIES

INSERTION ULTRASONIC FLOW METER



The **AQUAsonic® Flow Meter** 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 flow meter includes % 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

Technology:	Ultrasonic	
Line Size:	1 in., 1½ in., 2 in., 3 in., 4 in., 6 in., 8 in., 10 in., 12 in.	
Accuracy (% of Reading):	Typically $\pm 2\%$ of reading	
Material Housing:	Tee	Schedule 80 PVC
	Saddle	Aluminum
Fitting Type:	NPT and Socket Tee 1-4 in., BSP Tee 1-2 in., ANSI and Din Flange 3-4 in., Saddles 6-12 in.	
Flow Range:	0.1 to 15 fps (0.03 to 4.6 m/s)	
Transducer Excitation:	Battery Power - Lithium C	
Operating Pressure:	203 psi @ 73°F (14 bar @ 23°C) (Socket Tee only)	
	150 psi @ 140°F (10 bar @ 60°C) (Socket Tee only)	
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 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



IP67

CE



Wichita · Sydney

GREAT PLAINS INDUSTRIES



AQUAsonic® SERIES

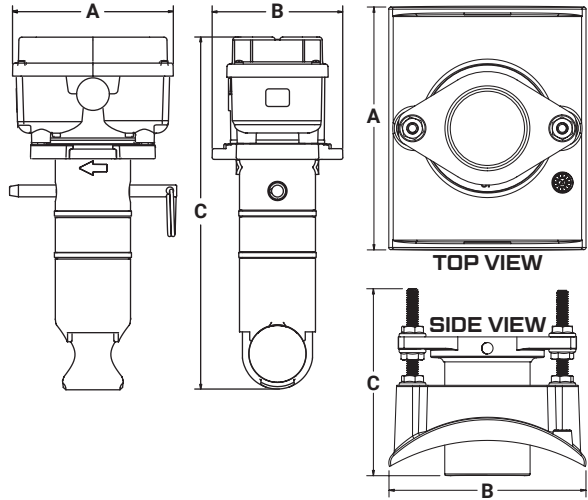
INSERTION ULTRASONIC FLOW METER

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

	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 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 flow sensor, adapter, and pipe. Pressure is also de-rated due to temperature (1.20 psi / °F).