

MUELLER

AQUAIENT™ ULTRASONIC WATER METER

Bronze Meter - Sizes 5/8" x 3/4" and 5/8" x 1/2"*

FEATURES

Applications: The Mueller Aquaient ultrasonic water meter is available in 5/8" x 3/4" and 5/8" x 1/2"*. This meter provides up to 10 digits of granular data for visual and encoded electronic format reads for use in Mueller AMR or AMI applications. The meter can be used in any residential or commercial application where low flow rates, low pressure loss, and high accuracy across the flow range is desired. The Aquaient meter provides water and pressure data to enhance system management capabilities for utilities of all sizes.

Construction: The Aquaient meter utilizes a bronze low lead body. The polymer processor enclosure is sealed by the gasket and filled with a waterproof potting material protecting all the internal electronics against moisture intrusion. The meter incorporates a large polymer lid which covers the liquid crystal display that is powered by a 3.6 volt lithium battery.

Every Aquaient meter may be ordered with our remote control valve as required by the customer to provide the ability to remotely initiate valve commands which are capable of turning the flow of water on or off. All meters with integrated valves comply with the standard C-700 and C-715 AWWA laying lengths and are a direct replacement and fit for a comparable positive displacement meter without any setter or piping modifications.

Meter Operation: The Aquaient meter utilizes ultrasonic measurement technology to provide outstanding accuracy across a broad range of flows with low pressure loss. The solid state meter design incorporates no moving mechanical parts inside the meter measuring tube to maintain a high degree of accuracy over the life of the meter.



The low flow accuracy of the Aquaient meter has multiple applications ranging from standard residential to high volume commercial/industrial sites. Customers receive notification for small leaks, backflow conditions and potential issues through Sentryx™ or EZ Reader platforms. The Aquaient meter design channels water over the reflectors to increase velocity and keep the reflectors free of debris during the operation which contributes to the high degree of meter accuracy.

The liquid crystal display provides large numerals and icons that permit easy visual verification of the meter registration, temperature, pressure, direction of flow, error, alarm status codes, and battery life to supplement the electronically transmitted system notifications.

A unique 10-digit serial number on the Aquaient meter faceplate and lid identifies it as the basis for systems communication. The processor cover provides additional visual information specific to the model, size, and date of manufacture to provide verifiable and retrievable data in the event it is required.

**Please contact Sales for availability*

Conformance To Standards: The Aquaient™ meter complies with all AWWA C-715 standard requirements for Type I and Type II meters.

Maintenance: The Aquaient™ meter is designed and manufactured to provide a long service life with minimal maintenance required. Meter lids are available as replacement components in the event of vandalism or the need for meter retrofits.

MATERIALS AND SPECIFICATIONS

Model	Aquaient™ ultrasonic water meter
Register Type	Solid State Liquid Crystal Display Encoder
Sizes	5/8" x 3/4" 5/8" x 1/2" (please contact Sales for availability)
Standards	Manufactured and tested to meet or exceed all applicable requirements of the AWWA C-715 Type I and II meter standard and the American Standard Code for Information Interchange (ASCII)
Connection Options	5' Nicor Connector
Materials	Processor / register housing and lid - engineered polymer; LCD, meter tube – low lead bronze, Ultrasonic reflectors – stainless steel
AMR/AMI Compatibility	Mueller AMR / AMI system, and other AMR / AMI systems that can utilize the Mueller encoder protocol output.
Valve Options	Integrated control valve for remotely turning on or off water in standard AWWA laying lengths
Additional Meter Options	Residential Fire Protection Reclaimed Water (availability to be determined)

GENERAL TECHNICAL DATA

Potable Water Temperature Range	33°F to + 80°F (0.5°C to 26.67°C)
Ambient Operating Temperature	-4°F to 158°F (-20°C to + 70°C)
Ambient Storage Temperature	-4 ... +140 °F (>90° F max. for one hour)
Operating Pressure	20 to 175psi
Power Supply	3.6 VDC lithium battery
Battery Lifetime	20 years
Interfaces	Industry standard encoder protocol, ASCII output for compatibility with all AMR / AMI systems
Data Storage	Alarms, consumption, temperature, and pressure values
Protection class	IP68 protection for water intrusion
Operating performance	In the temperature range of 33 to 80 °F, meter consumption measurement is accurate to ±1.5% over the normal flow range (reference: approved test bench, ISO9001 certified.)

TECHNICAL DATA PRESSURE AND TEMPERATURE

Pressure	175psi
Units	psi
Temperature	34 to 80 (1 to 27)
Units	°F (°C)

TECHNICAL DATA DISPLAY

Display	LCD, Up to 10-digit Visual resolution in US Gallons to 0.01, Ft3 to 0.001, M3 to .0001
Units	Flow and volume GPM for Gal, Ft3.

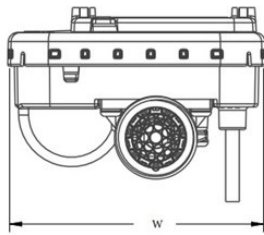
APPROVAL

NSF	Complies with EPA, NSF / ANSI Standard 61, Annex F/G, 372
AWWA	Meets or exceeds applicable sections of the AWWA / ANSI C715 Standard
FCC	Complies with FCC part 15 B

MATERIAL

Meter Body	Low Lead Bronze
Register/Processor Housing	Engineered Polymer
Transducers	Composite
Reflectors	Stainless steel

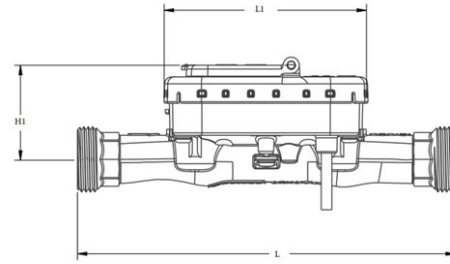
DIMENSIONS



Size

Units

5/8" x 3/4"

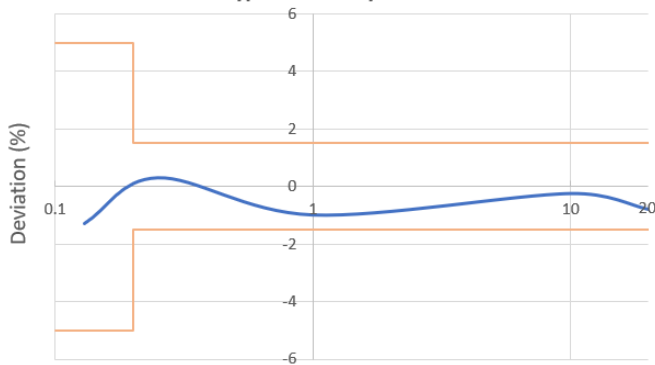


5/8" x 1/2"

Lay Length	L	Inch	7.50"	7.50"
Processor Length	L1	Inch	4.02"	4.02"
Processor Width	W	Inch	3.99"	3.99"
Height to Center of Pipe	H1	Inch	1.87"	1.87"
Net Weight		Lbs.	1.72"	Contact Sales for Information

FLOW CHARTS

Typical Accuracy Chart



TYPICAL FLOW CHART 3/4" MUELLER AQUAIENT METER

FLOW RANGE ACCURACY

Parameter	Unit	5/8" x 3/4"
Normal Operating Range	GPM	0.2 - 30
Normal Range Accuracy	%	±1.5
Min. Start Flow Rate	GPM	0.05
Low Flow Rate	GPM	0.13
Low Flow Accuracy	%	±5
Pressure Loss	psi	8.1 psi at SMOG



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For more information about Mueller or to view our full line of water products, please visit muellersystems.com or call Mueller customer service at 1.800.423.1323.

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