



Qalcosonic W1

Size 3/4, 1 & 1 1/2 inch

Smart ultrasonic
water meter

V 3.0 2025-06-272.0

Application

Ultrasonic water meter QALCOSONIC W1 is designed for accurate measurement of water consumption in households, apartment buildings and small commercial premises, where low flow sensitivity is important.

- Static method of water flow measurement, no moving parts.
- Very high metering accuracy.
- Eliminates measuring deviations caused by sand, suspended particles or air pockets.
- Long-term measurement stability and reliability.
- 9 digits, multi-line LCD. Total volume and instantaneous flow rate indication.
- Ready for AMI with LoRa WAN and NFC technologies.

AMI Ready

- Integrated LoRa WAN communication, US902-928 MHz band
- NFC interface

Parameterisation of the meter

NFC and optical interfaces are integrated in the top panel of the meter. They can be used for data reading and parameterisation of the meter.

Approvals

- NSF/ANSI/CAN 61
- FCC part 15C
- NTEP (optional)

Technical features

Sensitive in low flows – starting flow as low as 0.01 gpm

Maintenance free device, battery lifetime up to 16 years*

No straight pipe sections required before or after the meter

No straight pipe run needed

No measurement of air

IP68 protection class

Bi-directional flow measurement

Durable composite body

Measurement units: Gal-GPM, ft³-ft³/h

Strainer and check valve (optional)

* - depending on communication settings.

Data logger – history values

Hourly, daily, monthly values of the measured parameters are stored in internal memory.

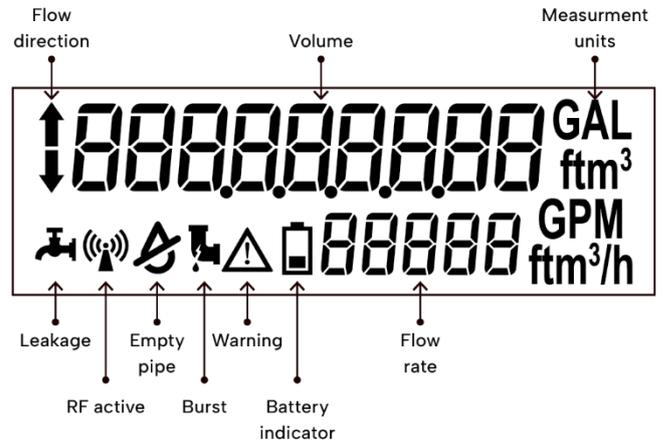
AMI interfaces



LCD indications and alarms

Multiple alarms and events, including:

- Flow direction indication;
- Battery level indication;
- Leakage;
- Burst;
- Backflow;
- Empty pipe;
- Radio communication;
- Warning indication;
- Low-temperature warning.



Technical data:

Flow sensor sizes	¾" x 7 ½" / 1" x 10 ¾" / 1 ½" x 12 5/8" *
Flow measurement	New meter measurement accuracy is within the following limits: ± 1.5% over the normal flow range ± 3.0% from the extended low flow range to the minimum flow value
Measured Fluid Temperature Range	33... 194° F / 33...150°C (for NTEP version) According to AWWA C715-18, measurement accuracy is maintained at water temperatures up to 80° F (+27° C)
Storage Temperature (empty flow sensor)	-13 ...158° F (-25...70° C)
Protection class [IP]	IP68
Installation	Indoors or outdoors
Battery	3.6-volt lithium thionyl chloride; battery is not replaceable; up to 16 years battery life *depending on communication settings

Specifications:

QALCOSONIC W1 meter size	¾" short	1"	1 ½"
Size Designation x Lay Length	¾" x 7 ½" (20 x 190 mm)	1" x 10 ¾" (25 x 273 mm)	1 ½" x 12 5/8" (40 x 324 mm)
Operating Range	0.15 ... 30 gpm (0.034 ... 6.8 m³/h)	0.3 ... 50 gpm (0.068 ... 11.4 m³/h)	0.6 ... 100 gpm (0.163 ... 22.7 m³/h)
Extended Low-Flow Rate	0.044 gpm (10 l/h)	0.11 gpm (25 l/h)	0.275 gpm (62,5 l/h)
Maximum Continuous Operation (Safe Maximum Operating Capacity)	30 gpm	50 gpm	100 gpm
Pressure Loss	3.6 psi at 15 gpm (0.25 bar)	2.3 psi at 25 gpm (0.16 bar)	2.3 psi at 50 gpm (0.16 bar)
Max Ambient Humidity	0...100% condensing		
Maximum Operating Pressure of Meter Housing	232 psi (16 bar)		
Register Type	Straight reading, permanently sealed two-line LCD; digits are 0.33 in. (8.3 mm) high		
Register Display	<ul style="list-style-type: none"> • Consumption (US gallons or cubic feet) • Flow rate (US gallons per minute or cubic feet per hour) • Alarms and error codes (if any) • Flow direction indication • Radio-active 		
Register Capacity	<ul style="list-style-type: none"> • 999.999.999 gallons • 999.999.999 cubic feet 		
Display Resolution in TEST mode	<ul style="list-style-type: none"> • Gallons: 0.XX, 0.XXX or round value • Cubic feet: 0.XX, 0.XXX or round value 		