SMART ULTRASONIC WATER METER

QALCOSONIC

W1

APPLICATION

Ultrasonic smart water meter QALCOSONIC W1 is designed for accurate measurement of water consumption in households, multifamily, highrise, mobile houses, and commercial premises, where low flow sensitivity is important.

• Static flow measurement - No moving parts, No wear and tear
• 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 at the same time

TECHNICAL FEATURES

• Sensitive in low flows – starting flow as low as 0.01 gpm
• Maintenance-free device, battery lifetime > 16 years
• Installation in any position
• No straight piperun 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)

APPROVALS

• NSF/ANSI/CAN 61
• FCC part 15C
• NTEP
• Meets AWWA C715-18

AMI INTERFACE

LoRaWAN CERTIFIED

AXIOMA METERING

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AMI READY

· Integrated LoRaWAN 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.

DATA REGISTRATION

· Total volume
· Forward volume
· Reverse volume
· Maximum flow rate value and date
· Minimum flow rate value and date
· Operating time without an error
· Operating time
· Error code
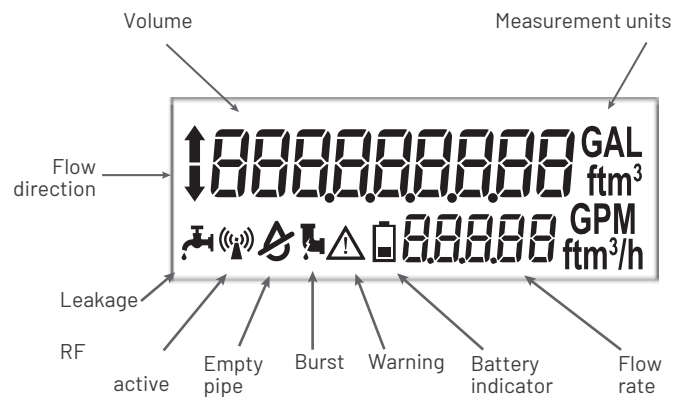· Water temperature indication

DATA LOGGER - HISTORY VALUES

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

LCD INDICATIONS AND ALARM

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 (0.1 ... +90° C) 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; **16-year battery life**

Remark: estimated availability of 1 ½" x 12 5/8" Q3 2024

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SPECIFICATIONS:

QALCOSONIC W1 meter size	¾" short	1"	1½" *
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	• Consumption (US gallons of 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	• 999.999.999 gallons • 999.999.999 cubic feet		
Display Resolution in TEST mode	• Gallons: 0.XXX • Cubic feet: 0.XXX		