

# evoQ<sub>4</sub> Electromagnetic Meter - AL Alternative Length

Size 1½" to 2"

The evoQ<sub>4</sub> is a single meter that meets the needs of traditional turbine, compound, single jet and electromagnetic meters.

Performance	1½" (DN 40mm)	2" (DN 50mm)
> 95% Accuracy GPM (m3/hr)	0.5 (0.11)	0.5 (0.11)
98.5%-101.5% Accuracy GPM (m3/hr)	2 (0.5)	2 (0.5)
Maximum Flow GPM (m3/hr)	220 (50)	220 (50)
Max. Operating Pressure psi (kPa)	150 (10)	150 (10)

## Materials

Body	Stainless steel grade 304
Flow tube	Stainless steel grade 316
Liner	Polyethylene epoxy
Electrodes	Stainless steel grade 316
Flanges	Epoxy coated cast iron
Register	Stainless steel with glass lens
Register housing/lid	UV-resistant plastic
Environmental class	IP68 hermetically sealed unit waterproof to 30 ft depth

## Features

10 year continuous life	No need for costly and time-consuming replacement
No moving parts	Maintenance free
0.5 second sampling rate	Highest accuracy
Wide measuring range	Suitable for all commercial billing applications
Simple installation	No additional training required, no programming
Pulse or encoder connectivity	Pre-equipped or retrofitted for your AMR and telemetry needs
AWWA lay lengths	Simple changeout
IP68 sealed	Provides long, trouble-free life
NSF61 Annex G listed	Zero lead contaminants

## Benefits



## Operation

The evoQ<sub>4</sub> is a battery powered electromagnetic water meter that is suitable for a wide range of metering applications. Using Faraday's law of electromagnetic induction, two magnets provide a magnetic field within the pipe; two electrodes measure the induced voltage that is proportional to the flow of conductive water through the field in the pipe. Every 0.5 seconds the measurement is taken and the totalized volume is calculated and updated on the LCD display.

The meter is designed for 10 years of continuous operation with no battery changes necessary.

## Application

The meter is for general use with potable cold water up to 120°F. The meter will typically register at +/-0.75% accuracy at normal and high flows and better than 95% accuracy at extended low flows. The evoQ<sub>4</sub> product line is suited for metering utility customer services for potable water. With the addition of outputs described below, the meter can fulfill a number of distribution management roles as well.

## Pulse or encoder output

The meter can be fitted with a pulse output device that can be attached to a radio transceiver module or a data logger. The pulse output can be programmed in the factory to meet the needs of the utility. For utilities preferring encoded output technologies, an encoder module is available for interface with AMR systems.



### Remote display

The meter can be fitted with a remote display. A two channelled output can provide both forward and reverse pulses.

### Connections

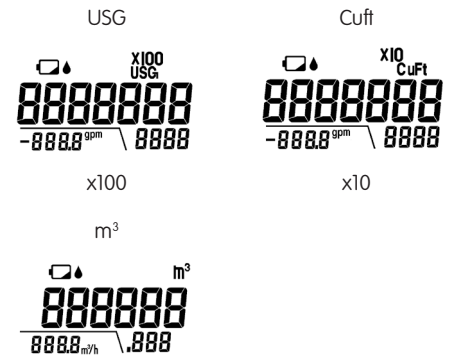
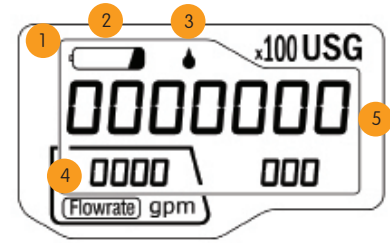
The evoQ4 AL comes in AWWA C700/C712 meter lay lengths. The oval flanges are epoxy coated cast iron to reduce weight and prevent corrosion and conform to ANSI B16.1 Class 125 standards. Allow for 5 pipe diameters of straight pipe upstream and 3 pipe diameters of straight pipe downstream for optimum performance.

### LCD

Bright, large and easy-to-read LCD incorporating totalized volume and a reference flow-rate indicator. Alarm functions provide in-situ status ensuring no loss in measuring continuity. An IP68 seal ensures the meter electronics are safely protected providing long term reliability.

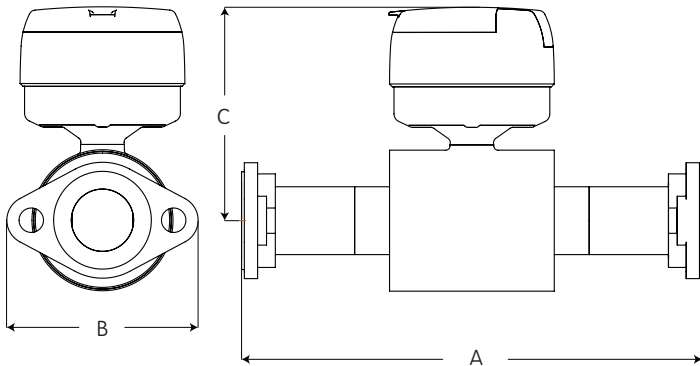
### Display functions

- 1 **Low-Battery** – The indicator blinks when the meter has approximately 3 months working life remaining.
- 2 **End of Life Battery** – Measurement stopped. The indicator appears permanently when the meter life expires. Data is displayed for up to 9 months.
- 3 **No-Water** – The indicator blinks when there is an empty pipe condition.
- 4 **Flow Rate** – If water is flowing in the reverse direction a minus sign is displayed to the left of the value.
- 5 **Net Volume** – Any reverse flow is subtracted from the volume display. The top line displays billable units with the multiplier shown in upper right corner. Measurement resolution is provided in the lower right for testing.



### Dimensions and net weight

Meter Size	A		B		C		Weight	
	in	(mm)	in	(mm)	in	(mm)	lbs	(kg)
1 1/2"	13	330	6 1/4	158.8	8	203.2	10	4.5
2" AL3	10	250	6 1/4	158.8	8	203.2	10	4.0
2" AL1	15 1/4	400	6 1/4	158.8	8	203.2	10	4.5
2" AL2	17	431	6 1/4	158.8	8	203.2	11	5



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