

evoQ₄TM Electromagnetic Meter -AL Alternative Length

Size 1 1/2" to 2"

Meets AWWA C700 and C712 lay lengths



Size	Inches	1 1/2	2
	mm	40	50
Performance			
> 95% Accuracy	GPM	0.5	0.5
	m3/hr	.11	.11
98.5% - 101.5% Accuracy	GPM	2	2
	m3/hr	.5	.5
Maximum flow	GPM	220	220
	m3/hr	50	50
Max. operating pressure	psi	150	150
	Bar	10	10

The evoQ₄ is a single meter that meets the needs of traditional turbine, compound, single jet and electromagnetic meters.

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 cover
Register housing/lid	UV-resistant plastic
Environmental class	IP68 hermetically sealed unit Waterproof to 30 ft depth

Features

10 year continuous life
No moving parts
0.5 second sampling rate
Wide measuring range
Simple installation
Pulse or encoder connectivity
AWWA lay lengths
IP68 sealed
NSF61 Annex G listed

Benefits

No need for costly and time-consuming battery replacements
Maintenance free
Highest accuracy
Suitable for all commercial applications
No additional training required, no programming
Pre-equipped or retro-fitted for your AMR and telemetry needs
Simple change out
Provides long, trouble-free life
Zero lead contaminants

Operation

The evoQ₄ 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 evoQ₄ product line is suited for metering utility customer services for potable or with special designation for reclaimed 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 channeled output can provide both forward and reverse pulses.

Connections

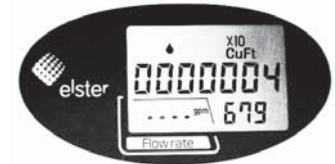
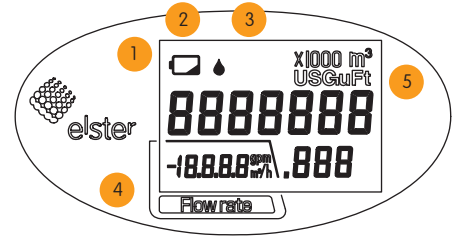
The evoQ₄ AL comes in AWWA C700/C712 meter lay lengths. The oval flanges are epoxy coated cast iron to reduce weight and prevent corrosion and conform to ANSI B16.1 Class 125 standards. Allow for 5 pipe diameters of straight pipe upstream and 3 pipe diameters of straight pipe downstream for optimum performance.

LCD

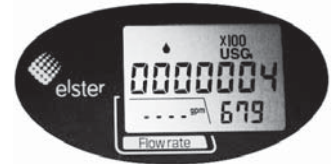
Bright, large and easy-to-read LCD incorporating totalized volume and a reference flow-rate indicator. Alarm functions provide in-situ status ensuring no loss in measuring continuity. An IP68 seal ensures the meter electronics are safely protected thus ensuring long term reliability.

Display functions

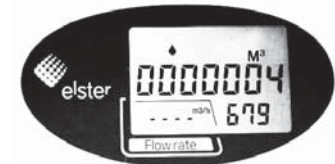
- 1 **Low-Battery** – The indicator will blink when the meter has approximately 3 months working life remaining.
- 2 **End of Life Battery** – Measurement stopped. The indicator will appear permanently when the meter life has expired. Final reading is displayed for 9 months.
- 3 **No-Water** – The indicator will blink when there is an empty pipe condition or no water in the meter.
- 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 will be 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.



CuFt Display



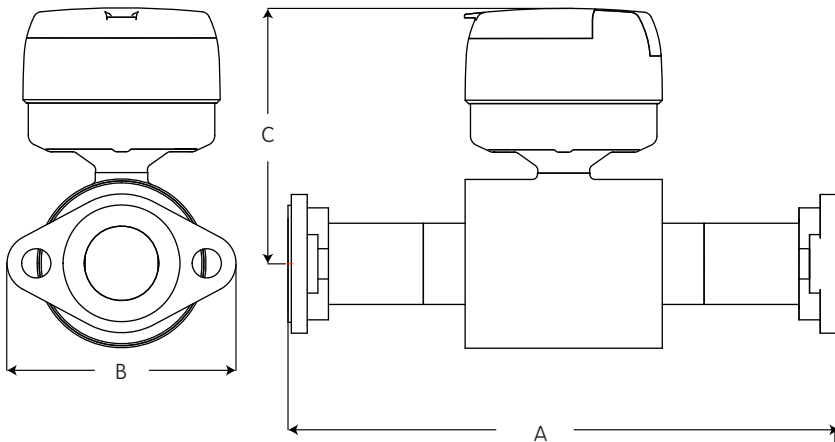
USG Display



m³ Display

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" 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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