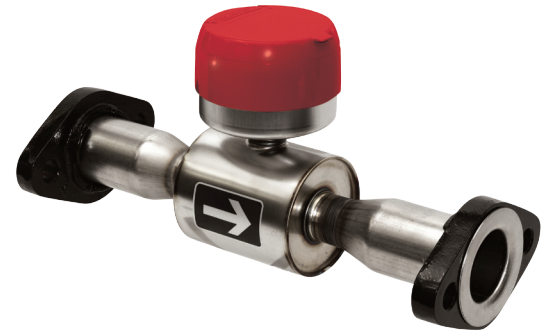


# evoQ<sub>4</sub> Electromagnetic Meter - LF Low Flow for Fire Service

Sizes 1 1/2" and 2"



EvoQ<sub>4</sub> Low Flow brings stable, accurate measurement to mid-size meter applications.

## Specification

Performance		1 1/2"	(DN40)	2"	(DN50)
> 95% accuracy	GPM (m <sup>3</sup> /h)	0.25	(0.057)	0.25	(0.057)
98.5% - 101.5% accuracy	GPM (m <sup>3</sup> /h)	1.5-100	(0.227-30)	1.5-160	(0.227-39)
Maximum flow*	GPM (m <sup>3</sup> /h)	100	(30)	160	(39)
Max. operating pressure	psi (bar)	175	(12)	175	(12)

\* Flow in excess of maximum does not affect performance at flows within limits. Meter is capable of measuring higher flow not covered by fire service meter standards.

## 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 30ft depth

## Features

Improved low flow performance  
No moving parts  
0.5 second sample rate  
Floating flanges  
Pulse, Encoder, or Remote  
AWWA lay lengths  
IP68 sealed  
NSF61 listed  
10 year continuous life  
UL listing

## Benefits

Detect smaller leaks  
No accuracy degradation  
Suitable for billing apps  
Easy to install  
Integrate with AMR / AMI  
No spool pieces or pipe work  
Submersible and reliable  
Approved for potable water  
Eliminate maintenance visits  
Suitable for metering fire services

## Operation

The evoQ<sub>4</sub> Low Flow 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.

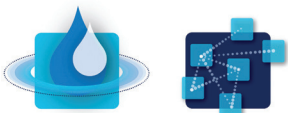
## Application

The meter is for 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. The fire service version of the meter is particularly suited to replacing mechanical residential fire services meters.

## Outputs

The evoQ<sub>4</sub> LF can be fitted with one of the output modules available for the meter product line. These modules are common among all sizes and variants of evoQ<sub>4</sub>. Current modules include pulse (with two pulse channels), Elster protocol encoder, Sensus protocol encoder, the combined pulse + Sensus encoder module, and the remote display interface module. Please see individual specification sheets for these modules.

The meter is listed to UL327B for fire service.



## Connections

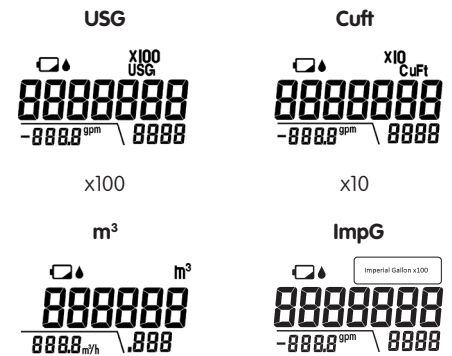
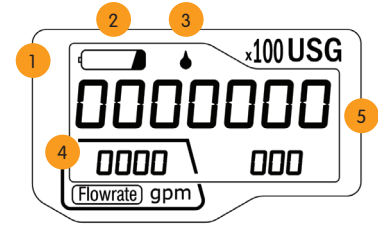
The evoQ<sub>4</sub> LF comes in AWWA C700 / C712 meter lay lengths. The oval flanges are epoxy coated cast iron to reduce weight and prevent corrosion and conform to ANSI B16.1 Class 125 standards. Full face gaskets are provided with each meter. Allow for 5 pipe diameters of straight pipe upstream and 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.

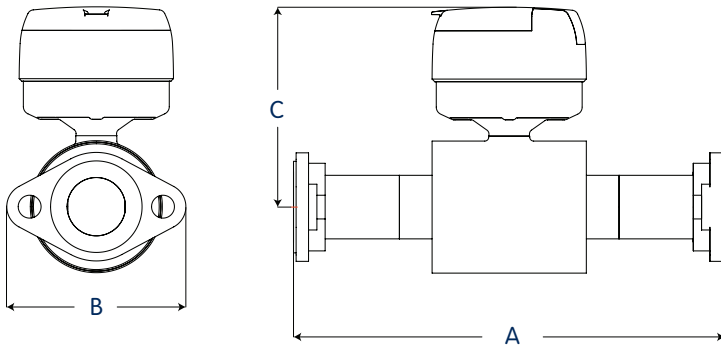
## Display functions

- 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 in (mm)	B in (mm)	C in (mm)	Weight lbs (kg)
1 1/2"	13 (330)	5 1/2 (140)	6 (152)	9.0 (4.1)
2" x 17"	17 (432)	6 1/4 (159)	6 (152)	11.5 (5.2)



United States and Canada  
 Elster AMCO Water, LLC  
 10 SW 49th Avenue, Building 100  
 Ocala, FL 34474  
 T +1 800 874 0890  
 F +1 352 368 1950  
 watermeters@elster.com

© 2016 by Elster. All rights reserved.

The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.