

C700 water meters - 1/2" thru 2"

Installation/start-up instructions Edition 06-01-2007

Introduction

The C700 meter is a volumetric-type meter operating on the oscillating piston principle. This utilizes a piston that the water rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by appropriate reduction gearing and a magnetic drive to a straight reading sealed register calibrated in U.S. Gallons, Cubic Feet or M3 (liters).

All materials in the meter have been selected for their ability to withstand wear and corrosion and to have a long working life with a minimum of maintenance.

Installation

The meter must be installed in a clean pipeline, free from any foreign materials.

The meter must be inserted with the flow in the direction of the arrow molded, or cast, into the meter body. Meter may be installed in horizontal, vertical or inclined lines.

Couplings are provided, which allow for connection with NPT threads in sizes 1/2" thru 1". The 1-1/2" and 2" meters have NPT internal threaded ends.

Maintenance/Lubrication

There are no maintenance or lubrication requirements.

Start-up procedure

The meter piston can be damaged if the meter is subjected to full-flow conditions prior to expelling all the air from the piping. Accordingly, turn on the flow gradually.

With "A" pulser

Self-powered pulse generator produces one pulse per 100 gallons in 5/8" X 1/2" thru 1" and one pulse per 1000 gallons in 1 1/2" - 2".

With "B" pulser

To be wired in series with no regard to polarity.

The transmitting element is a 3 AMP limit switch, giving a closure rate as follows:

5/8"	1 CONTACT PER GALLON
3/4"	1 CONTACT PER GALLON
1"	1 CONTACT PER GALLON
1 1/2"	1 CONTACT PER 10 GALLONS
2"	1 CONTACT PER 10 GALLONS

With "SF" pulser (NEMA 4)

The transmitting element is a solid state sensor (3 wire) which requires 6-24 VDC power from an external source.

Contact closure rates: pulse per gallon

Size	Standard	Optional
5/8"	100.0	200.0
3/4"	66.6	133.2
1"	24.6	49.2
1 1/2"	11.3	22.6
2"	5.6	11.1

5/8" Impr Brz 115.2 230.4

With "RS" pulser (glass lens - out-doors/plastic lens - indoors)

The transmitting element is a dry contact reed switch (2 wire) rated at 10 watts with 100-Ohm resistor in series. Max. Voltage - 50 VDC. Max. Current - 30 mA. Duty Cycle 30-60% ON, 40-70% OFF. To be wired in series with no regard to polarity.

Contact closure

	Cont/USG	Cont/Cu.Ft.	Cont/Litre
5/8"	1/10	1/1	1/10
3/4"	1/10	1/1	1/10
1"	1/10	1/1	1/100
1 1/2"	1/100	1/10	1/100
2"	1/100	1/10	1/100
2"	1/100	1/10	1/100

Wiring diagram



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