

Specification Sheet

C700 Positive Displacement Meter Waterworks or Low-Lead Bronze, Magnetic Drive, External Threaded Spuds

Size: 1"



Description

Operation. The C700 is an oscillating piston style, positive displacement water meter. The product utilizes a piston that water use rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by a magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing.

Compliance to Standards. The C700 fully complies with American Water Works Association Standard C700, latest revision, and is California Department of Weights and Measures approved. C700 low-lead bronze models are NSF-61 certified and comply with California Proposition 65.

Installation. The meter must be installed in a clean pipeline, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal, vertical or inclined lines.

Application. The meter is for use only with POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will register accurately to 100% ± 1 1/2% within the normal flows. Accuracy tests are made before shipment, so no adjustments need to be made before installation.

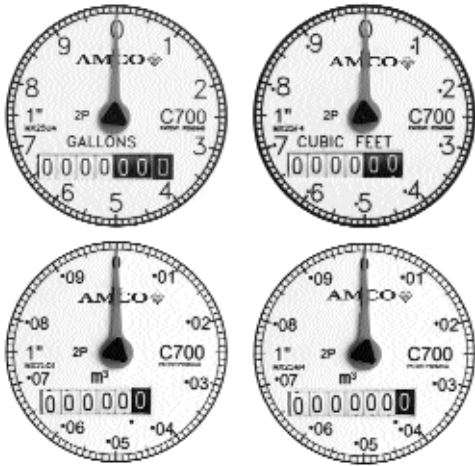
Construction. The meter consists of a straight through-flow main case, dual inlet measuring chamber, vertically grooved oscillating piston, high capacity strainer, removable bottom plate, full rubber liner, body bolts with integral washers and a magnetically driven register. The main case is cast in waterworks or low-lead bronze with raised characters designating model, size and direction of flow. A choice of cast iron, waterworks or low-lead bronze bottom plate is available. The 2-piece snap-fit measuring chamber is of a top and bottom inlet, side output design and features a unique self-flushing sediment well. Other features include a removable, contoured division plate, captive drive bar and high torque magnet complete with a nylon bushing.

Specifications

Size:	1"
95%-101% Accuracy GPM	3/4
98.5% -101.5% Accuracy GPM	3-50
Continuous Flow GPM	25
Maximum Flow GPM	50
Operating Pressure psi	150
Operating Temperature °F	120
Sweep Hand Registers:	
US Gallons	10
Cubic Feet	1
Cubic Meters (Canada)	1/10
Cubic Meters (Intl.)	1/10
Capacity of Register (millions):	
US Gallons (millions)	10
Cubic Feet (millions)	10
Cubic Meters (Canada)	1/10
Cubic Meters (Intl.)	1
Register Type:	Permanently sealed direct reading
Materials:	
Main Case	Standard waterworks or optional low-lead Bronze
Bottom Plate Options	Waterworks or low-lead Bronze or Cast Iron
Bottom Gasket-Liner	Nitrile
Body Bolts	Stainless Steel
Measuring Chamber	Compounded Polymer
Division Plate	Loaded Nylon
Piston	High Impact Polymer
Thrust Bearing Insert	Loaded Nylon
Driving Bar	Loaded Nylon
Strainer	Polypropylene
Register Can	90% Copper Alloy
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze

The flow-stream balanced piston has a unique thrust bearing insert and features a Turbulence Seal™ system which passes debris while sustaining the most linear accuracy curve in the industry. Each register is secured to the main case with a tamperproof plug to eliminate tampering.

Register. The register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 5 mm true tempered glass lens is secured with an "L" shaped gasket, then roll sealed to produce a permanently sealed design. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra-thin center sweep hand does not interfere with meter reading, and the 1:1 piston ratio low-flow indicator gives visual indication of plumbing leaks. For accurate meter testing, 100 clear graduations appear at the register's circumference.



Register Reading Options. C700 meters are available with Absolute Encoder, Generator and Digital register options to provide water usage output to the entire spectrum of meter reading systems, giving flexibility to utilities implementing or upgrading reading technologies. Refer to the following documents for more information:

Absolute Encoder Register EC-700
 Generator Register RR-C7-810
 Digital Register DR-C700



AMCO Water Metering Systems Inc.

www.amcowater.com

United States - ISO 9002 Registered
 AMCO Water Metering Systems
 P. O. Box 1852
 Ocala, FL 34478-1852
 352-732-4670 FAX 352-368-1950
 Outside Florida: 800-874-0890
 Inside Florida: 800-356-6829
 e-mail:
 watermeters@amcowater.com

Canada
 Elster Water
 3450 Harvester Road
 Burlington, Ontario L7N 3W5
 866-703-7582
 905-634-4895
 FAX 905-634-6705
 e-mail:
 watermeters@ca.elster.com

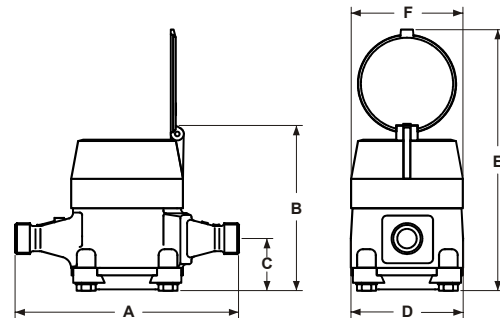
Magnetic Drive. The magnetic drive design facilitates coupling between the measuring chamber and the external register. The coupling is absolute at all rated flows.

Connections. Meter casing spuds have external straight threads conforming to ANSI B2.1. Bronze coupling nuts and tailpieces are available. Tailpieces have external taper pipe threads conforming to ANSI B2.1. Their lengths and thread sizes are as specified by AWWA Standards.

Maintenance. The measuring chamber assembly can be removed, repaired or replaced. Pretested measuring chamber assemblies are available for exchange or purchase, and spare parts are available from our central warehouse or designated regional locations. AMCO Water Metering Systems staffs and operates a repair facility at its U.S. manufacturing plant in Ocala, Florida.

Dimensions and Net Weights

Meter Size	Dimensions (inches)						Weight (lbs.)
	A	B	C	D	E	F	
1"	10 3/4	6 5/8	2 1/8	6 15/16	9 3/4	3 3/4	10 1/5



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.

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Caribbean
 AMCO Water Metering Systems
 P. O. Box 225
 Carretera 112 KM 2.3
 Isabela, PR 00662
 787-872-2006
 FAX 787-872-5427
 e-mail:
 prwatermeters@amcowater.com

Mexico
 Elster Medidores
 Lago Onega #281
 Col. Modelo Pensil.
 Del. Miguel Hidalgo
 C P 11460
 525 55 203 8002
 FAX 525 55 203 8270
 e-mail:
 amcowater@prodigy.net.mx

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