

# M700 Multijet Meter

*Waterworks or Low-Lead Bronze, Magnetic Drive, External Threaded Spuds*

**Size: 1"**



<b>Size:</b>	<b>1"</b>
<b>Performance:</b>	
97% - 103% Accuracy GPM	3/4
98.5% - 101.5% Accuracy GPM	3-50
Continuous Flow GPM	30
Maximum Flow GPM	50
Operating Pressure psi	150
Operating Temperature °F	120

<b>Sweep Hand Registers:</b>	
US Gallons	10
Cubic Feet	1

<b>Capacity of Register (millions):</b>	
US Gallons (millions)	10
Cubic Feet (millions)	1

**Register Type:** Permanently sealed direct reading

<b>Materials:</b>	
Main Case	Standard waterworks or optional low lead Bronze
Bottom Plate Options	Waterworks Bronze or Polymer
Bottom Gasket-Liner	Nitrile
Body Bolts	Stainless Steel
Measuring Chamber	Polyphenylene Oxide
Pivot	Stainless steel
Rotor	Loaded Nylon
Lower Bearing	Loaded Nylon
Upper Bearing Bush	Loaded Nylon
Hydraulic Cage	Polyphenylene Oxide
Finger Strainer	Polyethylene
Damping Plate	Polystyrene
Inner Sealings	EPDM
Upper Bearing Pin	Stainless Steel
Register Can	90% Copper Alloy
Register Lens	Tempered Glass
Register Housing and Lid	Polymer

**Operation.** The M700 is a dry top multijet water meter. The product utilizes a rotor that rotates in a measuring chamber. The rotor speed is transferred by a magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing. The rotor speed can be calibrated by a bypass stream.

**Compliance to Standards.** The M700 fully complies with American Water Works Association Standard C708, latest revision.

**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 must be installed in horizontal 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 between 98.5% and 101.5% at normal and high flows and between 97% and 103% at the AWWA specified low flow. Accuracy tests are made before shipment, so no adjustments need to be made before installation.



**Construction.** The meter consists of a main case with a finger strainer on the inlet, multijet measuring chamber fixed in a polymer housing, rotor with magnet drive, removable bottom plate, full rubber liner 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 polymer or waterworks bronze bottom plate is available. The rotor is made of a special glass loaded nylon material. The lower bearing consists of a stainless steel and a special glass loaded polymer bearing that is fitted in the bottom of the rotor. On top of the rotor a stainless steel pin runs into a polymer bearing. The magnet drive runs above the upper bearing and is therefore protected from iron particles from the network. Due to this raised position the whole magnetic coupling can be protected by one magnetic shielding ring.

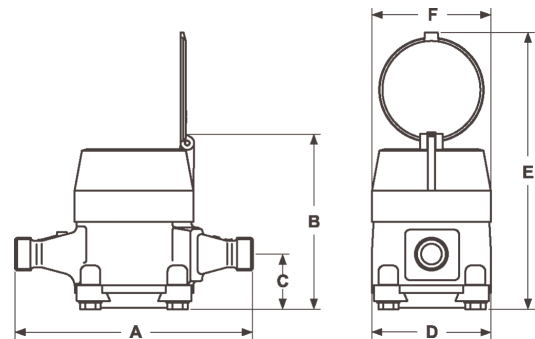
**Calibration.** The meter is calibrated through one hole in the bottom plate by turning a calibration screw that opens and closes a bypass hole. The bypass hole is situated in the cast body outside the polymer housing to minimize the effects of the bypass on upstream conditions.

**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 flat 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 rotor ratio low-flow indicator gives visual indication of plumbing leaks. For accurate meter testing, 100 clear graduations appear at the register's circumference.

**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 B.1.20.1. Bronze coupling nuts and tailpieces are available. Tailpieces have external taper pipe threads conforming to ANSI B.1.20.1. Their lengths and thread sizes are as specified by AWWA Standards.

**Maintenance.** The measuring chamber assembly can be removed, repaired or replaced. Spare parts are available from our central warehouse or designated regional locations. Elster AMCO Water 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	2	4 3/8	9 1/4	3 3/4	5 3/5

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