

# Specification Sheet

## H3200 Fire Hydrant Meter

Aluminum, Magnetic Drive, Internal Threaded Ends, with Check Valve Options



### Description

**Operation.** The H3200 Hydrant Meter is designed for use where water flows from a fire hydrant. The H3200 may also be used in temporary metering of well pumping, irrigation, construction, testing or similar non-permanent applications. Water passes through the meter without a change in flow direction, driving a helix rotor in direct proportion to the quantity of water passing through the meter. Rotor revolutions are transferred to a register by appropriate reduction gearing and a magnetic drive.

**Compliance to Standards.** The H3200 Fire Hydrant Meter complies with all performance requirements of the American Water Works Association Standard C701, as most recently revised.

**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 a horizontal or inclined position. The hydrant meter must have a full flow of water in the arrowed direction of flow for proper accuracy. It is recommended that a gate valve be located downstream to control flows.

**Application.** The meter is for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% ± 1 1/2% within the normal flows. Both pressure loss and accuracy tests are made before shipment. No adjustments need be made before installation.

**Size: 3"**

### Specifications

<b>Size:</b>	<b>3"</b>
95% - 101% Accuracy GPM	5
98.5% - 101.5% Accuracy GPM	6-400
Continuous Flow GPM	300
*Maximum Flow GPM	450
Operating Pressure psi	150
Operating Temperature °F	120

### Sweep Hand Registers:

US Gallons	100
Cubic Feet	10
Cubic Meters	1
Imperial Gallons	100

### Capacity of Register:

US Gallons (millions)	100
Cubic Feet (millions)	10
Cubic Meters (millions)	1
Imperial Gallons (millions)	100

### Register Type:

Permanently sealed direct reading register

### Materials:

Main Case	Silicone Grade Aluminum
Top Cover Plate	Bronze
Body O-Ring	Neoprene Rubber
Case Nuts and Bolts	Stainless Steel
Measuring Element	Polyphenylene Oxide
Rotor	Polypropylene
Rotor Bushings	PTFE Compound
Rotor Thrust Bearings	Ceramic Jewel
Rotor Spindle	Tungsten Carbide
Undergearing	Polyacetal Resin
Register Lens	Tempered Glass
Register Housing and Lid	Polymer or Bronze
Register Can	90% Copper Alloy
Hose Couplings	Bronze
Screen	Delrin Plastic
Restrictor Plate	Polypropylene
Retaining Ring	302 Stainless Steel
Check Valve	Aluminum and Stainless Steel
Carry Handles	Steel

\*750 GPM without flow restriction

**Construction.** The meter consists of a main case, a measuring element, a case cover, a magnetically driven register assembly, carrying handles, and inlet and outlet NST National Fire Hose Threaded Couplings. The main case is cast in aluminum with raised characters showing model, size and direction of flow. A removable flow restrictor plate is installed in the outlet throat to prevent overspeeding when flowing water to atmosphere. The case has square ends and internal NPT threads. The measuring element assembly consists of the rotor, straightening vanes, accuracy regulator, spindles and gears, filters and undergear assembly. The measuring element is attached to the underside of the cover with four stainless steel screws and washers, one insert of which is placed eccentrically in the cover. The internal regulator assembly is interconnected with an external regulator shaft located on top of the cover, allowing meter calibration without depressurizing the test bench. The regulator is protected by a tamperproof device. The main case and cover are assembled with an O-ring gasket and stainless steel nuts, bolts and washers. Each register assembly is secured to the main case with a tamperproof screw, is protected with a hinged lid and is positioned with its hinge over the inlet throat. The register is further protected by two removable steel carrying handles.

**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 1/4" true tempered glass lens is domed and secured in an "L" shaped gasket, then roll sealed. 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 sweep hand does not interfere with meter reading, and the flow indicator will detect plumbing leaks.

**Magnetic Drive.** The magnetic drive design eliminates miscoupling associated with right-angle drives. Torque is absorbed in the undergear assembly below the driving magnet. Consequently, the driving

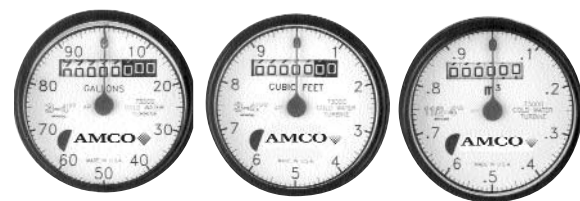
magnet at all flows is turning slowly, assuring magnetic coupling with the register assembly. The undergearing is protected by an encasement appropriately filtered.

**Connections.** This meter has internal 2 1/2" American Standard Taper Pipe Thread end connections. Bronze National Standard Fire Hose Couplings are supplied. The inlet coupling has 2 1/2" NST female threads and the outlet has 2 1/2" NST male threads.

**Maintenance.** The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Blank cover plates are available for use during repair. Prestested and calibrated measuring elements with cover plates and registers are available for exchange or purchase from our warehouses in the U.S. and Canada. In addition, AMCO Water Metering Systems Inc. maintains a fully equipped and staffed repair facility in Ocala, Florida.



**Options.** The H3200 may be ordered with a 2" or 2 1/2" Gate Valve for controlling flows. A Check Valve may be installed in the outlet end instead of the restrictor plate. Both the restrictor plate and check valve limit flow to 400 GPM in the typical fire hydrant installation. The H3200 may be ordered without a flow restrictor, but it shall not be covered under the warranty on defective materials and workmanship.



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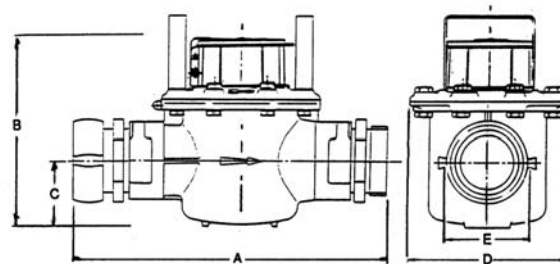
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### Dimensions and Net Weights

Meter Size	Dimensions (inches)					Weight (lbs.)
	A	B	C	D	E	
3"	14 3/8	8 13/16	3	7 3/8	3 1/2	17 1/4



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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