

HT4000 Fire Hydrant Meter

Size: 3"

Operation

Honeywell's HT4000 Hydrant Meter is designed for use where water flows from a fire hydrant. The HT4000 may also be used in temporary metering of well pumping, irrigation, construction, testing or similar non-permanent applications for water not intended for human consumption. 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 HT4000 Hydrant Meter complies with all performance requirements of the American Water Works Association Standard C701, as most recently revised.

Installation

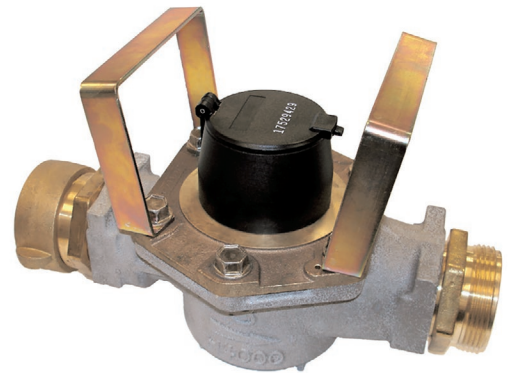
The meter should be installed on the fire hose coupling of a fire hydrant (or similar device), free from any foreign materials. Install the meter with direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in a horizontal or inclined position. The hydrant meter 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 intended for use with fire hydrants for temporary measurement of potable cold water (up to 120 °F / 50 °C) up to 150 PSI, for use on construction sites and similar locations. The meter will perform with accuracy registration of 100 % + 1 .5 % within the normal flows. Both pressure loss and accuracy tests are made before shipment. No adjustments need be made before installation.

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. 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 covered by the register. The main case and cover are assembled with an O-ring gasket and stainless steel bolts and washers.



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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

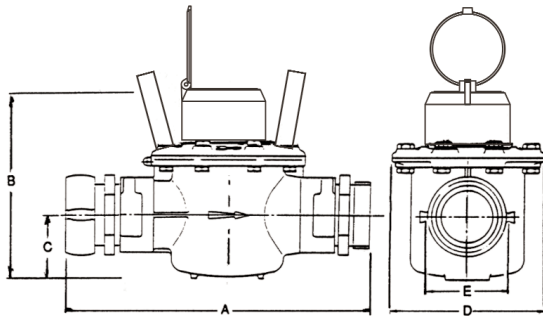
The measuring element with integral straightening vanes can be removed, repaired or replaced without removing the main case from the service line. Pretested and calibrated measuring elements with cover plates and registers are available for exchange or purchase.

Options

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 HT4000 may be ordered without a flow restrictor, but it shall not be covered under the warranty on defective materials and workmanship.

Dimensions and net weight

Meter Size	A	B	C	D	E	Weight	
	in	in	in	in	in	with connector	w/o connector
3"	14 3/8	8 13/16	3	7 3/8	3 1/2	17 1/4 lbs.	14 lbs.



Find Out More

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Materials

Main Case: Silicone Grade Aluminum
Top Cover: Lowlead Plate Bronze
Body O-Ring: Neoprene Rubber
Case Bolts: Stainless Steel
Measuring Element: Polyphenylene Oxide
Rotor: Polypropylene
Rotor Bushings: PTFE Compound
Rotor Thrust Bearings: Ceramic Jewel
Rotor Spindle: Tungsten Carbide
Hose Couplings: Bronze
Screen: Delrin Plastics
Restrictor Plate: Polypropylene
Retaining Ring: 302 Stainless Steel
Check Valve: Aluminum and Stainless Steel
Carry Handles: Plated Steel
Register: Direct reading sealed copper can
Register Housing: Polymer



m³



x 100 CuFt.



x 1000 US gal³

Performance 3"	US Values	(Metric Values)
Low Flow Range (95%-101.5%) – GPM / (m ³ /h)	2.5	0.5
Normal Flow Range (98.5%-101.5%) – GPM / (m ³ /h)	5 - 400	1 - 91
Continuous Flow GPM / (m ³ /h) – GPM / (m ³ /h)	300	(68)
Maximum Flow – GPM / (m ³ /h)	450	(102)
Operating Pressure – psi / (bar)	150	(10)
Operating Temperature – °F / (°C)	120	(50)

Smallest Value Indicated	
US Gallons	1
Cubic Feet	0.1
Cubic Meters	0.001 (1 Liter)
Register Capacity	
US Gallons (Millions)	999
Cubic Feet (Millions)	99
Cubic Meters (Thousands)	999