

OMNI™ H² Fire Hydrant Meter

Data Sheet

Description

The OMNI H² meter operation is based on advanced Floating Ball Technology (FBT). The operating range is from 10 to 350 gallons per minute (2.3 to 79.5 m³/h) with registration accuracy of 100% ± 1.5% of actual throughput.



Features

CONFORMANCE TO STANDARDS

The OMNI H² meter is based on advanced Floating Ball Technology. Each meter is performance tested to ensure compliance.

PERFORMANCE

The meter is intended for measuring water from a fire hydrant or other non-permanent installations. The meter comes equipped with standard fire hose swivel couplings and a register lid locking bar as standard equipment. The patented measurement principles of the OMNI H² meter assure enhanced accuracy ranges, an overall greater accuracy and a longer service life than any other comparable class meter produced. The OMNI H² meter has no restrictions as to sustained flow rates within its continuous operating range. The floating ball measurement technology allows for flows up to its rated maximum capacity without affecting undue wear or accuracy degradation when installed in any orientation.

CONSTRUCTION

The OMNI H² meter consists of two basic assemblies: the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with lockable bonnet. The maincase is made from cast aluminum with an acrylic polyurethane coating. Maincase features include: easily removable measuring chamber, unique chamber

seal to the maincase using a high pressure o-ring, and a convenient integral strainer. A variable orifice is positioned at the rear of the maincase which limits the maximum flow of water through the meter to protect it from overspeeding which could occur when the outflow exits to atmosphere.

OMNI ELECTRONIC REGISTER

The OMNI H² electronic register consists of a hermetically sealed register with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, Totalization and a Resettable Test Totalizer. OMNI register features include: AMR resolution units that are fully programmable, integral customer data logging capability, integral resettable accuracy testing feature compatible with the UniPro Testing Assistant Program, large easy-to-read LCD that displays both forward and reverse flow directions, and a 10-year battery life warranty.

MAGNETIC DRIVE

Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

MEASURING ELEMENT

The revolutionary thermoplastic, hydro dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without

friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI H² meter.

STRAINER

The OMNI H² with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy. A removable strainer cover permits easy access to the screen for routine maintenance.

MAINTENANCE

The OMNI H² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and / or strainer cover can be removed independently. Parts and / or a replacement measuring chamber may be utilized in the event repairs are needed. Replacement Measuring Chambers are available for the OMNI H² meters.

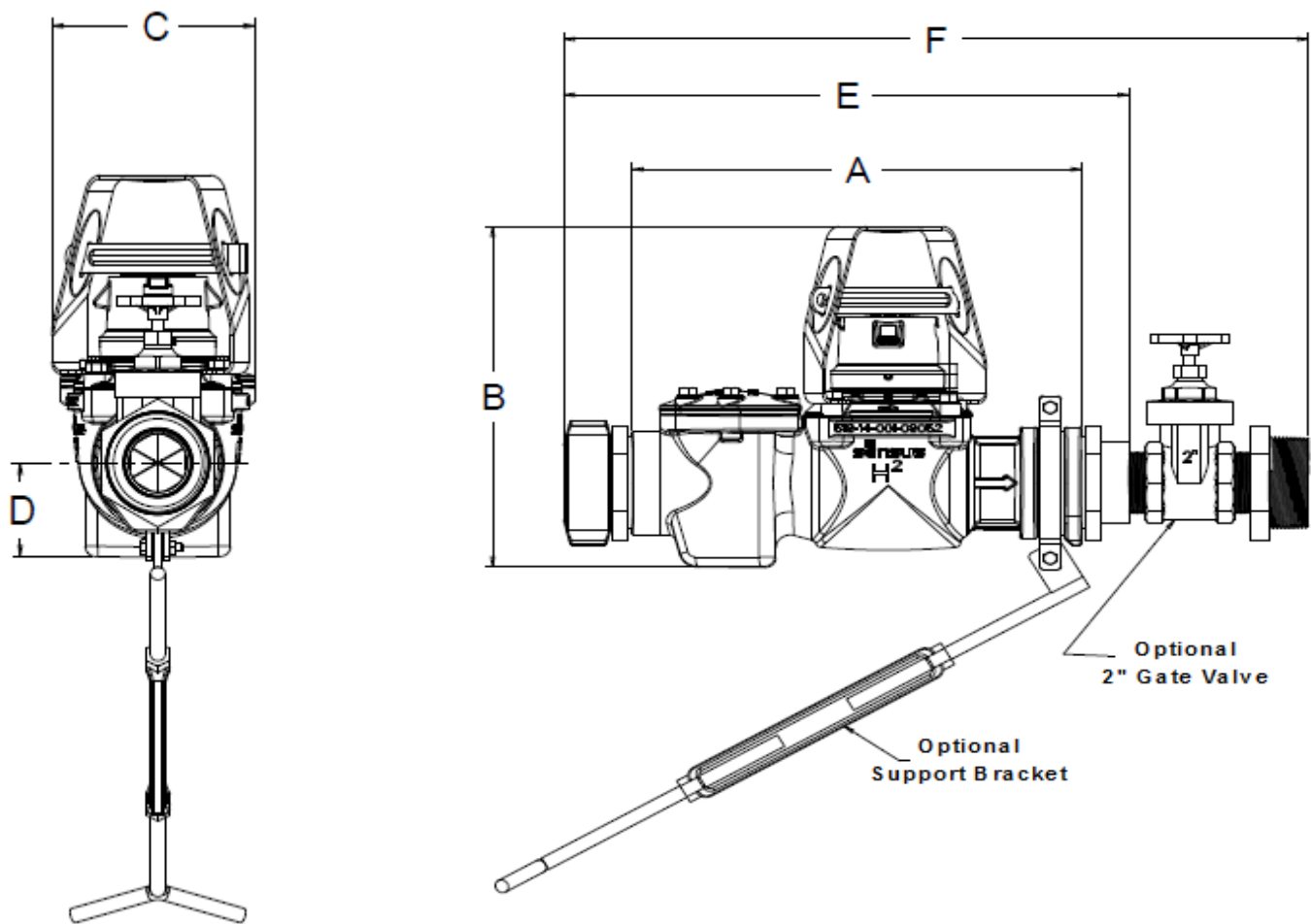
AMR / AMI SYSTEMS:

Meters and encoders are compatible with current Sensus AMR/AMI systems.

GUARANTEE:

Sensus OMNI H² Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details or see Bulletin G-500.

OMNI H² Fire Hydrant Meter



DIMENSIONS

Meter and Pipe Size	A	B	C	D	E	F
3" DN 80 mm	16" 406.4 mm	13" 330.2 mm	7" 178 mm	3.25" 82.6 mm	19.5" 495 mm	25.6" 650 mm

SPECIFICATIONS

SERVICE	Measurement of reclaim water or non-potable water. Operating temperature range of 33°F (0.6°C) - 150°F (65.6°C)
OPERATING RANGE (100% ± 1.5%)	10 - 350 gpm (2.3 - 79.5 m³/hr)
MAXIMUM INTERMITTENT OPERATION	600 gpm (136.3 m³/hr)
PRESSURE LOSS	75 psi at 350 gpm
MAXIMUM OPERATING PRESSURE	150 psi (10.3 bar)
CONNECTIONS	Couplings
HOSE COUPLINGS	2-1/2" - 7-1/2" NST Threads (78P - 3.4 mm) (National Standard Fire Hose Coupling thread) furnished unless otherwise specified. Complete thread specifications must be furnished for special fire hose fittings.
NET WEIGHT	22 lbs. (9.98 kg)
SHIPPING WEIGHT	26 lbs. (11.79 kg)
REGISTER	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp.Gal / Acre Ft.) Programmable AMR/AMI reading 10 year battery life warranty
MATERIALS	Maincase: Cast Aluminum Measuring Chamber: Thermoplastic Rotor "Floating Ball": Thermoplastic Radial Bearings: Hybrid Thermoplastic Thrust Bearings: Sapphire/Ceramic Jewel Magnets: Ceramic Magnet Strainer Screen: Stainless Steel Strainer Cover: Cast Aluminum
OPTIONS	Available with: <ul style="list-style-type: none"> • 2" Gate valve on outlet end • Techno-check reverse flow check valve • Adjustable support rod assembly
FLOW RESTRICTIONS	Limits flow through meter to 600 gpm at 150 psi (136.3 m³/h at 10.3 bar)

SPECIFICATIONS FOR SPECIAL FIRE HOSE COUPLING THREADS

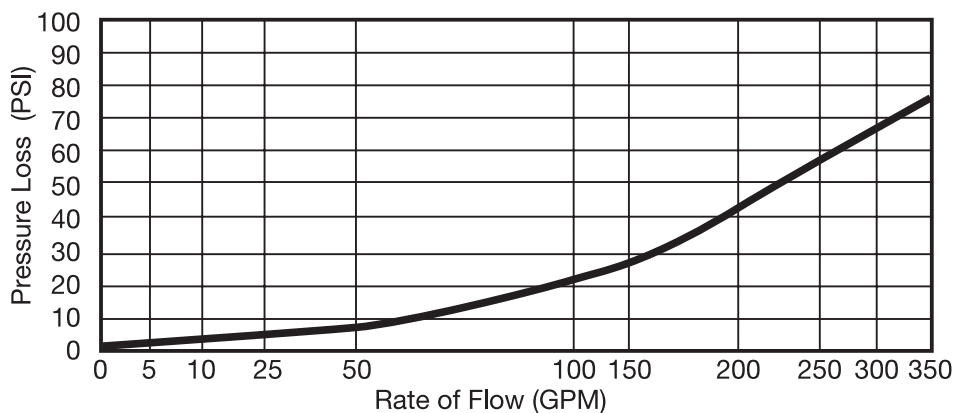
See page 2 of H² configurator.

TECHNO-CHECK VALVE

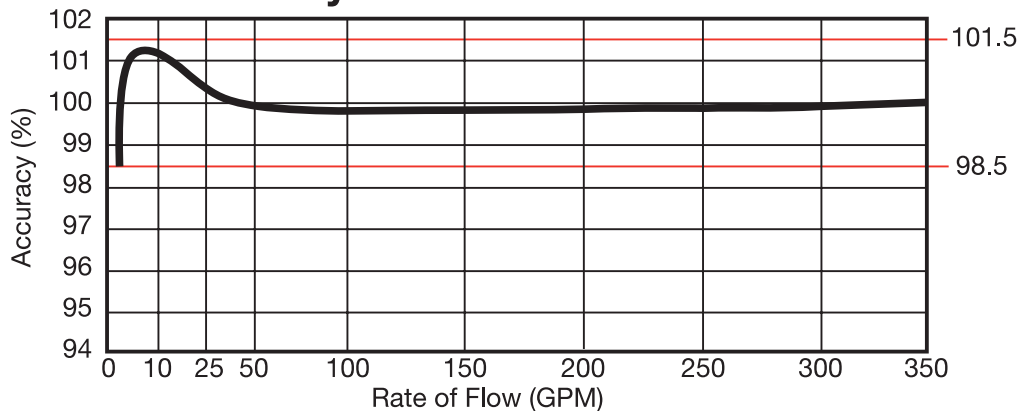
The Techno-Check Valve is a reverse flow check valve for the OMNI H² fire hydrant meter. This is an optional feature that should be identified as a requirement at the time the order is placed. Techno-check Valves must be installed at the factory.

OMNI H² Headloss Curves

H² Pressure Loss Curve



H² Accuracy Curve



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