



OMNI+™ Fireline (F²) Water Meter

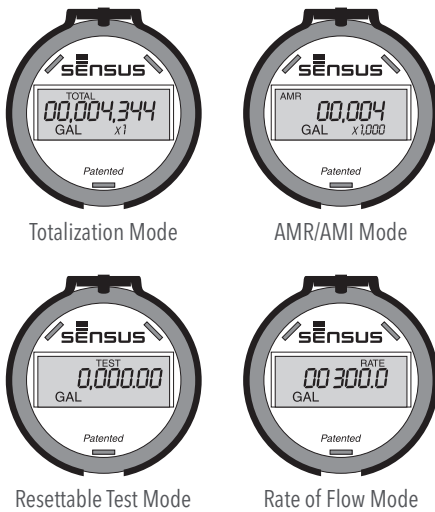
4", 6", 8" and 10"

The OMNI+ F² meter operation is based on advanced Floating Ball Technology (FBT).

Performance

The patented measurement principles of the OMNI+ F² meter ensure greater accuracy, expanded accuracy range and longer service life than any other comparable class meter. The OMNI+ F² meter has no restrictions on sustained flow rates within its continuous range. The floating ball measurement technology allows installation in any orientation and flows up to maximum rated capacity without undue wear or accuracy degradation.

ELECTRONIC REGISTER DISPLAY DIAGRAM



Construction

The OMNI+ F² 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 protective bonnet. The maincase is made from industry proven Ductile Iron with an NSF approved epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer with optional drain/debris-flushing ports.

OMNI Electronic Register

The OMNI+ F² electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The large character LCD displays AMR, totalization, rate of flow and a resettable test totalizer. OMNI register features include AMR resolution units that are fully programmable, fully programmable pulse output frequency, integral customer data logging capability and integral resettable accuracy testing feature compatible with FieldLogic and Sensus flow verification software. The large, easy-to-read LCD also displays both forward and reverse flow directions. The OMNI+ F² electronic register has a 10-year battery life guarantee.

Conformance to Standards

The OMNI+ F² meter meets and far exceeds the most recent revision of AWWA Standard C703 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI+ meters are NSF/ANSI Standard 61, Annex F and G approved. The OMNI+ F² meter is UL (Underwriters Laboratories) Listed and FM (Factory Mutual) approved for use on fire protection and domestic water applications.

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 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+ F² meter.

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Strainer

The OMNI+ F² meter includes the Sensus designed "V" shaped UL Listed/FM approved strainer which utilizes a stainless steel screen along with Floating Ball Technology (FBT) to create a design that provides greatly improved accuracy even in difficult settings. A removable strainer cover permits easy access to the screen for routine maintenance. Strainer drain ports allow for easy discharging of debris without the need to remove the cover.

Data Logging

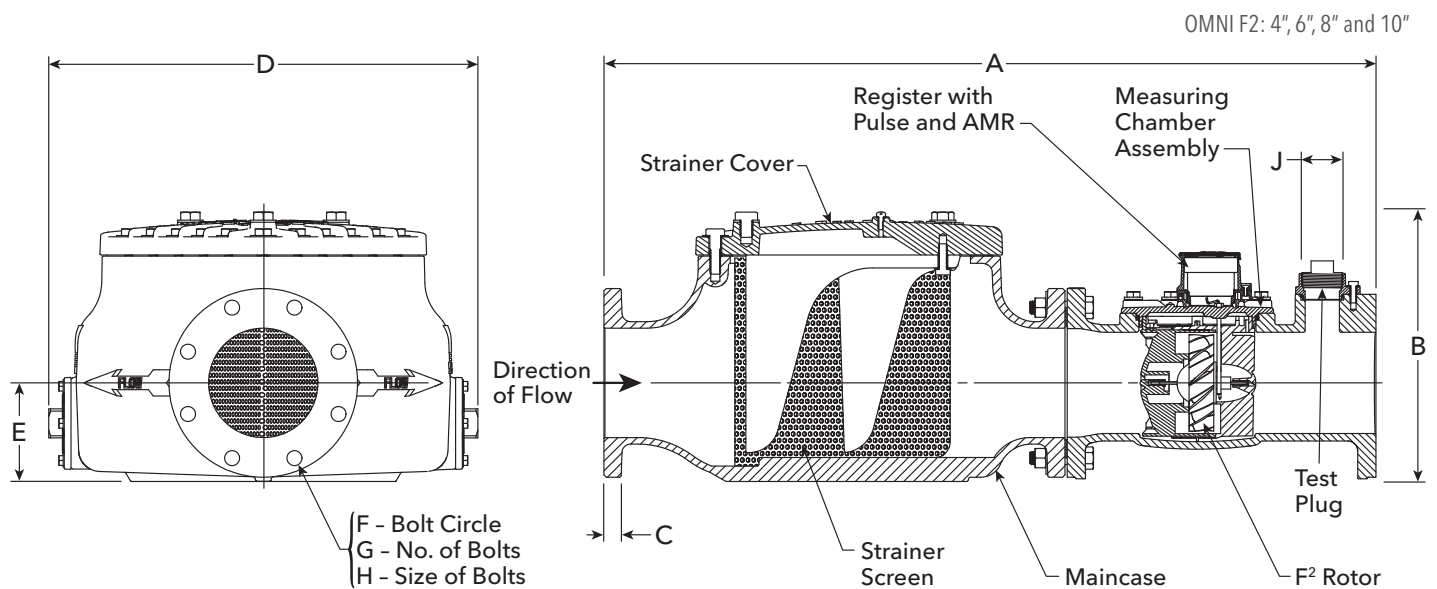
The OMNI+ F² meter logs 180 days of hourly consumption data.

AMR/AMI Systems

Meters and Electronic Registers are compatible with current Sensus AMR/AMI systems and other AMI communication systems that use the Sensus UI1203 protocol.

Maintenance

The OMNI+ F² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and/or strainer cover can be removed independently. Replacement parts or complete measuring chambers are available for repairs.



DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	A	B	C	D	E	F	G	H	J	Net Weight	Shipping Weight	Standard Fireline*
4" DN 100 mm	1.5 gpm .34 m ³ /hr	1200 gpm 227 m ³ /hr	Flanged	33" 838 mm	13-11/16" 348 mm	15/16" 24 mm	22.25" 515 mm	4-3/4" 121 mm	7-1/2" 191 mm	8	5/8" 16 mm	2" 51 mm	212 lb 96 kg	252 lb 114 kg	51-7/8" 1318 mm
6" DN 150 mm	3 gpm .681 m ³ /hr	2000 gpm 454 m ³ /hr	Flanged	45" 1143 mm	15-3/4" 400 mm	15/16" 24 mm	25.00" 635 mm	5-3/4" 146 mm	9-1/2" 241 mm	8	3/4" 19 mm	2" 51 mm	394 lb 179 kg	449 lb 204 kg	67-5/8" 1718 mm
8" DN 200 mm	4 gpm .91 m ³ /hr	3500 gpm 795 m ³ /hr	Flanged	53" 1346 mm	18-1/2" 470 mm	11/16" 17 mm	31.00" 788 mm	6-3/4" 171 mm	11-3/4" 298 mm	8	3/4" 19 mm	2" 51 mm	736 lb 334 kg	786 lb 357 kg	77" 1956 mm
10" DN 250 mm	5 gpm 1.1 m ³ /hr	5500 gpm 1249 m ³ /hr	Flanged	68" 1727 mm	22-1/4" 565 mm	11/16" 17 mm	37.50" 953 mm	8-1/2" 216 mm	14-1/4" 362 mm	12	7/8" 22 mm	2" 51 mm	1155 lb 524 kg	1215 lb 551 kg	90" 2286 mm

*Standard Fireline lay length with optional spool piece added.

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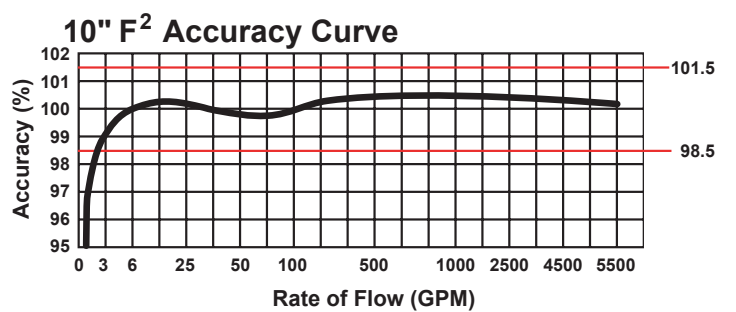
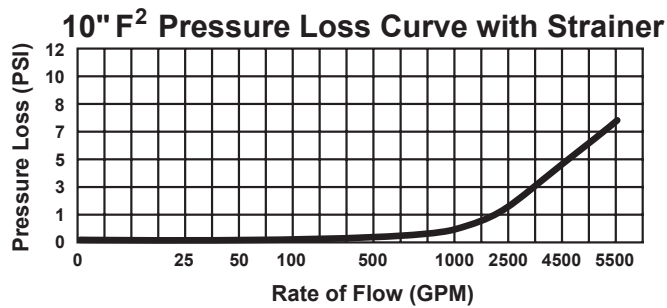
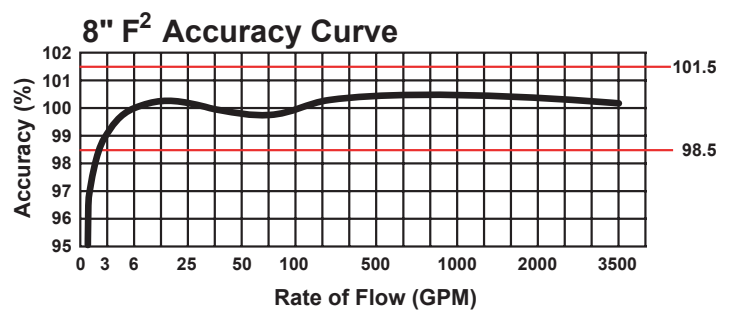
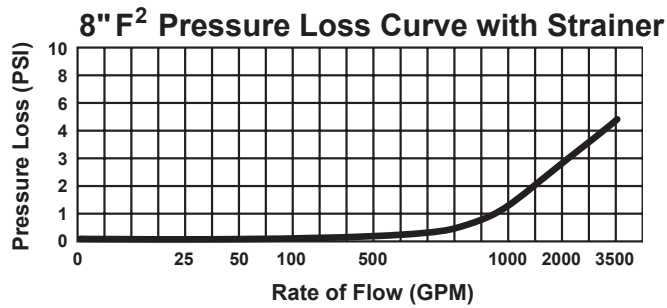
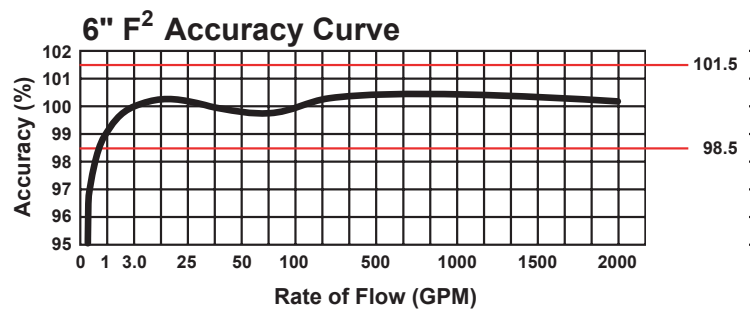
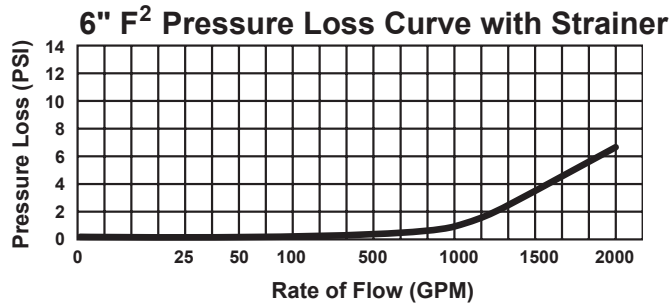
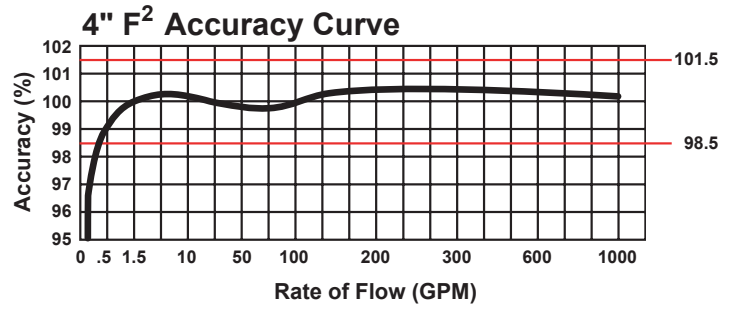
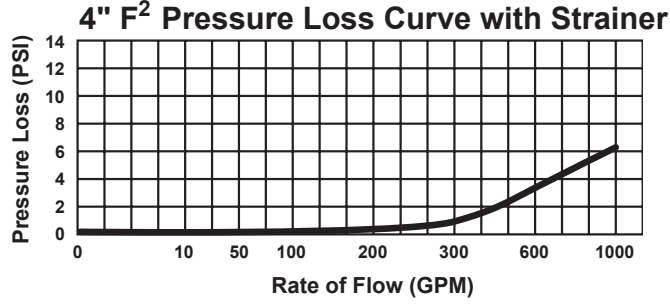
SPECIFICATIONS

Service	Measurement of potable and reclaim water. IP68 Rated. Storage temperature: -22 °F (-30 °C) to 155 °F (68.3 °C)	Operating temperatures: Air: -22 °F (-30 °C) to 150 °F (65.6 °C) Water: 33 °F (0.6 °C) to 80 °F (26.7 °C)		
Operating Range (100% ± 1.5%)	4": 1.5 - 1000 GPM (0.34 - 227 m ³ /hr) 6": 3 - 2000 GPM (0.68 - 454 m ³ /hr)	8": 4 - 3500 GPM (0.91 - 795 m ³ /hr)	10": 5 - 5500 GPM (1.1 - 1249 m ³ /hr)	
Low flow (95% - 101.5%)	4": 0.75 GPM (0.17 m ³ /hr) 6": 1.5 GPM (0.34 m ³ /hr)	8": 2.5 GPM (0.57 m ³ /hr)	10": 3.5 GPM (0.79 m ³ /hr)	
UL Minimum Flow	8": 97% @ 3 GPM (0.68 m ³ /hr) 10": 97% @ 4 GPM (0.91 m ³ /hr)			
Maximum Continuous Operation	4": 1000 GPM (227 m ³ /hr) 6": 2000 GPM (454 m ³ /hr)	8": 3500 GPM (795 m ³ /hr)	10": 5500 GPM (1249 m ³ /hr)	
Maximum Intermittent Operation	4": 1250 GPM (284 m ³ /hr) 6": 2500 GPM (568 m ³ /hr)	8": 4700 GPM (1067 m ³ /hr)	10": 7000 GPM (1590 m ³ /hr)	
Pressure Loss	4": 6.4 psi @ 1000 GPM (0.44 bar @ 227 m ³ /hr) 6": 6.7 psi @ 2000 GPM (0.46 bar @ 454 m ³ /hr)	8": 5 psi @ 3500 GPM (0.34 bar @ 795 m ³ /hr)	10": 7 psi @ 5500 GPM (0.48 bar @ 1249 m ³ /hr)	
Maximum Operating Pressure	175 PSI (12 bar)			
Flange Connections	U.S. ANSI B16.1 / AWWA Class 125			
Test Ports	NPT			
Register	Fully electronic sealed register with programmable registration (Gal. / Cu. Ft. / Cu. Mtr. / Imp. Gal. / Acre Ft.)	Programmable AMR/AMI reading and pulse outputs Guaranteed 10-year battery life		
NSF Approved Materials	Maincase: Measuring Chamber: Rotor "Floating Ball": Radial Bearings: Thrust Bearings:	Coated Ductile Iron Thermoplastic Thermoplastic Hybrid Thermoplastic Sapphire/Ceramic Jewel	Magnets: Strainer Screen: Strainer Cover: Test Plug:	Ceramic Stainless Steel Coated Ductile Iron Stainless Steel

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Headloss Curves



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