



OMNI+ Turbo Steel (T²S) Water Meter

1-1/2", 2", and 3"

The OMNI™+ T²S meter operation is based on advanced Floating Ball Technology (FBT).

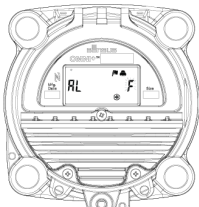
OMNI™+ REGISTER DISPLAY



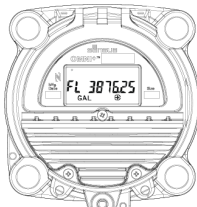
Segment Test View



Totalizer View



Notification View



Flow Rate View

Conformance To Standards

The OMNI+ T²S meter meets and far exceeds the most recent revision of AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF/ANSI Standard 61, Annex F and G approved.

Performance

The patented measurement principles of the OMNI+ T²S meter assure enhanced accuracy ranges, an overall greater accuracy, and a longer service life than any other comparable class meter produced. The OMNI+ T²S 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+ T²S 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 304 Stainless Steel. 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.

OMNI+ Electronic Register

The OMNI+ electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The OMNI+ register features a programmable totalizer registration, an optional digital pulse signal, AMI/ AMR reading digits, and a resettable test totalizer. The large, easy-to-read LCD also displays both forward and reverse flow directions. The OMNI+ tamper-proof security cover can be positioned in any of 270 degrees of rotation, with indexing points at each of the 90-degree customary register viewing positions.

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+ T²S meter.

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Strainer

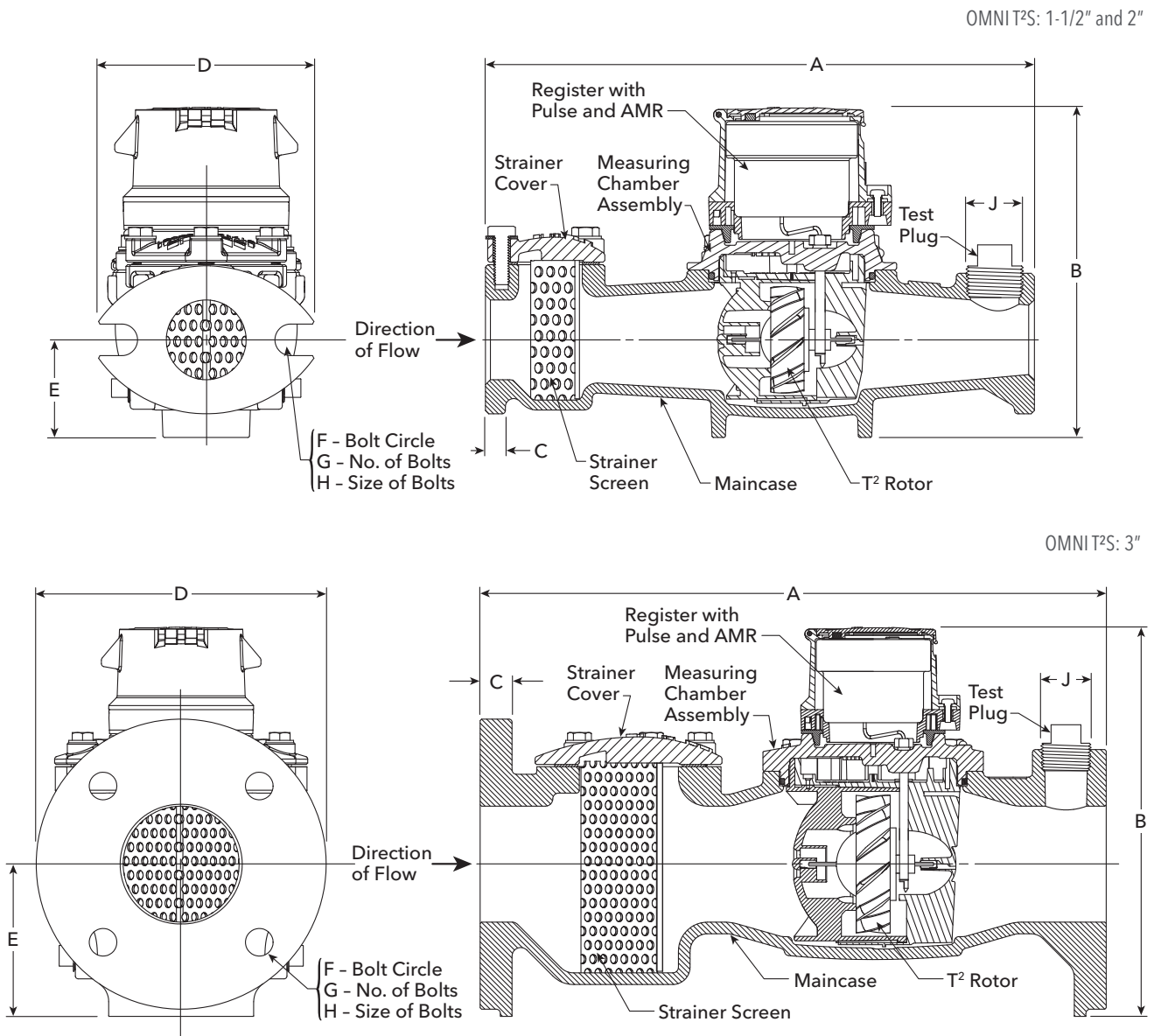
The OMNI+ T²S with the "V" shaped integral strainer using a stainless steel screen along with Floating Ball Technology (FBT) create a design that gives far improved accuracy even in those once thought questionable settings. A removable strainer cover permits easy access to the screen for routine maintenance.

AMR / AMI Systems

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

Maintenance

The OMNI+ T²S 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 Exchange are available for the OMNI+ T²S meters and may also be utilized for retrofitting to competitive meters to achieve increased accuracy and extended service life.



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DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	A	B	C	D	E	F	G	H	J	Net Weight	Shipping Weight
1-1/2" (DN 40 mm)	13" (330 mm)	7-7/8" (200 mm)	15/16" (24 mm)	5-1/8" (130 mm)	2-5/16" (59 mm)	4" (102 mm)	2	5/8" (16 mm)	1" (25 mm)	18.5 lbs. 8.4 kg.	23.1 lbs. 10.4 kg.
2" (DN 50 mm)	17" (432 mm)	7-7/8" (200 mm)	1" (25 mm)	5-3/4" (146 mm)	2-5/16" (59 mm)	4-1/2" (114 mm)	2	3/4" (19 mm)	1-1/2" (40 mm)	25 lbs. 11.3 kg.	29.5 lbs. 13.4 kg.
3" (DN 80 mm)	19" (483 mm)	8-3/4" (222 mm)	3/4" (19 mm)	7-7/8" (200 mm)	4-1/8" (105 mm)	6" (153 mm)	4	5/8" (16 mm)	2" (50 mm)	52.5 lbs. 22.8 kg.	57 lbs. 25.9 kg.

SPECIFICATIONS

Service	Measurement of potable and reclaim water.		Operating temperature range of 33 °F (56 °C) - 150 °F (65.6 °C)	
Operating Range (100% ± 1.5%)	1-1/2": 1.25 - 200 GPM (0.28 - 45 m ³ /hr) 2": 1.5 - 250 GPM (0.34 - 57 m ³ /hr) 3": 2.5 - 650 GPM (0.57 - 148 m ³ /hr)			
Low flow (95% - 101.5%)	1-1/2": 0.75 GPM (0.17 m ³ /hr) 2": 1.0 GPM (0.23 m ³ /hr) 3": 1.5 GPM (0.34 m ³ /hr)			
Maximum Continuous Operation	1-1/2": 160 GPM (36 m ³ /hr) 2": 200 GPM (45 m ³ /hr) 3": 500 GPM (114 m ³ /hr)			
Maximum Intermittent Operation	1-1/2": 200 GPM (45 m ³ /hr) 2": 250 GPM (57 m ³ /hr) 3": 650 GPM (148 m ³ /hr)			
Pressure Loss	1-1/2": 6.9 psi @ 160 GPM (0.48 bar @ 36 m ³ /hr) 2": 7.0 psi @ 200 GPM (0.48 bar @ 45 m ³ /hr) 3": 5.1 psi @ 500 GPM (0.35 bar @ 114 m ³ /hr)			
Maximum Operating Pressure	200 PSI (13.8 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:	304 Stainless Steel	Magnets:	Ceramic
	Measuring Chamber:	Thermoplastic	Strainer Screen:	Stainless Steel
	Rotor "Floating Ball":	Thermoplastic	Strainer Cover:	304 Stainless Steel
	Radial Bearings:	Hybrid Thermoplastic	Test Plug:	304 Stainless Steel
	Thrust Bearings:	Sapphire/Ceramic Jewel		

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Headloss Curves

