

SR Low Lead Meters

Displacement Type Magnetic Drive Cold Water Meters

5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes

DESCRIPTION

Applications: Measurement of cold water where flow is in one direction; in residential, commercial and industrial services.

Conformance To Standards: Sensus SR Low Lead Water Meters meet the requirements of NSF Standard 61 Annex G and comply with ANSI/AWWA Standard C700-latest revision. Each meter is tested to insure compliance with AWWA standards.

Construction: Sensus SR Low Lead Water Meters consist of three basic components: maincase; measuring chamber; and permanently, hermetically-sealed register. Maincases are made of Bismuth Alloy CDA89836 or EnviroBrass™ II C89520 alloy with externally threaded spuds. Measuring chambers are of Rocksyn®, a corrosion-resistant thermoplastic material.

Maincase bottom plates are available in Bismuth Alloy or EnviroBrass II or, if frost protection is desired, in cast iron or synthetic polymer. Simplicity of design and precise machining of components allows interchangeability of parts among like-size meters to provide ease of maintenance. The register, measuring chamber and strainer can be removed without removing the maincase from the installation.

Sealed Register: Permanently, hermetically sealed; proven magnetic drive design; with integral tamper-proof locking device. Guaranteed for 25 years. The standard register includes a straight-reading, odometer-type totalization display; a 360° test circle with center sweep hand; and a low flow (leak) detector. Gears are self-lubricating, molded plastic for long life and minimum friction. The hermetic sealing of the register eliminates dirt and moisture, tampering, and lens fogging problems.

No change gears are required for accuracy calibration. Encoded-type remote reading systems are available for all SR Low Lead Water Meters. (See back of sheet for additional information.)

Tamperproof Features: Removing the register to obtain free water is prevented by a locking system inside the meter. Removing the register requires a special tool that is available only to water utilities.

Magnetic Drive: The unique design of the direct magnetic drive is a positive, reliable, dependable drive coupling, proven in millions of SR Water Meters.

Operation: Water flows through the meter's strainer and into the measuring chamber where it operates the piston. The piston, which moves freely, oscillates around a central hub, guided by the rubber-coated division plate.



5/8" SR Low Lead AMR/AMI (pictured) 3/4" and 1" available



5/8" AMR/AMI System Dials Shown

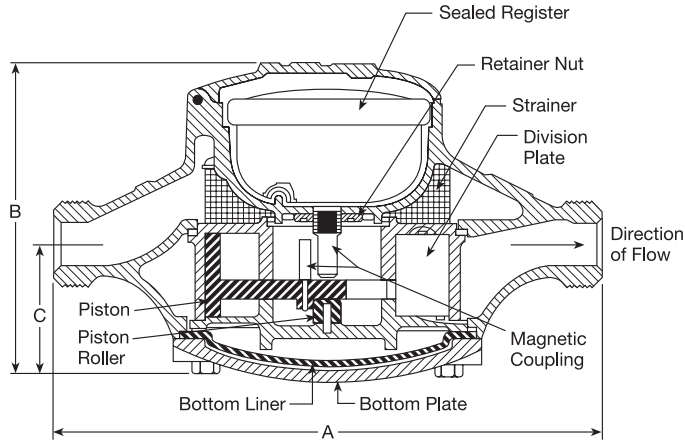
A drive magnet, incorporated in the piston, rotates around the outside of the hermetically sealed register well and magnetically drives the "follower" magnet sealed within the well. The "follower" magnet drives a crank connected to the register gear train, which translates the number of piston oscillations into volume totalization units displayed on the register face.

Maintenance: Sensus SR Low Lead Water Meters are engineered to provide long-term value and virtually maintenance-free operation because of their design simplicity and interchangeability of modules.

Connections: Tailpieces/Unions for installing the meters on a variety of pipe types and sizes are available as an option.

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

Guarantee: Sensus SR® Water Meters are backed by "The Sensus Guarantee." Ask your Sensus representative for details, or see Bulletin G-500.



DIMENSIONS AND NET WEIGHTS

Meter Size	A	B	B ²	C	Width	Net Weight ¹
5/8" (DN 15mm)	7-1/2" (190mm)	4-9/16" (115mm)	6-1/8" (155mm)	2-1/8" (55mm)	4-5/8" (120mm)	5 lb. 12 oz. (2.6 kg)
5/8" x 3/4" (DN 15mm x 33mm)	7-1/2" (190mm)	4-9/16" (115mm)	6-1/8" (155mm)	2-1/8" (55mm)	4-5/8" (120mm)	5 lb. 15 oz. (2.7 kg)
3/4" (DN 20mm)	9" (230mm)	5-1/8" (130mm)	6-3/4" (171mm)	2-9/32" (60mm)	5-1/4" (135mm)	8 lb. (3.6 kg)
3/4" short (DN 20mm)	7-1/2" (190mm)	5-1/8" (130mm)	6-3/4" (171mm)	2-9/32" (60mm)	5-1/4" (135mm)	8 lb. (3.6 kg)
1" (DN 25mm)	10-3/4" (275mm)	5-3/4" (145mm)	7-3/8" (187mm)	2-5/8" (70mm)	6-13/16" (175mm)	12 lb. (5.5 kg)

¹ With Rocksyn measuring chamber.
² The measurement to the top of a TR/PL on an ICE register.

SPECIFICATIONS

SERVICE	Measurement of cold water with flow in only one direction.
NORMAL OPERATING FLOW RANGE ¹	5/8" (DN 15mm) size: 1 to 20 gal/min. (0.25 to 4.5 m ³ /h) 3/4" (DN 20mm) size: 2 to 30 gal/min. (0.45 to 7.0 m ³ /h) 1" (DN 25mm) size: 3 to 50 gal/min. (0.7 to 11.0 m ³ /h)
ACCURACY	100% ± 1.5% of actual thruput
LOW FLOW REGISTRATION	5/8" (DN 15mm) size: 95% at 1/4 gal/min. (0.96 m ³ /h) 3/4" (DN 20mm) size: 95% at 1/2 gal/min. (0.10 m ³ /h) 1" (DN 25mm) size: 95% at 3/4 gal/min. (0.15 m ³ /h)
MAXIMUM PRESSURE LOSS	5/8" (DN 15mm) size: 10.8 psi at 20 gal/min. (0.7 bar at 4.5 m ³ /h) 3/4" (DN 20mm) size: 11.0 psi at 30 gal/min. (0.8 bar at 7.0 m ³ /h) 1" (DN 25mm) size: 10.9 psi at 50 gal/min. (0.8 bar at 11.0 m ³ /h)
MAXIMUM OPERATING PRESSURE	150 psi (10.0 bar)
MEASURING ELEMENT	Oscillating piston
REGISTER	Straight reading, hermetically sealed, magnetic drive. Remote reading unit optional.
REGISTRATION	5/8", 3/4", 1": 10 gallons, 1 cubic foot, 0.01 m ³ or 0.1 m ³ /sweep hand revolution. 5/8", 3/4", 1": odometer wheels (10,000,000 gallons, 1,000,000 cubic feet or 100,000 m ³)

METER CONNECTIONS ²	5/8" (DN 15mm) size: 3/4" (26.44mm) threads 5/8" x 3/4" (DN 15mm x 33mm) size: 1" (33.25) threads 3/4" (DN 20mm) size: 1" (33.25mm) threads 3/4" x 1" (DN 20mm x 42mm) size: 1-1/4" (41.91mm) threads 1" x 1-1/4" (DN 25mm x 48mm) size: 1-1/2" (47.75mm) threads (All threads are straight pipe, external type, conforming to ANSI B1.20.1, or ISO R228, if specified.)
MATERIALS ³	Maincase—EnviroBrass II C89520 alloy or Bismuth Alloy CDA89836 Measuring chamber—Rocksyn Bottom plate—Bismuth Alloy, EnviroBrass II, cast iron or synthetic polymer Magnets—Alnico Trim—Stainless Steel Casing bolts—Stainless Steel Strainer—Thermoplastic

¹ Maximum rates listed are for intermittent flow only. Maximum continuous flow rates as specified by AWWA are:
 5/8" (DN 15mm)—10 gal/min (2.3 m³/h)
 3/4" (DN 20mm)—15 gal/min (3.4 m³/h)
 1" (DN 25mm)—25 gal/min (5.7 m³/h)
² Unless otherwise noted, 5/8" size and 5/8" x 3/4" characteristics are identical. 5/8" x 3/4" designates 5/8" with 3/4" connection thread. Metric designation is the normal bore x the outside diameter.
³ Synthetic polymer maincase bottom plate available on 5/8" meter only.

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