

SR II® 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 only; in residential, commercial and industrial services.

Conformance To Standards: Sensus SR II Water Meters comply with ANSI/AWWA Standard C700-latest revision. Each meter is tested to insure compliance.

Construction: Sensus SR II Water Meters consist of three basic components: maincase; measuring chamber; and sealed register. Maincases are of bronze with externally-threaded spuds. Registers are housed in a bronze bonnet, a bonnet of synthetic polymer is available as an option. Measuring chambers are of Rocksyn® a corrosion-resistant, tailored thermoplastic material formulated for long-term performance and especially suitable for aggressive water conditions. Maincase bottom plates are available in bronze or, if frost protection is desired, in cast iron or synthetic polymer¹.

Sealed Register: Hermetically sealed; proven magnetic drive design eliminates dirt and moisture contamination, tampering and lens fogging problems. 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 selflubricating, molded plastic for long life and minimum friction.

No change gears are required for accuracy calibration. Encodertype remote reading systems are available for all SR II Water Meters. (See other side of sheet for additional information.)

Tamperproof Features: A unique locking system prevents customer removal of the register to obtain free water. A special tool, available only to water utilities, is required to remove the register bonnet.

Magnetic Drive: The SR II features a hydrodynamically cushioned design that eliminates premature wear of components. The meter utilizes a patented positive, reliable drive coupling. The high-strength magnets used will eliminate "drive slip" in normal use and also provide adequate strength to drive remote register units.

Operation: Water flows through the meter's strainer and into the measuring chamber where it drives the piston. The hydrodynamically balanced piston oscillates around a central hub, guided by the division plate.

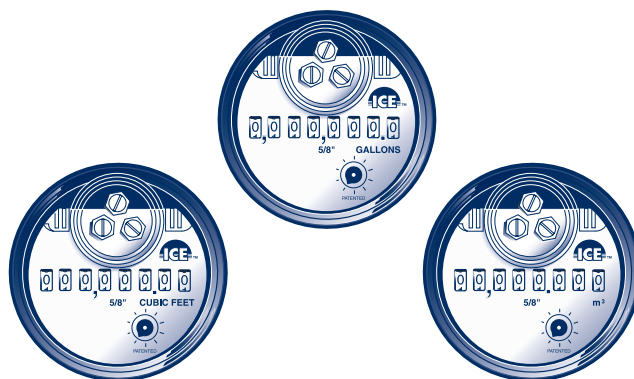
A drive magnet transmits the motion of the piston to a driven magnet located within the hermetically sealed register. The driven magnet is connected to the register gear train. It reduces the piston oscillations into volume totalization units displayed on the register dial face.



5/8" (DN 15mm) SR II®

1" (DN 25mm) SR II®

3/4" (DN 20mm) SR II®



5/8" AMR System Dials Shown

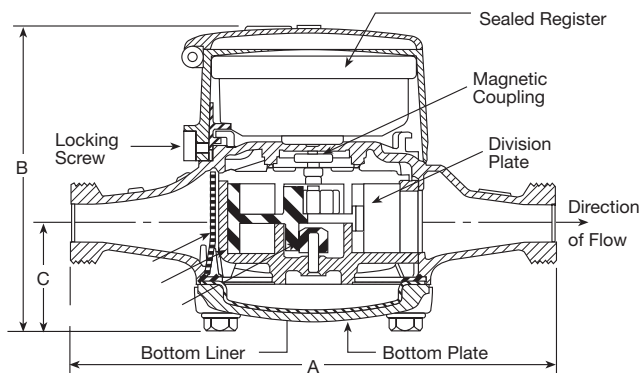
Maintenance: Sensus SR II Water Meters are engineered to provide long-term value and virtually maintenance-free operation. Simplicity of design and precise machining of components allows interchangeability of parts of like-size meters, reduced parts inventory requirements, and ease of maintenance. The register can be removed without relieving the water pressure or removing the maincase from the installation.

As an alternative to utility repair, Sensus offers maintenance programs to provide factory reconditioning of the maincase and replacement components at low fixed prices. See bulletin PD-299.

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

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

Guarantee: Sensus SR II 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	C	Width	Net Weight ¹
5/8" (DN 15mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.3 lb. (1.97 kg)
5/8" x 3/4" (DN 15mm x 33mm)	7-1/2" (190mm)	5.0" (127mm)	1-3/4" (44mm)	3-7/8" (98mm)	4.4 lb. (2.0 kg)
3/4" (DN 20mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.4 lb. (2.90 kg)
3/4" x 1" (DN 20mm x 42mm)	9" (229mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.6 lb. (2.99 kg)
3/4" short (DN 20mm)	7-1/2" (190mm)	5-1/2" (140mm)	2-3/16" (56mm)	4-1/2" (114mm)	6.2 lb. (2.81 kg)
1" (DN 25mm)	10-3/4" (273mm)	6-9/16" (167mm)	2-7/16" (62mm)	6-1/2" (165mm)	11.9 lb. (5.4 kg)

¹ With Rocksyn® measuring chamber.

SPECIFICATIONS

SERVICE	Measurement of cold water with flow in only one direction.
NORMAL OPERATING FLOW RANGE ²	5/8" (DN 15mm) size: 1 to 20 gal/min. (0.25 to 4.5 m³/h) 3/4" (DN 20mm) size: 2 to 30 gal/min. (0.45 to 7.0 m³/h) 1" (DN 25mm) size: 3 to 50 gal/min. (0.7 to 11.0 m³/h)
ACCURACY	100% ± 1.5% of actual thruput
LOW FLOW REGISTRATION	5/8" size: 95% at 1/4 gal/min. (0.06 m³/h) 3/4" size: 95% at 1/2 gal/min. (0.10 m³/h) 1" size: 95% at 3/4 gal/min. (0.15 m³/h)
MAXIMUM PRESSURE LOSS	5/8" size: 7.0 psi at 20 gal/min. (0.5 bar at 4.5 m³/h) 3/4" size: 9.0 psi at 30 gal/min. (0.6 bar at 7.0 m³/h) 1" size: 7.3 psi at 50 gal/min. (0.5 bar at 11.0 m³/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	10 gallons, 1 cubic foot, or 0.01 m³ or 0.1 m³/sweep hand revolution. 10,000,000 gallons, 1,000,000 cubic feet or 100,000 m³ capacity. 6 odometer wheels.

METER CONNECTIONS ³	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" (33.25) threads 3/4" x 1" (DN 20mm x 42mm) size: 1-1/4" (41.91mm) threads 1" (DN 25mm) size: 1-1/4" (41.91mm) threads (All threads are straight pipe, external type, conforming to ANSI B1.20.1 or ISO R228, if specified.)
MATERIALS	Maincase—Bronze Register box—Bronze (standard), synthetic polymer (optional) Measuring chamber—Rocksyn® Bottom plate—Bronze, cast iron or synthetic polymer ¹ Magnets—Plasticized material Casing bolts—Stainless steel Strainer—Synthetic polymer

¹ Synthetic polymer maincase bottom plate available on 5/8" meter only.

² 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)

³ 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.) Also unless otherwise noted 3/4" size and 3/4" x 1" size characteristics are identical. (3/4" x 1" designates 3/4" with 1" connection thread.) Metric designation is the normal bore x the outside diameter.