

# accuSTREAM™ Meters

Displacement Type Magnetic Drive Cold Water Meters

## Description

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

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



## Features

### CONFORMANCE TO STANDARDS

Sensus accuSTREAM water meters meet the requirements of NSF/ANSI Standard 61 Annex F and G and comply with AWWA Standard C710 latest revision. Each meter is tested to insure compliance with AWWA standards.

### CONSTRUCTION

Sensus accuSTREAM water meters consist of three basic components: maincase; measuring chamber; and sealed register. Maincases (including bottom plate) are made of composite material with externally-threaded spuds. Registers are housed in a bonnet of synthetic polymer. Measuring chambers are of Rocksyn®, a corrosion-resistant, tailored thermoplastic material formulated for long-term performance and especially suitable for aggressive water conditions. The accuSTREAM can be installed horizontal.

### 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 self-lubricating, molded plastic for long life and minimum friction.

No change gears are required for accuracy calibration. An electronic encoded register is available for all accuSTREAM meters. The LCD identifies the AMR digit (with a bar above the digit). Rate of flow is viewable by closing and opening the lid. The display will remain on for 30 seconds then will turn off. Close and re-open the lid to view the display.

### 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 assembly.

### MAGNETIC DRIVE

The accuSTREAM 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 sensor located within the hermetically sealed register. The sensor is connected to the integrated circuit design that encodes the rotations of the measuring chamber. It reduces the piston oscillations into volume totalization units displayed on the register face.

### MAINTENANCE

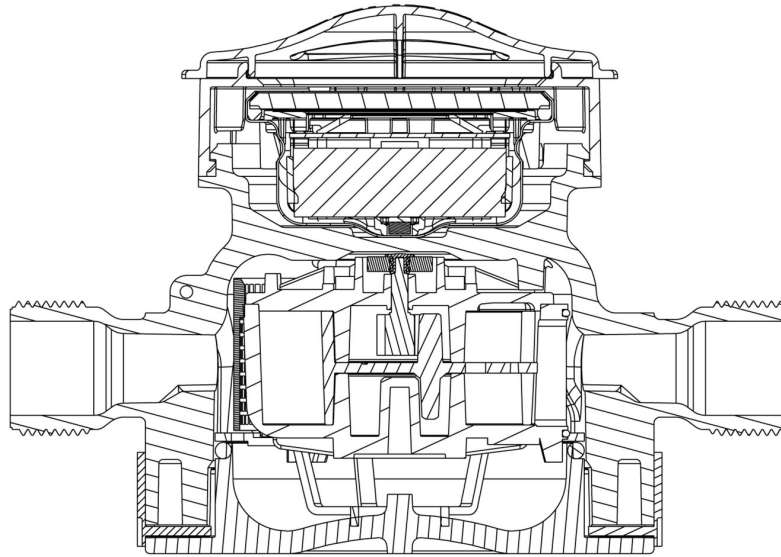
Sensus accuSTREAM water meters are engineered to provide long-term value and virtually maintenance-free operation. Simplicity of components allows interchangeability of parts of like-size meters, reduced parts inventory requirements, and ease of maintenance. The register can be removed without relieving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

### AMR / AMI SYSTEMS

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

### GUARANTEE

Sensus accuSTREAM 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 <sup>1</sup>
5/8" (DN 15mm)	7-1/2" (190mm)	5.3" (135mm)	1-3/4" (44mm)	3-7/8" (98mm)	2.3 lb. (1.04 kg)
5/8" x 3/4" (DN 15mm X 33mm)	7-1/2" (190mm)	5.3" (135mm)	1-3/4" (44mm)	3-7/8" (98mm)	2.4 lb. (1.09 kg)
3/4" (DN 20mm)	9" (229mm)	5.8" (147mm)	2-1/8" (54mm)	6" (152mm)	3.3 lb. (1.5 kg)
3/4" Short (DN 20mm)	7-1/2" (190mm)	5.8" (147mm)	2-1/8" (54mm)	6" (152mm)	3.3 lb. (1.5 kg)
1" (DN 25mm)	10-3/4" (273mm)	6.9" (175mm)	2-5/8" (67mm)	7-1/8" (181mm)	5.6 lb. (2.5 kg)

<sup>1</sup> With Rocksyn® measuring chamber.

**SPECIFICATIONS**

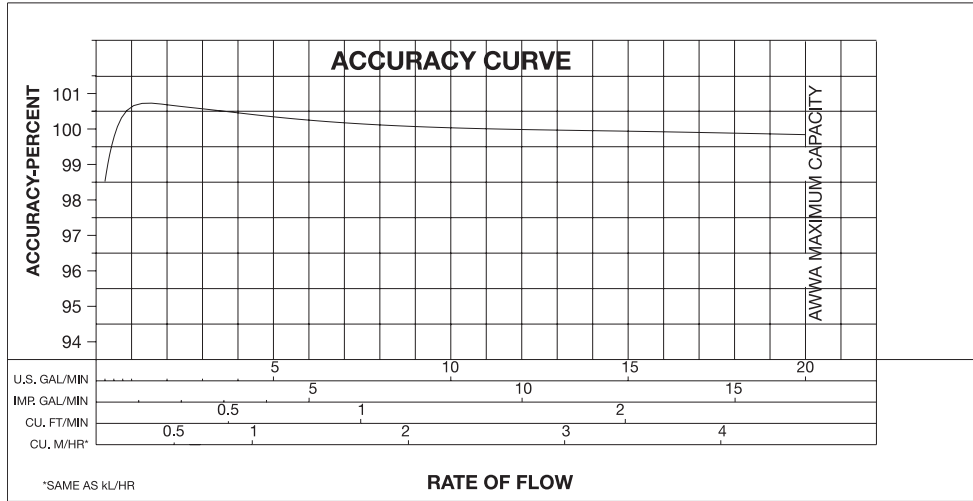
<b>SERVICE</b>	Measurement of potable and reclaim water. Operating temperature range of 35 °F (56 °C) - 150 °F (65.6 °C)
<b>NORMAL OPERATING FLOW RANGE <sup>1</sup></b>	5/8" (DN 15mm) size: 1 to 20 gpm (0.25 to 4.5 m <sup>3</sup> /hr) 3/4" (DN 20mm) size: 2 to 30 gpm (0.45 to 7.0 m <sup>3</sup> /hr) 1" (DN 25mm) size: 3 to 50 gpm (0.7 to 11.0 m <sup>3</sup> /hr)
<b>LOW FLOW REGISTRATION</b>	5/8" size: 1/4 gpm (0.06 m <sup>3</sup> /hr) 3/4" size: 1/2 gpm (0.1 m <sup>3</sup> /hr) 1" size: 3/4 gpm (0.15 m <sup>3</sup> /hr)
<b>MAXIMUM PRESSURE LOSS</b>	5/8" size: 8 psi at 15 gpm (0.55 bar at 3.4 m <sup>3</sup> /hr) 3/4" size: 4 psi at 15 gpm (0.27 bar at 3.4 m <sup>3</sup> /hr) 1" size: 3.5 psi at 25 gpm (0.24 bar at 5.7 m <sup>3</sup> /hr)
<b>MAXIMUM OPERATING PRESSURE</b>	150 psi (10.0 bar)
<b>MEASURING ELEMENT</b>	Oscillating piston
<b>REGISTER <sup>3</sup></b>	Straight reading, hermetically sealed, magnetic drive. Remote reading unit optional.
<b>STANDARD METER REGISTRATION <sup>3</sup></b>	10 gallons, 1 cubic foot, or 0.01 m <sup>3</sup> / or 0.1 m <sup>3</sup> /sweep hand revolution. 10,000,000 gallons, 1,000,000 cubic feet or 100,000 m <sup>3</sup> capacity. 8 odometer wheels

<b>METER CONNECTIONS <sup>3</sup></b>	5/8" (DN 15mm) size: 3/4" (19) threads 5/8" x 3/4" (DN 15mm x 33mm) size: 1" (25) threads 3/4" (DN 20mm) size: 1" (33.25mm) threads 3/4" x 1" (DN 20mm x 42mm) size: 1-1/4" (32) threads 1" (DN 25mm x 42mm) size: 1-1/4" (32) threads (All threads are straight pipe, external type, conforming to ANSI B1.20.1 or ISO R228, if specified.)
<b>MATERIALS</b>	Maincase—Composite Register box—Synthetic polymer Measuring chamber—Rocksyn® Bottom plate—Composite Magnets—Plasticized material Strainer—Synthetic polymer

- Maximum rates listed are for intermittent flow only. Maximum continuous flow rates as specified by AWWA are:  
5/8" (DN 15mm)—10 gpm (2.3 m<sup>3</sup>/hr)  
3/4" (DN 20mm)—15 gpm (3.4 m<sup>3</sup>/hr)  
1" (DN 25mm)—25 gpm (5.7 m<sup>3</sup>/hr)
- 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.
- See AMR Systems Register datasheet AMR-275 for details specifications.

## TYPICAL PERFORMANCE CURVES

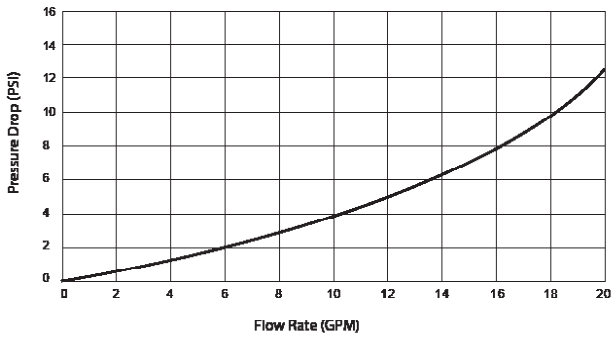
### accuSTREAM METER



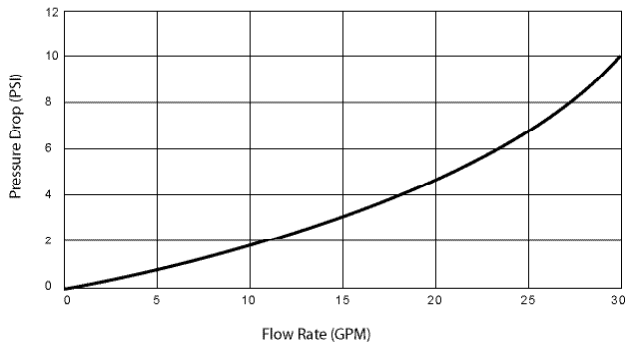
## HEADLOSS CURVES

### accuSTREAM METER

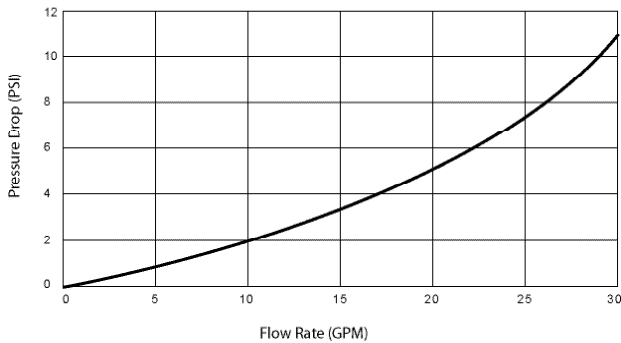
5/8" Headloss Curve



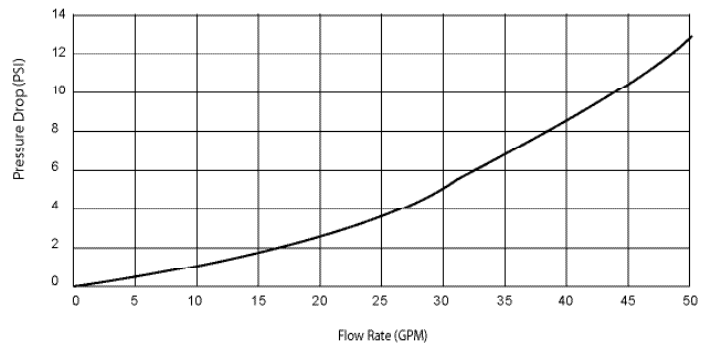
3/4" with 7-1/2 LL Headloss Curve



3/4" with 9" LL Headloss Curve



1" Headloss Curve



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