



# SOLID STATE METER (SSM)

## Sizes 1 1/2" & 2"

**Applications:** The Mueller solid state meter (SSM) is available in 1 1/2" and 2" sizes. The SSM meter provides 9 digits of granular data for visual reads and 8 digits in encoded electronic format for use in Mueller Mi.Net AMR/AMI applications. The meter can be used in any residential or commercial application where a high degree of accuracy at low flow rates is important.

**Construction:** The SSM meter utilizes a low lead copper alloy body with a polymer measuring tube and patented stainless steel reflectors. A heat treated glass lens and polymer lid and surround provide protection for the liquid crystal display. Lithium batteries provide power for the processor for 17 years of life. All internal electronics are potted to prevent water intrusion in the toughest environments.

**Operation:** The SSM meter utilizes ultrasonic measurement technology to provide outstanding accuracy across a broad flow range with extremely low pressure loss. The static meter design means there are no moving parts inside the meter so it will not degrade in accuracy over the life of the meter due to mechanical wear, providing exceptional revenue for years to come.

With ultra-low flow accuracy of 95% at 0.08 GPM on the 1 1/2" and 2" sizes, the SSM is capable of detecting the smallest leaks and backflow conditions. The stainless steel reflectors and measuring tube design channel water over the reflectors to help keep them free of debris and to help reduce pressure loss of the water as it passes through the tube, contributing to the high degree of meter accuracy.

The display provides large numerals and icons that permit verification of the 9-digit meter volume as well as direction of flow, error and alarm status, and battery life. A unique, never duplicated 9-digit serial number on the SSM meter faceplate and lid identifies it as the basis for all systems communication. The register face plate and housing provide visual information specific to the registration units, model, size, date of manufacture, and billing units, to provide verifiable and retrievable data in the event it is required.

When interrogated by a Mueller AMR/AMI device, the SSM

meter communicates the unique 9-digit serial number and 9-digit electronic reading in ACSII format where it can be recorded and maintained within the reporting structure of the AMR/AMI system.

**Conformance To Standards:** Mueller SSM meter complies with AWWA C715 requirements for accuracy and odometer wheel height as well as the American Standard Code for Information Interchange or ASCII.



SOLID STATE METER  
SIZES 1 1/2" & 2"

## MATERIALS AND SPECIFICATIONS

<b>Model</b>	Solid State Meter (SSM)
<b>Register Type</b>	Solid State Encoder Register
<b>Sizes</b>	1 1/2" & 2" Ultrasonic Meters
<b>Standards</b>	Manufactured and tested to meet or exceed all applicable accuracy and pressure loss requirements of the AWWA C715 standard and the American Standard Code for Information Interchange (ASCII)
<b>Temperature Operating Range</b>	-13°F to 131°F
<b>Storage Temperature Range</b>	-13°F to 158°F
<b>Water Temperature Range</b>	33°F to 122°F
<b>Connection Options</b>	18" Nicor Connector, with factory potted connections
<b>Materials</b>	Processor/register housing and lid - thermoplastic; Register lens - heat treated, tempered glass; LCD, polymer measuring tube, SST reflectors
<b>AMR/AMI Compatibility</b>	Mi.Net AMR/AMI system, and other AMR/AMI systems that can utilize the standard 9-digit encoder protocol output.

# SOLID STATE METER (SSM)

Sizes 1 1/2" & 2"

## GENERAL TECHNICAL DATA

<b>Potable Water Temperature Range</b>	33 ... 122 °F
<b>Ambient Operating Temperature</b>	-13 ... 131 °F
<b>Ambient Storage Temperature</b>	-13 ... +158 °F (95°F max. for 4 weeks)
<b>Maximum Pressure</b>	300 psi
<b>Power Supply</b>	Two 3.6 VDC lithium batteries
<b>Battery Lifetime</b>	Up to 20 years
<b>Interfaces</b>	Industry standard Encoder protocol, ASCII output for compatibility with most AMR/AMI systems
<b>Data Storage</b>	Alarms and consumption values (42 days of hourly data storage)
<b>Protection class</b>	IP68
<b>Operating performance</b>	In the temperature range of 45 to 85 °F, meter consumption measurement is accurate to ±1.5% over the normal flow range (reference: approved test bench, ISO9001 certified).

## TECHNICAL DATA DISPLAY

<b>Display</b>	LCD, 9-digit Visual resolution in US Gallons to 0.1 and Ft <sup>3</sup> to 0.01
<b>Units</b>	Flow and volume (GPM, Gal, Ft <sup>3</sup> , and M <sup>3</sup> )
<b>Values Displayed</b>	Volume - flow - reverse flow display test - error and alarm status

## APPROVAL

<b>NSF</b>	Complies with NSF/ANSI Standard 61, Annex F/G and 372
<b>AWWA</b>	Meets or exceeds applicable sections of the AWWA/ANSI C715 Standard

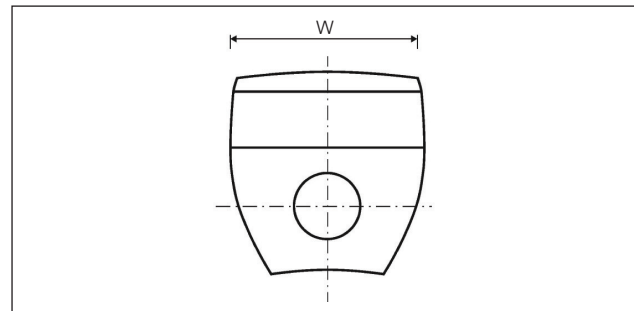
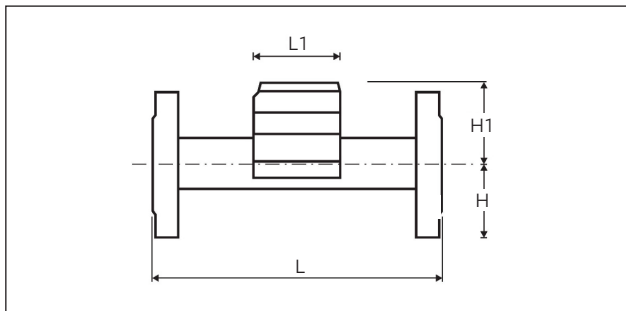
## STANDARD PROGRAMMING

METER SIZE	UNITS	# OF DISPLAY DIGITS	# OF OUTPUT DIGITS	DECIMAL	# OF UNDERLINES
1-1/2" & 2"	Gallons (SG)	9	9	0	0
1-1/2" & 2"	FT <sup>3</sup> (CF)	9	9	0.1	0
1-1/2" & 2"	M <sup>3</sup> (CM)	9	9	0.01	0

# SOLID STATE METER (SSM)

Sizes 1 1/2" & 2"

## DIMENSIONS



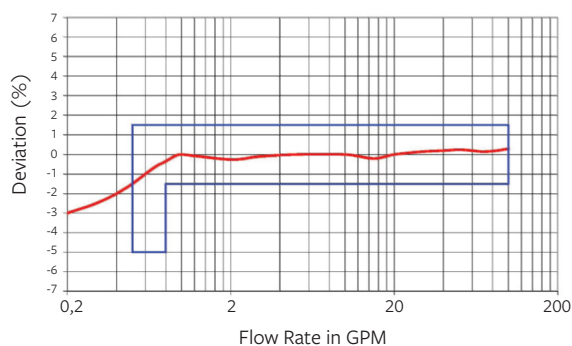
SIZE			1.5"	2"
<b>Lay Length</b>	L	Inch	13"	17"
<b>Register Length</b>	L1	Inch	3.5"	3.5"
<b>Register Width</b>	W	Inch	3.7"	3.7"
<b>Overall Height</b>	H	Inch	5.3"	5.8"
<b>Height to Center of Pipe</b>	H1	Inch	3.3"	3.3"
<b>Net Weight</b>		Lb.	14.1	19.2

## TECHNICAL DATA

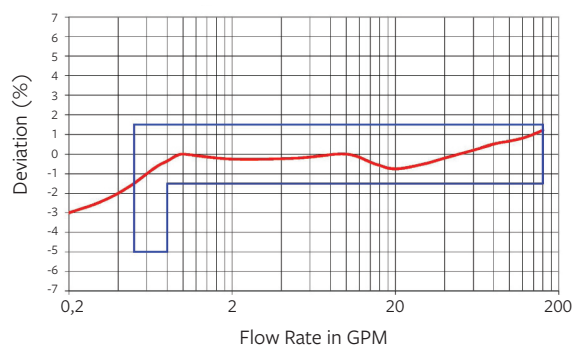
SIZE			1.5"	2"
<b>Operating Flow Range</b>	GPM		0.16 - 100	0.8 - 170
<b>Low Flow Range</b>	GPM		0.1 - 0.16	0.55 - 0.8
<b>Operating Range accuracy</b>	%		±1.5	±1.5
<b>Low Flow Range accuracy</b>	%		±5	±5
<b>Pressure Loss</b>			3.5 psi at 70 GPM	3.6 psi at 110 GPM

## TYPICAL FLOW CHARTS

Typical Flow Chart 1 1/2" Mueller SSM



Typical Flow Chart 2" Mueller SSM



***For more information about us, or to view our full line of products, please visit [www.muellersystems.com](http://www.muellersystems.com) or call Customer Service at +1 800.423.1323 ext. 4, 1***

Mueller refers to one or more of Mueller Water Products, Inc. a Delaware corporation ("MWP"), and its subsidiaries. MWP and each of its subsidiaries are legally separate and independent entities when providing products and services. MWP does not provide products or services to third parties. MWP and each of its subsidiaries are liable only for their own acts and omissions and not those of each other. MWP brands include Mueller®, Echologics®, Hydro Gate®, Hydro-Guard®, HYMAX®, Jones®, Krausz®, Mi.Net®, Milliken®, Pratt®, Singer®, and U.S. Pipe Valve & Hydrant. Please see [muellerwp.com/brands](http://muellerwp.com/brands) to learn more.

© 2026 Mueller Systems, Inc. All Rights Reserved. The trademarks, logos and service marks displayed in this document are the property of Mueller Systems, Inc., its affiliates or other third parties. Products above marked with a section symbol (§) are subject to patents or patent applications. For details, visit [www.mwppat.com](http://www.mwppat.com). These products are intended for use in potable water applications. Please contact your Mueller Sales or Customer Service Representative concerning any other application(s).

