

435 Series Composite

435 Composite PD Meter

Sizes 3/4" Short, 3/4" X 3/4" Standard, 3/4" X 1"

Mueller SYSTEMS

Features

APPLICATIONS: The **Mueller Systems**® 435 composite is a nutating disc style, positive displacement meter designed for residential and small commercial applications where water volumes are low and low flow sensitivity is important.

CONFORMANCE TO STANDARDS: All **Mueller Systems** 435 composite meters meet or exceed the latest revision of the AWWA C-710 Standard for positive displacement meters. Every 435 composite meter is compliant with the latest initiatives of NSF, ANSI and EPA standards.

CONSTRUCTION: **Mueller Systems** 435 water meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase is an advanced composite material designed for reduced weight and minimal environmental impact. Stainless steel metal threads provide corrosion resistant connections to standard bronze couplings.

Direction of flow arrows, model and size are molded into each maincase for easy identification. The bottom cover is an advanced two part composite material designed with a unique internal thread that enhances the structural integrity of the meter and is sealed with an o-ring. The measuring chamber is molded from materials specifically designed to provide reduced wear during operation. The measuring chamber, integral strainer, nutating disc and thrust roller are thermoplastic, which is dimensionally stable and will not corrode. The thrust roller moves smoothly along the chamber diaphragm to reduce friction and maintain accuracy.

The meter is designed so that the register can be replaced easily without removing the meter from the service line.

REGISTER: The permanently sealed solid state encoder register has a heat treated, glass lens and thermoplastic housing to eliminate dirt, moisture infiltration and fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a 10 digit LCD reading display, up to 9 digit electronic output, specifiable visual back flow detection, battery life icon, and a low flow and leak detector. Visual tamper codes are displayed intermittently with the reading data in the event of register removal or magnetic tampering. The 435 composite meter is compatible with all AMR and AMI options for increased reading efficiency.

OPERATION: Water flows through the meter's strainer where debris is screened out. The incoming water fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters, it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is sensed by the register to accurately indicate the volume of water that passes through the meter.

MAINTENANCE: The **Mueller Systems** 435 positive displacement meter is designed and manufactured to provide long service life with virtually no maintenance required. Repair components available include complete chamber assemblies and bottom plate gaskets. All components can be accessed without removing the meter body from the service line for simplified maintenance.

CONNECTIONS: Supplied with external straight pipe threads (NPSM) per ANSI B1.20.1



3/4" Short Composite 435 PD Meter

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Materials and Specifications

MODEL	435 Composite Meter
SIZES	3/4" Short, 3/4" X 3/4" Standard, 3/4" X 1"
STANDARDS	AWWA C-710, Most current NSF-61, ANSI, & EPA Initiatives
SERVICE	Measurement of flow in forward direction only
INSTALLATION	Horizontal or Vertical
OPERATING FLOW RANGE	See Charts on the following pages
ACCURACY	See Charts on the following pages
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33° F to 100° F water temperature
MEASURING ELEMENT	Nutating Disc PD Chamber
REGISTER TYPE	Solid State Register (SSR) with choice of integral AMR/AMI RF device, potted 5' or 25' AMR/AMI RF device options. 5' or 25' Nicor or Itron cable connects. There is no compatibility with touch pads or TRuRead remote visual displays
METER CONNECTIONS	External straight pipe threads (NPSM)
MATERIALS	Meter case – Composite Measuring Element Chamber and Disc - Thermoplastic Disc Pin - SST Strainer - Thermoplastic
OPTIONS	AMR/AMI Reading Systems

Meter Registration

Meter Size	Registration	Registration	Registration
3/4"	Gallons	Cubic Feet	Cubic Meters

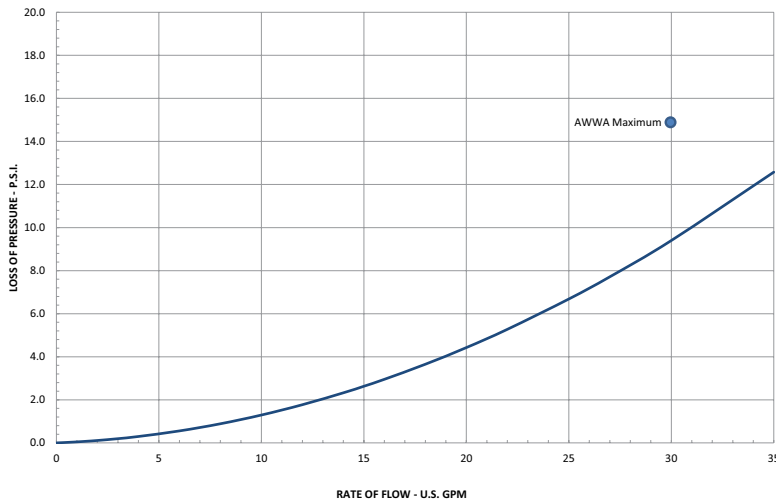
*All registration values are factory programmable and must be specified prior to ordering.

Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum)	Typical Operating Range (100% ± 1.5%)	Maximum Continuous Operation
3/4"	1/4 GPM	3/4 to 30 GPM	25 GPM

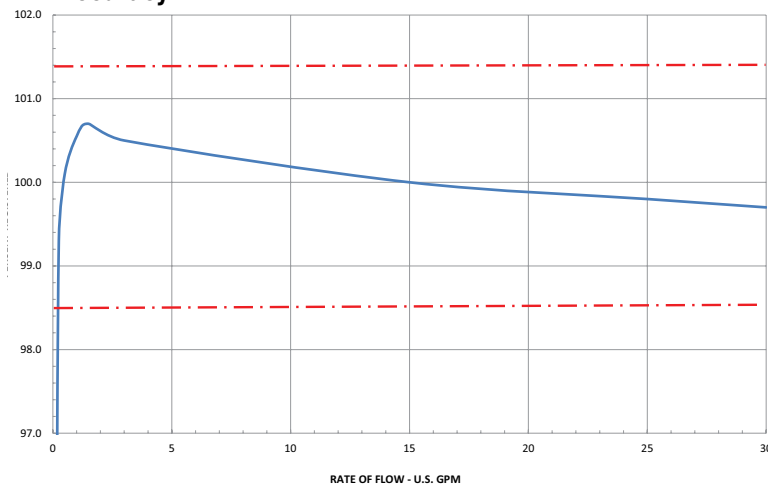
Performance

Head loss



NOTE: Performance curves are typical only and NOT a guarantee of performance.

Accuracy



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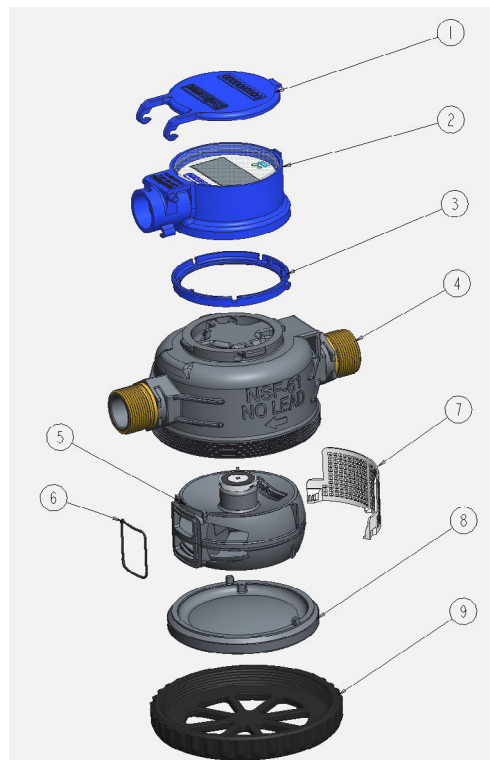
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MODEL 435 COMPOSITE METER ASSEMBLY COMPONENTS			
ITEM	PART#	DESCRIPTION	QTY
1	C6939	SSR COVER	1
2	CALL CS	SSR REGISTER ASSEMBLY	1
3	B8703	SSR HOUSING RETAINER	1
4	D3711	3/4" X 3/4" X 7.5" MODEL MAIN CASE	1
	D3723-1	3/4" X 3/4" X 9" MODEL MAIN CASE	1
	D3723-2	3/4" X 1" X 9" MODEL MAIN CASE	1
5	D3705	MODEL 435 CHAMBER ASSEMBLY	1
6	A13128	MODEL 435 CHAMBER O-RING	1
7	C6933	MODEL 435 STRAINER RETAINER	1
8	D3709	MODEL 435 PRESSURE PLATE	1
9	D3710	MODEL 435 THREADED RING	1

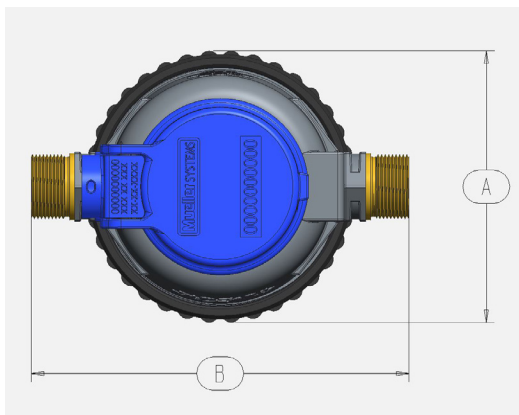


Dimensions, Weights and Parts

Meter Size	3/4" Short 7.5"	3/4" Standard 9"	3/4" x 1" x 9"
Model	435 Composite SSR Register	435 Composite SSR Register	435 Composite SSR Register
Dimension			
A	5.38"	5.38"	5.38"
B	7.5"	9"	9"
C	2.98"	2.98"	2.98"
D	1.58"	1.58"	1.58"
Weight	4.97	5.1	5.1

Weights are in pounds and are approximate.

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