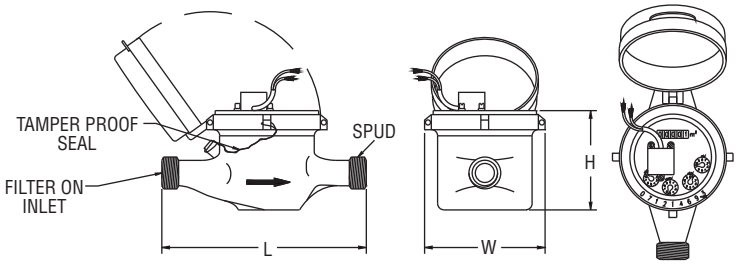
Series WMT Multi-Jet Water Meters

Specifications - Installation and Operating Instructions



Size	Spud NPSM [BSPP]	Length "L"	Width "W"	Height "H"	Weight lb [kg]
5/8″ [15 mm]	3/4″ [3/4″]	7-1/2″ [190 mm]	3-15/16″ [99 mm]	4-3/16″ [106 mm]	3.53 [1.6]
5/8″ x 3/4″	1″	7-1/2″	3-15/16″	4-3/16″	3.75
3/4″ [20 mm]	1″ [1″]	7-1/2″ [190 mm]	3-15/16″ [99 mm]	4-3/16″ [106 mm]	3.75 [1.7]
1″ [25 mm]	1-1/4″ [1-1/4″]	10-1/4″ [260 mm]	4-1/16″ [103 mm]	4-1/2″ [114 mm]	5.73 [2.6]
1-1/4″ [32 mm]	1-1/2″ [1-1/2″]	10-1/4″ [260 mm]	4-1/8″ [104 mm]	4-5/8″ [117 mm]	6.17 [2.8]
1-1/2″ [40 mm]	2″ [2″]	11-13/16″ [300 mm]	4-7/8″ [124 mm]	5-13/16″ [147 mm]	11.25 [5.1]
2″ [50 mm]	2-1/2″ [2-1/2″]	11-13/16″ [300 mm]	4-15/16″ [125 mm]	6-3/4″ [172 mm]	18.74 [8.5]

The Series WMT Multi-Jet Water Meters are ideal for commercial and industrial applications. The multi-jet design allows simplicity and accuracy with wide flow ranges, even in low flow applications. The meter is designed for long service life and relatively maintenance-free operation, even under adverse conditions. The magnetically driven, hermetically sealed register will not leak or fog and is completely separated from the water. The reed switch is activated by a magnet on the dial which is directly proportional to the flow rate. The output is perfect for remote monitoring of flow rate or flow totalization and can interface with PLC's, counters, data loggers, and SCADA systems.

INSTALLATION INSTRUCTIONS

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris.

2. Remove meter spud thread protectors.

NOTE: To protect the meter spud threads, store the meter with thread protectors in place.

3. Set the meter in the line. Install the meter in a horizontal plane, with the register upright, in a location accessible for reading, service and inspection. Arrows on the side of the meter and above the outlet spud indicate the direction of flow.

4. For accurate measurement, the tap height should be higher than the meter.

5. Do not overtighten connections; tighten only as required to seal. Do not use pipe sealant tape on meter threads.

6. With upstream shutoff valve only:
Open shutoff valve slowly, to remove air from the meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.

With both upstream and downstream shutoff valves installed:
To test the installation for leaks: Close the outlet (downstream) shutoff valve. Open the inlet (upstream) shutoff slowly until meter is full of water.

Open the outlet (downstream) valve slowly until air is out of meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.

SPECIFICATIONS

Service: Water.
Flow Range: See model chart.
Wetted Materials: Body: brass, nylon, acetal; Couplings: brass; Measuring Chamber: Fluorocarbon (FKM), polyethylene, high impact polystyrene, ABS plastic.
Accuracy: Transitional Flow: ±5%, Nominal Flow: ±2% (See instruction manual).
Temperature Limit: 104°F (40°C).
Pressure Limit: 145 psi (10 bar).
Pressure Drop: See pressure loss chart.
Totalizing Display Maximum: 9,999,999 Counts.
Output Signal: Pulse output with frequency proportional to flow rate. Pulse Options: 0.1 gal, 1 gal, 10 gal, 100 gal per pulse (1L, 10L, 100L per pulse).
Electrical Rating: 0.01A @ 24VAC/DC.
Electrical Connections: Lead wires, 4.5 feet (1.5 meters) long.
Mounting Orientation: Horizontal.
Weight: See dimension chart.

FLOW RATES

Size	Coupling Size	Transitional Flow (GPM)	Nominal Flow (GPM)	Max Flow (GPM)	Gallons per Pulse
5/8″	1/2″ NPT	0.125	0.5-13	13	0.1
5/8″ x 3/4″	3/4″ NPT	0.125	1-20	20	0.1
3/4″	3/4″ NPT	0.25	1-22	22	0.1
1″	1″ NPT	0.375	1.25-30	30	0.1
5/8″	1/2″ NPT	0.125	0.5-13	13	1
5/8″ x 3/4″	3/4″ NPT	0.125	1-20	20	1
3/4″	3/4″ NPT	0.25	1-22	22	1
1″	1″ NPT	0.375	1.25-30	30	1
1-1/2″	1-1/2″ NPT	1.0	3-88	88	10
2″	2″ NPT	1.25	5-132	132	10
1″	1″ NPT	0.375	1.25-30	30	100
2″	2″ NPT	1.25	5-132	132	100
Size	**Coupling Size**	**Transitional Flow (L/h)**	**Nominal Flow (m^3/h)**	**Max Flow (m^3/h)**	**Liters per Pulse**
15 mm	1/2″ BSPT	30	0.12-3.0	3	1
20 mm	3/4″ BSPT	50	0.2-5.0	5	1
25 mm	1″ BSPT	70	0.28-5	7	1
32 mm	1-1/4″ BSPT	120	0.48-12	12	1
15 mm	1/2″ BSPT	30	0.12-3.0	3	10
32 mm	1-1/4″ BSPT	120	0.48-12	12	10
50 mm	2″ BSPT	300	1.2-30	30	10
32 mm	1-1/4″ BSPT	120	0.48-12	12	100
50 mm	2″ BSPT	300	1.2-30	30	100

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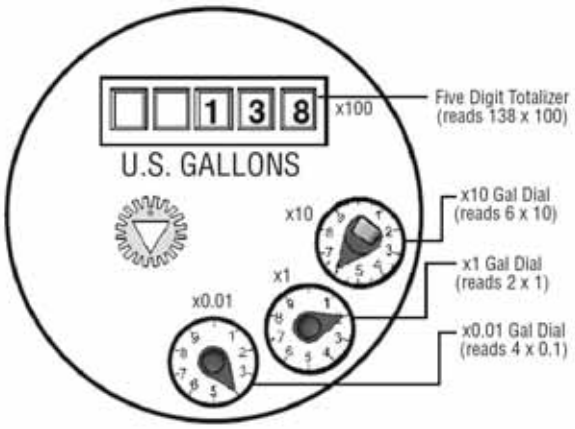
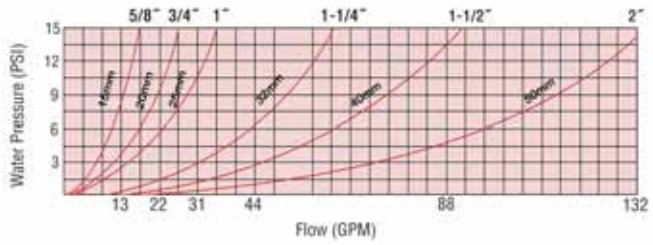
METER READING

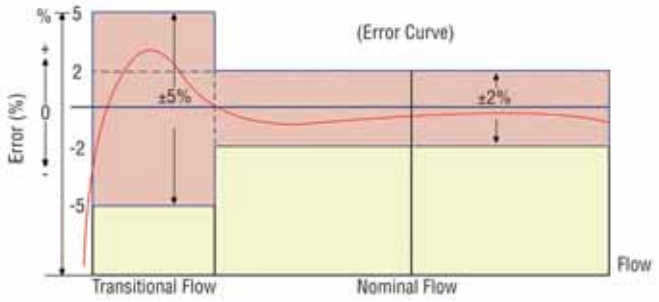
Reading Your Meter. The total Flow that has passed through your meter is read by starting at the top of the register with the Five-Digit Totalizer, and then reading clockwise around the small dials. In the example below, the Five-Digit Totalizer reads 13,800 (138 x 100), and the dial reads 60 (6 x 10), 2 (2 x 1), and .4 (4 x .01) respectively. The Total Flow is 13,862.4 gallons.



PRESSURE LOSS

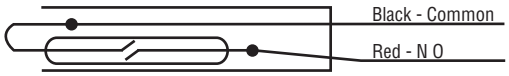


ACCURACY CHART



ELECTRICAL INSTALLATION

Dry contact closure, does not require power.



INSTALLATION

Horizontal installation only.

MAINTENANCE

Preventative maintenance consists of periodic inspections and cleaning procedures. The procedures should be preformed at regular intervals and any defects discovered should be corrected before further operation of the meter.

Visually inspect the meter for missing hardware, loose connections, damaged wiring, broken resister glass, or other signs of wear or deterioration. Verify proper flow rate and pressure for meter. A loss in pressure, with the resulting flow rate decrease, may indicate the meter screen is clogged and requires cleaning.

Clean the strainer yearly, or as required, depending on water condition. Pull out the strainer or backflush the meter to loosen trapped particulates.

Printed in U.S.A. 5/09 FR# R2-443666-00 Rev. 1

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