

# MJ/MJH-SERIES

## PULSE METER



### APPLICATIONS

Cooling tower chemical control

Industrial water treatment

Deduct metering

Pump Pacing

### Features

- Dry top multi-jet design
- Tolerates low quality water
- Simple pulse output
- Cold or hot water models

**MJ-Series meters** use the multi-jet principle, which has been an internationally-accepted standard for many years. This type of meter is known for its wide range, simplicity, and accuracy in low-quality water. Seametrics offers cold or hot water models. The impeller is centered in a ring of jets, with inlet jets on one level and outlet jets on another. A gear train drives the register totalizer dials. For pulse output, one of the pointers is replaced by a magnet, which is detected by an encapsulated sensor attached to the outside of the lens. Pulse rate is determined by the dial on which the magnet is placed, and by the number of sensors (single or double).

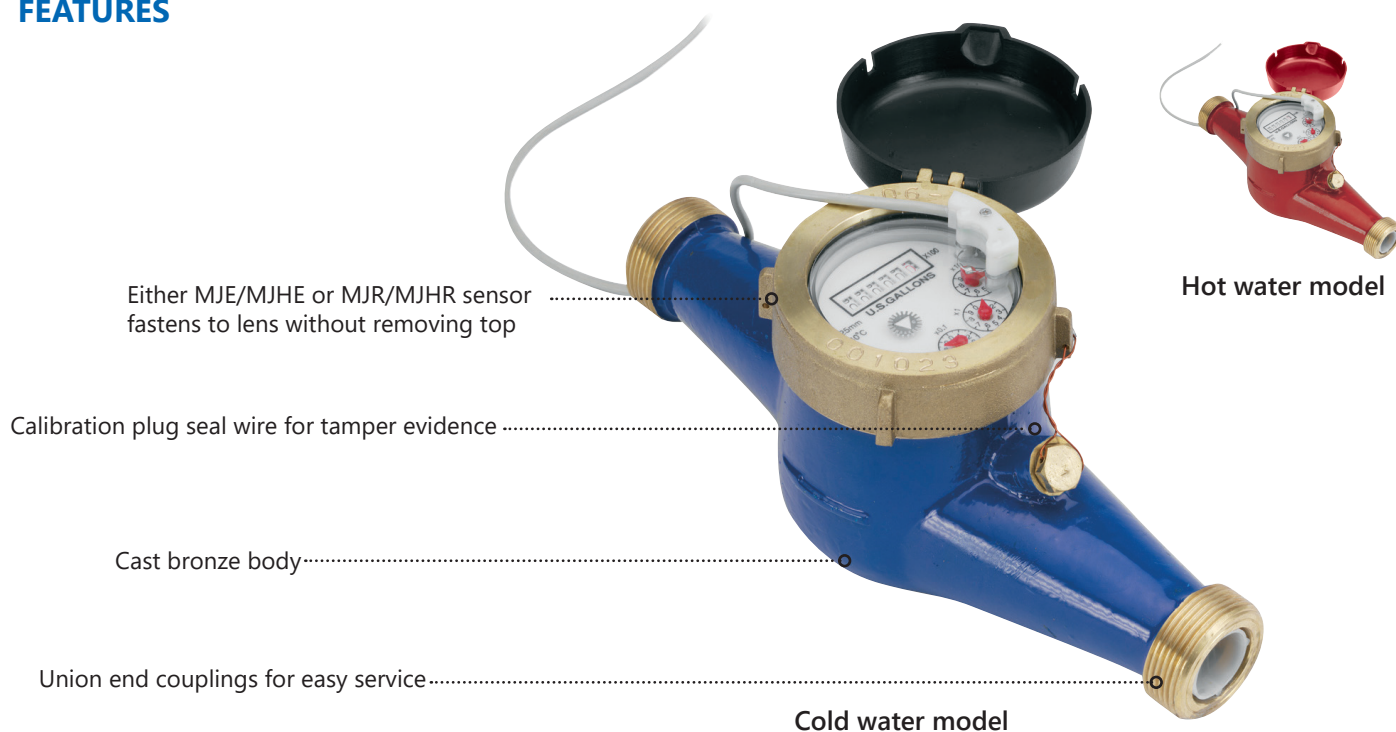
Changing the pulse rate can easily be done in the field. Mechanically, all MJ-Series meters are the same. The difference among \*MJE/MJHE, \*MJR/MJHR and \*MJT/MJHT meters is in the sensor. MJE/MJHE meters use a solid-state, long-lasting Hall-effect sensor, which requires power. It is suited for use with Seametrics controls and metering pumps that have sensor power. MJR/MJHR meters use a two-wire reed switch. They provide a dry contact closure and do not require power. MJT/MJHT meters totalize only and do not have a sensor.

**\*Note on Nomenclature:** Meter names that include "H" are hot water models. Without the "H" = cold water models.

**Contact your Supplier**



## FEATURES



## SPECIFICATIONS\*

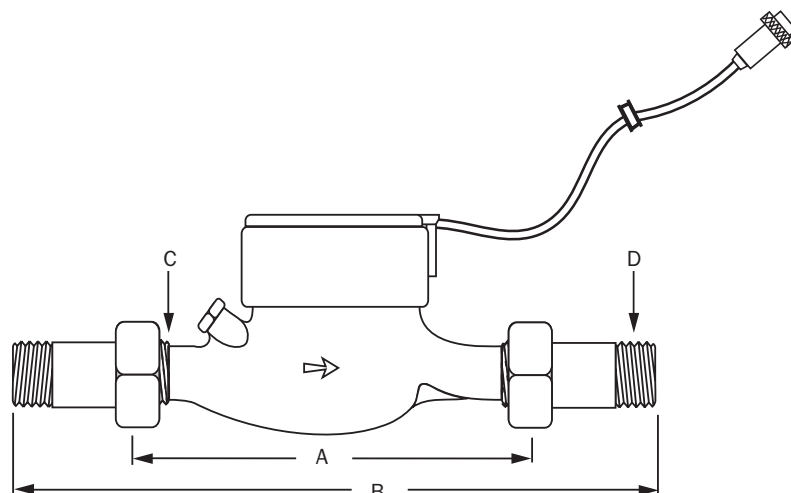
|                    |                                        |                                                 |               |                |      |
|--------------------|----------------------------------------|-------------------------------------------------|---------------|----------------|------|
| Power              | 6 mA at 12 Vdc (MJE/MJHE only)         |                                                 |               |                |      |
| Temperature Model  | Cold water                             | 105° F (40° C) max                              |               |                |      |
|                    | Hot Water                              | 194° F (90° C) max                              |               |                |      |
| Pressure           | 150 psi operating                      |                                                 |               |                |      |
| Materials          | Body                                   | Cast bronze, epoxy powder coated inside and out |               |                |      |
|                    | Internals                              | Engineered thermoplastic                        |               |                |      |
|                    | Magnet                                 | Alnico                                          |               |                |      |
| Accuracy           | +/- 1.5% of reading                    |                                                 |               |                |      |
| Pulse Output       |                                        | MJE/MJHE                                        | MJR/MJHR      | MJT/MJHT       |      |
|                    | Sensor                                 | Hall-effect device                              | Reed switch   | Totalizer only |      |
|                    | Max Current                            | 20 mA+                                          | 20mA          | n/a            |      |
|                    | Max Voltage                            | 24 Vdc                                          | 24 Vdc or Vac | n/a            |      |
| Cable Length       | 12' (4 m) standard (2000' maximum run) |                                                 |               |                |      |
| Flow Rates (GPM)** |                                        | 3/4"                                            | 1"            | 1-1/2"         | 2"   |
|                    | Minimum                                | 0.22                                            | 0.44          | 0.88           | 1.98 |
|                    | Maximum                                | 22                                              | 52            | 88             | 132  |

\*Specifications subject to change • Please consult our website for current data ([www.seametrics.com](http://www.seametrics.com)).

\*\* Caution: Excessive flow can cause breakage. Do not exceed recommended maximums.

## DIMENSIONS

## PULSE RATES



|                               | 3/4"                        | 1"                          | 1 1/2"                      | 2"                          |
|-------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Pulses per Gallon</b>      | 20*<br>10<br>4†<br>2*<br>1  | 4†<br>2*<br>1               | 4†<br>2*<br>1               | 4†<br>2*<br>1               |
| <b>Gallons per Pulse</b>      | 1<br>5*<br>10<br>50*<br>100 | 1<br>5*<br>10<br>50*<br>100 | 1<br>5*<br>10<br>50*<br>100 | 1<br>5*<br>10<br>50*<br>100 |
| <b>Cubic Feet per Pulse</b>   | 1<br>5*<br>10               | 1<br>5*<br>10               | 1<br>5*<br>10               | 1<br>5*<br>10               |
| <b>Pulses per Cubic Meter</b> | 1<br>10<br>100              | 1<br>10<br>100              | 1<br>10<br>100              | 1<br>10<br>100              |
| <b>Liters per Pulse</b>       | 1<br>10<br>100              | 1<br>10<br>100              | 1<br>10<br>100              | 1<br>10<br>100              |

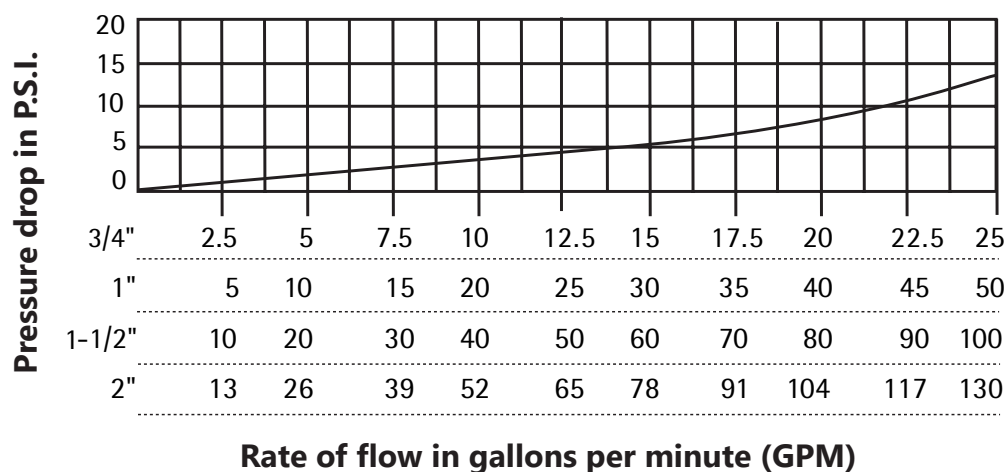
\*MJR/MJHR dual reed switch meters only  
†MJR/MJHR single reed switch meters only

|                        | 3/4"    | 1"      | 1-1/2"  | 2"      |
|------------------------|---------|---------|---------|---------|
| <b>A (body)</b>        | 7-1/2"  | 10-1/4" | 11-3/4" | 11-3/4" |
| <b>B (w/couplings)</b> | 11-5/8" | 15"     | 17"     | 17-5/8" |
| <b>C (IPS thread)</b>  | 1"      | 1-1/4"  | 2"      | 2-1/2"  |
| <b>D (NPT thread)</b>  | 3/4"    | 1"      | 1-1/2"  | 2"      |

## FLOW RATES (GPM)

|                | 3/4" | 1"   | 1-1/2" | 2"   |
|----------------|------|------|--------|------|
| <b>Minimum</b> | 0.22 | 0.44 | 0.88   | 1.98 |
| <b>Maximum</b> | 22   | 52   | 88     | 132  |

## PRESSURE DROP CURVE



## HOW TO ORDER

| Model                    | Size          | Pulse Rate             |               |             |          |          | Options                                  |
|--------------------------|---------------|------------------------|---------------|-------------|----------|----------|------------------------------------------|
| <b>Cold Water</b>        | -075 = 3/4"   |                        | MJR/MJHR      | MJR/MJHR    | MJE/MJHE | MJT/MJHT | -06 = LMI 4-pin pump connector           |
| MJR = Reed Switch        | -100 = 1"     |                        | (Single Reed) | (Dual Reed) |          |          | -07 = Seametrics 3-pin control connector |
| MJE = Hall-effect sensor | -150 = 1 1/2" |                        |               |             |          |          | -106 = LMI 5-pin pump connector          |
| MJT = Totalizer only     | -200 = 2"     | 20P = 20 Pulse/Gal     |               | √*          |          |          |                                          |
|                          |               | 10P = 10 Pulse/Gal     | √*            |             | √*       |          |                                          |
|                          |               | 4P = 4 Pulse/Gal       | √             |             |          |          |                                          |
|                          |               | 2P = 2 Pulse/Gal       |               | √           |          |          |                                          |
|                          |               | 1G = 1 Gal/Pulse       | √             |             | √        |          |                                          |
|                          |               | 5G = 5 Gal/Pulse       |               | √           |          |          |                                          |
|                          |               | 10G = 10 Gal/Pulse     | √             |             | √        |          |                                          |
|                          |               | 50G = 50 Gal/Pulse     |               | √           |          |          |                                          |
|                          |               | 100G = 100 Gal/Pulse   | √             |             | √        |          |                                          |
|                          |               | 1CF = 1 CF/Pulse       | √             |             | √        |          |                                          |
|                          |               | 5CF = 5 CF/Pulse       |               | √           |          |          |                                          |
|                          |               | 10CF = 10 CF/Pulse     | √             |             | √        |          |                                          |
|                          |               | 1CM = 1 Pulse/CM       | √             |             | √        |          |                                          |
|                          |               | 10CM = 10 Pulse/CM     | √             |             | √        |          |                                          |
|                          |               | 100CM = 100 Pulse/CM   | √             |             | √        |          |                                          |
|                          |               | 1L = 1 Liter/Pulse     | √             |             | √        |          |                                          |
|                          |               | 10L = 10 Liter/Pulse   | √             |             | √        |          |                                          |
|                          |               | 100L = 100 Liter/Pulse | √             |             | √        |          |                                          |
|                          |               | G = Gallons            |               |             |          | √        |                                          |
|                          |               | CF = Cubic Feet        |               |             |          | √        |                                          |
|                          |               | CM = Cubic Meters      |               |             |          | √        |                                          |
|                          |               | L = Liters             |               |             |          | √        |                                          |

\*3/4" only

*User is responsible for reviewing end use application with their supplier for product suitability.*

## Accessories

PS40 = Pulse splitter  
PT35 = Pulse timer

## CONTACT YOUR SUPPLIER