

**State of California**  
 Department of Food and Agriculture  
 Division of Measurement Standards

Certificate Number: 4538(b)-07  
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**California Type Evaluation Program**  
**Certificate of Approval**  
**for Weighing and Measuring Devices**

**For:**

Water Meter  
 Multi-Jet  
 Domestic Type Cold Water Meter  
 Model: MM Series \*  
 Size: 5/8" X 1/2" through 2"

**Submitted by:**

Master Meter, Inc.  
 101 Regency Parkway  
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**Standard Features and Options**

| Bronze Case             | Model Designation | Bronze Case     | Model Designation |
|-------------------------|-------------------|-----------------|-------------------|
| 5/8" x 1/2"             | MM2               | 1"              | MM5               |
| 5/8" x 1/2" frost proof | MM2FP             | 1" frost proof  | MM5FP             |
| 5/8" x 3/4"             | MM3               | 1-1/2" threaded | MM6T              |
| 5/8" x 3/4" frost proof | MM3FP             | 1-1/2" flanged  | MM6F              |
| 3/4"                    | MM4               | 2" threaded     | MM7T              |
| 3/4" frost proof        | MM4FP             | 2" flanged      | MM7F              |
|                         |                   | 3/4 x 1"        | MM8               |

NOTE: Suffixes that may appear: FP = Frost Protection; T = Threaded; F = Flanged

**Register Type:**

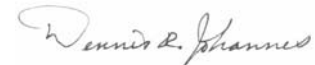
- Three dial register with or without optional electrical output
- DIALOG six wheel odometer type register with or without optional Dialog electronic module and Readpad
- DIALOG 3G six wheel odometer type register with integrated electronics

**Units of Measure:** US Gallons      Cubic Feet

**Option:** Analog readout with remote readout interface. (Not Tested)

**Note:** Approved for use only when installed according to the manufacturer's instructions in a "**HORIZONTAL**" position. The American Water Works Association cautions against installing cold-water meters in such locations where the line temperature consistently exceeds 80 °F (27 °C). These devices are to be installed where they are protected from excessive heat and freezing conditions.

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable technical requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.



Dennis R. Johannes, Director

Effective Date: July 24, 2007

**Master Meter, Inc.**  
**Water Meter**  
**Model: MM Series**

**Application:** Approved for use as a domestic cold water meter in legal sub-metering installations.

**Identification:** The manufacturer's name and the model number are on the face of the dial on the sealed register. The permanent serial number is engraved on a milled flat on the discharge end of the meter body and also on the optional hinged brass lid. The model number **may** (newer meters) **or may not** (older meters) be on the meter body with "Model No." preceding the model number.

**Note:** If the names Master Meter and Utility Submeter Applications, the unit of measure, and the model number (prefaced with the word "MODEL") are printed in red on a register face, it is actually a USA hot water meter (CA 5415(a)-07).

**Sealing:** The meter can be sealed with a wire security seal threaded through a hole in the threaded cap located over the adjusting screw and through a hole in the register retaining ring (See Fig. 2 on page 3). The frost protection plate (located at bottom of meter) may be secured with a wire security seal threaded through the drilled heads of the retaining bolts.

**Operation:** The Master Meter utilizes a multi-jet measuring element and a magnetically driven sealed register. Multi-jet measuring element converts flow velocity into a volumetric registration of gallons or cubic feet.

**Test Conditions:** This certificate supersedes Certificate of Approval Number 4538(a)-06 and is issued to add the model number on the brass meter body. A note (under identification) has been added to clarify a distinction between the Master Meter Model MM series and the USA hot water meter. Previous test conditions are listed below for reference.

**Certificate of Approval Number 4538(a)-06:** This certificate was issued to include the 1" meter that was not included on the original approvals and update the manufacturer's information.

**Certificate of Approval Number 4538-97:** Three meters of each model were submitted for evaluation. One model was submitted with a DIALOG encoder with a ReadPad and ReadMaster (digital display). After a successful initial examination, the test meters were set up to recirculate 200 000 gallons for the permanence test. Following the completion of throughput, a subsequent test was performed.

**Certificate of Approval Number 3817-92:** Several meters with the frost protection type design (equipped with a freeze plug) were submitted for type evaluation. After a successful initial examination, the meters were set up to recirculate 200 000 gallons for the permanence test. Following the completion of throughput, subsequent tests were performed and the results indicate the meters comply with code requirements.

Results of the evaluation indicate the device complies with applicable requirements.

**Type Evaluation Criteria Used:** Title 4, California Code of Regulations, 2007 Edition

**Tested By:** R. Malloy (CA) 3817-92; R. Flores (CA) 4538-97

**Updated By:** S. Muñoz (CA) 4538(a)-06, John Roach (CA)

**Master Meter, Inc.  
Water Meter  
Model: MM Series**



Fig. 1  
Model MM5 showing serial number with SN preceding the serial number and Model NO. preceding the model number.



Fig. 2

Serial number location

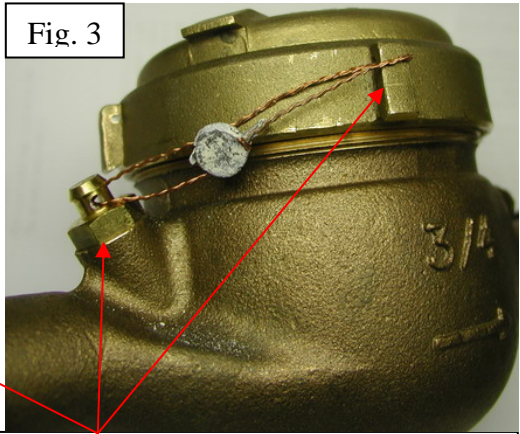


Fig. 3

Factory plastic seal must be removed to thread wire security seal through holes in the threaded cap.