State of California

Department of Food and Agriculture Division of Measurement Standards

Certificate Number: 5378(b)-07

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California Type Evaluation Program Certificate of Approval for Weighing and Measuring Devices

For:

Water Meter

Positive Displacement Model: PMPD or PPD Size: 5/8" X 3/4"

Maximum Flow Rate: 20 GPM Minimum Flow Rate: 1/4 GPM

Submitted by:

Performance Meter, Inc. 200 E. John Street Banning, CA 92220-6042 Tel: (951) 922-2485 Fax: (951) 922-2395

Contact: Steven Palluth www.hpmeters.com

Standard Features and Options

- Magnetic drive register
- Bronze main case
- External threaded spuds
- Cast flow direction arrow on discharge end of meter case

Options:

- Bronze register cover and shroud or black plastic register cover and shroud
- Remote pulsing Reed Switch counter or radio read pulsing system (old system; not evaluated)
- Remote Encoded Type Register (ETR) pulsing system (new system; not evaluated)
- Gallon or cubic foot unit of measurement
- Minimum resolution: 0.1 gal or 0.01 cu ft
- Model PMPD (old model number)
- Model PPD (new model number)

Note: Approved for use only when installed according to the manufacturer's instructions in a "HORIZONTAL" position.

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.

Effective Date: September 21, 2007

Dennis Johannes, Director

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Performance Meter, Inc. Water Meter Model: PMPD or PPD

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

<u>Identification:</u> The manufacturer's name and model number are on the face of the dial on the sealed register. The serial number is engraved on a milled flat on the discharge end of the meter body and also on the optional hinged brass lid.

Sealing: The enclosed magnetic drive register assembly is secured to the main case by a screw through the register shroud that is secured by a drilled bolt with wire security sealing provision (older models may have a factory installed tamper evident seal). The bottom frost protection plate may be secured by threading a wire security seal through the drilled heads of the retaining bolts.

Operation: This is a revolving piston style, positive displacement meter. The revolving piston drives the direct reading sealed register using magnetic coupling.

<u>Test Conditions</u>: This certificate supersedes Certificate of Approval Number 5378(a)-04 and is issued to include the PPD model, additional calibration sealing provisions, and the Encoded Type Register (ETR) pulsing system. The model number PMPD was shortened to PPD with the implementation of a new inventory system. Additionally, the factory tamper evident calibration seal was replaced with a wire security seal. The optional remote reed switch pulsing system was replaced with a top mount ETR pulsing system that uses a small round magnet and sensor. There were no changes to the gearing in the register or measuring chamber.

Certificate of Approval Number 5378(a)-04: This certificate was issued to include the optional black plastic register shroud and cover with the remote read register option. The optional remote read register has a different drive gearing than the standard register. The remote read capability was not evaluated. Four Model PMPD meters with gallon registers and the remote read option were tested for accuracy three times each at three flow rates. Two of the meters had black plastic register shrouds and two had brass shrouds. After flowing in excess of 200 000 gallons through all four meters, all tests were repeated. Test medium was water. Previous test conditions are listed below for reference.

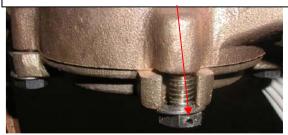
<u>Certificate of Approval Number 5378-04:</u> Three meters with gallon registers and three meters with cubic foot registers were tested for accuracy three times each at three flow rates. Two meters with gallon registers and two meters with cubic foot registers were selected for permanence testing. After a flowing in excess of 200 000 gallons through two gallon register and two cubic foot register meters, all tests were repeated. Test medium was water.

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: Joe Raspino (CA) 5378-04, John Roach (CA) 5378(a)-04, John Roach (CA)

Sealing provisions for the bottom frost protection plate. Drilled heads of the retaining bolts.



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Performance Meter, Inc. Water Meter Model: PMPD or PPD





Pictured optional brass register shroud and cover with optional remote ETR pulsing system.

Meter may also have the optional black plastic register shroud and cover with the optional remote ETR pulsing system.



Optional brass cubic foot register without the optional remote ETR pulsing system.



Optional black plastic gallon register without the optional remote ETR pulsing system.