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

Certificate Number: 5630-10

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

For:
Hydrocarbon Gas Vapor Measuring Device
Model: 400A Series Gas Meter
Capacity: 400 cubic feet per hour @
0.5 inch H_2O Differential
Temperature or non-temperature compensation
Maximum Operating Pressure: 10 psig

Submitted by:
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Standard Features and Options

Three-chamber positive displacement measurement device
One piece, seamless, convoluted diaphragm
EZ-VU adjustment port
Instrumentation compatible
Temperature or non-temperature compensation

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable 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: April 12, 2010

Edmund E. Williams, Director

Itron Inc.
Hydrocarbon Gas Vapor Measuring Device
Model: 400A Series

Application: For commercial measurement of vaporized hydrocarbon gas.

Identification: The required information is located on the identification plate. The plate is attached to the front cover mounted to the meter body.

Sealing: The sealing provisions for the model 400A meter are described in three parts because of the many ways to gain access to internal adjustments. Seven drilled head screws are required to properly seal the internal workings of this meter. Please refer to the picture below for a visual reference of the sealing provisions.

First, the meter dial index is sealed to the upper half of the meter. Drilled head screws are required for the index as well as the closest screw to the index attaching the upper half to the lower half. Wire security seals are used to connect these two points securely.

Second, the front and back covers are secured to the meter with eleven screws each. Drilled head screws are required in consecutive positions on each cover. Wire security seals are used to connect these two points securely.

Finally, a drilled head screw is required to attach the hand-hole cover to the right side of the meter body. Wire security seals are used to connect the hand-hole cover screw to the consecutive drilled head screws on either the front or back covers.

Itron Inc.
Hydrocarbon Gas Vapor Measuring Device
Model: 400A Series

Test Conditions: Two 400A meters were evaluated. One meter was temperature compensating and the other was non-temperature compensating. The emphasis of the evaluation was on the device design, operation, performance and repeatability. Several accuracy tests were performed at various flow rates ranging from 3 to 100% of flow capacity using a 5 ft^3 bell prover standard. These tests were repeated after 400 000 ft^3 of air was passed through the devices.

The results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2009 Edition

Tested By: Van Thompson (CA), R Norman Ingram (CA)