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

Certificate Number: 5438-05

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

For:
Compressed Natural Gas (CNG)
Retail Motor Fuel Dispenser, Electronic Computing
Model: TGT TXXXX-XCNG50-XX Series
(See Model Designation)
Capacity: Maximum Total Price: $9999.99
Maximum Total Volume: 999.999*
Maximum Unit Price: $9.999

Accuracy Class: 2.0

Submitted by:
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Standard Features and Options

* Gasoline gallon equivalent or gasoline liter equivalent

Flow rate from 4 lb to 53 lb per minute
Computing register
Micro Motion Model 2700 series transmitter
Micro Motion Model CNG050 sensor
Back-lit alphanumeric liquid crystal display
Temperature compensation fill
Dual hose and single hose design
Design pressure: Maximum 5 000 PSI
3/8" tubing

Option: Island card reader

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: August 26, 2005

Mike Cleary, Director

Tulsa Gas Technologies, Inc.
Compressed Natural Gas (CNG)
Retail Motor Fuel dispenser, Electronic Computing
Model: TGT TXXXX-XCNG50-XX Series

Application: For use as a dispenser in retail motor fuel service stations for measuring CNG as an automotive fuel and may be used with approved and compatible island card reader.

Identification: The identification information is located on the lower side part of the cabinet near the hose breakaway.

Model Designation: TGT TXXXX-XCNG50-XX

TGT	T	X	X	X	X	X	CNG 50	XX
Basic model	T = Tulsa Electronics	6 = Low hose body 7 = High hose body 8 = High hose body	1 = One hose 2 = Two hoses	0 = One meter for each hose 1 = Single meter for dual hose	0 = No sequencing, no temp comp 2 = Sequencing valves remote 3 = Sequencing valves in dispenser 4 = Temp comp only 5 = Sequencing for 2 or 1 hose w/1 meter 6 = Two bank sequencing	6 = 3/8" tubing 8 = 1/2" 12 = 3/4" 16 = 1"	Meter type installed	Blank = Non-required CE = CENELEC W = Weights & Measures

Sealing: An EPROM containing the configuration parameters is mounted on the control electronics motherboard inside the control electronics enclosure. The control electronics enclosure is located behind the dispenser's customer display door (upper cabinet door). The EPROM must be removed and re-configured at the factory and is sealed in place with a tamper sensitive paper seal. The Micro Motion 2700 series transmitter is sealed in accordance with the sealing provisions of its certificate. The sensor has no components which require the use of a security seal.

Operation: Open the dispenser's customer display door and view the mass value (the default screen display) on the control electronics enclosure display. A keypad on the cover of the control electronics enclosure is used to access the version number and accumulated total values. From the default screen displaying the mass values:

Press 123 ENTER
Press 04 ENTER
Press 05 ENTER, the total values will be displayed on the control electronics enclosure display
Press CANCEL to revert the display back to the default screen displaying the mass value
Press 123 ENTER
Press 05 ENTER
Press 04 ENTER, the version number will be displayed on the control electronics enclosure display
Press CLEAR at any time to move back one screen

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Test Conditions: The Model TGT T8203-6CNG50-XX was submitted for a field evaluation. The dispenser was interfaced with a Multi Force Model FF814 card reader and Micro Motion mass flow metering system (2700 series transmitter with CNG050 sensor). The emphasis of the evaluation was on device design, performance, interaction with the card reader, and permanence. Initial tests were conducted at varying pressure ranges, delivery amounts, and several flow rates ranging from 4 lb/min up to 42 lb/min. Similar tests were repeated after approximately 45 days. Product throughput requirements were waived based on previous testing of the sensor and transmitter.

The results of the evaluation indicate the device complies with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2005 Edition

Tested By: R. Norman Ingram and Will Rickey