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

Certificate Number: 5409-04

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

For:

Compressed Natural Gas (CNG)
Retail Motor Fuel Dispenser, Electronic Computing
Model: C Series (See Table on Page 2)
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

Flow range 2.5 to 130 lb/min
Price computing capability
Micro Motion Model CNG 050 sensor [0.5" (13 mm) max diameter tube inlet]
Micro Motion Model 2700 or 2500 series transmitter

* Gasoline gallon equivalent or gasoline liter equivalent

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: October 28, 2004

Mike Cleary, Director

Fueling Technologies Inc.
Compressed Natural Gas, Retail Motor Fuel Dispenser, Electronic Computing
Model: C Series

Model Designation:

C-XXXXXXXX (9 Characters Including C):

Character	Description	Number or Letter
1	Gas Media	Letter
2	Product Class	Number
3	Configuration	Letter
4	Inlet Valve Configuration	Number
5	Inlet Valve Type	Number
6	Tubing Size	Number
7	Hose and Nozzle Configuration	Letter
8	Filter Assembly	Number
9	Electrical Approval	Number

C-XXXX (5 Characters Including C):

Character	Description	Number or Letter
1	Gas Media	Letter
2	Product Class	Number
3	Configuration	Number
4	Tubing Size	Number
5	Electrical Approval	Number

C-XXXXXXX (8 Characters Including C):

Character	Description	Number or Letter
1	Gas Media	Letter
2	Product Class	Number
3	Configuration	Letter
4	Inlet Valve Configuration	Number
5	Inlet Valve Type	Number
6	Tubing Size	Number
7	Filter Assembly	Number
8	Electrical Approval	Number

CNG-XXXX (5 Characters Including CNG):

Character	Description	Number or Letter
1	Gas Media	Letters (3)
2	Product Class	Number
3	Configuration	Number
4	Tubing Size	Number
5	Electrical Approval	Number

Fueling Technologies Inc.
Compressed Natural Gas, Retail Motor Fuel Dispenser, Electronic Computing
Model: C Series

Application: For use as a stationary dispenser in retail motor fuel service stations for measuring compressed natural gas (CNG) as an automotive fuel, and may be used with approved and compatible equipment.

Identification: The required information is located on the inside surface of the dispenser uprights, above the display cabinet.

Sealing: Located in the display cabinet in an enclosure is an E-PROM that stores the calibration and configuration parameters. The enclosure cover is sealed with a lead and wire security seal threaded through drilled head bolts that attach the cover to the enclosure. In addition, the transmitter is sealed in accordance with the sealing provisions of its certificate. The sensor has no metrological parameters which require the use of a security seal.

Operation: The delivery hose is connected to the fill connector on the receiving vehicle. The dispenser is turned on by moving the interlock handle to the "On" position. After filling, the interlock lever must be in the "Off" position before returning the nozzle to the dispenser receptacle. A remote control will be on site for the purpose of viewing the mass display for inspection purposes. To display mass using the remote control, view each hose as follows:

Hose 1 – Press [8] then press [ENTER] **Hose 2** – Press [9] then press [ENTER]

After viewing the mass display, press the [ENTER] key to return the display to volume. Additionally, the display will default to volume after a time delay.

To view the non-resetable totalizer:

	Display		Display
Press [2] then [ENTER]	Dollar total for side A	Press [SELECT]	Volume total for side A
Press [SELECT]	Dollar Total for Side B	Press [SELECT]	Volume total for side B
Press [ENTER] at any time	Default to volume sale		

Test Conditions: The dispenser was interfaced with a stand-alone card reader and submitted for evaluation at a field location. The emphasis of the evaluation was on device design, performance, interaction with the card reader, receipt format, and permanence. Initial tests were conducted at several flow rates ranging form 4 lb/min to 65 lb/min as well as varying pressure ranges and delivery amounts. A follow-up test of the electronics was completed after approximately 45 days. Product throughput requirements were waived based on previous testing of the sensor and transmitter.

The flow range was expanded from 2.5 to 130 lb/min based on tests performed under Certificate of Approval Number 5273(a)-02. The flow range achieved was accomplished through the FTI Model C Series dispenser.

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

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2004 Edition

Tested By: Norman Ingram (CA)