



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

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

Submitted By:

Tulsa Gas Technologies, Inc.
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Standard Features and Options**Standard Features:**

- Computing Register
- Back-lit Alphanumeric Liquid Crystal Display
- Temperature Compensation Fill
- Dual Hose and Single Hose Design
- Design Pressure: Maximum 5 000 PSI
- 3/8" Tubing

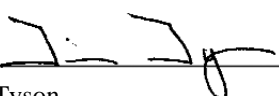
| Flow Meter Model | Flow Rate |
|---|---------------------------|
| Endress+Hauser Model CNGmass 8DF08 | 1 lb to 66 lb per minute |
| Endress+Hauser Model CNGmass 8DF15 | 2 lb to 175 lb per minute |
| Endress+Hauser Model CNGmass 8DF25 | 3 lb to 330 lb per minute |
| Endress+Hauser Model CNGmass 8FF08 | 1 lb to 66 lb per minute |
| Endress+Hauser Model CNGmass 8FF15 | 2 lb to 175 lb per minute |
| Endress+Hauser Model CNGmass 8FF25 | 3 lb to 330 lb per minute |
| Micro Motion Model 2700 Series Transmitter, Model CNG050 Sensor | 4 lb to 53 lb per minute |

* Gasoline gallon equivalent or gasoline liter equivalent

Option:

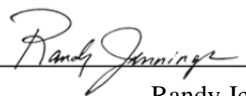
- Island Card Reader

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.



Tim Tyson

Chairman, NCWM, Inc.



Randy Jennings

Chairman, National Type Evaluation Program Committee

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Tulsa Gas Technologies, Inc.

Retail Motor Fuel Dispenser / TGT TXXXX-XXXXXX-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-XXXXXX-XX

| TGT | T | X | X | X | X | X | XXXXX | XX |
|-------------|-----------------------|-------------------|---|--------------------------------|--------------------------------|-----------------|--------------------------------|----------------------------|
| Basic Model | T = Tulsa Electronics | 6 = Low Hose Body | 1 = One Hose | 0 = One Meter for Each Hose | 0 = No Sequencing No Temp Comp | 6 = 3/8" Tubing | Meter Type Installed | Blank: Non-required |
| | | | 2 = Two Hoses | 1 = Single Meter for Dual Hose | 2 = Sequencing Valves Remote | 8 = 1/2" | 8DF08 | CE: CENELEC |
| | | | 3 = Sequencing Valves in Dispenser | | 12 = 3/4" | 8DF15 | W: Weights and Measures | |
| | | | 4 = Temp Comp Only | | 16 = 1" | 8DF25 | | |
| | | | 5 = Sequencing for 2 or 1 Hose with 1 Meter | | | 8FF008 | | |
| | | | 6 = Two Bank Sequencing | | | 8FF15 | | |
| | | | | | | 8FF25 | | |
| | | | | | | CNG050 | | |

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 flowmeter 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:

1. Press 123 ENTER
2. Press 04 ENTER
3. Press 05 ENTER, the total values will be displayed on the control electronics enclosure display
4. Press CANCEL to revert the display back to the default screen displaying the mass value
5. Press 123 ENTER
6. Press 05 ENTER
7. Press 04 ENTER, the version number will be displayed on the control electronics enclosure display
8. Press CLEAR at any time to move back one screen



Tulsa Gas Technologies, Inc.

Retail Motor Fuel Dispenser / TGT TXXXX-XXXXXX-XX Series

Test Conditions: The Model TGT T8203-6XXXXX-XX was submitted for a field evaluation. The dispenser was interfaced with an Endress + Hauser Model 8DF15 (NTEP CC 01-059A7) and Model 8FF15 (NTEP CC 07-006A2) mass flow metering system and Micro Motion Model 2700 series transmitter with CNG050 (NTEP CC 01-057A2) sensor mass flow metering system. The emphasis of the evaluation was on device design, and permanence. Initial tests were conducted with the Endress + Hauser Model 8FF15 mass flow metering system at flow rates up to 97 lb/min. Similar tests were repeated after approximately 60 days. Additional tests were conducted with the Endress + Hauser Model 8DF15 mass flow metering system at flow rates up to 97 lb/min and with the Micro Motion Model 2700 series transmitter with CNG050 sensor mass flow metering system at flow rates up to 42 lb/min. Product throughput requirements were waived based on previous testing of the sensor and transmitter by NTEP.

Evaluated By: Allen Katalinic, NC

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2010. NCWM, Publication 14: Measuring Devices, 2010.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: J. Truex (NCWM)

Example of Device:



Model TGT TXXXX