



NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Load Cell  
Double Ended Shear Beam, Center Loaded  
Model: CG-58  
 $n_{\max}$ : Multiple III: 5 000 (5303-A5)  
 $n_{\max}$ : Multiple III L: 10 000 (5303-B10)  
Capacity: 25 000 lb to 200 000 lb (see page 2)  
Accuracy Class: III / III L

**\*Submitted By: Contact Info. Updated: December 09**

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**Standard Features and Options**


The specific load cell capacities,  $v_{\min}$ , and minimum dead loads are listed on page 2.

CG-58	X <sub>1</sub>	X <sub>2</sub>	YK	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	Z <sub>4</sub>
	A = Class III B = Class III L	$n_{\max}$ in Thousands	Capacity in Thousands of Pounds	Electrical Cable Length or Connector		P = Analog D = Digital	Wiring and Private Label Variations

NOTE: A unique alphanumeric Z<sub>3</sub>Z<sub>4</sub> suffix combination (for example S499, etc.) is used to define analog or digital-option equipped load cells which have non-standard features that have no metrological effect (for example, special color).

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

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.

  
Randy Jennings

Chairman, NCWM, Inc.

  
Judy Cardin

Chairman, National Type Evaluation Program Committee

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**Coti Global Sensors, Inc.**

**Load Cell / CG-58**

**Application:** The load cells may be used in Class III and III L scales for multiple cell applications consistent with the model designations, number of scale divisions, and parameters specified in this Certificate. Load cells of a given accuracy class may be used in applications with lower accuracy class requirements provided the number of scale divisions, the  $v_{\min}$  values, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions ( $n_{\max}$ ) and with larger  $v_{\min}$  values than those listed on the certificate. However, the load cells must be marked with the appropriate  $n_{\max}$  and  $v_{\min}$  for which the load cell may be used.

Capacity (lb)	$v_{\min}$ (lb)		Minimum Dead Load (lb)
	CG-58	CG-58	
25 000	1.50	0.75	500
40 000	2.40	1.20	500
50 000*	3.00	1.50	1000
60 000	3.60	1.80	1000
75 000	4.50	2.25	1500
100 000	6.00	3.00	2000
125 000	7.50	3.75	2000
150 000	9.00	4.50	3000
200 000	12.00	6.00	4000

\* Two Load Cells Submitted for Evaluation

**Identification:** A pressure sensitive identification badge containing the manufacturer, model designation, and serial number is located on the load cell. All other required information must be on an accompanying document including the serial number of the load cell.

**Test Conditions:** This certificate supersedes Certificate of Conformance number 03-043 and is issued to indicate transfer of the NTEP Certificate of Conformance from Coti, Inc. to Coti Global Sensors, Inc. and the change of model numbers. Previous test information and documentation provided by the company was reviewed. The test conditions for the original type evaluation are listed below for reference.

**Certificate of Conformance Number 03-043:** This certificate is issued based upon the following tests and upon information provided by the manufacturer. Two 50 000-lb capacity load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . Three tests were run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed. The barometric pressure test was waived due to the insensitivity of the load cell design to changes in barometric pressure.

**Evaluated By:** NIST Force Group, NIST Office of Weights and Measures

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 1999. NCWM, Publication 14: Weighing Devices, 1999.

**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:**

