



NATIONAL TYPE EVALUATION PROGRAM

*Certificate of Conformance*  
*for Weighing and Measuring Devices*

**For:**

Load Cell

Single Point, Compression

Model: CG-50-XX Series (see page 2)

$n_{max}$ : Single Cell 5 000

Capacity: 50 to 500 kg

Accuracy Class: III

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

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**Standard Features and Options**


**Standard Features:**

- Aluminum Construction
- Method of Sealing: Potting, metal covers
- Number of Wires: 4 wires
- Excitation Voltage: 10 VDC
- Nominal Output: 2.0 mV/V
- Bridge Resistance, Input Nominal: 350 ohms

Temperature Range: 0 °C to 30 °C (32 °F to 86 °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  
Issued: December 22, 2009

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**Coti Global Sensors, Inc.**

**Load Cell / CG-50-XX Series**

**Application:** The load cells may be used in Class III scales for single 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.

**Identification:** A pressure sensitive, tamper evident, identification badge containing the manufacturer, model designation, and serial number and limited temperature range is located on the load cell. All other required information, if not marked on the load cell, must be on an accompanying document including the serial number of the load cell.

Model	Capacity (kg)	$v_{\min}$ (kg)	Minimum Dead Load (kg)
CG-50, CG-50-1, CG-50-2	50 kg	0.0080	1.1
CG-50, CG-50-1, CG-50-2	60 kg	0.0096	1.3
CG-50, CG-50-1, CG-50-2	75 kg	0.0120	1.7
CG-50, CG-50-1, CG-50-2	100 kg	0.016	2.2
CG-50, CG-50-1, CG-50-2	150 kg	0.024	3.3
CG-50*, CG-50-1, CG-50-2	200 kg	0.032	4.5
CG-50, CG-50-1, CG-50-2	250 kg	0.040	5.6
CG-50, CG-50-1, CG-50-2	300 kg	0.048	6.7
CG-50, CG-50-1, CG-50-2	500 kg	0.080	11.2

\* Three Load Cells Tested

**Test Conditions:** This certificate supersedes Certificate of Conformance number 04-082 and is issued to indicate transfer of the NTEP Certificate of Conformance from Coti, Inc. to Coti Global Sensors, Inc. The NTEP Certificate of Conformance 04-082, though inactive, remains in effect to cover those devices previously sold and installed under the original name. 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 04-082:** Three 200kg load cells were tested at NIST using dead weights as the reference standard. The data were analyzed for Class III single load cell applications. The cells were evaluated over a limited temperature range of 0 °C to 30 °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, T. Bartel

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2004. NCWM, Publication 14: Weighing Devices, 2004.

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

**Information Reviewed By:** S. Patoray (NCWM), L. Bernetich (NCWM) 04-082; J. Truex (NCWM) 08-076

**Examples of Device:**

