



NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Load Cell  
Double-end Beam  
Model: CG-BE40 Series  
 $n_{\max}$ : 10 000  
Capacity: 25 000 to 150 000 lb  
Accuracy Class: III L Multiple Cell

**Submitted By:**

Coti Global Sensors, Inc.  
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### Standard Features and Options

**Standard Features:**

- Alloy Steel Construction
- Method of Sealing: Potted with Metal Cover
- Number of Wires: 4 wires
- Excitation Voltage: 10 VDC Maximum
- Nominal Output: 3.0 mV/V
- Bridge Resistance Input Nominal: 700 Ohms

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.

Judith L. Cardin  
Chairman, National Type Evaluation Program Committee  
Issued: March 29, 2010

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**Coti Global Sensors, Inc.**

Load Cell / CG-BE40 Series

**Application:** The load cells may be used in Class III L scales, as indicated below, 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.

**Identification:** A pressure sensitive, tamper evident, identification badge containing the manufacturer, model designation, and serial number 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 (lb)	$v_{min}$ (lb)	Minimum Dead Load (lb)
CG-BE40	25 000	0.75	1250
CG-BE40	40 000	1.20	2000
CG-BE40 SE	50 000	1.50	2500
CG-BE40*	50 000	1.50	2500
CG-BE40 SE	60 000	1.80	3000
CG-BE40	60 000	1.80	3000
CG-BE40 SE	75 000	2.25	3750
CG-BE40	75 000	2.25	3750
CG-BE40	100 000	3.00	5000
CG-BE40	125 000	3.75	6250
CG-BE40	150 000	4.50	7500

\* Load Cells Submitted for Evaluation

**Test Conditions:** This certificate supersedes Certificate of Conformance Number 08-073 and is issued to add the Model CG-BE40-SE load cell to the certificate. The load cell is within the range of approved parameters so no additional testing was deemed necessary. Contact information has also been updated. Previous test conditions are listed below for reference.

**Certificate of Conformance Number 08-073:** This certificate supersedes Certificate of Conformance Number 07-059A1 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 07-059A1, 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 07-059A1:** This Certificate supersedes Certificate of Conformance Number 07-059 and is issued without further testing to correct the Model table above.

**Certificate of Conformance Number 07-059:** Two 50 000 lb 3 mV/V capacity load cells were submitted and tested at NIST Force Group 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 °C to 40 °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 07-059

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2007. NCWM, Publication 14: Weighing Devices, 2007.

**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) 07-059, 07-059A1; J. Truex (NCWM) 08-073, 08-073A1



**Coti Global Sensors, Inc.**

Load Cell / CG-BE40 Series

**Example of Device:**



Model CG-BE40

