



## NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Load Cell  
Beam  
Model: GPB Series  
 $n_{max}$  : 3000, Single Cell  
Capacity: 30 to 375 kg  
Accuracy Class: III

**Submitted By:**

Group Four Transducers  
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**Standard Features and Options**

- The specific load cells covered by this Certificate are identified in the table below.
- Nominal Output: 0.9 mV/V
- Excitation Voltage: 10-15 VDC
- Minimum dead load: 0 kg
- Counterforce Material: Aluminum
- 4 Wire Design

**Load Cell Parameters:**

Model	Capacity	$n_{max}$	$v_{min}$
GPB	30 kg	3000	0.0030 kg
GPB	50 kg	3000	0.0050 kg
GPB*	75 kg	3000	0.0075 kg
GPB	150 kg	3000	0.0150 kg
GPB	375 kg	3000	0.0375 kg

\*Load cell tested

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.

John P. Gaccione  
Chairman, NCWM, Inc.

Stephen Benjamin  
Chairman, National Type Evaluation Program Committee  
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## Group Four Transducers

### Load Cell / GPB 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 cells with fewer scale 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 identification badge containing the manufacturer, model designation, serial number and capacity, 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.

**Test Conditions:** A Model GPB-75 kg load cell was tested by the NMO Test Laboratory at the Teddington, United Kingdom facility. Testing was conducted in accordance with the OIML DoMC Mutual Acceptance Arrangement, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cells were tested over a temperature range of  $-10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  with tests 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 performed to test the insensitivity of the load cell design to changes in barometric pressure. The data were analyzed for single load cell applications. OIML R60 selection criteria was used to determine cells tested.

**Evaluated By:** G. Yates (NMO), Wei Ji (NMO)

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2014. NCWM, Publication 14: Weighing Devices, 2014.

**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:**

