



NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**  
Load Cell  
Digital, Compression Load Cell, Self-Restoring/Centering  
Model: RC3D Series  
 $n_{max}$ : 5000, Multiple Cell, Class III  
 $n_{max}$ : 10 000, Multiple Cell, Class III L  
Capacity: 25 000 kg to 100 000 kg

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### Standard Features and Options


- Specific load cell capacities and  $v_{min}$  values covered by this Certificate are listed in the table below.
- Nominal output: 166666 cts if  $\leq 25t$ ; 200000 cts if  $>25t$
- Stainless Steel material
- 2 x 4 pin connectors
- Minimum Dead Load: 0 kg

Model	Capacity (kg)	$V_{min}$ Class III/III L Multiple Cell (kg)
RCD3 *Load Cell Tested	25 000*	1.67
	30 000	2.00
	40 000	2.67
	50 000	3.33
	100 000	6.67

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.

  
Ivan Hankins  
Chair, NCWM, Inc.

  
Hal Prince  
Chair, NTEP Committee  
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**Flintec UK Ltd.**

## Load Cell / RC3D Series

**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  $v_{\min}$  value, and temperature range are suitable for the application. The manufacturer may market the load cell with fewer divisions ( $n_{\max}$ ) and with greater  $v_{\min}$  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 label located on the cell, states manufacturer name, model, serial number, rated capacity, class and NTEP certificate number. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

**Test Conditions:** This Certificate of Conformance Number supersedes Certificate of Conformance Number 17-122 and was issued to add a  $n_{\max}$ : 10 000, Multiple, Class III L cell. A Model RC3D, 25 000 kg capacity load cell was tested by the NMi Certin B.V. at the Netherlands facility. Testing was conducted in accordance with the OIML-CS for OIML R60 Certificate System, signed by the NCWM as a utilizing participant for load cell testing. Testing was conducted using deadweights as the reference standard. The load cell was 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 to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for multiple load cell applications. OIML R60 selection criteria were used to determine cells tested. Previous test conditions are listed below for reference.

**Certificate of Conformance Number 17-122:** A Model RC3D, 25 000 kg capacity load cell was tested by the NMi Certin B.V. at the Netherlands 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 cell was 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 to determine sensitivity of the load cell design to changes in barometric pressure was conducted. The data were analyzed for multiple load cell applications. OIML R60 selection criteria were used to determine cells tested.

**Evaluated By:** S.J. Koeman, M.M.J. Meijer (NMi) 17-122; M. Manheim (NCWM) 17-122A1

**Type Evaluation Criteria Used:** *Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2020 Edition. *NCWM Publication 14: Weighing Devices*, 2021 Edition.

**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) 17-122; D. Flocken (NCWM) 17-122A1

**Examples of Device:**