



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Load Cell

Compression

Model: TSx10yy & TSx12yy Series

 n_{\max} : 5000, Class III, Single Cell (capacities up to 500 kg)

4000, Class III, Single Cell (capacities above 500 kg)

Capacity: 1kg to 2500 kg

Accuracy Class: III

Submitted By:

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Email: jheinlein@transcell.comWeb site: www.transcell.com**Standard Features and Options**

- Model TSx10yy & TSx12yySeries, where the x in the model designation can be M for metric threads or U for unified threads and the yy can be 22, 42, 50, 60 or 63
- The specific load cell capacities and v_{\min} values covered by this Certificate are listed in the table on Page 2..
- Nominal output: 2.0 mV/V
- Aluminum
- 4 Wire Design
- Minimum Dead Load: 0 kg

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.

Jerry Buendel
Chairman, NCWM, Inc.

Ronald Hayes
Chairman, National Type Evaluation Program Committee
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Transcell Technology Inc.

Load Cell / TSx10yy & TSx12yy 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} 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.

Specific Capacities and v_{min} Values:

Models	Capacity	v_{min} Class III Single Cell, n = 5 000	v_{min} Class III Single Cell, n = 4 000
TSx10yy Series	1 kg	0.067 g	
TSx12yy Series	2 kg	0.133 g	
	3 kg	0.2 g	
	5 kg*	0.33 g	
	7 kg	0.47 g	
	10 kg	0.67 g	
	20 kg	1.33 g	
	30 kg	2 g	
	40 kg	2.67 g	
	50 kg*	3.33 g	
	60 kg	4.9 g	
	75 kg	6 g	
	100 kg	8 g	
	150 kg	12 g	
	200 kg	16 g	
	250 kg	20 g	
	300 kg	24 g	
	500 kg*	40 g	
	600 kg		0.08 kg
	700 kg		0.09 kg
	1000 kg		0.13 kg
	1500 kg		0.20 kg
	2000 kg		0.27 kg
	2500 kg		0.33 kg

Identification: A pressure sensitive identification label located on the cell, states manufacturer name, model, serial number and rated capacity. Other pertinent information will be specified on the Calibration Certificate accompanying the cell.

Test Conditions: This certificate is issued based upon the following tests and upon information provided by the manufacturer. A 5 kg, 50 kg and 500 kg capacity load cell were tested by the NMI Certain 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 cells were tested over a temperature range of -10 °C to 40 °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 single load cell applications. OIML R60 selection criteria were used to determine cells tested.

Evaluated By: A.C. Pauwels, R. Scholten (NMI), E. van der Grinten, M.M.J. Meyjer (NMI)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2016. NCWM, Publication 14: Weighing Devices, 2016.

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



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Load Cell / TSx10yy & TSx12yy Series

Information Reviewed By: J. Truex (NCWM)

Examples of Device:

