



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance
for Weighing and Measuring Devices

For:

Computing Scale
Weighing/Load Receiving Element, Digital Electronic
Model: CL 5000 Series
 n_{\max} : 3000
 e_{\min} : see table on page 2
Capacity x d: see table on page 2
Platform Size: B, R, P – 11 $\frac{3}{4}$ in x 15 $\frac{3}{4}$ in
 H – 11 $\frac{1}{2}$ in x 17 $\frac{1}{8}$ in
Accuracy Class: III

Submitted By:

CAS Corporation
99-A Murray Hill Pkwy, Unit A
East Rutherford, NJ 07073
Tel: 201-933-9002
Fax: 201-933-9025
Contact: Bill moutenot
Email: bill@cas-usa.com
Web site: www.cas-usa.com

Standard Features and Options

See table on page 2 for specific model features and options.

Standard Features:

- Semi-automatic (push-button) Zero
- Automatic Zero Setting Mechanism (AZSM)
- Initial Zero Setting Mechanism (IZSM)
- Alphanumeric Display
- Liquid Crystal Display (LCD)
- Gross/Net Weight Display
- Customer Display
- AC Power Supply
- Programmable Tare
- Tare Save Key
- RS-232 and Print Capability
- lb/kg Conversion
- Multi-interval

Load Cells Used:

- CAS Corp., Model No. TPN-15L, Capacity 15 kg, v_{\min} 0.005 kg
- CAS Corp., Model No. TPN-30L, Capacity 30 kg, v_{\min} 0.01 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.

Randy Jennings
Chairman, NCWM, Inc.

Judy Cardin
Chairman, National Type Evaluation Program Committee
Issued: September 4, 2009

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

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CAS Corporation

Computing Scale / Weighing/Load Receiving Element / CL 5000 Series

	CL 5000/B		CL 5000/P		CL 5000/R	
	lb	kg	lb	kg	lb	kg
Capacity	15/30*	6/15*	15/30	6/15	15/30	6/15
e_{min}	0.005/0.01	0.002/0.005	0.005/0.01	0.002/0.005	0.005/0.01	0.002/0.005
Capacity	30/60	15/30	30/60	15/30	30/60	15/30
e_{min}	0.01/0.02	0.005/0.01	0.01/0.02	0.005/0.01	0.01/0.02	0.005/0.01
n_{max}	3 000	3 000	3 000	3 000	3 000	3 000

	CL 5000/RP		CL 5000/H	
	lb	kg	lb	kg
Capacity	15/30	6/15	15/30*	6/15*
e_{min}	0.005/0.01	0.002/0.005	0.005/0.01	0.002/0.005
Capacity	30/60*	15/30*	30/60	15/30
e_{min}	0.01/0.02	0.005/0.01	0.01/0.02	0.005/0.01
n_{max}	3 000	3 000	3 000	3 000

* Model Submitted for Evaluation

B = Built-in Display

P = Linear Display on a Pole

R = High Legibility, Vertical Display on a Pole

RP = Remote Platter

H = Hanging Scale

Application: The CL5000 is for use in direct sales, price computing, or general purpose weighing.

Identification: CL5000H: The required markings are located on a plate riveted to the top right of the scale housing indicator. CL5000/B, P, and R: The required markings are located on a plate riveted to the back of the scale. RP: The required markings are located on a metal plate under the platform.

Additionally, other markings depicting capacities, preset tares, unit price, and total price are visible near the operator and customer display windows

Sealing: CL5000H: Sealing is provided by a wire seal threaded through two brass screw heads under the plastic cover which secure a cover plate preventing access to the calibration switch located below the customer display. CL5000B, P, R, and RP: Sealing is provided by a wire seal threaded through two brass screw heads under the platter, which secure a cover plate preventing access to the calibration switch.

Test Conditions: This certificate supersedes Certificate of Conformance 07-042A1 to add a hanging version of the CL5000. The Model CL 5000/H (15/30 lb x 0.005/0.01 lb) was submitted and evaluated in the Division of Measurement Standards lab at Sacramento, CA. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10°C to 40°C (14°F to 104°F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC and 130 VAC. Previous test conditions are listed below for reference.

Certificate of Conformance Number 07-042A1: This certificate supersedes Certificate of Conformance 07-042 and is issued to add remote platform capabilities. The emphasis of this evaluation was on the device design, marking requirements, and compliance with influence factor requirements. When connected, this platform deactivates the internal platform. A model CL5000RP (0-15kg x 0.005kg/15-30kg x 0.01kg, 0-30lb x 0.01lb/ 30-60lb x 0.02lb) was submitted for evaluation and several increasing /decreasing load and shift tests were conducted. The scale was tested over a temperature range of -10°C to 40°C (14°F to 104°F). Previous test conditions are listed below for reference.



CAS Corporation

Computing Scale / Weighing/Load Receiving Element / CL 5000 Series

Certificate of Conformance Number 07-042: The Model CL 5000/B (15/30 lb x 0.005/0.01 lb) was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10°C to 40°C (14°F to 104°F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC and 130 VAC.

Evaluated By: S. Boyd (CA) 07-042; E.A. Payne, Jr. (MD) 07-042A1; S. Muñoz (CA) 07-042A2

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2009. NCWM, Publication 14: Weighing Devices, 2009.

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) 07-042; J. Truex (NCWM) 07-042A1, 07-042A2

Example of Device:

