

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Monorail Scale Load Cell Electronic Model: MS200HB and MS202HB n_{max}: 3400 Capacity: 750 lb x 0.5 lb, 1500 lb x 0.5 lb, 680 kg x 0.2 kg Accuracy Class: III Rice Lake Weighing Systems 230 West Coleman Street Rice Lake, WI 54868 Tel: 715-736-6442 Fax: 715-234-6967 Contact: Derrick Bender Email: <u>dbender@ricelake.com</u> Website: <u>www.ricelake.com</u>

Standard Features and Options

Standard Features:

- All models have 7 3/4" long live rail
- Models rated at 750 lb have a n_{max} : of 1500
- Models rated at 1500 lb have a n_{max} : of 3000
- Models rated at 680 kg have a n_{max} : of 3400

Optional Models:

- Model MS202HB-3/8 (for 3/8" rail)
- Model MS202HB-1/2 (for 1/2" rail)

Optional Models Stainless Steel:

- Model MS202HB-SS-3/8 (for 3/8" rail)
- Model MS202HB-SS-1/2 (for 1/2" rail)
- Model MS200HB-SS-1/2-1500 (1500 lb / 680 kg Capacity)
- Model MS202HB-SS-1/2-1500 (1500 lb / 680 kg Capacity)

Load Cells Used:

- Sensortronics Model 60048-1K-3108 (750 lb Capacity)
- Rice Lake Model RLPCB-60-1000kgC3 NTEP CC 07-094 or any NTEP Certified, compatible, and metrologically equivalent. (1500 lb / 680 kg Capacity)

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F) (750 lb Capacity) Temperature Range: -10 °C to 20 °C (14 °F to 68 °F) (1500 lb / 680 kg Capacity)

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of *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. *Editorial changes, not affecting the type or metrological content, corrected this certificate

Gene Robertson Chair, NCWM, Inc.

Mellequique

Mahesh Albuquerque Chair, NTEP Committee Issued: March 13, 2024

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Rice Lake Weighing Systems Monorail Scale / MS200HB and MS202HB

Application: For use in a monorail scale system interfaced with an approved and compatible indicator.

Identification: An adhesive identification badge for the device is located on the side of the scale.

<u>Test Conditions</u>: This Certificate of Conformance supersedes Certificate of Conformance Number 90-003A1 and was issued to add two new model of the stainless steel $\frac{1}{2}$ inch rail size in increased capacity and the addition of a "portable" application as an option. The emphasis of the evaluation was on the device design, operation, performance, markings, and compliance with influence factors. The following Rice Lake Weighing Systems MS200HB-SS-1/2-1500 "portable" weighing load receiving element was submitted for evaluation. The W/LRE was interfaced with a Rice Lake Model 682 indicating element (Certificate of Conformance Number 19-021). Multiple increasing/decreasing tests were performed in kilograms and in pounds to verify conformance. A discrimination, eccentricity test was also performed. The device was tested over a temperature range of -10 °C to 20 °C (14 °F to 68 °F). Permanence testing was performed with a load of approximately 300 kg and was applied over 100 000 times. After the permanence test was completed, the eccentricity, discrimination and zone of uncertainty tests were repeated. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 90-003A1</u>: This Certificate of Conformance supersedes Certificate of Conformance Number 90-003 and was issued to add Stainless Steel as an option. No additional testing was required. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 90-003</u>: The emphasis of the evaluation was on the device design, marking, performance, and compliance with influence factor requirements. The scale was interfaced with a Rice Lake model 700 indicator. Several increasing/decreasing load tests were performed. The scale was tested over a temperature range of -10 to 40 $^{\circ}$ C (14 to 104 $^{\circ}$ F). Tests were conducted using power supplies of 100 and 130 VAC. A load of approximately one-half scale capacity was applied to the scale 101,035 times. The scale was tested periodically during this time. The results of the evaluation indicate the device complies with the applicable requirements.

Evaluated By: B. Badenhop & J. Truex (OH) 90-003; M. Manheim (NTEP) 90-003A1; B. Stone (OH) 90-003A2 (CN 10958)

Type Evaluation Criteria Used: Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2024 Edition. NCWM Publication 14: Weighing Devices, 2024 Edition.

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

Information Reviewed By: D. Flocken (NCWM) 90-003A1, 90-003A2

Example(s) of Device:



MS200HB