



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Weighing/Load Receiving Element
Load Cell, Electronic
Model: US-MR, US-MR-SS, US-LD, & US-LD-SS
Capacity: 1000 lb to 20 000 lb
 e_{min} : 0.2 lb
 n_{max} : 5000
Platform size: 24 in x 24 in to 84 in x 84 in
Accuracy Class: III

Submitted By: Contact Info. Updated October 2022

USA Measurements
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Standard Features and Options

The relationship of the value for the load cell verification interval (v_{min}) to the scale division (e) for a specific scale installation

- shall be: $v_{min} \leq e \sqrt{N}$ (where N is the number of load cells in the scale).

• **Construction:**

- Mild steel or stainless-steel construction
- Standard or low-profile platform
- Sealable Junction Box
- Leveling Feet
- 4 load cells in each weighing/load receiving element
- Bubble level

- **Models evaluated:** LP 7622 low profile 5000 lb x 1 lb 48 in x 48 in mild steel, LP 7620 20 000 lb x 5 lb 84 in x 84 in Mild Steel and LP 7620 1000 lb x 0.2 lb 24 in x 24 in Stainless steel. All models were interfaced with a Locosc Ningbo Precision Technology indicating element NTEP CC: 20-011

• **Load cells used:**

Locosc Precision Technology: LP7110-500 lb non-NTEP,
Locosc Precision Technology: LP7110-2500 lb NTEP CC: 17-121 or any metrologically equivalent and compatible NTEP Certified load cell.
Zemic: H8C-10 000 lb NTEP CC: 12-028 or any metrologically equivalent and compatible NTEP Certified load cell.

- The weighing load receiving elements may have platform areas up to but not larger than that evaluated, with lengths or widths no greater than 125 percent of either dimension tested.

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.

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USA Measurements

Weighing Load Receiving Element / US-MR, US-MR-SS, US-LD, & US-LD-SS

Application: General purpose weighing applications when interfaced with an NTEP certified and compatible indicating element.

Identification: The required information is on an adhesive badge located on the side of the weighing/load receiving element frame near the junction box access cover.

Sealing: The weighing/load receiving element has a junction box sealed with a wire security seal thru cross drilled screws. Set-up and calibration parameters are performed by the indicator which is sealed according to the Certificate of Conformance for that device and the manufactures instructions.

Test Conditions: The emphasis of the evaluation was on device design, marking, operation, and compliance with influence factor requirements. Three weighing/load receiving elements were evaluated, the model US-MR, 20 000 lb x 5 lb 84 in x 84 in mild steel (Field Evaluated) an US-LD 5000 lb x 1 lb, 48 in x 48 in low profile mild steel (Field Evaluated) and a US-LD-SS 1000 lb x 0.2 lb 24 in x 24 in Stainless Steel (laboratory evaluated). All the evaluated weighing/load receiving elements were interfaced with a Locosc Ningbo Precision Technology indicating element, NTEP Certificate of Conformance 20-011. Multiple increasing/decreasing load, eccentricity and corner tests were performed using certified test weights on all models. The laboratory model was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). After completion of NTEP publication 14 permanence requirements for all models the increase/decrease, eccentricity and corner tests were repeated using certified test weights.

Evaluated By: J. Gibson (OH)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2022 Edition. NCWM Publication 14 Measuring Devices, 2022 Edition.*

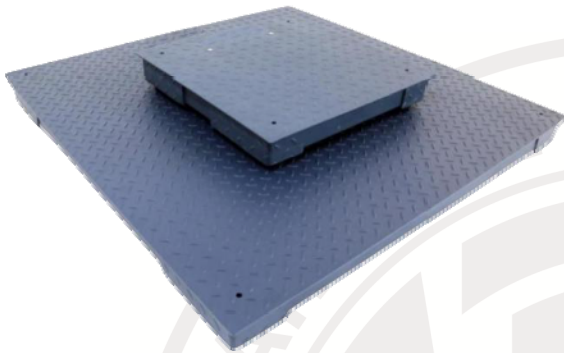
Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: D. Flocken (NCWM)



USA Measurements
Weighing Load Receiving Element / US-MR, US-MR-SS, US-LD, & US-LD-SS

Examples of Device:



Mild steel diamond plate deck



Stainless steel smooth plate deck



Stainless-steel low profile drum scale



Mild steel low profile drum scale