NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Multiple Dimensions Measuring Device
Models: CSN950
Maximum: (see table below)
Minimum: (see table below)
d: (see table below)

Submitted By:
Mettler-Toledo, LLC
1150 Dearborn Drive
Worthington, OH 43085
Tel: 614-438-4387
Fax: 614-438-4355
Contact: Scott Davidson
Email: scott.davidson@mt.com
Web Site: www.mt.com

Standard Features and Options

*Dynamic Dimensioning of cuboidal shaped objects. Only opaque cuboidal shaped objects are allowed to touch, but not to be stacked on top of one another.

Standard Features:

- RS232 Communication Port
- The CSN950 uses Infrared lasers with fan shaped beams of light to detect the top and all four sides of the objects being measured.
- A belt contact tachometer.
- The dimension data and message codes are output to a host device or simple display.

Dimensioning Designation:

Dimensions	d	Minimum	Maximum	Maximum Velocity
Length	0.2 in (0.5 cm)	2.4 in (6 cm)	146 in (370 cm)	0 – 655 ft/min (0 – 3.33 m/s)
Width	0.2 in (0.5 cm)	2.4 in (6 cm)	48 in (120 cm)	
Height	(see note below)	(see note below)	36 in (90 cm)	

Note: Height "d" is single range or multi-interval capable: 0.1 in (0.2 cm) from 1.2 in (3 cm) to 36 in (90 cm), and/or 0.2 in (0.5 cm) from 2.4 in (6 cm) to 36 in (90 cm)

Length = Longest Dimension in the Horizontal Axis **Width** = Shortest Dimension in the Horizontal Axis **Height** = From Top of the Belt and Up

Temperature Range: -10 ºC to 40 ºC (14 ºF to 104 ºF)

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.

Kurt Floren
Chairman, NCWM, Inc.

Tim Tyson
Chairman, National Type Evaluation Program Committee

Issued: March 23, 2012

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Mettler-Toledo, LLC

Multiple Dimensions Measuring Device / CSN950

Application: The CSN950 is used to calculate the dimensions of opaque cuboidal shaped objects. More than one object can be (scanned) measured simultaneously. The edges or surfaces of cuboidal shaped objects may be touching. Objects may not be stacked.

Identification: The required information appears on an adhesive badge attached to the side of the device housing.

Sealing: The CSN950 stores its Category 3 audit trail data to the motherboard which can be viewed remotely via a web browser.

Operation: The dynamic dimensioning system works with conveyor systems. Objects must pass on the conveyor below the dimensioner. A belt contact tachometer is mounted in a location that allows it to contact the belt. Normally the tachometer is mounted on the underside of the conveyor, contacting the bottom side of the conveyor belt.

The dimension data and message codes are output to a PC or simple display. The majority of applications will have a PC running Mettler-Toledo CSM software. This software is used to display the dimension data and can also be used to collect and merge barcode data (optional) and weight data from a scale (optional).

Test Conditions: For the purpose of this evaluation, a CSN950 was submitted for evaluation. The emphasis of the evaluation was on device design, operation, markings, performance, and compliance with influence factor requirements. Several measurements were performed near maximum, near minimum, and near mid-range for the range listed. The device was tested over a temperature range of -10° C to 40° C (14° F to 104° F). Several measurements were performed in singulated and non-singulated (side by side; both touching and not touching) mode with cuboidal shaped objects. Measurements were also conducted with power supplies of 24 VDC nominal and a range of 100 VAC to 240 VAC.

NOTE: This Certificate is issued as a provisional NTEP Certificate of Conformance (CC). This evaluation is based on the current draft checklist, procedures and technical policy contained in NCWM Publication 14 for this device type. When work on the NCWM Publication 14 section for this device is completed, the test report and this NTEP CC will be reviewed. If all current requirements have been met by this evaluation, the provisional status will be removed.

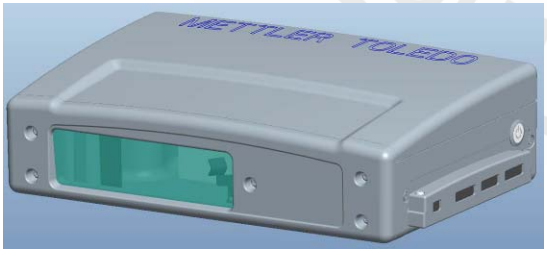
Evaluated By: J. Morrison (OH)

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2012. NCWM, Publication 14: Weighing Devices, 2012.

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)

Example of Device:



Model CSN950