National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

National Type Evaluation Program

Certificate of Conformance for Weighing and Measuring Devices

For:
Indicating Element
Digital Electronic
Model: HI 4050-MM-PP-II-NN-OO*
n_{max}: 10 000

Accuracy Class: III/III L

Submitted by:
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Standard Features and Options

* Where MM-PP-II-NN-OO refer to device configuration options (see Page 2)

Pound/kilogram/gram/ounce/ton unit conversions
Liquid crystal display
Alphanumeric display
Gross/net weight display
Keyboard tare
Semi-automatic (push-button) tare
Semi-automatic (push-button) zero
Automatic zero setting mechanism (AZSM)
AC power supply
Ethernet communication port
Category 1 audit trail

Options: See table on page 2

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

This device was evaluated under the National Type Evaluation Program (NTEP) 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.

Mike Cleary
Chairman, NCWM, Inc.

Don Onwiler
Chairman, National Type Evaluation Program Committee

Issued Date: June 29, 2007

Hardy Instruments, Inc.
Indicating Element
Model: HI 4050-MM-PP-II-NN-OO

Options:

MM - Mounting	PP - Power	II - Internal	NN - Network	OO – Auxilary
DR - Din Rail **PM** - Panel	**AC** - Alternating Current **DC** - Direct Current	**EIP** - Ethernet **ROC** - Rate of Change **MD** - Modbus **N1** - No Internal Options	**DN** - DeviceNet **4ANA** - 4 Channel Analog Output **N2** - No Network	**DIO** - Digital Input/Output **4ANB** - 4 Channel Analolg Output **N3** - No auxiliary Option

Application: General purpose indicating element for Class III and Class III L installations.

Identification: The identification is on a self-adhesive and tamper evident badge at the top of the indicator.

Sealing: Sealing is by Category 1 audit trail and is password protected. Access to the audit trail is initiated by pressing the "Enter" key to access the "Configuration Menu" which contains the "Audit Trail". The Audit Trail contains the configuration and calibration parameters, and time and date each parameter was changed. Press "Exit" to leave the Audit trail.

Test Conditions: The Model HI 4050-PM-AC-N1-N2-N3 electronic indicator was submitted for evaluation. The emphasis of the evaluation was on device design, operation, performance, and compliance with influence factor requirements. The indicator was interfaced with a weight simulator and tested for accuracy over a temperature range of -10 ºC to 40 °C (14 ºF to 104 ºF). Tests were also conducted over a voltage range of 100 VAC to 130 VAC. Additionally, the indicator was interfaced with a weighing element to verify compliance with motion detection, momentary power loss, zero functions, and print format requirements.

Type Evaluation Criteria Used: NIST Handbook 44, 2007 Edition, NCWM Publication 14, 2007 Edition

Tested By: S. Boyd (CA)

Conclusion: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: S. Patoray, L. Bernetich (NCMW)

Hardy Instruments, Inc.
Indicating Element
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Hardy Instruments Model 4050 I.D. Badge

Front View