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
Models: AD-4405, AD-4406, and AD-4407
n_{max}: 10 000

Accuracy Class: III/III L

Submitted by:
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Standard Features and Options

A label stating, "The counting feature is not legal for trade" is attached near the weight display

Automatic zero setting mechanism (AZSM)
Initial zero setting mechanism (IZSM)
Semi-automatic (push-button) zero
Semi-automatic (push-button) tare
Gross/net indication
Vacuum fluorescent display (Models AD-4405 and AD-4407)
Liquid crystal display (Model AD-4406)
RS-232 serial interface
Multi-interval capability
AC/DC adapter
Center of zero annunciator
Stable annunciator
Stainless steel enclosure (Model AD-4407)

Options:

DC power supply and DC battery operation (Model AD-4406)
Integral printer (Model AD-4405)

Temperature range: -10 °C to 40 °C (14 °F to 104 °F)

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

Dennis E. Ehrhart
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A&D Engineering
Indicating Element, Digital Electronic
Models: AD-4405, AD-4406, and AD-4407

Application: For use as a general purpose indicating element when interfaced with an approved and compatible weighing element.

Identification: A tamper evident adhesive identification label is located on the right side of the indicator.

Sealing: Model AD-4406: The calibration and configuration push-button is located under a slotted front panel cover plate assembly. A permanent hinge is attached to the cover plate assembly that allows the hinge to swing freely and to apply a wire security seal.

Models AD-4405 and AD-4407: The calibration and configuration push-button can be accessed from the back of the case. A metal plate is secured by two drilled headed screws. A wire security seal is applied through one of the drilled headed screws and a standoff mounted to the case.

Test Conditions: The emphasis of the evaluation was on device design, performance, marking requirements, and compliance with influence factor requirements. Models AD-4406 and AD-4407 were submitted for evaluation. Each model was interfaced with a load cell simulator and then tested for accuracy over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Several increasing/decreasing load tests were performed and with line voltages of 100 VAC to 130 VAC and 5.3 to 10 VDC. The indicator was also interfaced with a weighing element and printer for zero, zone of uncertainty, discrimination, motion detection, and printing tests.

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

Type Evaluation Criteria Used: NKST Handbook 44, 2004 Edition; NCWM Publication 14, 2003 Edition

Tested By: Dan Parks (CA)

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