

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Non-Computing Scale Digital Electronic Model: GP-30KN and GP-30KSN Series n<sub>max</sub>: 31 000 e<sub>min</sub>: 1g Capacity: 31 000 g Platform: Accuracy Class: II

#### Submitted By: Contact Info. Updated November 2022 A&D Engineering, Inc. 4622 Runway Boulevard Ann Arbor, MI 48108 Tel: 408-263-5333 Fax: 408-263-0119 Contact: Product Manager Email: prod\_mgr@andweighing.com Website: www.andweighing.com

### **Standard Features and Options**

### **Model Designation:**

- G = Type
- N = Legal for Trade
- KS = Detachable display
- Semi-automatic (push-button) Zero

K = Swing Arm

- Automatic Zero Tracking Mechanism (AZT)
- Category 1 physical seal
- Detachable display (KSN units only)
- RS-232
- Under scale weighing
- AC voltage (120 vac to 240 vac)
- Bubble Spirit Level Indicator
- Gross/Net Display
- Initial Zero Setting Mechanism (IZSM)

The GP-30KN and GP-30KSN are for indirect sales applications only.

## Load Cell Used:

SHS force restoration load cell. Model: 1PAGP30K-KE (non-Ntep)

Temperature Range: 10 °C to 30 °C (50 °F to 86 °F)

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.

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Hal Prince Chairman, NCWM, Inc.

Craig VanBuren Committee Chair, NTEP Committee Issued: January 21, 2021

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- VFD Display
- External Unit Conversion key (kg, lb, oz,)
- Automatic internal calibration mechanism



# A&D Engineering, Inc.

Non-Computing Scale / GP-30KN and GP-30KSN Series

Application: General purpose Class II non-computing scale. The GP-30KN and GP-30KSN are suitable for use in any class II indirect sale application.

**Identification:** The device markings are on a pressure sensitive, tamper evident label displaying "Void" when removed and is located on the right side of the device, the appropriate capacity x division markings are adjacent to the weight display the serial number is on the back of the device.

<u>Sealing</u>: The device uses a category 1 physical seal and is sealed by threading a wire security seal thru drilled head screws on the back left and right side of the indicator housing preventing the disassembly of the housing and access to the internal calibration switch. See photo and drawing in the examples of device section.

<u>Test Conditions</u>: The emphasis of the evaluation was on the device design, operation, environmental factors, performance and marking requirements. Two models the GP-30KN and GP-30KSN (31 000 g x 1 g) were submitted for evaluation. Multiple increasing/decreasing load, eccentricity and under scale weighing tests were performed. Each device was tested over a voltage range of 85 VAC to 264 VAC. Influence factor tests were conducted over a temperature range of 10 °C to 30 °C (50 °F to 86 °F). Discrimination and level sensitivity tests were performed. A load of one-half capacity was applied over 100 000 times, increase/decrease testing was performed during this time. At the conclusion of permanence testing increase/decrease and eccentricity testing was repeated.

Evaluated By: J. Gibson (OH)

**Type Evaluation Criteria Used:** NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2020 Edition. NCWM Publication 14 Measuring Devices, 2020 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)

Example(s) of Device: GP30-KN and GP30-KSN





# A&D Engineering, Inc.

Non-Computing Scale / GP-30KN and GP-30KSN Series

Sealing Drawing (backside of indicating element)



Internal calibration switch (circled in red inside indicator housing)

