NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Non-Computing Scale
Digital Electronic, Prescription, Jeweler's
Model: ALE Series (See table on Page2)
n_{max}: 1800 to 120 000 (See table)
e_{min}: (See table Page 2)
Capacity: (See table Page 2)
Platform: See "Pan Size: below
Accuracy Class: I / II & III (See table)

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Standard Features and Options

Automatic Zero Tracking (AZT) (ALE 223N, RN thru ALE 15001N, RN)	Auto Shut Off
Initial Zero Setting Mechanism (IZSM)	Alphanumeric Display
Semi-Automatic Zero (Push Button)	Liquid Crystal Display
Push Button Tare (ALE 223N, RN thru ALE 15001N, RN)	RS232/USB
DC power (USB, battery)	percentage mode
Gross/Tare/Net display (ALE 223N, RN thru ALE 15001N, RN)	Specific gravity mode (not legal for trade)
Units of Measure: g, oz, lb, gr, c or ct, and PC (pieces in counting mode)	AC/DC Adapter
Draft Shield (ALE 223N, RN thru ALE 1203N, RN, and optional for ALE 322NC)	Remote printer capability
Remote display capability (ALE 322NC, ALE 1501NC and ALE 8200NC)	Category 1 physical seal
Bluetooth Wireless communication	Additional RS232 communication port
Ethernet port	Relay contact port

Pan Size: ALE 223N, RN thru ALE 1203N, RN, and ALE 322NC 118 mm Dia.

ALE 1502N, RN thru ALE 15001N, RN, ALE 1501NC and ALE 8200NC 180 mm x 160 mm SS.

Temperature Range: 5° C to 35° C (41° F to 95° F) all class II devices and 10^0C to 30^0C (50^0 F to 86^0 F) for ALE 1203N, RN

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.

Mahesh Albuquerque
Chairman, NCWM, Inc.

Ivan Hankins
Chair, NTEP Committee
Issued: April 7, 2023

Shinko Denshi Co., Ltd.

Non-Computing Scale / ALE Series

Application: General purpose top loading balance. The ALE Series of devices are suitable for use in any class II or III indirect sale application. ALE322NC, ALE1501NC and ALE8200NC are suitable for use in any class II direct or indirect sale application. Examples are but not limited to retail cannabis, pharmacy, prescription, precious metals and gems.

Model •	Capacity	e (g)	d (g)	n_{max}	Temperature Range	Class
ALE 223N, RN	220 g	0.01 g	0.001 g	22 000		II
	1 100 c	0.1 c	0.01 c	11 000		II
	0.48 lb	0.0001 lb	0.00001 lb	4 800	5^0 C to 35^0 C	II
	7.7 oz	0.001 oz	0.0001 oz	7 700		II
	3 300 gr	1 gr	0.1 gr	3 300		II
ALE 322NC	320 g	0.01 g	0.01 g	32 000		II
	1 600 ct	0.1 ct	0.1 ct	16 000		II
	0.7 lb	0.0001 lb	0.0001 lb	7 000	5^0 C to 35^0 C	II
	11 oz	0.001 oz	0.001 oz	11 000		II
	4 900 gr	1 gr	1 gr	4 900		II
ALE 323N, RN	320 g	0.01 g	0.001 g	32 000		II
	1 600 c	0.1 c	0.01 c	16 000		II
	0.7 lb	0.0001 lb	0.00001 lb	7 000	5^0 C to 35^0 C	II
	11 oz	0.001 oz	0.0001 oz	11 000		II
	4 900 gr	1 gr	0.1 gr	4 900		II
ALE 623N, RN	620 g	0.01 g	0.001 g	62 000		II
	3 100 c	0.1 c	0.01 c	31 000		II
	1.3 lb	0.0001 lb	0.00001 lb	13 000	5^0 C to 35^0 C	II
	21 oz	0.001 oz	0.0001 oz	21 000		II
	9 500 gr	1 gr	0.1 gr	9 500		II
ALE 1203N, RN	1 200 g	0.01 g	0.001 g	120 000		I
	6 000 c	0.1 c	0.01 c	60 000		I
	2.6 lb	0.0001 lb	0.00001 lb	26 000	10^0 C to 30^0 C	II
	42 oz	0.001 oz	0.0001 oz	42 000		II
	18 000 gr	1 gr	0.1 gr	18 000		II
ALE 1501NC	1 500 g	0.1 g	0.1 g	15 000		II
	7 500 ct	1 ct	1 ct	7 500	5^0 C to 35^0 C	II
	52 oz	0.01 oz	0.01 oz	5 200		II
ALE 1502N, RN	1 500 g	0.1 g	0.01 g	15 000		II
	7 500 c	1 c	0.1 c	7 500	5^0 C to 35^0 C	II
	3.3 lb	0.001 lb	0.001 lb	3 300		III
	52 oz	0.01 oz	0.001 oz	5 200		II
ALE 2202N, RN	2200 g	0.1 g	0.01 g	22 000		II
	11 000 c	1 c	0.1 c	11 000	5^0 C to 35^0 C	II
	4.8 lb	0.001 lb	0.001 lb	4 800		III
	77 oz	0.01 oz	0.001 oz	7 700		II
ALE 3202N, RN	3200 g	0.1 g	0.01 g	32 000		II
	16 000 c	1 c	0.1 c	16 000	5^0 C to 35^0 C	II
	7 lb	0.001 lb	0.0001 lb	7 000		II
	110 oz	0.01 oz	0.001 oz	11 000		II
ALE 6202N, RN	6200 g	0.1 g	0.01 g	62 000		II
	31 000 c	1 c	0.1 c	31 000	5^0 C to 35^0 C	II
	13 lb	0.001 lb	0.0001 lb	13 000		II
	210 oz	0.01 oz	0.001 oz	21 000		II
ALE 8200NC	8200 g	1 g	1 g	8200	5^0 C to 35^0 C	II

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ALE 8201N, RN	8200 g 18 lb 280 oz	1 g 0.01 lb 0.1 oz	0.1 g 0.01 lb 0.1 oz	8 200 1 800 2 800	5^0 C to 35^0 C	II III III
ALE 15001N, RN	15 000 g 33 lb 520 oz	1 g 0.01 lb 0.1 oz	0.1 g 0.01 lb 0.01 oz	15 000 3 300 5 200	5^0 C to 35^0 C	II III II

***Models with "RN" are equipped with semi-automatic internal calibration weight.**

Identification: The required information, the Minimum Piece Weight (MPW) and the Minimum Sample Size (MSS) is on a self-destructive label located on the back of the device. Other required information capacity x division and "The Counting Feature Not Legal for Trade" or "Counting Feature for Prescription Filling Only", is located on the front of the unit above the display.

Sealing: The balance is physically sealed by applying a pressure sensitive, tamper proof seal over the enclosure screw located on the rear of the unit or with a lead and wire seal thru the u-shaped bracket covering the enclosure screw. There is also a hole on the bottom front of the balance that must be sealed with a pressure sensitive tamper evident security seal preventing access to the Legal/non-legal for trade switch. Direct sale models will have a rubber plug under the pressure sensitive security seal.

Test Conditions: This certificate supersedes Certificate of Conformance 17-061A2 and was issued to change the draft shield on the model ALE 322NC from standard to optional. A picture of the ALE 322NC without the draft shield is in the examples section below. Previous test conditions are below for reference.

Certificate of Conformance 17-061A2: This Certificate supersedes Certificate of Conformance 17-061A1 and was issued to add new models to the ALE series. Two models were submitted for evaluation, the ALE 322 NC and ALE 8200 NC. The emphasis of the evaluation was on device design, performance, operation and marking requirements. Multiple increasing/decreasing, load and eccentricity tests were conducted. The remote display was verified for correct function and to validate the models are suitable for direct sales applications. The rubberized plug with pressure sensitive seal was verified. Previous test conditions are below for reference.

Certificate of Conformance 17-061A1: This Certificate supersedes Certificate of Conformance 17-061 and was issued to add Class III to the Model: ALE 8201N, RN and expand the table indicating parameters in different units. A Shinko Denshi Model: ALE 8201RN was submitted for evaluation with the focus being on marking requirements and compliance with NIST Handbook 44 class III tolerances. Multiple increasing/decreasing and eccentricity tests were performed. Please refer to additional test data below for reference.

Certificate of Conformance 17-061: This Certificate is issued based upon the following tests and information provided by the manufacturer. The models ALE 223RN, ALE 623RN, ALE 1203RN, ALE 6200RN and ALE15001RN were submitted for evaluation. The emphasis of the evaluation was on device design, performance, operation, marking requirements, compliance with influence factors and verifying that the indicated piece count value complies with the tolerances in NCWM Publication 14 Table T.N.3.10. Several increasing/decreasing, load and shift tests were conducted. The scales were tested over a temperature range of 5^o C to 35^o C (41^o F to 95^o F) for all class II devices and 10^0C to 30^0C (50^0 F to 86^0 F) for ALE 1203N, RN. A load of approximately one-half capacity was applied to the scales 100,000 times with the scales being tested periodically during this time. Tests were conducted using 102V AC and 264V AC and 3.55 VDC and 6.6 VDC power supplies. Peripheral USB supplied DC power was also tested at 3.47 VDC and 6.6 VDC.

Evaluated By: J. Gibson (OH) 17-061, 17-061A1, 17-061A2; T. Buck (OH) 17-061A3 (CN 10742)

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2023 Edition. *NCWM Publication 14 Weighing Devices*, 2023 Edition.

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) 17-061, 17-061A1; D. Flocken (NCWM) 17-061A2, 17-061A3

Shinko Denshi Co., Ltd.
Non-Computing Scale / ALE Series

Examples of Device:

ALE 223N (RN) thru ALE 1203N (RN)

ALE 1501N (RN) thru ALE 15001N (RN)

ALE 322NC

ALE 1501NC and ALE 8200NC

ALE 322NC without draft shield

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Non-Computing Scale / ALE Series

Sealing ALE 223N (RN) thru ALE 1203N (RN)

or

Sealing ALE 1502N (RN) thru ALE 15001N (RN)

or

Sealing back-side of ALE322NC

Sealing back side of ALE1501NC and ALE8200NC

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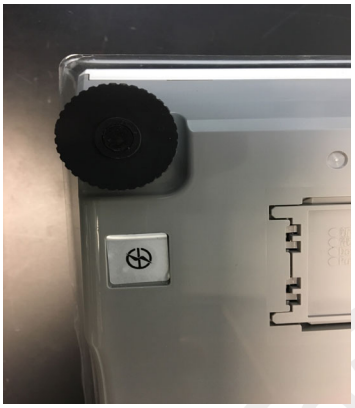
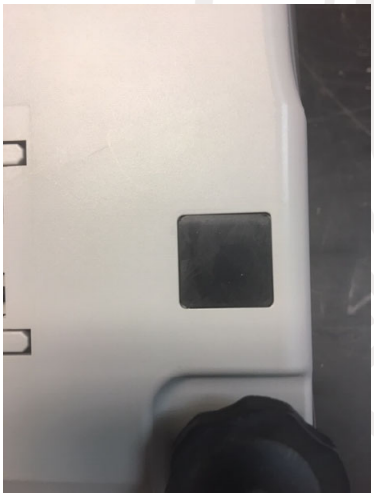
Non-Computing Scale / ALE Series

Sealing ALE 223N (RN) thru ALE 1203N (RN)



Sealing ALE 1502N (RN) thru ALE 15001N (RN)

Sealing ALE 322NC



Sealing ALE 1501NC and ALE 8200NC

The NC models use a rubber plug pictured above under a pressure sensitive security seal pictured below.

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Non-Computing Scale / ALE Series

Sealing bottom ALE 322NC

Sealing bottom ALE 1501NC and ALE8200NC