



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/309

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Shinko Denshi Model ALE 3202 Weighing Instrument

submitted by W W Wedderburn Pty Ltd
101 Williamson Road
Ingleburn NSW 2565

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated October 2015.

This approval becomes subject to review on 1/03/24, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 4 approved – certificate issued	12/02/19
1	Pattern amended (sealing correction) – certificate issued	8/03/19
2	Variant 1 amended (model number) – certificate issued	21/03/19

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/309' and only by persons authorised by the submitter.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0B.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.



Phillip Mitchell
Acting Manager
Pattern Approval, Policy and
Licensing Section

TECHNICAL SCHEDULE No 6/4C/309

1. Description of Pattern

**approved on 12/02/19
amended on 8/03/19**

The Shinko Denshi model ALE 3202 high accuracy class II weighing instrument (Figure 1 and Table 1) of 3200 g maximum capacity with a verification scale interval of 0.1 g. The minimum capacity of the instrument is 2.5 g. Instruments may also be known as Shinko Denshi VIBRA (or VIBRA) ALE series of the same model.

The instrument is fitted with differentiated scale interval (d) of 0.01 g. The resolution of differential scale interval may be adjusted to display 0.02 g or 0.05 g.

The instrument uses a 'tuning-fork' technology and have an LCD display for display of the weight value.

Instruments are approved for use over a temperature range of +5 °C to +35 °C, and are so marked. Instruments are not for trading direct with the public, and are so marked.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices.

1.1 Zero

A zero-tracking device may be fitted.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic subtractive tare device up to maximum capacity may be fitted.

A preset tare device up to maximum capacity may be fitted.

1.3 Alternative Units

Use of units other than grams (g) is not approved for trade use.

1.4 Power Supply

Power may be supplied by an AC/DC mains adaptor or 4 x 1.5 V AA size dry batteries.

Note: The AC/DC mains adaptor supplied for the instrument was a Glob Tek switching power supply model GT-46060-0606-0.05 (5.95 V DC, 1.0 A) mains adaptor – the submitter should be consulted regarding the acceptability of alternative power supply units.

1.5 Display Check

A display check is initiated when the instruments are switched on.

1.6 Levelling

The instrument is provided with adjustable feet and a level indicator.

The instrument is to be used in a level condition as indicated by the level indicator.

1.7 Additional Features

Instruments may be fitted with a number of additional functions including comparator (HI, OK, LO), percentage (%), counting (pcs), coefficient, dynamic (animal) weighing, adding/accumulation, formulation, statistics, specific gravity (density calculations) and progress bar.

These functions and displays are not approved for trade use.

1.8 Interfaces

Instruments may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with General Supplementary Certificate No S1/0/B (in particular in regard to the data and its format).

Instruments may be fitted with RS-232 and USB serial data interfaces.

1.9 Verification Provision

Provision is made for the application of a verification mark.

1.10 Descriptive Markings and Notices

The instrument model number is shown on the instrument nameplate. Instruments carry the following markings:

Manufacturer's mark, or name written in full	Shinko Denshi Co. Ltd
Name or mark of manufacturer's agent	WEDDERBURN
Indication of accuracy class	Ⓜ or Ⓛ *
Pattern approval number for the instrument	NMI 6/4C/309
Maximum capacity	Max g #
Minimum capacity	Min g #
Verification scale interval	e = g #
Actual scale interval	d = g #
Serial number of the instrument
Special temperature limits	+5 °C to +35 °C (class Ⓜ) +10 °C to +30 °C (class Ⓛ) *

These markings are shown near the display of the result.

* These markings are applicable to class Ⓛ instruments only.

In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

1.11 Software

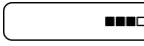
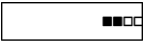

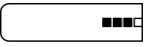


The software is identified by a checksum number 0E6A.

The software checksum number appears in the switch-on display sequence when the power is first applied to the instrument.

1.12 Sealing Provision

Provision is made for the calibration to be sealed by setting a switch on the main board within the instrument to a LOCK position, and then preventing access within the instrument housing (Figure 2).

It is possible to determine that the switch status is in the 'LOCK' position by navigating through the menu screens:

- Press the 'Menu' key in normal weighing mode.
- Press the  key or  key until '6 ADMIN/ADJUST' is displayed.
- Press the  key and '61 SHORT CUT MODE' is displayed.
- Press the  key or  key until '63 MAINTENANCE' is displayed.
- Press the  key.
- If the switch is in the 'LOCK' position, the instrument will display '632 EX SPAN TEST'. In this case the instrument may be verified.
- Otherwise the instrument will display '632 EX CAL TEST' in which case the instrument should not be verified until the switch has been correctly located in the 'LOCK' position.

Sealing to prevent access within the instrument housing may be achieved by using destructible labels placed over the span switch access hole and a join in the instrument housing in Figure 2.

2. Description of Variant 1

approved on 12/02/19
amended on 21/03/19

Certain other capacities of the Shinko Denshi model ALE series of high accuracy class **II** instruments as listed in Table 1 below (the pattern is shown in **bold**).

Instruments may have a wind shield provided over the load receptor.

In each case the subtractive taring device operates up to the maximum capacity of the instrument.

TABLE 1

Model	Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Differential Scale Interval (d) (#)	Platter
ALE 223	220 g	0.1 g	0.01 g	0.001/0.002/0.005 g	Round with wind shield
ALE 323	320 g	0.1 g	0.01 g	0.001/0.002/0.005 g	Round with wind shield

TABLE 1 (cont...)

Model	Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Differential Scale Interval (d) (#)	Platter
ALE 623	620 g	0.1 g	0.01 g	0.001/0.002/0.005 g	Round with wind shield
ALE 1502	1500 g	2.5 g	0.1 g	0.01/0.02/0.05 g	Rectangular
ALE 2202	2200 g	2.5 g	0.1 g	0.01/0.02/0.05 g	Rectangular
ALE 3202	3200 g	2.5 g	0.1 g	0.01/0.02/0.05 g	Rectangular
ALE 6202	6200 g	2.5 g	0.1 g	0.01/0.02/0.05 g	Rectangular
ALE 8201	8200 g	25 g	1 g	0.1/0.2/0.5 g	Rectangular
ALE 15001	15 000 g	25 g	1 g	0.1/0.2/0.5 g	Rectangular

(#) The resolution of differential scale interval (d) may be adjusted to display 1/2 e, 1/5 e or 1/10 e.

3. Description of Variant 2

approved on 12/02/19

The Shinko Denshi model ALE series of special accuracy class ① instruments as listed in Table 2 below.

In each case the subtractive taring device operates up to the maximum capacity of the instrument.

Instruments are approved for use over a temperature range of +10 °C to +30 °C, and are so marked.

TABLE 2

Model	Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Differential Scale Interval (d) (#)	Platter
ALE 1203	1200 g	0.5 g	0.01 g	0.001/0.002/0.005 g	Round with wind shield

(#) The resolution of differential scale interval (d) may be adjusted to display 1/2 e, 1/5 e or 1/10 e.

3.1 Sealing Provision

Sealing of the calibration adjustments of special accuracy class ① instruments is not required. However there is provision for the calibration to be sealed by the use of destructible adhesive labels on the rear of the instrument to prevent access to the calibration switch, and to prevent separation of the casing of the instrument (Figure 2).

Sealing of the instrument does not prevent operation of semi-automatic span adjustment with external calibration mass.

4. Description of Variant 3

approved on 12/02/19

The pattern and variants may be fitted with an internal 'self-calibration' system. This comprises an internal adjustment mass that may be applied to the instrument in an automatic adjustment cycle that is initiated manually by pressing the 'F4' key.

Instruments may be identified by having a 'R' suffix in the model number, e.g. ALE 3202R.

Sealing of the instrument does not prevent operation of this system, however the system uses data regarding the value of internal mass, and alteration of that data is prevented.

5. Description of Variant 4

approved on 12/02/19

The pattern and variants may be fitted with a Vibra model SDI customer display unit (Figure 3) via an RS232 interface.

TEST PROCEDURE No 6/4C/309

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/4C/309 – 1



Typical Shinko Denshi Vibra ALE Series Weighing Instrument

FIGURE 6/4C/309 – 2



Typical Sealing Arrangement Using Destructible Adhesive Labels

FIGURE 6/4C/309 – 3



Vibra Model SDI External Display Unit

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