



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/4C/265

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 CJ-820CE 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 July 2004.

This approval becomes subject to review on **1/09/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	3/08/10
1	Pattern & variant 1 approved – certificate issued	19/08/10
2	Pattern & variant 1 amended (Markings and Notices), reviewed & updated – variant 2 approved – certificate issued	6/04/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/265' 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 Certificates No S1/0/A or 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*.

A handwritten signature in black ink, appearing to read 'A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

TECHNICAL SCHEDULE No 6/4C/265

1. Description of Pattern

approved on 3/08/10

A Shinko Denshi model CJ-820CE (*) class **II** single interval self-indicating non-automatic weighing instrument (Figure 1 and Table 1) 820 g maximum capacity with a verification scale interval of 0.01 g. Instruments may also be known as Shinko Denshi model VIBRA CJ-820CE or VIBRA model CJ-820CE.

The instrument uses 'tuning-fork' technology.

Instruments are approved for use over a limited 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 have a liquid crystal display (LCD).

Power is supplied by a Powermaster switch mode PSU model 05G060083P mains adaptor (Input power: 100-240 V 50/60 Hz, Output power: 6 V DC 830 mA); the submitter should be consulted regarding the acceptability of alternative power supply units.

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

1.1 Zero

Instruments have an initial zero-setting device with a nominal range of not more than 20% of the maximum capacity of the instrument.

The instruments have a combined semi-automatic zero-setting and subtractive tare balancing device (operated by the '→0/T←' key). Operation of this device zeroes the instrument if the load is within the zero-setting range (up to 4% of the maximum capacity of the instrument); otherwise the instrument is tared ('Net' appears). The subtractive taring device operates up to the maximum capacity of the instrument.

A zero-tracking device may also operate to automatically correct to within $\pm 0.25e$ whenever the instrument comes to rest with the display indicating zero (including net zero).

1.2 Management Functions

Instruments may be fitted with a number of management functions including target weighing function ('HI OK LO'), percentage ('%'), counting ('pcs'), animal weighing/averaging and totalisation of weight values.

These functions and displays are not approved for trade use.

1.3 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice stating 'Instrument must be level when in use'.

1.4 Display Check

A display check is initiated whenever power is applied.

1.5 Interfaces

The indicator 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 Supplementary Certificate No S1/0/A (in particular in regard to the data and its format).

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

1.6 Descriptive Markings and Notices

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	Ⓜ
Pattern approval mark for the instrument	NMI 6/4C/265
Maximum capacity	Max g or kg #1
Minimum capacity	Min g or kg #1
Verification scale interval	e = g or kg #1
Serial number of the instrument
Special temperature limits	+5°C to +35°C

#1 These markings are also shown near the display of the result if they are not already located there.

In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording with the exception of instruments used for the weighing of precious metals and precious stones provided that instruments are located such that the instrument and its display are clearly visible to both parties to the transaction.

1.7 Sealing Provision

Provision is made for the span adjustment to be protected by a 'lock switch' within the enclosure of the instrument.

To verify that the 'lock switch' is set such that the span adjustment is protected, press and hold the 'function' key until 'Func' appears, then release the key - a "1.set 1" message appears. Then press 'function' key 11 times until "7.CA.0" is displayed. Press the '0/T' key.

If "7.CA.3" appears, the span adjustment is accessible and the 'lock switch' has not been set correctly (sealing in this case will not be effective).

If "7.CA.3" does NOT appear, the span adjustment is protected, and calibration adjustment of the instrument may be sealed by the use of destructible adhesive labels to prevent access to the lock switch within the instrument housing (see Figure 1b).

2. Description of Variant 1 **approved on 3/08/10**

The Shinko Denshi CJ series of single interval instruments in certain other capacities as listed in Table 1 below (the pattern is shown in **bold**). Instruments may also be known as Shinko Denshi VIBRA (or VIBRA) CJ series.

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

TABLE 1

Type	Max (g)	Min (g)	e (g)
CJ-220CE	220	0.2	0.01
CJ-320CE	320	0.2	0.01
CJ-620CE	620	0.2	0.01
CJ-820CE	820	0.2	0.01
CJ-2200CE	2200	5	0.1
CJ-3200CE	3200	5	0.1
CJ-6200CE	6200	5	0.1
CJ-8200CE	8200	5	0.1
CJ-15KCE	15 000	50	1

Where: *Max* = Maximum capacity
Min = Minimum capacity
e = Verification scale interval

3. Description of Variant 2 **approved on 6/04/16**

The pattern and variants may be fitted with a Vibra model SDI customer display unit (Figure 2) via an RS232 interface.

TEST PROCEDURE

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

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

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

FIGURE 6/4C/265 – 1



(a) Shinko Denshi (or VIBRA) Model CJ-820CE Weighing Instrument



(b) Shinko Denshi (or VIBRA) CJ Series – Typical sealing arrangements

Shinko Denshi Model CJ-820CE Weighing Instrument (Pattern & variant 1)

FIGURE 6/4C/265 – 2



Vibra Model SDI External Display Unit (Variant 2)

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