Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/343

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.

CAS Model SWN-6CC Weighing Instrument

submitted by CAS Corporation
#262, Geurugogae-ro, Gwangjeok-myeon
Yangju-si, Gyeonggi-do, 11415
Republic of Korea

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 is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 4 approved – certificate issued	09/03/26

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/343' and only by persons authorised by the submittor.

It is the submittor'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
A/g Manager
Policy and Regulatory
Services

TECHNICAL SCHEDULE No 6/4C/343

1. Description of Pattern approved on 09/03/26

A CAS model SWN-6CC class (III) self-indicating multi-interval non-automatic weighing instrument (Figure 1 and Table 1) with a verification scale interval (e_1) of 0.001 kg up to 3 kg and with a verification scale interval (e_2) of 0.002 kg from 3 kg up to 6 kg and with a minimum capacity of 0.02 kg.

Instruments are fitted with two integral 7-segment LCD displays for the operator and customer.

Instruments are fitted with a 238 mm x 190 mm platform.

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

1.1 Zero

A zero-tracking device may be fitted.

The initial zero-setting device of the pattern has a nominal range of approximately 20% of the maximum capacity of the instrument.

The instrument maybe fitted with 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 of up to 2.999 kg capacity may be fitted.

1.3 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.

1.4 Display Check

A display check is initiated whenever power is applied.

1.5 Power Supply

Power for the SWN-6CC instrument may be supplied by:

- a 9 V AC/DC mains adaptor; or/and
- 4 x 1.5 V D size dry battery.

Note: The AC/DC mains adaptor supplied for the instrument was a CAS Corporation model SAW-0901500 (output 9 V DC, 1.5 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Additional Features

Instruments may be fitted with certain additional functions (e.g. check weighing (HI/OK/LO) and counting). The additional functions (other than the indications of

measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) 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 R 76 (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 S1/0B (in particular in regard to the data and its format).

Instruments may be fitted with RS232 and USB interfaces.

1.9 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	CAS Corporation
Indication of accuracy class	(III)
Pattern approval number for the instrument	NMI 6/4C/343
Maximum capacity	*Max* ..... g or kg #1
Minimum capacity	*Min* ..... g or kg #1
Verification scale interval	*e* = ... g or kg #1
Maximum subtractive tare	*T* = - ……. g or kg #2
Serial number of the instrument	……..

#1 These markings are shown near the display of the result.

#2 This marking is required if *T* is not equal to *Max*.

Notes:

For multi-interval instruments the markings shall be as above, with the exception that the 'Maximum capacity' and 'Verification scale interval' shall be marked for both interval ranges, e.g. as follows:

Maximum capacity	*Max* ...../..... g or kg
Verification scale interval	*e* = .../..... g or kg

1.10 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of a 'lead and wire' type seal with a drilled screw and a cover plate (Figures 5a and 5b) or destructible adhesive labels placed over the access hole to the calibration switch and over one of casing securing screws underneath the instrument (Figure 5c).

1.11 Software

The software is designed V 5xx or AU5xx, where xx reflecting non-legally relevant part of the software.

The software version and number can be seen in the switch-on display sequence (when the power is first applied to the instrument).

2. Description of Variant 1 approved on 09/03/26

The CAS model SWN-CC multi-interval instruments in certain other capacities as listed in Table 1 (the pattern is shown in **bold**).

Table 1

Maximum Capacity (Max_1/Max_2)	Minimum Capacity (Min)	Verification Scale Interval (e_1/e_2)	Subtractive Tare Capacity (T = -…)
1.5/3 kg	0.010 kg	0.0005/0.001 kg	1.4995 kg
3/6 kg	**0.020 kg**	**0.001/0.002 kg**	**2.999 kg**
6/15 kg	0.040 kg	0.002/0.005 kg	5.998 kg
15/30 kg	0.100 kg	0.005/0.010 kg	14.995 kg

3. Description of Variant 2 approved on 09/03/26

CAS model SWN-SC (Figure 2) which is similar to the pattern and variant 1, except fitted with additional functions (e.g. hold function). The additional functions (other than the indications of measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) are not approved for trade use.

4. Description of Variant 3 approved on 09/03/26

CAS model SWN-CE (Figure 3) which is similar to the pattern and variant 1, except having LED displays for the operator and customer.

4.1 Power Supply

Power for the SWN-CE instrument may be supplied by:

- a 12 V AC/DC mains adaptor; or/and
- an internal rechargeable 6 V DC sealed lead-acid battery.

Note: The AC/DC mains adaptor supplied for the instrument was a JFEC model JF028WR-1200125SH (output 12 V DC, 1.25 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

5. Description of Variant 4 approved on 09/03/26

CAS model SWN-SE (Figure 4) which is similar to variant 2, except having LED displays for the operator and customer.

5.1 Power Supply

Power for the SWN-SE instrument may be supplied by:

- a 12 V AC/DC mains adaptor; or/and
- an internal rechargeable 6 V DC sealed lead-acid battery.

Note: The AC/DC mains adaptor supplied for the instrument was a JFEC model JF028WR-1200125SH (output 12 V DC, 1.25 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

TEST PROCEDURE No 6/4C/343

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*.

Tests

For multi-interval and multiple range instruments with verification scale intervals of e_1, e_2 …, apply e_1 for zero adjustment, and maximum permissible errors apply e_1, e_2 …, as applicable for the load.

FIGURE 6/4C/343 – 1

CAS Model SWN-CC Weighing Instrument (Pattern)

FIGURE 6/4C/343 – 2

CAS Model SWN-SC Weighing Instrument (Variant 2)

FIGURE 6/4C/343 – 3

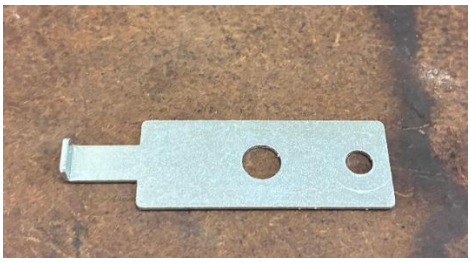
CAS Model SWN-CE Weighing Instrument (Variant 3)

FIGURE 6/4C/343 – 4

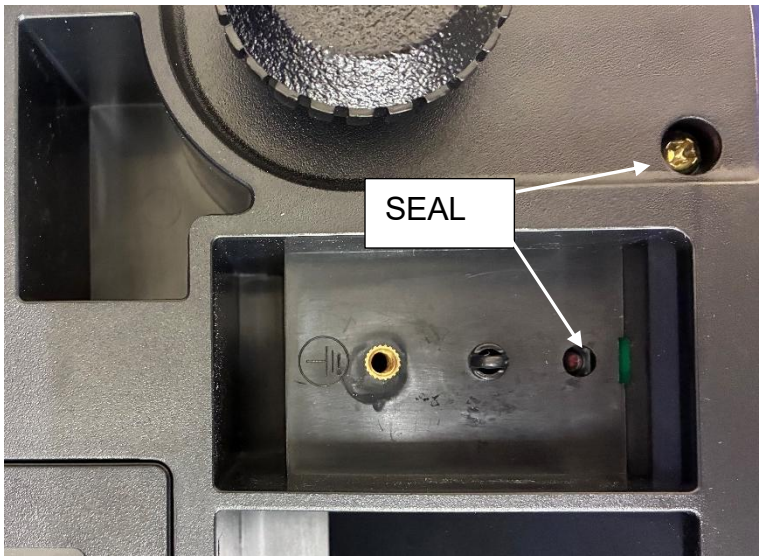
CAS Model SWN-SE Weighing Instrument (Variant 4)

FIGURE 6/4C/343 – 5

(a) Lead and Wire Type of Seal



(b) Cover plate



(c) Sealing Arrangements – Destructible Adhesive Labels

Typical Sealing Method

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