



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/4D/348

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 EB-60L Weighing Instrument

submitted by CAS Corporation
#262 Geurugogae-Ro, Gwangjeok-Myeon
Yangju-Si, Gyeonggi-Do
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 July 2004.

This approval becomes subject to review on **1/11/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 – 3 approved – interim certificate issued	2/09/09
1	Pattern & variant 1 – 3 approved – certificate issued	29/09/09
2	Pattern & variant 1- 3 reviewed & updated – certificate issued	4/10/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4D/348' 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 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*.



Dr A Rawlinson

TECHNICAL SCHEDULE No 6/4D/348

1. Description of Pattern **approved on 2/09/09**

A CAS model EB-60L class III non-automatic multi-interval self-indicating price-computing weighing instrument (Figure 1) with a verification scale interval e_1 of 0.01 kg up to 30 kg and with a verification scale interval e_2 of 0.02 kg from 30 kg up to the maximum capacity of 60 kg.

Instruments are fitted with the operator display and a customer display mounted on a column. The displays are liquid crystal display (LCD) type displays.

The model EB-60L is fitted with a CAS model BCO-60 load cell and a platter of 394 mm x 514 mm nominal size.

Instruments have unit price to \$9999.99/kg, price to \$9999.99, and a product look up (PLU) facility.

Power for the instrument may be supplied by either:

- an AC/DC mains adaptor; or
- an internal rechargeable battery.

Note: The AC/DC mains adaptor supplied was a CAS model SW15-1A (12 V DC, 1.25 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

Instruments shall be connected to an external CAS model DEP-50 or DLP-50 printer, for printing tickets. This printer is connected to instrument by an RS232 interface and is powered by an AC/DC mains adaptor (the AC/DC mains adaptor supplied was a CAS model SA150B-12V, 12 V DC, 2500 mA adaptor – the submittor 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 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 of up to 29.99 kg may be fitted.

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 Totalisation

The adding function and totalisation function shall be only operational when a printer is attached to the instrument and operating correctly.

1.6 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

1.7 Sealing Provision

Provision is made for access to the calibration adjustments to be sealed by covering the calibration switch with a screwed on metal plate and applying a destructible adhesive labels to ensure that removal of the metal plate is evident. Typical methods are shown in Figure 2.

1.8 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	CAS Corporation
Indication of accuracy class	Ⓜ
Pattern approval number for the instrument	NMI 6/4D/348
Maximum capacity	<i>Max</i>/..... g or kg #1
Minimum capacity	<i>Min</i> g or kg #1
Verification scale interval	<i>e</i> =/..... g or kg #1
Maximum subtractive tare	<i>T</i> = - g or kg #2
Serial number of the instrument

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

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

Multi-interval instruments shall be marked with the maximum capacity and verification scale interval of each interval range, in addition to the markings included in clause 1.7 **Descriptive Markings and Notices**.

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

A CAS model EB-150L instrument which is similar to the pattern (model EB-60L), but with a verification scale interval e_1 of 0.02 kg up to 60 kg and with a verification scale interval e_2 of 0.05 kg from 60 kg up to the maximum capacity of 150 kg.

A semi-automatic subtractive tare device of up to 59.98 kg may be fitted.

The model EB-150L is fitted with a CAS model BCO-150L load cell and a platter of 394 mm x 514 mm nominal size.

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

The CAS model EB-60 instrument which is similar to the pattern except that the platter size is 350 mm x 400 mm. The model EB-60 is fitted with a CAS model BCO-60 load cell.

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

The CAS model EB-150 instrument which is similar to variant 1 except that the platter size is 350 mm x 400 mm. The model EB-150L is fitted with a CAS model BCO-150 load cell.

TEST PROCEDURE

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 the *National Trade Measurement Regulations 2009*.

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

FIGURE 6/4D/348 – 1



CAS Model EB-60L Weighing Instrument
(including showing CAS model DEP-50 printer)

FIGURE 6/4D/348 – 2



(a) Sealing Provision



(b) Example showing use of destructible adhesive label sealing arrangements