



Australian Government  
Department of Industry, Science,  
Energy and Resources

## National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

### Certificate of Approval

### NMI 6/4C/237

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 PD-II 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 1/07/19, and then every 5 years thereafter.

#### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variants 1 & 2 approved – interim certificate issued	26/08/05
1	Pattern and variants 1 & 2 approved – certificate issued	8/02/06
2	Pattern amended (Technical Schedule Clause 1.4) – notification of change issued	14/12/06
3	Pattern and variants 1 & 2 reviewed – notification of change issued	1/04/11
4	Variant 3 approved – certificate issued	23/09/14
5	Variant 4 approved – certificate issued	23/06/20

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) 6/4C/237' 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*.



**Darryl Hines**  
Manager  
Policy and Regulatory  
Services

TECHNICAL SCHEDULE No 6/4C/237

**1. Description of Pattern**

**approved on 26/08/05  
amended on 14/12/06**

A CAS model PD-II single-interval self-indicating weighing instrument (Figure 1) with a maximum capacity of 6 kg and a verification scale interval of 0.002 kg.

Instruments are fitted with a single integral display and with a remote column-mounted display.

The instrument is powered from 240 V mains supply.

The instrument has the load receptor directly supported by a single load cell. The load receptor has maximum nominal dimensions of 380 x 280 mm.

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

**1.1 Zero**

Zero is automatically corrected to within  $\pm 0.25e$  whenever the instrument comes to rest within  $0.5e$  of zero.

The instrument has a semi-automatic zero-setting device (to set the instrument to within  $\pm 0.25e$  of zero) with a nominal range of not more than 4% of the maximum capacity of the instrument.

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

**1.2 Tare**

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

**1.3 Display Check**

A display check is initiated whenever power is applied.

**1.4 Levelling**

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

The level indicator is located either on the side of the basework or under the platter; in the latter case, the platter has a hole to allow viewing of the level indicator.

**1.5 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 mark for the instrument	NMI 6/4C/237
Maximum capacity	Max.....kg *
Minimum capacity	Min.....kg *
Verification scale interval	e = ..... kg *
Serial number of the instrument	.....

- \* These markings shall also be shown near the display of the result if they are not already located there.

## 1.6 Sealing Provision

Provision is made for the calibration adjustments to be protected by means of a wire and lead seal through the two sealing screw and cover plate under the load receptor (Figure 2).

## 1.7 Verification Provision

Provision is made for the application of a verification mark.

## 2. Description of Variant 1 approved on 26/08/05

CAS model PD-II weighing instruments in certain other capacities as listed below:

- with a maximum capacity of 15 kg and a verification scale interval of 0.005 kg;
- with a maximum capacity of 30 kg and a verification scale interval of 0.01 kg; and
- with a maximum capacity of 60 kg and a verification scale interval of 0.02 kg.

## 3. Description of Variant 2 approved on 26/08/05

With only a single integral display, either integral or remote.

Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless the instrument is used in a check out situation with the display clearly visible to both the customer and the vendor.

## 4. Description of Variant 3 approved on 23/09/14

Certain CAS model PD-II weighing instruments which are similar to the pattern and variant 1 but having two integral displays as shown Figure 3.

## 5. Description of Variant 4 approved on 23/06/20

Instruments are provided with a level indicator (bubble) located on basework underneath the platter without a hole to allow viewing of the level indicator. A notice indicating the location of the level indicator (e.g. "Level bubble provided under platform", or similar) shall be provided in a location clearly visible to the operator.

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

### TEST PROCEDURE No 6/4C/237

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

### Maximum Permissible Errors

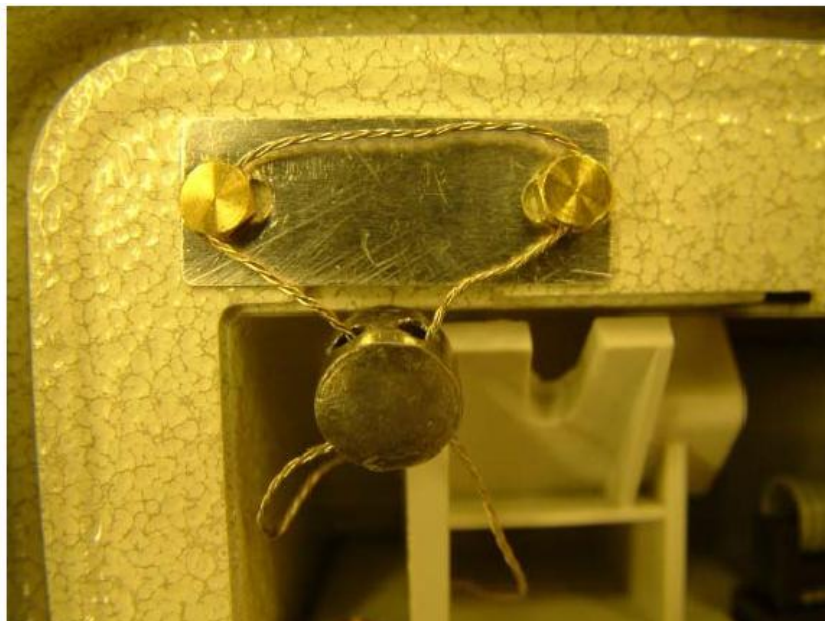
The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE 6/4C/237 – 1



CAS Model PD-II Weighing Instrument

FIGURE 6/4C/237 – 2



Sealing of PD-II Series Instruments

FIGURE 6/4C/237 – 3



CAS Model PD-II Weighing Instrument with Dual Integral Display – Variant 3

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