



Australian Government

**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/210

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.

A & D Mercury Model AP-30 MKII Weighing Instrument

submitted by A & D Australasia Pty Ltd
 (formerly A & D Mercury Pty Ltd)
 32 Dew Street
 Thebarton SA 5031

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 **1/11/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – interim certificate issued	7/08/01
1	Pattern – certificate issued	4/09/01
2	Variant 1 approved – interim certificate issued	1/11/04
3	Variant 1 – certificate issued	2/02/05
4	Pattern & variant 1 reviewed – notification of change issued	1/02/07
5	Pattern & variant 1 reviewed & updated – variant 2 approved – certificate issued	19/10/11

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI (or NSC) 6/4C/210' 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 his powers under Regulation 60 of the *National Measurement Regulations 1999*.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

TECHNICAL SCHEDULE No 6/4C/210

1. Description of Pattern

approved on 7/08/01

An A & D Mercury model AP-30 MKII self-indicating multiple range weighing instrument (Figure 1) with a verification scale interval (e_1) of 0.001 kg up to 2 kg and with a verification scale interval (e_2) of 0.01 kg from 2 kg up to the maximum capacity of 30 kg. May also be known as A&D Australasia instruments of the same model.

The instrument changes automatically to the higher weighing range when the load on the receptor exceeds 2 kg; after changing to the higher range, the verification scale interval remains as 0.01 kg (e_2) until the indication returns to zero.

Instruments are approved for use over a temperature range of +5°C to +35°C and must be so marked.

1.1 Zero

A zero-tracking device automatically corrects zero to within $\pm 0.25e_1$ whenever power is applied and whenever the instrument comes to rest within $0.5e_1$ of zero.

Instruments have a zero indicator which illuminates whenever zero is correct within $\pm 0.25e_1$.

The initial zero-setting device of the pattern 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 Display Check

A display check is initiated whenever power is applied.

1.3 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.

1.4 Verification Provision

Provision is made for the application of a verification mark.

1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of a destructible adhesive label over the access hole to the calibration switch on the side of the display panel.

1.6 Markings

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	NMI (or NSC) 6/4C/210
Low range	
Maximum capacity	<i>Max</i> kg #
Verification scale interval	<i>e</i> = kg #
High range	
Maximum capacity	<i>Max</i> kg #
Verification scale interval	<i>e</i> = kg #
Minimum capacity	<i>Min</i> kg #
Serial number of the instrument
Special temperature limits	+5°C to +35°C

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

2. Description of Variant 1 approved on 1/11/04

A model AP-30 MKIII which is similar to the pattern but in an alternative (resin transfer molded plastic) housing (Figure 2) instead of the metal housing of the pattern.

3. Description of Variant 2 -approved on 19/10/11

A model AND AP-30-i which has the same functionality as the pattern and has a similar resin transfer moulded plastic housing as variant 1, but has modified internal wiring and circuit boards arrangement.

TEST PROCEDURE No 6/4C/210

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/210 – 1



Vendor's Side

A & D Mercury Model AP-30 MKII Weighing Instrument

FIGURE 6/4C/210 – 2



A & D Mercury Model AP-30 MKIII

~ End of Document ~