



Australian Government  
Department of Industry,  
Innovation and Science

## National Measurement Institute

# Certificate of Approval NMI 6/4C/255

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 Model SJ-12K Weighing Instrument

submitted by           A & D Australasia 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 **1/10/21**, and then every 5 years thereafter.

### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – certificate issued	26/09/08
1	Pattern & variant 1 <b>reviewed</b> , updated & amended (change submittor name) – certificate issued	23/06/16

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/255' 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/255

### 1. Description of Pattern

approved on 26/09/08

The A & D model SJ-12K multi-interval self-indicating weighing instrument (Figure 1) with a verification scale interval  $e_1$  of 0.01 kg up to 10 kg and with a verification scale interval  $e_2$  of 0.02 kg from 10 kg up to the maximum capacity of 12 kg. May also be known as A & D Mercury or A & D Australasia instruments of the same model.

The load receptor has maximum nominal dimensions of 230 mm × 190 mm.

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

The instrument has a single liquid crystal display. Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless two displays are present or unless the single display is located such that all primary indications are clearly and simultaneously displayed to both the vendor and the customer.

Power may be supplied by either:

- 9 V DC supplied by an AC/DC mains adaptor; or
- batteries – typically 4 × D cell.

Note: The AC/DC mains adaptor supplied was an A & D model MWD48-0900700ASR (9V DC, 700 mA) – the submitter should be consulted regarding the acceptability of alternative power supply units.

#### 1.1 Zero

A zero-tracking device may be fitted.

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 Tare

A semi-automatic subtractive tare device of up to 9.99 kg capacity may be fitted.

#### 1.3 Display Check

A display check is initiated whenever power is applied.

#### 1.4 Levelling

Instruments are provided with adjustable feet and a level indicator, adjacent to which is a level notice stating 'Instrument must be level when in use', or similar wording.

#### 1.5 Sealing Provision

Provision is made for access to the calibration switch on the back of the indicator to be sealed as shown in Figure 2 or with a destructible adhesive label.

## 1.6 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	A & D Co. Ltd
Name or mark of manufacturer's agent	A & D Australasia Pty Ltd
Indication of accuracy class	Ⓜ
Pattern approval number for the instrument	NMI No 6/4C/255
Maximum capacity	<i>Max</i> ...../..... kg *
Minimum capacity	<i>Min</i> ..... kg *
Verification scale interval	<i>e</i> = ...../..... kg *
Tare capacity (if less than <i>Max</i> )	<i>T</i> = - ..... 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.

Instruments are not for trading direct with the public, and are so marked.

## 1.7 Verification/Certification Provision

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

## 2. Description of Variant 1

approved on 26/09/08

Certain other models of the SJ series, as single interval instruments, as listed below in Table 1.

TABLE 1

	SJ-1000	SJ-2000	SJ-5000
Maximum Capacity, <i>Max</i>	1000 g	2000 g	5000 g
Verification Scale Interval, <i>e</i>	1 g	2 g	5 g
Minimum Capacity, <i>Min</i>	20 g	40 g	100 g
Maximum Tare Capacity, <i>T</i> = ...	-1000 g	-2000 g	-5000 g
Load Receptor Size (mm x mm)	230 x 190	230 x 190	230 x 190

## TEST PROCEDURE

Instruments shall 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 the *National Trade Measurement Regulations 2009*.

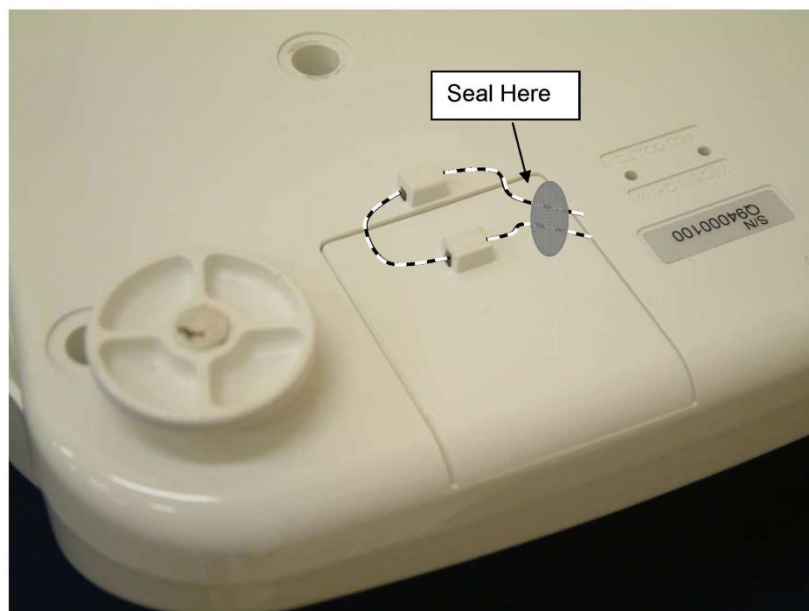
For multi-interval instruments with verification scale intervals of  $e_1, e_2 \dots$ , apply  $e_1$  for zero adjustment, and maximum permissible errors apply  $e_1, e_2 \dots$ , as applicable for the load.

FIGURE 6/4C/255 – 1



A & D Model SJ-12K Weighing Instrument

FIGURE 6/4C/255 – 2



Typical Sealing Arrangement  
(alternatively a destructible adhesive label may be used)

~ End of Document ~