Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/278

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-12KN 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 1/03/18, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 2 approved – certificate issued	21/02/13

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/278' 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.

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 6/4C/278

1. Description of Pattern approved on 21/02/13

The A&D model SJ-12KN class (III) non-automatic multi-interval self-indicating weighing instrument (Figure 1 and Table 1) has a verification scale interval e_1 of 0.010 kg up to 10 kg and a verification scale interval e_2 of 0.020 kg from 10 kg up to 12 kg.

The instrument is fitted with one liquid crystal type display (LCD) for display of the weight value.

Instruments shall be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording).

Power for the A&D model SJ-12KN instrument may be supplied by:

- 4 × D size dry cell batteries (6 V); and/or
- an AC/DC mains adaptor.

Note: The AC/DC mains adaptor supplied for the instrument was an AND mains adaptor type TB-S200 switch mode power supply model 3A-068WS09 (9 V DC, 0.67 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

1.1 Zero and Tare

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

Instruments have a combined semi-automatic zero-setting and subtractive tare balancing device (operated by the '→0/T←' key). Operation of this device zeroes the instrument to within ±0.25e if the load is within the zero-setting range (4% of the maximum capacity of the instrument), otherwise the instrument is tared.

The subtractive taring device operates up to 9.99 kg maximum tare capacity.

A zero-tracking device may be fitted.

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 stating 'Instrument must be level when in use' or similar wording.

1.4 Verification Provision

Provision is made for the application of a verification mark.

1.5 Sealing Provision

Provision is made for access to the calibration switch within the instrument to be sealed by means of lead and wire type seals as shown in Figure 2.

1.6 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	A & D Company Limited
Name or mark of manufacturer's agent	A & D Australasia Pty Ltd
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/4C/278
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 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*.

In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

Note:

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

2. Description of Variant 1 **approved on 21/02/13**

Certain models of the A&D SJ-KN series of multi-interval instruments as listed in Table 1.

TABLE 1

Model Number	Maximum Capacity (Max_1/Max_2)	Minimum Capacity (*Min*)	Verification Scale Interval (e_1/e_2)	Maximum Subtractive Tare Capacity (*T* = - …)
SJ-12KN	**10 / 12 kg**	**0.2 kg**	**0.01 / 0.02 kg**	**9.99 kg**
SJ-30KN	20 / 30 kg	0.4 kg	0.02 / 0.05 kg	19.98 kg

The pattern (model SJ-12KN) is shown in **bold** text.

3. Description of Variant 2 approved on 21/02/13

Certain models of the A&D SJ-KN series of single interval instruments as listed in Table 2.

TABLE 2

Model Number	Maximum Capacity (*Max*)	Minimum Capacity (*Min*)	Verification Scale Interval (*e*)
SJ-1000N	1 kg	0.02 kg	0.001 kg
SJ-2000N	2 kg	0.04 kg	0.002 kg
SJ-5000N	5 kg	0.1 kg	0.005 kg
SJ-20KN	20 kg	0.4 kg	0.02 kg

TEST PROCEDURE No 6/4C/278

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.

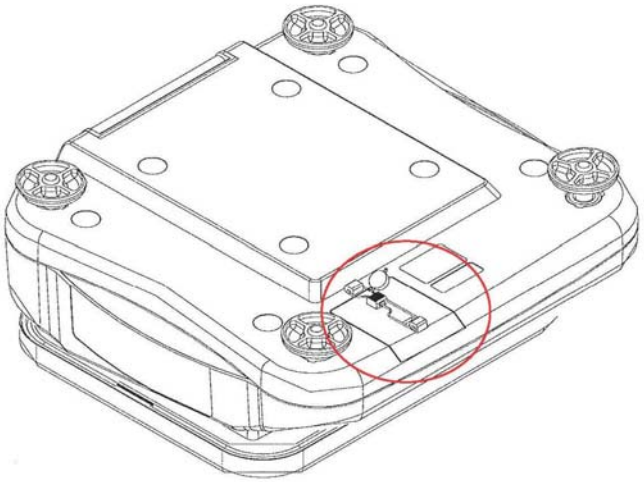
Maximum Permissible Errors

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

FIGURE 6/4C/278 – 1

A&D Model SJ-12KN Weighing Instrument

FIGURE 6/4C/278 – 2



Showing Typical Sealing

~ End of Document ~