



Australian Government

**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/4C/274

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 SW-6KS 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 1/04/17, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – certificate issued	2/03/12

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/274' 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 bottom.

TECHNICAL SCHEDULE No 6/4C/274

1. Description of Pattern

approved on 2/03/12

The A&D model SW-6KS class Ⅲ single interval self-indicating non-automatic weighing instrument (Figure 1 and Table 1) of 6 kg maximum capacity with a verification scale interval of 0.002 kg.

The instrument is fitted with one LED display for display of the weight value.

The load receptor has nominal dimensions of 250 × 250 mm.

The instrument operates from the mains AC power supply and/or an internal 6 V rechargeable battery.

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

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

1.1 Zero

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.

A zero-tracking device may be fitted.

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

1.5 Additional Features

Instruments may be fitted with a number of additional functions including comparator (LO, OK and HI) and counting ('pcs'). These functions and displays are not approved for trade use.

1.6 Interfaces

Instruments may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with General Supplementary Certificates No S1/0/A or No S1/0B (in particular in regard to the data and its format).

Instruments may be fitted with RS-232C/RS422/RS485 serial data interfaces.

1.7 Verification Provision

Provision is made for the application of a verification mark.

1.8 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 with drilled screws as shown in Figure 1b.

1.9 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	Ⓜ
Pattern approval mark for the instrument	NMI 6/4C/274
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.

2. Description of Variant 1 approved on 2/03/12

A model SW-15KS of 15 kg maximum capacity as listed in Table 1.

3. Description of Variant 2 approved on 2/03/12

Certain models of the SW-*KM series which are similar to the pattern but have a 300 × 380 mm load receptor. Instruments are as shown in Figure 2 and as listed in Table 1.

4. Description of Variant 3 approved on 2/03/12

Certain models of the SW-*KL series which are similar to the pattern but have a 390 × 530 mm load receptor. Instruments are as shown in Figure 2 and as listed in Table 1.

TEST PROCEDURE No 6/4C/274

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*.

TABLE 1

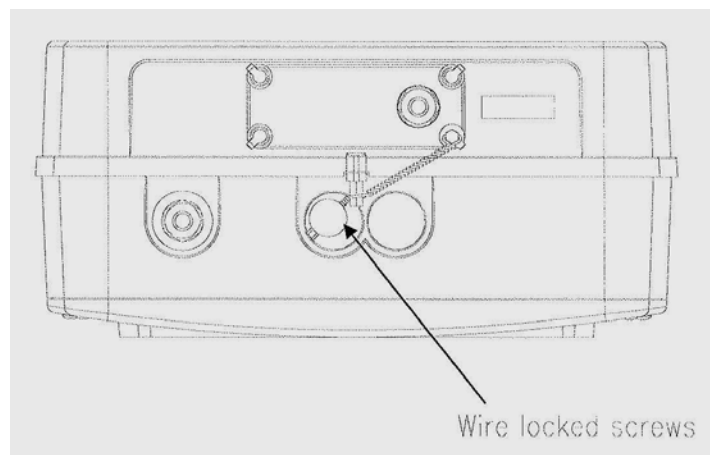
Model Number	Maximum Capacity (<i>Max</i>)	Minimum Capacity (<i>Min</i>)	Verification Scale Interval (<i>e</i>)	A&D Load Cell Used
SW-6KS	6 kg	0.04 kg	0.002 kg	1LC181-6K 10 kg
SW-15KS	15 kg	0.1 kg	0.005 kg	1LC181-6K 25 kg
SW-15KM	15 kg	0.1 kg	0.005 kg	1LC173-30K 50 kg
SW-30KM	30 kg	0.2 kg	0.01 kg	1LC173-30K 50 kg
SW-60KM	60 kg	0.4 kg	0.02 kg	1LC173-60K 100 kg
SW-150KM	150 kg	1 kg	0.05 kg	1LC173-150K 250 kg
SW-60KL	60 kg	0.4 kg	0.02 kg	1LC173-60K 100 kg
SW-150KL	150 kg	1 kg	0.05 kg	1LC173-150K 250 kg

The pattern (model SW-6KS) is shown in **bold** text.

FIGURE 6/4C/274 – 1

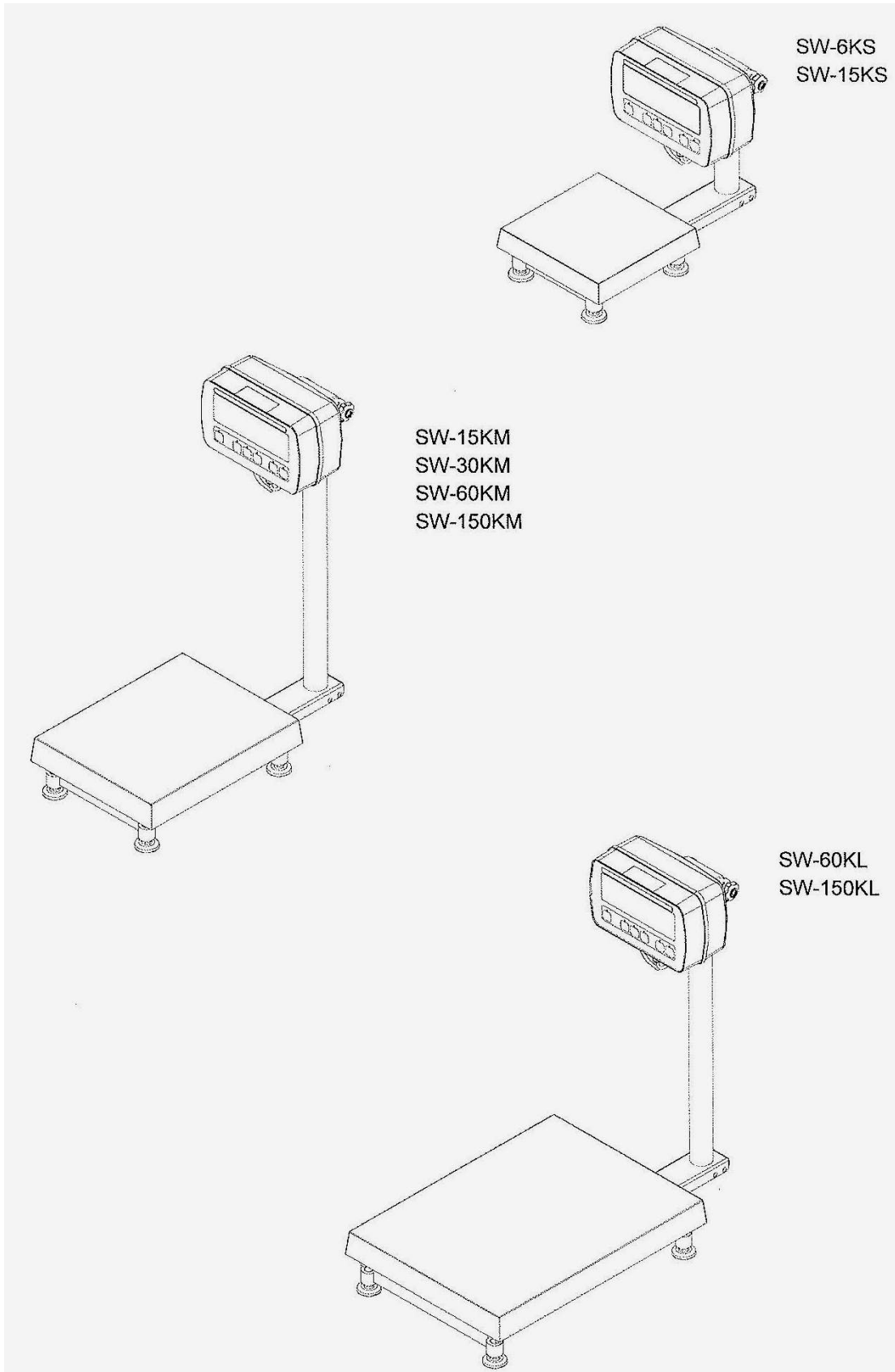


(a) A&D Model SW-6KS Weighing Instrument



(b) Showing Typical Sealing

FIGURE 6/4C/274 – 2



A&D Model SW Series Weighing Instruments

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