

Australian Government

National Measurement Institute Bradfield Road, West Lindfield NSW 2070

Notification of Change Supplementary Certificate of Approval No S251A Change No 4

Issued by the Chief Metrologist under Regulation 60 of the National Measurement Regulations 1999

The following changes are made to the approval documentation for the

A & D Mercury Model AD-4323 Digital Indicator

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

- A. In Supplementary Certificate of Approval No S251A dated 29 December 1995;
- 1. The Condition of Approval referring to the review of the approval should be amended to read:

"This approval becomes subject to review on 1 April **2015**, and then every 5 years thereafter."

Note: The review date was previously amended by Notification of Change No 3 dated 26 May 2005.

2. The FILING ADVICE should be amended by adding the following:

"Notification of Change No 1 dated 30 April 2001 Notification of Change No 2 dated 5 October 2001 Notification of Change No 3 dated 26 May 2005 Notification of Change No 4 dated 21 January 2011"

B. In Supplementary Certificate of Approval No S251A and its Technical Schedule both dated 29 December 1995, the references to the name of the submittor should be amended to read:

"A & D Australasia Pty Ltd"

C. In Technical Schedule No S251A dated 29 December 1995, the 1st paragraph of the TEST PROCEDURE should be amended to read, in part:

"... any relevant tests specified in the Uniform Test Procedures."

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the *National Measurement Regulations 1999*.

National Standards Commission



Supplementary Certificate of Approval

No S251A

Issued under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

A & D Mercury Model AD-4323 Digital Indicator

=) submitted by

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 Certificate is issued upon completion of a review of NSC approval No S251.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1 April 2000. This approval expires in respect of new instruments on 1 April 2001.

Instruments purporting to comply with this approval shall be marked NSC No S251A and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S251A in addition to the approval number of the instrument.

Supplementary Certificate of Approval No S251A Page 2

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

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 Commission 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 the Commission's Document 106.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 28 March 1995

An A & D Mercury model AD-4323 digital mass indicator.

Variant: approved 17 November 1995

1. Certain other models and configurations.

Technical Schedule No S251A describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:



Supplementary Certificate of Approval No S251A dated 29 December 1995 Technical Schedule No S251A dated 29 December 1995 (incl. Table 1 and Test Procedure) Figures 1 to 3 dated 29 December 1995

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

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National Standards Commission

TECHNICAL SCHEDULE No S251A

Pattern: A & D Mercury Model AD-4323 Digital Indicator.

Submittor: A & D Mercury Pty Ltd 32 Dew Street Thebarton SA 5031

1. Description of Pattern

An A & D Mercury model AD-4323 single or multiple-range digital mass indicator (Table 1) which may be fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

Figure 1 shows a multiple-range indicator.

1.1 Zero

Zero is automatically set to within $\pm 0.25e$ whenever the instrument comes to rest within $\pm 0.5e$. If the instrument comes to rest outside that range but within the zero setting range, zero may be set by pressing the zero button.

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

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Tare

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

1.4 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.5 Sealing Provision

Provision is made for the calibration adjustments of the instrument to be sealed.

Technical Schedule No S251A

1.6 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or ma	ark		
Serial number			
Accuracy class		\square	
Maximum capacity (for each range)		Max	*
Verification scale interval (for each range)		e =	*
Minimum capacity (for each range)		Min	*
NSC approval numbers -	indicator	NSC No S251A	
	other components	NSC No	#

* Repeated in the vicinity of each reading face.

May be located separately from the other markings.

2. Description of Variant 1

Other models and configurations as listed below:

Model AD-4324 - having features of the pattern (model AD-4323), and in addition may be fitted with a number of management functions which are not approved for trade use, i.e. check weighing and counting (Figure 2).

Model AD-4325A - having features of the pattern (model AD-4323), and in addition may be fitted with a management function which is not approved for trade use, i.e. a batch weighing facility which includes set points (Figure 3).

Model AD-4325V - having features of the model AD-4325A, and in an alternative ('vertical') housing (Figure 3).

TABLE 1

Type: Models AD-4323, AD-4324, AD-4325A, AD-4325V.

Maximum number of verification scale intervals	5000
Minimum sensitivity	1.5 x 10 ⁻³ mV/scale interval
Excitation voltage	12 V DC
Minimum load impedance	43 Ω
Maximum excitation current	280 mA

TEST PROCEDURE

Instruments shall be tested in conjunction with any tests specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

The maximum permissible errors applicable are those applicable to the system to which the instrument approved herein is fitted, as stated in the approval documentation for the system.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within $\pm 0.25e$ at no load, are:

 $\pm 0.5e$ for loads from 0 to 500e;

- ±1.0e for loads over 500e up to 2000e; and
- ±1.5e for loads over 2000e.

For multiple-range instruments with verification scale intervals of e_1 , e_2 , ..., apply e_1 for zero adjustment and for maximum permissible errors apply e_1 , e_2 , ..., as applicable for the load.

S251A 30 April 2001



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Notification of Change

Supplementary Certificate of Approval No S251A

Change No 1

The following change is made to the approval documentation for the

A & D Mercury Model AD-4323 Digital Indicator

submitted by A & D Mercury Pty Ltd 32 Dew Street Thebarton SA 5031.

In Supplementary Certificate of Approval No S251A dated 29 December 1995;

The Condition of Approval referring to the expiry of the approval should be deleted.

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

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S251A 5 October 2001





National Standards Commission

12 Lyonpark Road, North Ryde NSW

Notification of Change

Certificate of Approval No S251A

Change No 2

The following change is made to the approval documentation for the

A & D Mercury Model AD-4323 Digital Indicator

submitted by A & D Mercury Pty Ltd 32 Dew Street Thebarton SA 5031.

In Supplementary Certificate of Approval No S251A dated 29 December 1995 the Condition of Approval referring to the review of the approval should be amended to read:

"This approval becomes subject to review on 1 April 2005, and then every 5 years thereafter."

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

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S251A 26 May 2005



Australian Government

National Measurement Institute

12 Lyonpark Road, North Ryde NSW 2113

Notification of Change Supplementary Certificate of Approval No S251A Change No 3

Issued by the Chief Metrologist under Regulation 60 of the National Measurement Regulations 1999

The following change is made to the approval documentation for the

A & D Mercury Model AD-4323 Digital Indicator

submitted by A & D Mercury Pty Ltd 32 Dew Street Thebarton SA 5031.

In Supplementary Certificate of Approval No S251A dated 29 December 1995, the Condition of Approval referring to the review of the approval should be amended to read:

"This approval becomes subject to review on 1 April 2010, and then every 5 years thereafter."

Note: The review date was previously amended by Notification of Change No 2 dated 5 October 2001.

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the National Measurement Regulations 1999.





Model AD-4324 Indicator

