S250A
24 October 2001

National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Supplementary Certificate of Approval

No S250A

Issued under Regulation 60
of the
National Measurement Regulations 1999

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

A & D Mercury Model AD-4322A MKII Digital Indicator

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

has been cancelled in respect of new instruments as from 1 November 2001.

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.

National Standards Commission

Supplementary Certificate of Approval

No S250A

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-4322A MKII 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.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 April 2000, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S250A and only by persons authorised by the submittor.

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Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S250A in additon to the approval number of the instrument.

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.

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

DESCRIPTIVE ADVICE

Pattern: approved 28 March 1995

- An A & D Mercury model AD-4322A MKII digital mass indicator.

Technical Schedule No S250A describes the pattern.

Variant: approved 13 January 1997

1. With an amended minimum sensitivity value.

Technical Schedule No S250A Variation No 1 describes variant 1.

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FILING ADVICE

Supplementary Certificate of Approval No S250A dated 31 August 1995 is superseded by this Certificate, and may be destroyed.

The documentation for this approval now comprises:

Supplementary Certificate of Approval No S250A dated 10 March 1997
Technical Schedule No S250A dated 31 August 1995 (incl. Table 1 & Test Procedure)
Technical Schedule No S250A Variation No 1 dated 10 March 1997
Figure 1 dated 31 August 1995

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

National Standards Commission

TECHNICAL SCHEDULE No S250A

Pattern: A & D Mercury Model AD-4322A MkII Digital Indicator.

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

1. Description of Pattern

An A & D Mercury model AD-4322A MkII digital mass indicator (Figure 1 and Table 1) which may be fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

1.1 Zero

Zero is automatically set to within ±0.25e whenever the instrument comes to rest within ±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 ±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 keyboard-entered subtractive preset taring device of up to maximum capacity is fitted.

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

1.4 Linearisation Function

Instruments may be fitted with a programmable 3-point linearisation facility.

1.5 Management Functions

Instruments may be fitted with a number of management functions which are not approved for trade use, including comparator.

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1.6 Verification/Certification Provision

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

1.7 Sealing Provision

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

1.8 Markings

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

Manufacturer's name or mark			
Serial number			
Accuracy class			(III)
Maximum capacity			Max ..... *
Minimum capacity			Min ..... *
Verification scale interval			e = ... *
NSC approval numbers	-	indicator	NSC No S250A
	-	other components	NSC No ..... #

* Repeated in the vicinity of each reading face.
\# May be located separately from the other markings.

TABLE 1

Type: Models AD-4322A MkII

Maximum number of verification scale intervals	5000
Minimum sensitivity	1.9×10^{-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 ±0.25e at no load, are:

±0.5e for loads from 0 to 500e;
±1.0e for loads over 500e up to 2000e; and
±1.5e for loads over 2000e.

National Standards Commission

TECHNICAL SCHEDULE No S250A

VARIATION No 1

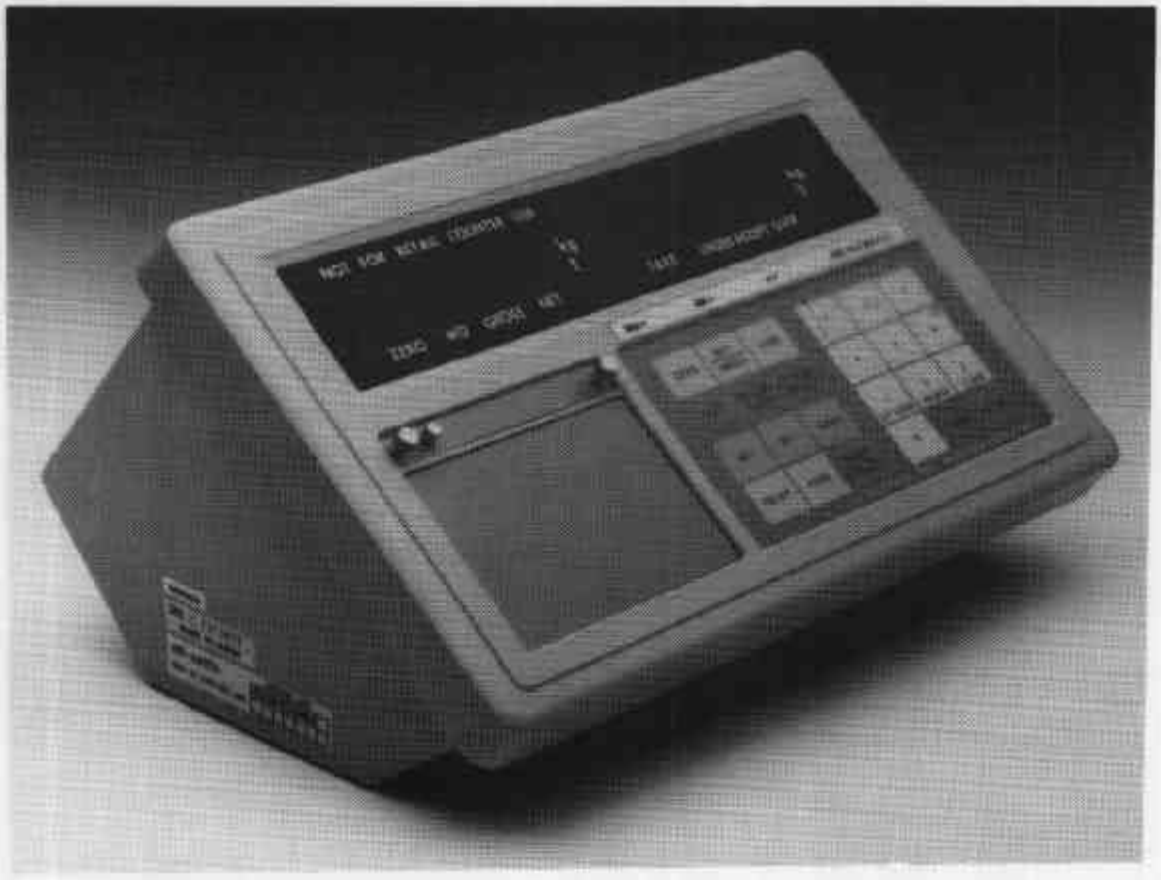
Pattern: A & D Mercury Model AD-4322A MKII Digital Indicator.

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

1. Description of Variant 1

With an amended minimum sensitivity value from that given in Table 1 dated 31 August 1995, in that instruments are now approved for use with a minimum sensitivity of 1.3 µV/scale interval (instead of 1.9 µV/scale interval).

FIGURE S250A - 1



A & D Mercury Model AD-4322A MkII Digital Indicator