

National Standards Commission



Supplementary Certificate of Approval

No S199A

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

AND Mercury Model AD-4321A Digital Indicator

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

This Certificate is issued upon completion of a review of NSC approval No S199.

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.

A handwritten signature in black ink, appearing to read 'J. Birch'. The signature is written in a cursive style with a large initial 'J'.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/6/97.

This approval expires in respect of new instruments on 1/6/98.

Instruments purporting to comply with this approval shall be marked NSC No S199A and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S199A in addition 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.

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

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 7/5/92

. An AND Mercury model AD-4321A digital mass indicator.

Variant: approved 7/5/92

1. Model AD-4321B battery-operated indicator.

Technical Schedule No S199A describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S199A dated 3/7/92
Technical Schedule No S199A dated 3/7/92 (incl. Table 1 and Test
Procedure)
Figure 1 dated 3/7/92



National Standards Commission

TECHNICAL SCHEDULE No S199A

Pattern: AND Mercury Model AD-4321A Digital Indicator.

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

1. Description of Pattern

An AND Mercury model AD-4321A digital mass indicator approved for use with up to 3500 verification scale intervals (Table 1), and which may be fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

Instruments may be as shown in Figure 1 or in alternative housings.

1.1 Zero

Zero is automatically set to within $\pm 0.25e$ whenever the instrument comes to rest within $\pm 0.5e$ of zero. 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 nominal range of $\pm 2\%$.

1.2 Display Check

A display check is initiated by use of the STANDBY/OPERATE button.

1.3 Tare

The instrument may be fitted with a semi-automatic subtractive taring device of up to maximum capacity.

1.4 Net/Gross

When the NET/GROSS button is pressed, the instrument will display the net or gross mass, with the appropriate indicator illuminating.

1.5 Verification/Certification Provision

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

1.6 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 = d = *
Maximum subtractive tare	T = -
NSC approval numbers - indicator	NSC No S199A
- other components #

* Repeated in the vicinity of each reading face.

May be located separately from the other markings.

2. Description of Variant 1

As a battery-operated instrument and known as a model AD-4321B (Table 1)

TABLE 1

Type: AND Mercury	AD-4321A/AD4321B
Maximum number of verification scale intervals	3500/3500
Minimum sensitivity	1.10/0.91 x 10 ⁻³ mV/scale interval
Excitation voltage	12/10 V DC
Minimum load impedance	43/43 ohms
Maximum excitation current	280/230 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.

FIGURE S199A - 1



AND Mercury Model AD-4321A Digital Indicator