S354
5 May 2008

Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation
Supplementary Certificate of Approval No S354

Issued by the Chief Metrologist 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 HW-D 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 July 2008.

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 S354

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 HW-D 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 March 2003, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S354 and only by persons authorised by the submittor.

..../2

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S354 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.

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 6 February 1998

- An A & D Mercury model HW-D digital indicator.

Technical Schedule No S354 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S354 dated 10 July 1998
Technical Schedule No S354 dated 10 July 1998 (incl. Table 1 and Test Procedure)
Figures 1 and 2 dated 10 July 1998

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.

TECHNICAL SCHEDULE No S354

Pattern: A & D Mercury Model HW-D Digital Indicator.

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

1. Description of Pattern

An A & D Mercury model HW-D digital indicator (Figure 1 and Table 1) which is approved for use with up to 3000 verification scale intervals and which may be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

1.1 Zero

Zero is automatically corrected to within ±0.25e whenever power is applied and whenever the instrument comes to rest within 0.5e of zero.

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

1.2 Tare

A semi-automatic subtractive taring device may be fitted having a capacity of up to the maximum capacity of the instrument.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Sealing Provision

Provision is made for the calibration adjustment access cover located at the rear of the housing to be sealed by means of a lead and wire seal.

1.5 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

..../2

1.6 Markings

Instruments carry the following markings, in the form shown at right:

Manufacturer's mark, or name written in full	
Indication of accuracy class	
Maximum capacity	*Max* ..... kg *
Minimum capacity	*Min* ..... kg *
Verification scale interval	*e =* ..... kg *
Serial number of the instrument	
Pattern approval mark for the indicator	NSC No S354

* These markings are also shown near the display of the result if they are not already located there.

In addition, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

TABLE 1 — Specifications

Maximum number of verification scale intervals	3000
Minimum sensitivity	1 μV/scale interval
Excitation voltage	5 V DC
Maximum excitation current	57 mA

TEST PROCEDURE

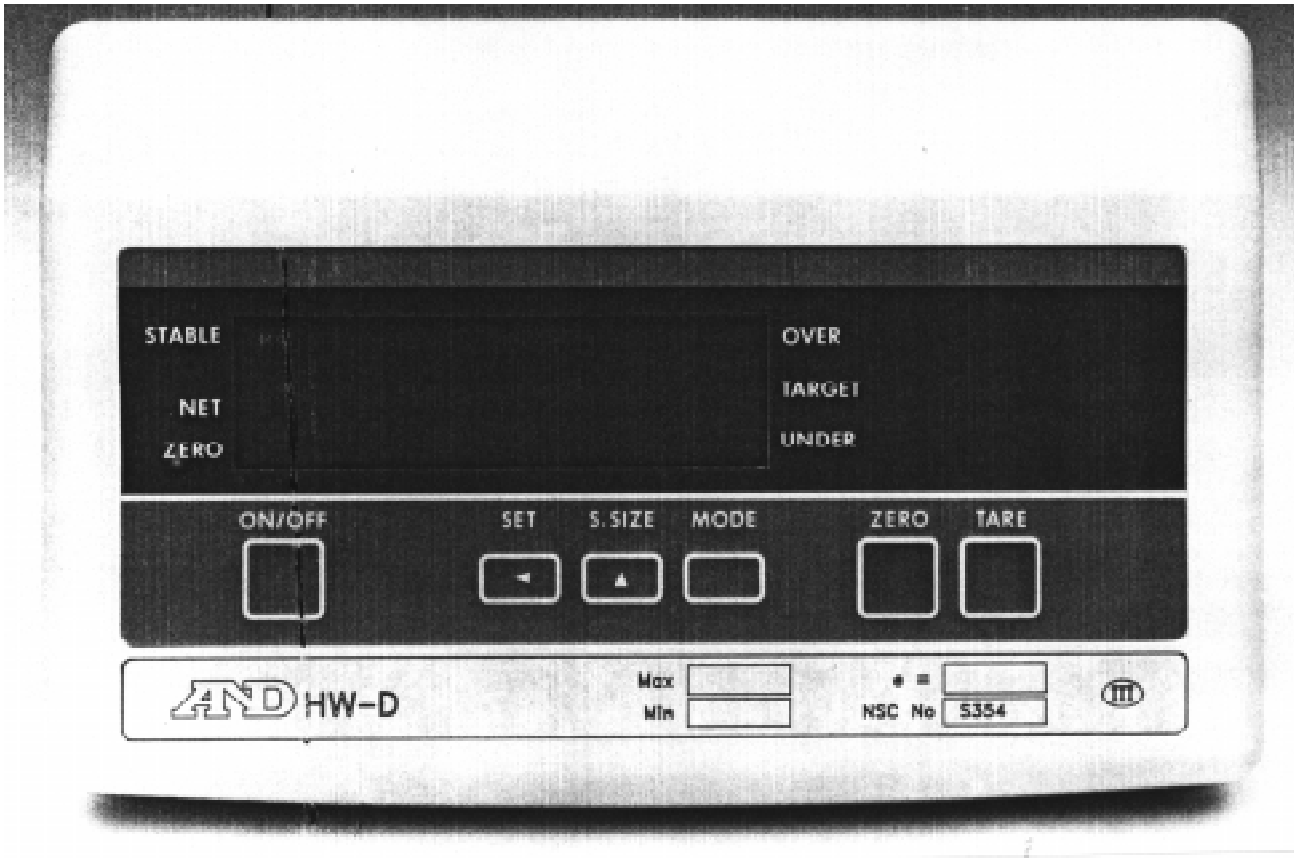
Instruments should be tested in conjunction with any tests specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, *m*, expressed in verification scale intervals, e, are:

$\pm 0.5\ e$ for loads $0 \leq m \leq 500$;
$\pm 1.0\ e$ for loads $500 < m \leq 2\,000$; and
$\pm 1.5\ e$ for loads $2\,000 < m \leq 10\,000$.

FIGURE S354 - 1



A & D Mercury Model HW-D Digital Indicator

FIGURE S354 - 2

Showing Location of Serial Number