

National Standards Commission



Supplementary Certificate of Approval No S324

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

GEC Avery Model B400 Digital Indicator

submitted by GEC Avery Australia Limited
12 Rachael Close
Silverwater NSW 2141.

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

Instruments purporting to comply with this approval shall be marked NSC No S324 and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S324 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.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 12 September 1995

A GEC Avery model B400 single or multi-interval digital mass indicator.

Technical Schedule No S324 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S324 dated 10 April 1996
Technical Schedule No S324 dated 10 April 1996 (incl. Table 1 and Test
Procedure)
Figure 1 dated 10 April 1996

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.





National Standards Commission

TECHNICAL SCHEDULE No PS324

Pattern: GEC Avery Model B400 Digital Indicator.

Submittor: GEC Avery Australia Limited
12 Rachael Close
Silverwater NSW 2141.

1. Description of Pattern

A GEC Avery model B400 single or multi-interval 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. Instruments are approved for use with a maximum of 3000 verification scale intervals per range.

1.1 Zero

Zero is automatically corrected to within $\pm 0.25e_1$ whenever power is applied and whenever the instrument comes to rest within $0.5e_1$ of zero.

The instrument has a semi-automatic zero-setting device with a range of not more than 4% of the maximum capacity of the instrument.

The instrument has an initial zero-setting device with 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 or when the TEST button is pressed.

1.3 Tare

A semi-automatic and/or a keyboard-entered non-automatic subtractive taring device, each of up to 50% of maximum capacity, may 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 access to the calibration adjustments of the instrument to be sealed.

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 / kg *
Minimum capacity	Min kg *
Verification scale interval	e = / kg *
NSC approval numbers - indicator	NSC No S324
- other components	NSC No #

* Repeated in the vicinity of each reading face.

May be located separately from the other markings.

TABLE 1 - Specifications

Maximum number of verification scale intervals per range	3000
Minimum sensitivity	2.0×10^{-3} mV/scale interval
Excitation voltage	10 V DC
Minimum load impedance	143 Ω
Maximum excitation current	70 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.

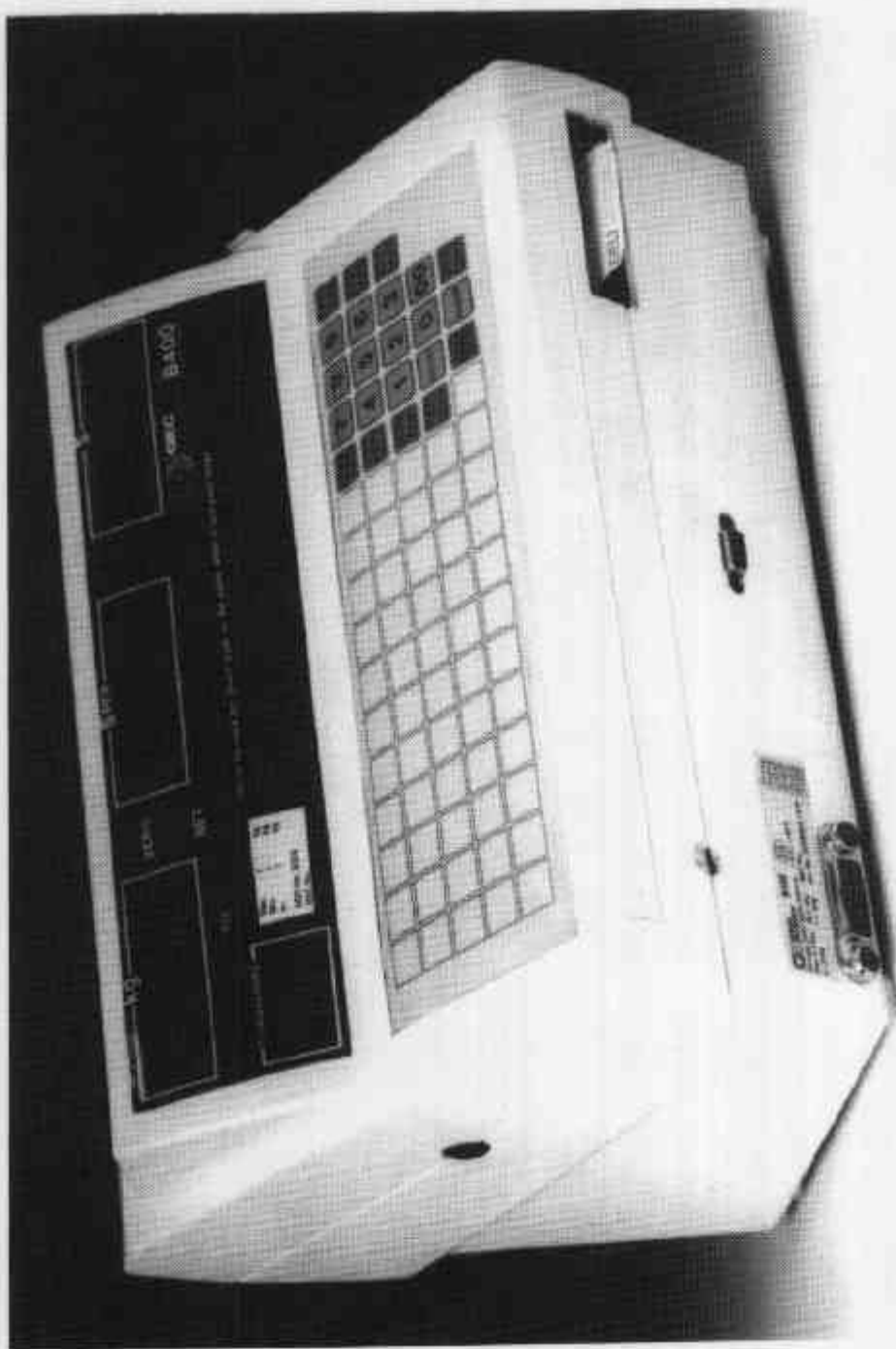
Maximum Permissible Errors at Verification/Certification

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 $500e$;
- $\pm 1.0e$ for loads over $500e$ up to $2000e$; and
- $\pm 1.5e$ for loads over $2000e$.

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

FIGURE S324 - 1



GEC Avery Model B400 Digital Indicator