National Standards Commission

Supplementary Certificate of Approval

No S321

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 L105 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 July 1996.
This approval expires in respect of new instruments on 1 July 1997.

Instruments purporting to comply with this approval shall be marked NSC No S321 and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S321 in addition to the approval number of the instrument.

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

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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.

Special:

This approval is limited to the thirty-one (31) instruments whose serial numbers are listed in Table 2 of the Technical Schedule attached herein.

DESCRIPTIVE ADVICE

Pattern: approved 12 June 1995

- A GEC Avery model L105 digital mass indicator.

Variant: approved 12 June 1995

1. Certain other models and configurations.

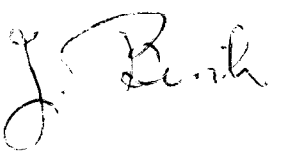
Technical Schedule No S321 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S321 dated 28 September 1995
Technical Schedule No S321 dated 28 September 1995 (incl. Tables 1 & 2 and Test Procedure)
Figures 1 and 2 dated 28 September 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.



National Standards Commission

TECHNICAL SCHEDULE No PS321

Pattern: GEC Avery Model L105 Digital Indicator.

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

1. Description of Pattern

A GEC Avery model L105 digital mass indicator (Figure 1 and Tables 1 & 2) which may be fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

The labelling on the instrument facia may be as shown in Figure 1 or alternatively ZERO may be marked as BALANCE and TARE may be marked as NET.

NOTE: This approval is limited to the thirty-one (31) instruments whose serial numbers are listed in Table 2.

1.1 Zero

Zero is automatically set to within ±0.25e whenever the instrument comes to rest within ±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.

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 maximum capacity, may be fitted.

1.4 Linearisation Device

The instrument may be fitted with a programmable 9-point linearisation facility.

1.5 Verification/Certification Provision

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

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1.6 Sealing Provision

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

1.7 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 S321
	-	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 L107 which is similar to the model L105 but in an alternative housing and which may also have a set point facility.

- Model L105 indicator with a totalising facility, and with additional remote displays; one of the displays incorporates a series of operating buttons (Figure 2).

  The totalising facility allows the results of successive weighings to be summed by the use of the ADD TOTAL button, provided that the scale is returned to within its zero range between weighings. Pressing the DISPLAY TOTAL button will cause the total to be displayed and a light marked TOTAL to illuminate. A CLEAR TOTAL button resets the totaliser.

TABLE 1 - Specifications

Maximum number of verification scale intervals	6000
Minimum sensitivity	0.5 x 10^{-3} mV/scale interval
Excitation voltage	12 V DC
Minimum load impedance	43.75 Ω
Maximum excitation current	274 mA

TABLE 2 - Serial Numbers of Approved Instruments

IN003827/69;	IN003827/77;	IN003827/90;	IN005210/33;	IN005240-1;
IN005240/10;	IN005240/17;	IN005240-40;	IN005240/44;	IN005334/25;
IN005424/24;	IN005424/43;	IN005510/31;	IN005510/32;	IN005510/34;
IN005510/35;	IN005510/36;	IN005510/37;	IN005510/38;	IN005510/39;
IN005510/40;	IN005510/41;	IN005510/42;	IN005510/43;	IN005510/44;
569H0946-15;	570J6007-20;	570K0870/20;	570K1671/6;	570K4594/20;
576G2225-4.				

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

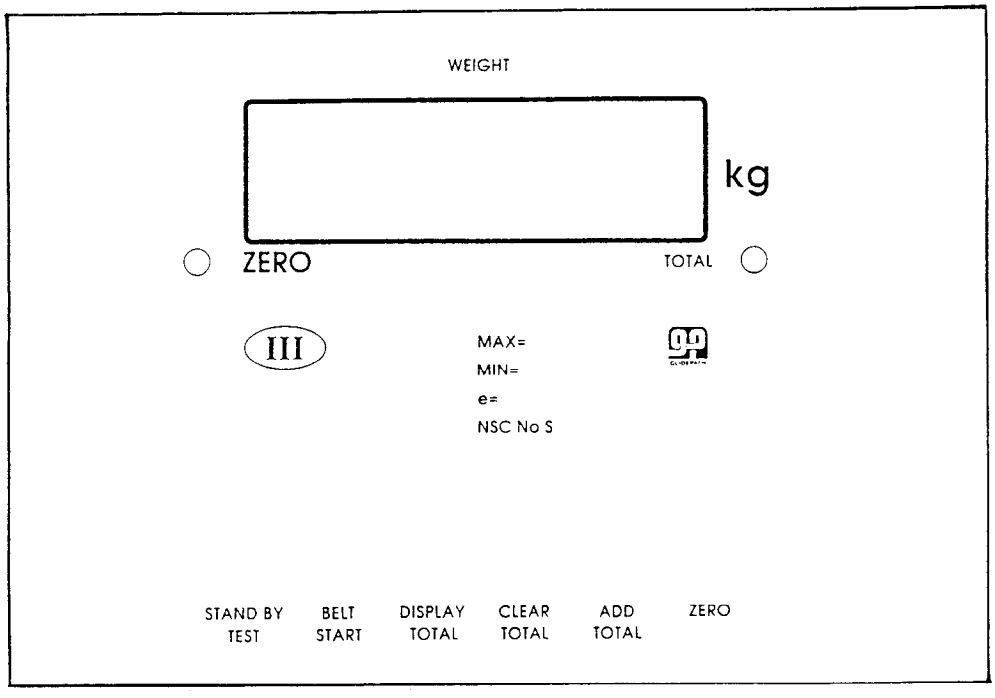
The maximum permissible errors for increasing and decreasing loads, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within ±0.25e at no load, are:

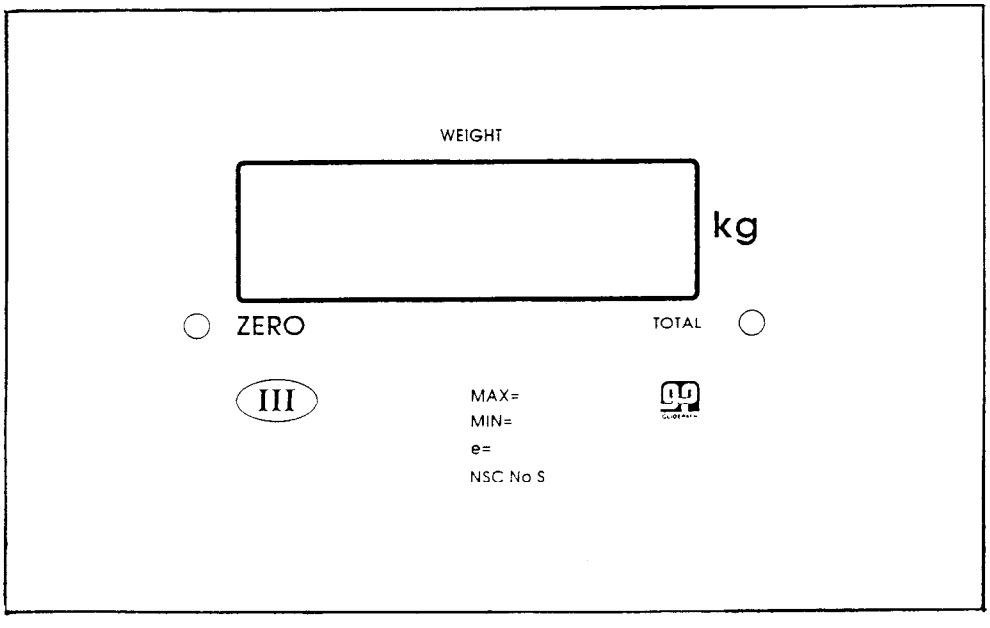
±0.5e for loads from 0 to 500e;
±1.0e for loads over 500e up to 2000e; and
±1.5e for loads over 2000e.

FIGURE S321 - 1

GEC Avery Model L105 Digital Indicator

FIGURE S321 - 2





Model L105 Indicators - Variant 1