

National Standards Commission



Supplementary Certificate of Approval No S262

Issued under Regulation 9
of the
National Measurement (Patterns of Instruments) Regulations

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

Avery Hardoll Model Masterload Pulse Generator/Indicator for Liquid-measuring Systems

submitted by GEC Automation & Control
2 Giffnock Street
North Ryde NSW 2113.

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.

A handwritten signature in black ink, appearing to read "J. Bush".

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/4/95.
This approval expires in respect of new Instruments on 1/4/96.

Instruments purporting to comply with this approval shall be marked NSC No S262 and only by persons authorised by the submittor.

Instruments incorporating a pulse generator/indicator purporting to comply with this approval shall be marked NSC No S262 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 drawings and specifications 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.

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

DESCRIPTIVE ADVICE

Pattern: approved 9/3/90

- An Avery Hardoll model Masterload pulse generator/indicator for use in Commission-approved liquid-measuring systems which incorporate an Avery Hardoll BM series meter.

Technical Schedule No S262 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S262 dated 27/4/90
Technical Schedule No S262 dated 27/4/90 (Incl. Test Procedure)
Figure 1 dated 27/4/90



National Standards Commission

TECHNICAL SCHEDULE No S262

Pattern: Avery Hardoll Model Masterload Pulse Generator/Indicator for Liquid-measuring Systems.

Submittor: GEC Automation & Control
2 Giffnock Street
North Ryde NSW 2113.

1. Description of Pattern

An Avery Hardoll model Masterload pulse generator/Indicator for use in Commission-approved liquid-measuring systems incorporating an Avery Hardoll BM series flowmeter.

The Masterload system (Figure 1) comprises an indicator (with output sockets for auxiliary and/or peripheral devices), a pulse generator mounted on the meter and a power supply unit. Auxiliary and peripheral devices shall be installed to minimise stray pulse pick-ups.

1.1 Indicator

A model BEMY103/25 Indicator (Figure 1) with resettable volume Indicator, a totaliser, and a preset facility. Alternatively, a model BEMY103/31 indicator which is similar to that shown in Figure 1 but without preset.

1.2 Pulse Generator

A model BEMY115 solid state pulse generator (as shown attached to the flowmeter in Figure 1) which produces pulses proportional to volume, when connected to a Commission-approved Avery Hardoll BM series flowmeter and interfaced with the Masterload Indicator.

The pulse generator specifications are:

Pulses per shaft revolution:	33, 50, or 100 pulses/revolution
Maximum pulser shaft speed:	120 revolutions/minute

1.3 Power Supply

A BEMY100 series power supply unit which includes a battery for Indicator backup in the event of a power failure.

Various models of this unit may be used identified by a 1 or 2 digit numeral suffix according to the operating voltage (12 or 24 V DC, or 110 or 240 V AC) and whether the indicator used also has a preset facility.

1.4 Verification Provision

Provision is made for a verification mark to be applied.

1.5 Markings

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

Manufacturer's name or mark	
Model number	
Serial number	
Approval number	NSC No S262
Operating (air) temperature range	- 10°C to +45°C

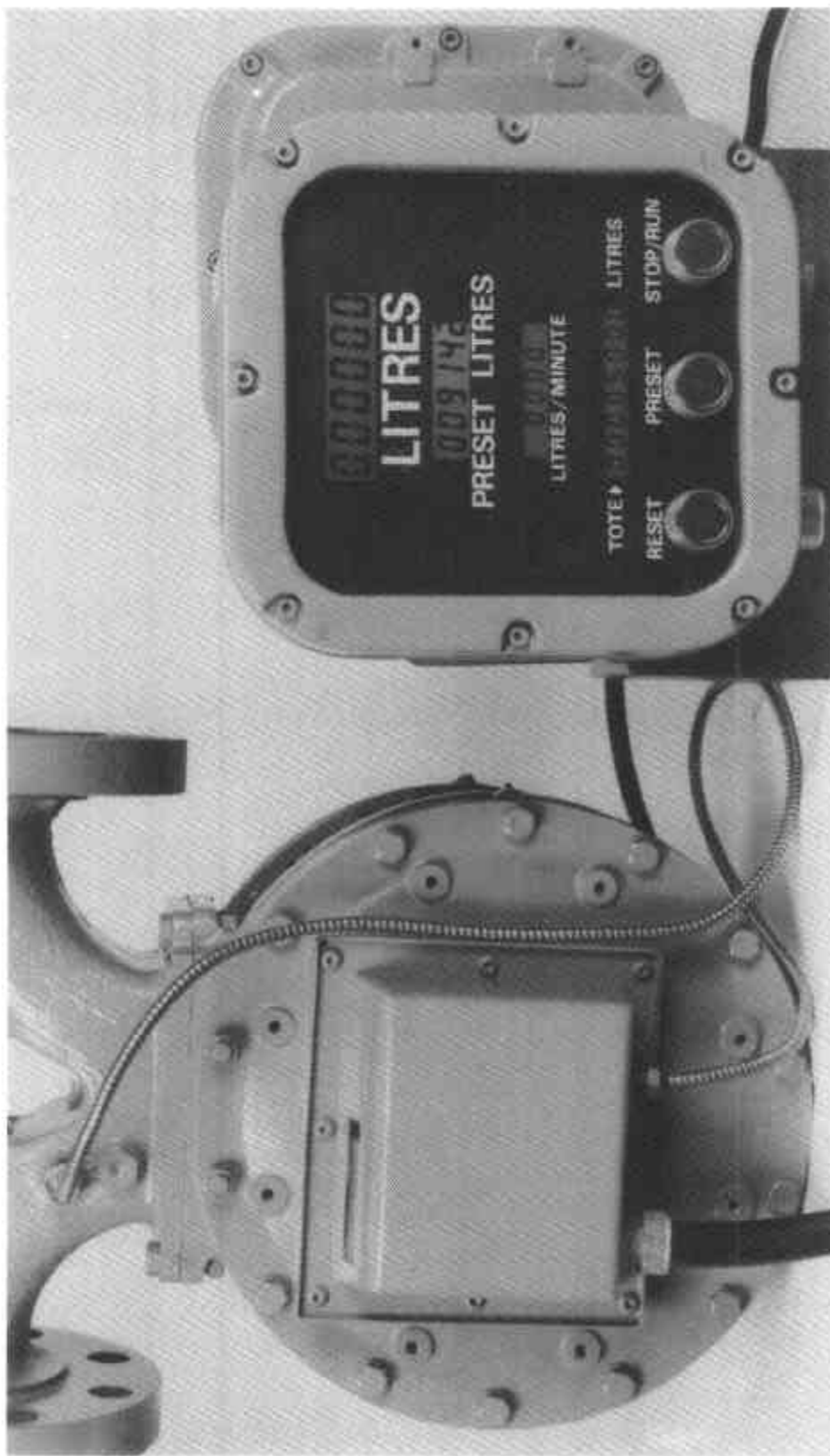
TEST PROCEDURE

The maximum permissible shaft revolution of the pulse generator and the maximum flow rate of the flowmetering system shall be considered 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 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 S262 - 1



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Typical Masterload Pulse Generator/Indicator System