



Bradfield Road, West Lindfield NSW 2070

Interim Provisional Supplementary Certificate of Approval NMI PS696

VALID FOR VERIFICATION PURPOSES UNTIL 20 NOVEMBER 2015

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

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

Veeder Root Model EMR³ Calculator/Indicator for Liquid-measuring Systems

submitted by Gilbarco Australia Pty Ltd
 20 Highgate Street
 Auburn NSW 2114

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.

This approval has been granted with reference to document NMI R 117 Measuring Systems for Liquids Other than Water, dated June 2011.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern provisionally approved – interim certificate issued	20/05/15

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI PS696' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI PS696' in addition to the approval number of the instrument, and only by persons authorised by the submitter.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) 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 document NMI P 106.

Special Conditions of Approval: (Provisional Approval)

The submitter shall advise NMI in writing of the proposed location or serial number of each instrument prior to it being initially verified.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI PS696' and only by persons authorised by the submitter. (Note: The 'P' in the approval number may be a temporary marking.)

The approval will remain provisional pending completion of satisfactory testing and evaluation.

The submitter shall implement such modifications as required by NMI. In the event that such modifications (if any are required by NMI) are not made to the satisfaction of NMI, this approval may be withdrawn.

1. Description of Pattern **provisionally approved on 20/05/15**

The pattern is a Veeder Root model EMR³ calculator/indicator with a Veeder Root model 7649 remote pulse transmitter or any NMI-approved measurement transducer generating compatible (#) pulse output proportional to volume throughput, for use in liquid-measuring systems incorporating compatible (#) NMI-approved vehicle-mounted flowmeters. Alternatively, the model EMR³ unit may be fitted internally with a compatible (#) Bourns model ENS1J-B20-L00100 internal pulse transmitter.

(#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system.

This calculator/indicator is not approved for temperature conversion or correction to reduce the error as close to zero as possible.

1.1 Field of Operation

The field of operation of the pattern is determined by the following characteristics:

- Input pulse rate less than 1666.7 Hz/channel
- Input voltage ranges:
 - for the calculator/indicator 10 V DC to 28 V DC
 - for the pulse generator 5 V DC
 - for the printer 21 V DC to 28 V DC
- Liquid temperature range -10°C to 50°C
- Environment temperature ranges:
 - for the calculator/indicator -35°C to 60°C
 - for printers -10°C to 40°C
- Accuracy class 0.5 or 1.0

1.2 Features

The model EMR³ calculator/indicator includes an alphanumeric liquid crystal display and may also have a keypad attached. The model EMR³ unit may receive measurement pulses from the measurement transducer or it may be fitted with an internal pulse transmitter unit mechanically linked to the flowmeter.

The model EMR³ calculator/indicator uses version 349785-001 software and includes an alphanumeric liquid crystal display with the following maximum volume display:

99 999.9 L when the resolution is set to 0.1

9 999 999 L when the resolution is set to 1

The accumulated total is displayed up to 99 999 999 L before rolling over to 0. The accumulated total can be reset to zero via the calibration mode.

The instrument is configured via the front panel navigation buttons. The instrument can display and record the temperature of the liquid and the volume at 15°C.

The Veeder Root model 7649 pulse transmitter comprises a 100-slot disk with two optic sensors to provide a two-channel pulse output.

An Epson model TM-U295 dot matrix slip printer or an Epson model TM-U220A printer, or any other equivalent (*) printer is used for printing delivery dockets showing the date and time of the delivery, docket number, quantity delivered, price and other operator entered details.

Any compatible (#) solenoid-operated flow control valve, located downstream of the flowmeter, may be interfaced to the instrument for controlling the delivery process and to stop measurements in the event of errors detected by the checking facility.

- (*) 'Equivalent' is defined to mean other proprietary equipment of the same or better specifications requiring no changes to the software specified in this approval for satisfactory operation of the complete system.
- (#) 'Compatible' is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.



Dr A Rawlinson

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