Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S189B

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.

Acme Model EPU 200 Pulse Generator for use in a Measurement Transducer for Liquid-measuring Systems

submitted by Acme Fluid Handling Pty Ltd
32 Greens Road
Dandenong VIC 3175

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 117-1, Measuring Systems for Liquids Other than Water, dated July 2004.

This approval becomes subject to review on **1/07/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – interim certificate issued	14/06/99
1	Pattern – certificate issued	5/04/00
2	Pattern reviewed – notification of change issued	26/07/06
3	Pattern reviewed & updated – certificate issued	24/11/11

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI (or NSC) S189B’ and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI (or NSC) S189B’ in addition to the approval number of the instrument, and only by persons authorised by the submittor.

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 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.

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

TECHNICAL SCHEDULE No S189B

1. Description of Pattern approved on 24/07/06

An Acme model EPU 200 pulse generator for use in a measurement transducer for liquid-measuring systems (Figure 1).

1.1 Measurement Transducer

The measurement transducer comprises a model EPU 200 pulse generator connected to a compatible Commission-approved positive displacement volume measuring device (flowmeter). The transducer produces pulses proportional to volume throughput.

1.2 Field of Operation

• Maximum pulse frequency	87.5 Hz
• Pulses per shaft revolution	15 pulses/revolution
• Maximum shaft speed	350 rev/min
• Power supply	5 – 25 volts DC (set to nominal 8.2)
• Environmental class	–10°C to 50°C
• Accuracy class	0.3 (or larger)

1.2 Pulse Generator

The Acme model EPU 200 pulse generator comprises a 15 slot metal disc rotating through two sensors and produces a dual channel, bidirectional pulse output. The two sensors provide overlapping (quadrature) outputs which are used to verify its correct operation and the correctness of data transmission when interfaced with an Acme model 6000 control system as described in the documentation of approval NMI S170C or any other compatible NMI-approved control system or calculator/indicator.

The components that form the pulse generator are in a cast aluminium housing.

1.3 Markings

The following is the minimum data required to be marked on the pulse generator:

Manufacturer's mark, or name written in full	Acme Fluid Handling Pty Ltd
Model number	EPU 200
Serial number	.....
Pattern approval mark for the device	NMI (or NSC) S189B
Year of manufacture	.....
Operating temperature	-10^{o}C to $+50^{o}$C

1.4 Verification Provision

Provision is available on the pulse generator for a verification mark to be applied.

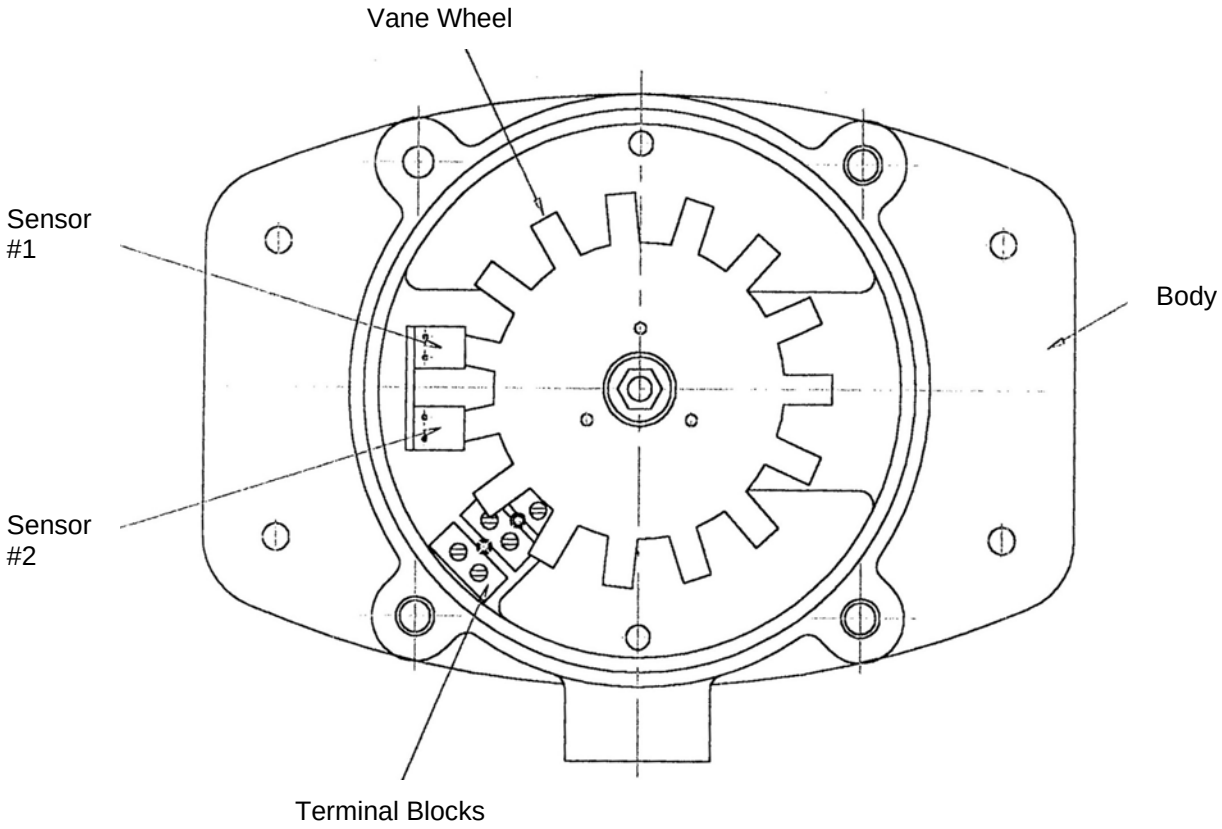
TEST PROCEDURE No S189B

Instruments shall be tested in accordance with any relevant tests specified in the national instrument test procedures.

Maximum Permissible Errors

The maximum permissible errors applicable are those specified for the flowmetering system in which the pattern is fitted, as stated in the approval documentation for the system or in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE S189B – 1



Acme Model EPU 200 Pulse Generator

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