



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

**Interim
Provisional
Supplementary Certificate of Approval
No PS534**

**VALID FOR VERIFICATION/CERTIFICATION PURPOSES UNTIL
28 AUGUST 2010**

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

Compac Model C4000 Calculator/Indicator for Certain Liquid-measuring Systems
submitted by Compac Industries Ltd
 52 Walls Road
 Penrose Auckland New Zealand.

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 OIML R81, *Dynamic Measuring Devices and Systems for Cryogenic Liquids*, dated 1998.

CONDITIONS OF APPROVAL

It is the responsibility of the submitter to make special arrangements with the respective state or territorial trade measurement department (if required by that department) to have instruments covered by this Interim Certificate verified/certified pending issue of the final Certificate and Technical Schedule.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI PS534' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI PS534' in addition to the approval number of the instrument.

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

Special Conditions of Approval:

This approval is limited to one (1) instrument only, located at 8 Ten Mile Track, Scottsdale Tasmania.

The submitter shall provide NMI with copies of ALL verification test results within one (1) week of verification testing and before Monday 19 July 2010.

In the event that either:

- the verification test results are not received by NMI as stipulated above; or
- the verification test results are not considered suitable by NMI for any reason; or
- NMI receives any reports of unsatisfactory instrument performance at verification or at any time in use,

then this approval may be withdrawn.

The 'P' in the approval number may be a temporary marking.

DESCRIPTIVE ADVICE

Pattern: provisionally approved 28 May 2010

- A Compac model C4000 calculator/indicator interfaced to a compatible (#1) Micro Motion model CMF 100 mass flowmeter, or any other NMI-approved compatible (#1) Micro Motion mass flowmeter, for use in an approved liquid-measuring system for the metering of liquid natural gas (LNG). The pattern interfaces to the meter via a modbus connection, and uses version LNG 29258 software.

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

The field of operation is determined by the following characteristics:

- Minimum measured quantity, M_{min} 2 kg (#2)
- Environmental class class C
- Maximum input frequency 1500 Hz

(#2) The maximum and minimum flow rates, and the actual minimum measured quantity (M_{min}) are determined by the values approved for the measuring system but M_{min} shall not be less than 2 kg. The C4000 indicates the mass in 0.01 kg increments.

The model C4000 comprises a processing circuit board and separate indicator circuit board/s. Each processing board may be connected with up to four single or double-sided indicator boards. Each indicator board has a six-digit liquid crystal display (LCD) and displays the quantity to two decimal places (0000.01 kg).

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



Date of Approval: 28 May 2010