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

Certificate of Approval

NMI 14/3/20

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.

Lianyungang Model PE-SC-20 Water Meter

submitted by Meter Company Australia Pty Ltd
107-109 Woodlands Drive
Braeside VIC 3195

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 49-1, *Water Meters Intended for the Metering of Cold Potable Water, Part 1: Metrological and Technical Requirements*, March 2009.

This approval becomes subject to review on 1/03/18, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 provisionally approved – interim certificate issued	7/02/13
1	Pattern & variants 1 & 2 approved – interim certificate issued	8/04/13
2	Pattern & variants 1 & 2 approved – certificate issued	14/06/13

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI 14/3/20’ and only by persons authorised by the submittor.

Instruments purporting to comply with this approval and currently marked ‘NMI P14/3/20’ may be re-marked ‘NMI 14/3/20’ but 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 their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Dr A Rawlinson

TECHNICAL SCHEDULE No 14/3/20

1. Description of Pattern

provisionally approved on 7/02/13
approved on 8/04/13

A Lianyungang model PE-SC-20 20 mm class 2 positive displacement meter used to measure water for potable supply for trade. .

1.1 Field of Operation

The field of operation of the measuring system is determined by the following characteristics:

- Maximum continuous flow rate, Q_3 4.0 kL/h
- Flow rate ratio, Q_3/Q_1 200
- Maximum admissible temperature 30°C
- Limiting condition (water temperature) 50°C
- Maximum admissible pressure 1400 kPa
- Accuracy class 2

1.2 Features/Functions

A plastic body, positive displacement volumetric rotary piston-type class 2 water meter of a size which is normally connected to a 20 mm pipe and is approved for metering domestic supplies and has features/functions as listed below:

- Whitworth 14 TPI threaded end connections
- The body of the meter is made from composite material PA6-GF30 Black
- A mechanical digital indicator having a series of eight aligned digits giving a maximum display of 9999.9999 kL or m^3 in 1 L increments. The final digit of the indicator has a rotating scale interval, indicating 0.1 L increments.
- Provision for a pulse output of 1 litres per pulse
- Meter length: 154 mm
- Minimum straight length of inlet pipe: 40 mm
- Minimum straight length of outlet pipe: 40 mm
- Single check valve

1.3 Markings

Instruments are marked with the following data, either grouped or distributed on the casing, the indicating device dial, an identification plate or the cover if it is not detachable:

Manufacturer's name or mark	Lianyungang Water Meter
Serial number	...
Pattern approval mark	NMI No 14/3/20
Numerical value of maximum continuous flow rate, Q_3	... kl/hr
Flow rate ratio, Q_3/Q_1	...
Unit of measurement	kL or m^3
Direction of flow	→ or similar
Accuracy class	... (#)

(#) Optional for class 2 meters.

1.4 Verification Provision

Provision is made for the application of a verification mark.

1.5 Sealing Provision

Provision is made for the instrument to be sealed by the application of one or more mechanical seals (Figure 2).

2. Description of Variant 1 — provisionally approved on 7/02/13, approved on 8/04/13

A model PE-DC-20 fitted with dual check valves.

3. Description of Variant 2 — provisionally approved on 7/02/13, approved on 8/04/13

A model PE-DC-COM-20 which may be fitted with a ZigBee Smart Energy Profile Communications module.

TEST PROCEDURE No 14/3/20

Water meters tested for initial verification shall comply with the Certificate of Approval, Technical Schedule, and the maximum permissible errors for initial and subsequent verifications at the operating conditions in effect at the time of verification. Maximum permissible errors for the initial and subsequent verification of water meters are given in the *National Trade Measurement Regulations 1999* (Cth).

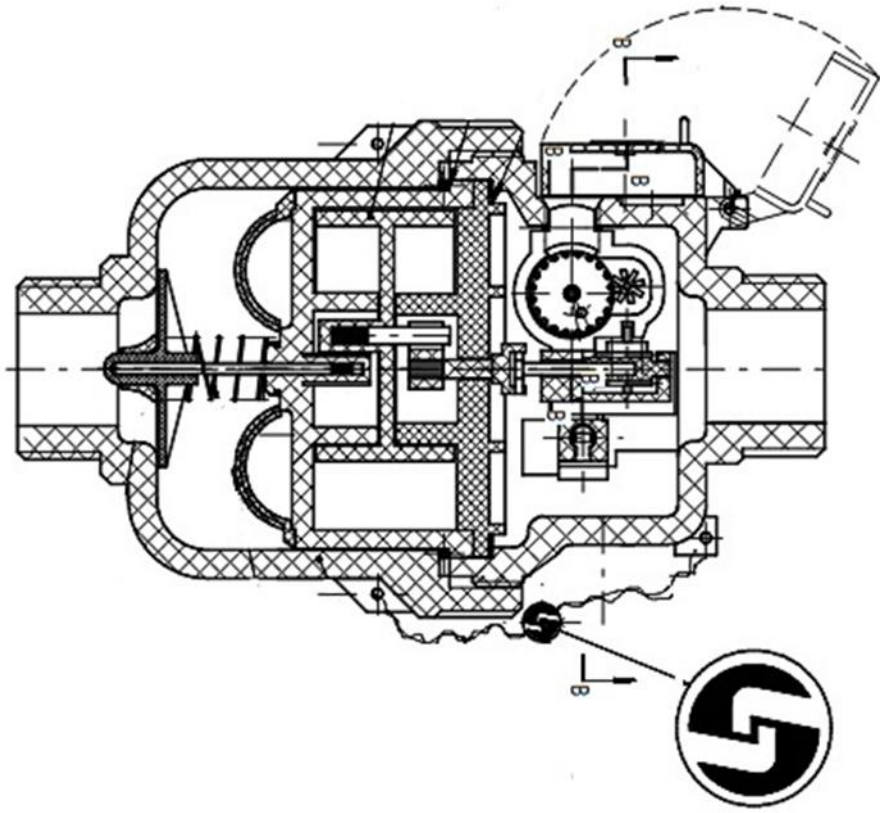
Water meters shall be verified in accordance with NITP 14 *National Instrument Test Procedures for Utility Meters*.

NOTE: NMI reserves the right to vary this procedure. Any such variation shall be notified in writing by NMI.

FIGURE 14/3/20 – 1

Lianyungang Model PE-SC-20 Water Meter

FIGURE 14/3/20 – 2



Typical Mechanical Sealing

~ End of Document ~