



Australian Government  
Department of Industry,  
Innovation and Science

## National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

### Certificate of Approval NMI 14/3/25

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.

RMC Model MRP DN25 Water Meter

submitted by Reliance Worldwide  
27-28 Chapman Place  
Eagle Farm QLD 4009

**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 and Hot Water, *Part 1 Metrological and Technical Requirements*, dated September 2015.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

#### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – interim certificate issued	25/06/14
1	Pattern & variants 1 to 3 amended (validity date) – interim certificate issued	17/10/14
2	Pattern & variants 1 to 3 approved – certificate issued	04/09/20

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 14/3/25' 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 their powers under Regulation 60 of the *National Measurement Regulations 1999*.



**Darryl Hines**  
Manager  
Policy and Regulatory Services

TECHNICAL SCHEDULE No 14/3/25

**1. Description of Pattern**

**approved on 25/06/14**

An RMC model MRP DN25 water meter used to measure cold potable water supplies for trade.

**1.1 Field of Operation**

The field of operation of the measuring system using the RMC model MRP DN25 water meter is determined by the following characteristics:

Minimum flow rate, $Q_1$ :	0.04 m <sup>3</sup> /h
Transition flow rate, $Q_2$ :	0.06 m <sup>3</sup> /h
Maximum continuous flow rate, $Q_3$ :	6.30 m <sup>3</sup> /h
Overload flow rate, $Q_4$ :	7.88 m <sup>3</sup> /h
Flow rate ratio, $Q_3/Q_1$ :	160
Temperature class:	T30
Maximum admissible temperature:	30 °C
Limiting condition (water temperature):	50 °C
Maximum admissible pressure:	1400 kPa
Pressure loss class:	$\Delta p$ 63
Accuracy class:	2
Flow profile sensitivity class:	U0/D0
Electromagnetic class:	NA
Environmental class:	NA
Orientation:	Horizontal upright only
Flow Direction:	Forward only
Power supply:	NA

## 1.2 Features/Functions

The pattern (Figure 1) consists of an inferential multi-jet turbine type water meter, incorporating a mechanical indicating device, of a size which is normally connected to a 25 mm pipe and has features/functions as listed below:

Connection type:	Threaded end connections as normally used in ACT and NSW (ball seat).
Display:	A mechanical indicating device having a series of five aligned digits and four dial/pointer type displays, allowing a maximum display of 99,999.9999 kL in 0.1 L increments
Communications:	The meter includes provision for a pulse output of 10 litres per pulse
Materials:	Meter body and housing: brass Indicating device: composite material
Meter length:	178 mm
Non-return device:	Dual check valves

## 1.3 Conditions

### 1.3.1 Installation Conditions:

No flow straightener or flow conditioner is required.

For Accuracy Class 2 the flow profile sensitivity class is U0/D0.

### 1.3.2 Water Quality

The meter is approved for use in the metering of cold potable water supplies.

## 1.4 Verification Provision

Provision is made for the application of a verification mark.

## 1.5 Sealing Provision

The meter is mechanically sealed via the use of tamper-evident screws (Figure 2) that connect the upper and lower components of the meter housing, such that attempts to mechanically access the meter will result in evidence of tampering.

## 1.7 Descriptive Markings and Notices

Instruments are marked with the following data, either grouped or distributed on the casing, the indicating device dial or an identification plate (Figures 3 & 4):

Manufacturer's name or mark	RMC
Serial number	...
Pattern approval number	NMI 14/3/25
Numerical value of maximum continuous flow rate, $Q_3$ ...	
Flow rate ratio, $Q_3/Q_1$	...
Unit of measurement	kL
Temperature class <sup>(1)</sup>	T30
Maximum admissible pressure <sup>(2)</sup>	1400 kPa
Pressure loss class <sup>(3)</sup>	63 kPa or $\Delta p$ 63
Orientation <sup>(4)</sup>	H
Flow profile sensitive class <sup>(5)</sup>	U0/D0
Direction of flow	→ or similar
Accuracy class <sup>(6)</sup>	2

<sup>(1)</sup> Optional for temperature class T30 meters

<sup>(2)</sup> Optional for meters with MAP = 1400 kPa

<sup>(3)</sup> Optional for pressure loss class  $\Delta p$  63

<sup>(4)</sup> Optional for meters approved for all orientations

<sup>(5)</sup> Optional for U0/D0 class meters

<sup>(6)</sup> Optional for accuracy class 2 meters

### 2. Description of Variant 1 **approved on 25/06/14**

With threaded end connections as normally used in QLD, VIC, TAS, WA and NT

### 3. Description of Variant 2 **approved on 25/06/14**

With threaded end connections suitable for BSP connections.

### 4. Description of Variant 3 **approved on 25/06/14**

Fitted with a single check valve.

### TEST PROCEDURE No 14/3/25

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 2009* (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 14/3/25 – 1



RMC model MRP DN25 water meter

FIGURE 14/3/25 – 2



Mechanical sealing device

FIGURE 14/3/25 – 3



Dial markings

FIGURE 14/3/25 – 4



Body markings

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