

Australian Standard[®]

Meters for non-urban water supply

**Part 8: In-service compliance for
non-urban water meters**



This Australian Standard® was prepared by Committee CE-024, Measurement of Water Flow in Open Channels and Closed Conduits. It was approved on behalf of the Council of Standards Australia on 4 February 2013.
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The following are represented on Committee CE-024:

- Australian Industry Group
 - Australian Water Association
 - Department of Environment and Resource Management, Qld
 - Institute of Instrumentation, Control and Automation Australia
 - Irrigation Australia
 - National Farmers Federation
 - National Irrigators Council
 - National Measurement Institute
 - University of South Australia
 - Water Services Association of Australia
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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**Part 8: In-service compliance for
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PREFACE

This Standard was prepared by the Standards Australia Committee CE-024, Measurement of Water Flow in Open Channels and Closed Conduits, to supersede ATS 4747.8—2010, *Meters for non-urban water supply, Part 8: In-service compliance for non-urban water meters*.

The objective of the 4747 series of Standards is to provide requirements for the installation and commissioning of irrigation and non-urban water meters to meet the requirements of the National Water Initiative, Clause 88.

The objective of this part of the 4747 series of Standards is to provide requirements for the implementation of a framework involving accredited personnel, initial and ongoing validation of installation and maintenance to provide metrological assurance of in-service, non-urban water meters and to maintain progress with technology in the water meter industry.

This document is part of a series of Standards covering the metering of non-urban water supply, as follows:

AS

4747	Meters for non-urban water supply
4747.1	Part 1: Glossary of terms
4747.2	Part 2: Technical requirements for closed conduit meters fully charged
4747.3	Part 3: Technical requirements for open channel meters
4747.5	Part 5: Installation and commissioning of closed conduit meters fully charged
4747.6	Part 6: Installation and commissioning of open channel meters
4747.8	Part 8: In-service compliance for non-urban water meters (this Standard)

The above documents were originally released as Australian Technical Specifications for a period of over two years. Following review and consideration of industry feedback, they have been revised and released as Standards.

Significant changes to the series include the following:

- (a) The methods of handling meters that are beyond the limit of what can be practicably pattern-approved has been revised, which applies to AS 4747.2 and AS 4747.3.
- (b) Overlap with the National Measurement Institute (NMI) documents has also been removed, and the NMI documents are to be read in conjunction with the above Standards.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is for information and guidance only.

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STANDARDS AUSTRALIA

Australian Standard
Meters for non-urban water supply**Part 8: In-service compliance for non-urban water meters**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the metrological assurance of non-urban water meters used in full flowing pipes, open channels, and pipes deliberately flowing partially full, and general technical requirements for a system that governs in-service operation of meters.

Compliance with this Standard will ensure ongoing obligations for meter operations are met in accordance with the ‘National Framework for Non-urban Water Metering Policy Paper’ (the Policy paper).

NOTES:

- 1 This Standard should be read in conjunction with National Framework for Non-urban Water Metering Policy Paper.
- 2 The policy applies to meters (including measuring systems, devices and their component parts) owned by entitlement holders, water service providers or jurisdictional governments and used for trade and/or related resource management activities in a non-urban setting.
- 3 The policy paper has been developed to ensure adequate rigour during meter establishment and operational phases to achieve an acceptable level of confidence in meter performance and accuracy, such that a meter operates within the maximum permissible limits of measurement error ($\pm 5\%$) allowable under in situ conditions.

The Standard applies to meters that operate—

- (a) with closed conduit, open channel, or closed conduit flowing partially full;
- (b) with temperature of water from 0.1°C to 30°C ;
- (c) at ambient temperatures of $\pm 5^{\circ}\text{C}$ to 55°C ; and
- (d) with a local display.

This Standard does not seek to repeat requirements outlined in the Policy Paper but provides specific requirement, and guidance, on the following areas:

- (i) Meter selection and initial verification.
- (ii) Installation.
- (iii) Validation (post installation/ongoing).
- (iv) Re-verification.
- (v) Maintenance.

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