## Australian Standard®

### Meters for non-urban water supply

# Part 2: Technical requirements for closed conduit meters fully charged



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 9 January 2013.

This Standard was published on 21 February 2013.

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

This Standard was issued in draft form for comment as DR AS 4747.2.

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.

#### Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

AS 4747.2—2013

### Australian Standard®

## Meters for non-urban water supply

## Part 2: Technical requirements for closed conduit meters fully charged

First published as ATS 4747.2—2008. Revised and redesignated as AS 4747.2—2013.

#### COPYRIGHT

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 353 0

#### **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 4747.2—2008, *Meters for non-urban water supply*, Part 2: *Specification for closed conduit meters fully charged*.

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.

It should be noted that NMI M 10-1, Meters Intended for the Metering of Non-urban Water in Full Flowing Pipes, Part 1: Metrological and Technical Requirements, specifies the metrological and technical requirements for pattern approval and verification of water meters to comply with the National Measurement Regulation.

This Standard includes essential requirements that are up to date 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 (this Standard)
- 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

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 method 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.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

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. An 'informative' Appendix is for information and guidance only.

#### CONTENTS

	I	Page
SECTIO	N 1 SCOPE AND GENERAL	
1.1	SCOPE	4
1.1	APPLICATION	
1.3	NORMATIVE REFERENCES	
1.3	DEFINITIONS	
1.5	PREFERRED UNITS	
1.3	FREFERRED UNITS	0
SECTIO	ON 2 MATERIALS	
2.1	GENERAL	7
2.2	RESISTANCE TO CORROSION	7
2.3	MATERIAL DURABILITY TESTS	
an any a	NA PROVIN	
	N 3 DESIGN	0
3.1	DIMENSIONS AND CONNECTIONS	
3.2	OUTPUT	
3.3	ELECTRONIC STORAGE	
3.4	FREQUENCY OF MEASUREMENT	11
SECTIO	ON 4 PERFORMANCE REQUIREMENTS	
4.1	GENERAL	12
4.2	PATHWAYS FOR COMPLIANCE WITH THIS STANDARD	
4.3	MEASUREMENT OF PERFORMANCE	
4.4	TORQUE RESISTANCE OF THREADED END CONNECTIONS	
SECTIO	N 5 PRODUCT DOCUMENTATION	18
4 DDENI	DVGEG	
APPENI		10
A	PURCHASING GUIDELINES	
В	DEMONSTRATION OF COMPLIANCE WITH THIS STANDARD	
C	METER SIZE AND OVERALL DIMENSIONS	
D	EXAMPLE OF UNCERTAINTY MEASUREMENT	
E	TEST FOR TORQUE RESISTANCE OF THREADED END CONNECTIONS	28
F	MATERIAL DURABILITY TESTS	30
RIRI 14	OGRAPHY	22
וושמום		55



	This is a free preview.	Purchase the e	entire publication	at the link below:
--	-------------------------	----------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation