AS 4647—2011
Reconfirmed 2018

AS 4647—2011

Australian Standard®

Diaphragm gas meters

This Australian Standard® was prepared by Committee AG-008, Gas Distribution. It was approved on behalf of the Council of Standards Australia on 25 August 2010.
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The following are represented on Committee AG-008:

- Australian Pipeline Industry Association
- Department of Economic Development, New Zealand
- Energy Networks Australia
- Gas Association of New Zealand
- Gas Technical Regulators Committee
- LPG Australia
- New Zealand Institution of Gas Engineers
- Plastics Industry Pipe Association of Australia
- Plastics New Zealand

This Standard was issued in draft form for comment as DR AS 4647.

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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STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 4647—2011
Diaphragm gas meters

RECONFIRMATION NOTICE

Technical Committee AG-008 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 January 2018.

The following are represented on Technical Committee AG-008:

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NOTES

Australian Standard®

Diaphragm gas meters

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PREFACE

This Standard has been prepared by the Australian Members of Joint Standards Australia/Standards New Zealand Committee AG-008, Gas Distribution Committee, to supersede AS 4647—2005, *Specification for domestic diaphragm gas meters*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The Standard provides basic requirements for diaphragm gas meters of maximum flow rate (Q_{max}) up to 8 m^3/h when tested on air at pressure absorption of 125 Pa, to ensure optimum performance, both—

(a) when purchased; and

(b) after extended service.

The Standard is not intended to provide a comprehensive list of requirements for pattern approval and thus does not address the performance of the meter against test gases other than air, or the application of any temperature or pressure corrections to the metered gas volume. However, it can be used to complement a pattern approval standard with the aim of providing a comprehensive set of requirements for pattern approval, purchase and market surveillance of diaphragm gas meters.

This Standard has no legal status in its own right but may acquire legal standing where adopted by a government or other authority having jurisdiction over meter specification.

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 the Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of the Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements on the working environment, materials of construction and performance of diaphragm meters of maximum flow rate (Q_{max}) up to 8 m^3/h when tested on air at pressure absorption of 125 Pa. (Meters up to this capacity are generally produced in large quantities.) The design and construction requirements are intended to provide for an expected minimum working life of twenty years.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS	
1199	Sampling procedures for inspection by attribute
1199.1	Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection
1580	Paints and related materials—Methods of test
1580.408.4	Part 405.4: Adhesion (crosscut)
1580.481.3	Part 481.3: Coatings—Exposed to weathering—Degree of corrosion of coated metal substrates
1834	Material for soldering
1834.1	Part 1: Solder alloys
1834.2	Part 2: Flux-cored solders
2331	Methods of test for metallic and related coatings
2331.3.1	Part 3.1: Corrosion and related property tests—Neutral salt spray (NSS) test
2706	Numerical values—Rounding and interpretation of limiting values
4564	Specification for general purpose natural gas
4670	Commercial propane and commercial butane for heating purposes
AS/NZS	
1580	Paints and related materials—Methods of test
1580.405.1	Part 405.1: Determination of pencil hardness of paint film
1580.481.1.9	Part 481.1.9: Coatings—Exposed to weathering—Degree of blistering
1942	Gas meters—In-service compliance testing
60079	Electrical apparatus for explosive gas atmospheres
ISO/IEC	
Guide 98	Uncertainty in measurement
Guide 98-3	Part 3: Guide to the expression of uncertainty in measurement