AS 4631:2018

Limited flexibility connectors for gas

This Australian Standard® was prepared by Committee AG-013, Components used for Gas Appliances and Equipment. It was approved on behalf of the Council of Standards Australia on 18 April 2018.
This Standard was published on 4 May 2018.

The following are represented on Committee AG-013:

- Association of Accredited Certification Bodies
- Australian Industry Group
- Energy Networks Australia
- Engineers Australia
- Gas Appliance Manufacturers Association of Australia
- Gas Association of New Zealand
- Gas Energy Australia
- Gas Technical Regulators Committee
- LPG Association of New Zealand
- Master Plumbers and Mechanical Services Association of Australia, Vic.
- National Association of Testing Authorities Australia

This Standard was issued in draft form for comment as DR AS 4631:2017.

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Standards may also be withdrawn.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.

Australian Standard®

Limited flexibility connectors for gas

Originated as AG 216—1993.
Revised and redesignated as AS 4631—2005.
Second edition 2018.

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

ISBN 978 1 76072 053 7

PREFACE

This Standard was prepared by Standards Australia Committee AG-013, Components used for Gas Appliances and Equipment, to supersede AS 4631—2005, *Limited flexibility connectors for gas*.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with uniform minimum requirements for the safety, performance and use of limited flexibility connectors for gas.

This Standard should not be regarded as a design specification or as an instruction manual.

In its preparation, consideration has been given to—

(a) continuity of satisfactory operation;

(b) the prevention of fire hazards, and explosions;

(c) the prevention of injury to persons or property;

(d) gas rules and regulations now in force; and

(e) relevant international Standards.

The terms ‘normative’ and ‘informative’ are used in a Standard to define the application of the appendices or annexes to which they apply. A ‘normative’ appendix or annex is an integral part of a Standard, whereas an ‘informative’ appendix or annex is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard. Notes that appear in the main text of this Standard provide information only.

CONTENTS

Page

STANDARDS AUSTRALIA

Australian Standard
Limited flexibility connectors for gas

SECTION 1 SCOPE AND DEFINITIONS

1.1 SCOPE

This Standard specifies the minimum safety and performance requirements for limited flexibility connectors for use on natural gas (NG), simulated natural gas (SNG), town gas (TG), tempered liquefied petroleum gas (TLP) and liquefied petroleum gas (LPG) (liquid and vapour phases).

This Standard is not applicable for direct connection from a gas cylinder to services, including changeover valves and regulators (i.e. pigtails). Refer to AS/NZS 1596.

1.2 NORMATIVE REFERENCES

AS
2136 Method for detecting the susceptibility of copper and its alloys to stress corrosion cracking using the mercurous nitrate test

4627 Quick-connect devices for gas

AS/NZS
5601 Gas installations (all parts)

AS/ISO
7 Pipe threads where pressure-tight joints are made on the threads
7.1 Part 1: Dimensions, tolerances and designation

ISO
6957 Copper alloys—Ammonia test for stress corrosion resistance

1.3 DEFINITIONS

1.3.1 Gas

A combustible fuel gas which may be one of the following:

1.3.1.1 *Liquefied petroleum gas (LPG)*

A gas composed predominantly of any of the following hydrocarbons, or any combination of these; propane, propene (propylene), butane, butene (butylene).

1.3.1.2 *Natural gas (NG)*

A hydrocarbon gas, consisting mainly of methane.

1.3.1.3 *Simulated natural gas (SNG)*

A gas comprising a mixture of LPG and air, in the approximate proportions of 55% gas and 45% air for commercial propane.

1.3.1.4 *Tempered liquefied petroleum gas (TLP)*

A gas comprising a mixture of LPG and air, in the approximate proportions of 27% gas and 73% air for commercial propane.

