



Quick-connect devices for gas

STANDARDS
Australia

Currently in preview, click buy full version

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 11 January 2017.

This Standard was published on 7 February 2017.

The following are represented on Committee AG-013:

- Association of Accredited Certification Bodies
 - Australian Industry Group
 - Energy Networks Association
 - 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
 - National Association of Testing Authorities Australia
-

This Standard was issued in draft form for comment as DR2 AS 4627:2016.

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Standards may also be withdrawn.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[®]

Quick-connect devices for gas

Original as AG 212—1975.
Previous edition AS 4627—2005.
Second edition AS 4625:2017.

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 76035 664 4

PREFACE

This Standard was prepared by the Standards Australia Committee, AG-013, Components used for Gas Appliances and Equipment, to supersede AS 4627—2005, *Quick-connect devices for gas*.

The principal changes from the 2005 edition are the following:

- (a) Change in rated working pressure of type 1 quick-connect devices to 14 kPa to align with AS/NZS 1869 Class A and Class B hose assemblies.
- (b) Marking requirements of quick-connect devices incorporated in a hose assembly.
- (c) Definitions and general editorial changes.

The objective of this Standard is to provide uniform minimum requirements for the safety and performance of quick-connect devices.

This Standard should not be regarded as a design specification or as an instruction manual. Consideration has been given to—

- (i) continuity of satisfactory operation;
- (ii) the prevention of fire hazards, and explosions;
- (iii) the prevention of injury to persons or property;
- (iv) gas rules and regulations now in force; and
- (v) relevant International Standards.

AS/NZS 5601 (series), *Gas installations*, provides essential requirements and means of compliance for gas installations.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	4
1.2 CLASSIFICATION	4
1.3 REFERENCED DOCUMENTS.....	4
1.4 DEFINITIONS.....	5
SECTION 2 DESIGN AND CONSTRUCTION	
2.1 MATERIALS.....	6
2.2 CONSTRUCTION.....	6
2.3 DESIGN	8
2.4 MARKINGS	8
SECTION 3 PERFORMANCE REQUIREMENTS	
3.1 SATISFACTORY PERFORMANCE OVER DECLARED TEMPERATURE RANGE	10
3.2 GAS LEAKAGE.....	10
3.3 PRESSURE LOSS	10
3.4 MECHANICAL STRENGTH.....	11
3.5 DURABILITY—CYCLING TEST.....	13
APPENDICES	
A FIGURES A1 TO A4.....	14
B METHODS OF TEST.....	20
C UNITS OF PRESSURE MEASUREMENT.....	32

STANDARDS AUSTRALIA

Australian Standard
Quick-connect devices for gas

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements and test methods for quick-connect devices up to 50 mm size for use on natural gas (NG), simulated natural gas (SNG), town gas (TG), tempered liquefied petroleum gas (TLP) and liquefied petroleum gas in vapour phase (LP Gas).

Appendix A sets out the figures that are referred to in this Standard.

Appendix B sets out the methods of tests (M.O.T.s) to demonstrate conformity with requirements of this Standard.

NOTE: The test method titles include a M.O.T. number which indicates the Clause(s) in which the test criteria are located.

1.2 CLASSIFICATION

The quick-connect device shall be classified according to type.

Three types of quick-connect device shall be as follows.

- (a) *Type 1*—A quick-connect device permitting gas flow only when the mating parts are connected, with a rated working pressure of 14 kPa, consisting of a plug and socket which may be approved and used separately. The Type 1 plug shall conform to the dimensions shown in Figure A1.1. The Type 1 socket shall be compatible with the plug shown in Figure A1.

NOTE: Commonly known as a bonnet fitting.

- (b) *Type 2*—A quick-connect device with safety shut off permitting gas flow only when the mating parts are connected, with a minimum rated working pressure of 14 kPa.
- (c) *Type 3*—A quick-connect device without shut off, with a minimum rated working pressure of 14 kPa.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS 2036	Method for detecting the susceptibility of copper and its alloys to stress corrosion cracking using the mercurous nitrate test
AS/NZS 1869	Hose and hose assemblies for liquefied petroleum gases (LP Gas), natural gas and town gas