AS ISO 16003—2010
ISO 16003:2008

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Australian Standard®

Components for fire extinguishing systems using gas—Requirements and test methods—Container valve assemblies and their actuators; selector valves and their actuators; nozzles; flexible and rigid connectors; and check valves and non-return valves



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- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Museum
- Commerce Queensland
- Department of Defence (Australia)
- Engineers Australia
- Fire Protection Association Australia
- Institute of Security Executives
- National Fire Industry Association
- National Measurement Institute
- Society of Fire Protection Engineers Australasian Chapter

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PREFACE

This Standard was prepared by the Standards Australia Committee FP-011, Special Hazards Fire Protection Systems.

The objective of this Standard is to assist in preventing the loss of life due to fire by providing requirements to ensure the performance/operation of container valve assemblies, flexible connectors, check valves and non-return valves, selector valves and associated actuators and discharge nozzles for use in gaseous fire extinguishing systems.

This Standard is technically identical with, and has been reproduced from ISO 16003:2008, *Components for fire extinguishing systems using gas—Requirements and test methods—Container valve assemblies and their actuators; selector valves and their actuators; nozzles; flexible and rigid connectors; and check valves and non-return valves*. Editorial corrections have been made as follows:

(a) Clause 5.7.2 The reference in the first sentence to Clause 4.8 is *deleted* and *replaced* with '4.9'.

(b) Clause 5.15 The reference in the first sentence to Clause 4.8 is *deleted* and *replaced* with '4.17'.

(c) Clause 5.16 The reference in the first sentence to Clause 4.8 is *deleted* and *replaced* with '4.8'.

These editorial corrections are planned for incorporation into an ISO corrigendum to ISO 16003:2008.

As this Standard is reproduced from an international standard, the following applies:

(i) its number appears on the cover and title page while the international standard number appears only on the cover.

(ii) In the source text 'International Standard' should read 'Australian Standard'.

(iii) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian Standard*	
EN		AS	
60529	Specification for degrees of protection provided by enclosures (P-Codes)	60529	Degrees of protection provided by enclosures (IP Code)
ISO		AS ISO	
7	Pipe threads where pressure-tight joints are made on the threads	7	Pipe threads where pressure-tight joints are made on the threads
7-1:	Part 7-1: Dimensions, tolerances and designation	7.1:	Part 7-1: Dimensions, tolerances and designation
		AS	
7005	Metallic flanges	4331	Metallic flanges
		4331.1	Part 1: Steel flanges
		4331.2	Part 2: Composite flanges
		4331.3	Part 3: Copper alloy and composite flanges

IEC			
60068	Environmental testing	60068	Environmental testing
60068-2-6	Part 2-6: Tests, Test Fc: Vibration (sinusuoidal)	60068.2.6	Part 2.6: Tests, Test Fc: Vibration (sinusuoidal)

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INTRODUCTION

This International Standard has been prepared by a specialist working group of ISO/TC 21/SC 8 as a companion document to ISO 14520 (all parts) and is compatible with corresponding documents prepared by CEN. It does not cover all components incorporated in gaseous fire extinguishing systems dealt with in ISO 14520 (all parts); rather, it is restricted to key components only, viz., container valve assemblies, flexible connectors, check valves and non-return valves, selector valves and associated actuators and discharge nozzles.

CO_2 system components are also covered by this International Standard (see ISO 6183).

NOTE The components requirements of this International Standard are also satisfied by the requirements of EN 12094 (all parts).

AUSTRALIAN STANDARD

Components for fire-extinguishing systems using gas — Requirements and test methods — Container valve assemblies and their actuators; selector valves and their actuators; nozzles; flexible and rigid connectors; and check valves and non-return valves

1 Scope

This International Standard specifies requirements and describes test methods for the following components used in gaseous fire-extinguishing systems: container valve assemblies, which include container valve, actuator and, if applicable, a diptube; selector valves and their actuators; agent distribution nozzles; flexible connectors; and check and non-return valves.

Container valve assemblies are designed to control the extinguishant flow from the container to the distribution pipe work. They are normally in the closed position. The automatic control device triggers the actuator and the valve opens. Where applicable, the requirements contained in the test methods also apply to separate container valves.

The design of the nozzles influences the area coverage, the height limitations, the discharge rate and the flow rate.

This International Standard is applicable to check valves installed between container valve and manifold and non-return valves installed in pilot lines, except those valves that are tested in combination with non-electrical control devices. It is required that non-return and check valves allow the passage in the direction of flow and prevent flow in the reverse direction.

NOTE For the purpose of this International Standard, the pressure in megapascals (bars) means gauge pressure, unless otherwise indicated.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7005 (all parts), *Metallic flanges*

ISO 14520-1:2006, *Gaseous fire-extinguishing systems — Physical properties and system design — Part 1: General requirements*

IEC 60068-2-6, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal)*

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