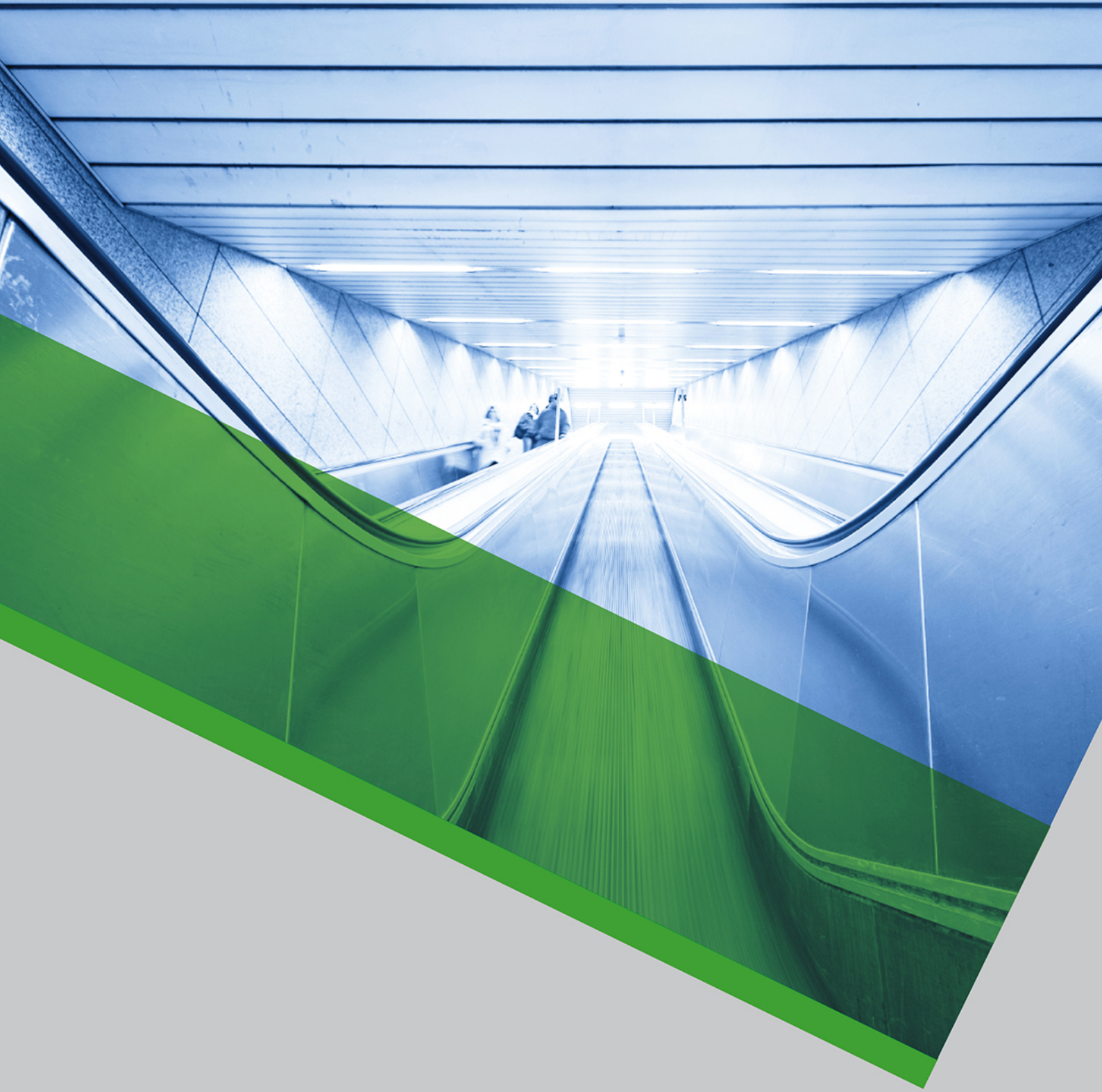




Reference Document

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Gaseous Fire Suppression System Actuators

Version 1.1
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FIRE PROTECTION ASSOCIATION AUSTRALIA



Gaseous Fire Suppression System Actuators

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1.0 Introduction

Identifying actuators used on gaseous suppression system cylinders, and making sure they are in the “set” position prior to installation is critical to working safely with gaseous cylinders. Technicians need to be able to:

- Identify whether an actuator is resettable or not;
- Recognise if the actuator is in the “fired” or “set” position;
- Recognise any potential danger in handling the actuator;
- Select and use the correct resetting tool; and thereby
- Prevent accidental discharge of the cylinder which could cause injury to yourself and others and releasing the gas to atmosphere.

Note: Discharge of ODS & SGG is controlled by the Ozone Protection and Synthetic Greenhouse Management Act. Discharge of these scheduled substances, unless in response to a fire or otherwise approved by the Fire Protection Industry (ODS & SGG) Board, is an offence.

This document has been published to assist technician’s identify types of actuators used on the most commonly installed gaseous suppression systems in Australia. It is not intended to be used in place of manufacturer’s guidelines, recommendations or procedures. The manufacturer, or manufacturer’s representative, should always be contacted for information on the resetting or maintenance of their actuators.

This Reference Document provides a list of actuators and includes details such as:

- Depictions of the “set” and “fired” positions.
- Identification as to whether they are or are not resettable.
- Details of resetting tools (where required).
- Manufacturer/Supplier.
- Names and Part numbers.

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2.0 What if the actuator I have is not listed here?

If the cylinder and actuator which you need information on is not listed in this document, please contact the manufacturer or supplier for information.

Also, FPA Australia encourages manufacturers/suppliers to contact the Association with details of their actuators not provided in this version of the document so that this list can be updated accordingly. Please send any information or queries about this document to technical@fpaa.com.au.

3.0 Actuator listing

The following is a list of actuators for commonly installed gaseous fire suppression systems in Australia.

Gaseous Suppression System Cylinder Actuators			
Amerex / Janus Fire Systems—Electric Actuator			
Photo	Photo (reset position)	Photo (fired position)	Actuator description
			Name: Electric Valve Actuator Part number: 18481 Resettable: Yes Reset Tool required: No Used on: SV, MV and LV Cylinders Applicable cylinder types and sizes: 40lb, 80lb, 130lb, 250lb, 420lb, 600lb, 900lb and 1,000lb Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Ansul—HF Electric Actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: HF Electric Actuator Part number: 73327 Resettable: Yes Reset Tool required: Yes (Part No. 75433) Used on: 150 and 200 bar Inergen™ and High Pressure CO₂ Applicable cylinder types and sizes: CV98 cylinder valves Other information: Used in conjunction with Booster Actuator, part no. 428949

Ansul—Booster Actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Booster Actuator Part number: 428949 Resettable: Yes Reset Tool required: Yes (Part No. 429847) Used on: 150 and 200 bar Inergen™ and High Pressure CO₂ Applicable cylinder types and sizes: CV98 cylinder valves Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Ansul—CV90/CV98 Electric Actuator

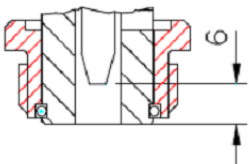
Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: CV90/CV98 Electric Actuator Part number: 426876 / 423684 Resettable: No Reset Tool required: No Used on: 150 and 200 bar Inergen™ and High Pressure CO₂ Applicable cylinder types and sizes: CV90 and CV98 cylinder valves Other information: These actuators use a non-resettable Metron Protractor which must be replaced after actuation or every 10 years. These actuators are now obsolete.

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Gaseous Suppression System Cylinder Actuators

Chubb—C200 Solenoid Actuator

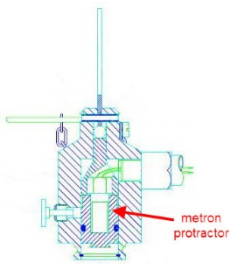
Photo	Photo (reset position)	Photo (fired position)	Actuator description
 (shown with stackable manual strike knob actuator fitted)		Firing pin is flush with base of actuator when fired	Name: C200 Solenoid Actuator 24V Part number: 49.700.02 Resettable: Yes Reset Tool required: No Used on: C200 Cylinders Applicable cylinder types and sizes: All sizes Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Chubb—TF12 Manual/Electric Actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
	 Cross section of actuator body with the metron protractor highlighted  Photo of unused metron	 Photo of fired metron removed from actuator housing	Name: TF12 manual/electric actuator Part number: complete actuator – 86712, metron replacement only - 86758 Resettable: No Reset Tool required: N/A Used on: Chubb TF12 CO₂ cylinders Applicable cylinder types and sizes: All TF12 CO₂ cylinders Other information: This actuator uses a non-resettable metron protractor. After use the metron protractor housed inside the actuator body must be replaced.

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC EX Proof stackable electric actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Electric Control Head, Stackable, 24 VDC (Ex. Proof) Part number: 48650001 Resettable: Yes Reset Tool required: Yes. Resetting tool model 81-100000-AU5 (pictured below).  Used on: Only on ECS series FM-200 and NOVEC cylinders on 1½" and 2" valves. Cannot be used on 3" valves as this control head doesn't have sufficient force to activate 3" valves. Applicable cylinder types and sizes: ECS series FM-200 and NOVEC cylinders: • 10lb, 20lb, 70lb, 125lb cylinders (1½" valve) • 200lb and 350lb cylinders (2" valves) Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ Flame Proof and EX Proof stackable electric actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin (highlighted) protrudes from body when fired	Name: Electric Control Head, Stackable, 24 VDC (Ex. Proof and Flame Proof) Part number: 81-100000-001 Resettable: Yes Reset Tool required: Yes Resetting tool model 81-100000-AU5 (pictured below).  Used on: - All ECS series FM-200 cylinders and NOVEC cylinders - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb FM-200/NOVEC cylinders 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: Stackable with manual actuator P/N 870652.

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ electric actuator (standard)

Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Electric Control Head, 24 VDC Part number: 890181 Resettable: Yes Reset Tool required: No, use flat head screwdriver on spot indicated in red on the photo to reset. Used on: - All ECS and ADS series FM-200 and NOVEC cylinders on 1½", 2" and 3" valves - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb FM-200/NOVEC cylinders 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: Local manual release lever is provided for manual operation.

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ Cable operated actuator

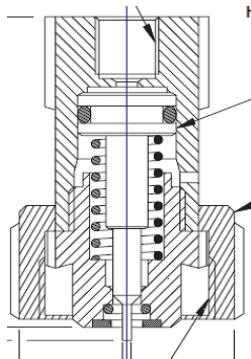
Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Cable Operated Control Head Part number: 979469 Resettable: Yes Reset Tool required: No, remove cover and move roller to other end to reset Used on: Systems designed for manual operation only. Operated either remotely form a cable manual pull station or locally using the manual level on control head. Usable on: - All ECS and ADS series FM-200 and NOVEC cylinders on 1½" 2" and 3" valves - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb FM-200/NOVEC cylinders 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ Pressure operated actuator

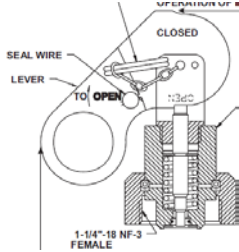
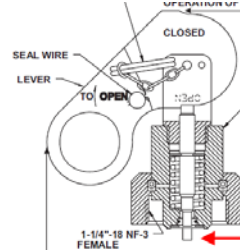
Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Pressure Operated Control Head Part number: 878737 Resettable: Yes Reset Tool required: No, reset by pushing back the pin to flush Used on: Systems designed for pressure actuation using pressure from master cylinder. Used on slave FM-200 cylinders where the master/main cylinder is provided with Electric actuator. Usable on: - All ECS and ADS series FM-200 and NOVEC cylinders on 1½", 2" and 3" valves - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb FM-200/NOVEC cylinders 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ Lever operated actuator

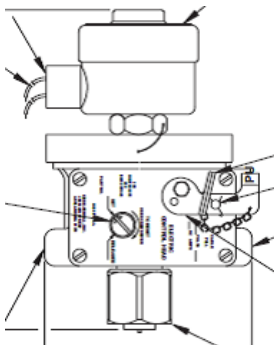
Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin (highlighted) protrudes from body when fired	Name: Lever Operated Control Head Part number: 870652 Resettable: Yes Reset Tool required: No, reset by pushing back the pin to flush Used on: Systems designed for manual actuation by operating the lever. Usable on: - All ECS and ADS series FM-200 and NOVEC cylinders on 1½", 2" and 3" valves - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb FM-200/NOVEC cylinders 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Kidde—FM-200/NOVEC/CO₂ Electric and Cable operated actuator

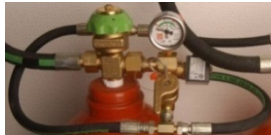
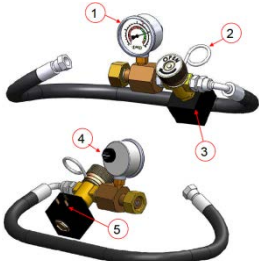
Photo	Photo (reset position)	Photo (fired position)	Actuator description
		 Firing pin protrudes from body when fired	Name: Electric and Cable Operated Control Head Part number: 895630 Resettable: Yes Reset Tool required: No, use flat head screwdriver Used on: Systems designed for both electric actuation and remote cable operated pull station actuation. Usable on: - All ECS and ADS series FM-200 and NOVEC cylinders on 1½", 2" and 3" valves - All Kidde CO₂ cylinders Applicable cylinder types and sizes: 10lb, 20lb, 70lb, 125lb, 200lb, 350lb, 600lb and 900lb – FM-200/NOVEC cylinders. 25lb, 35lb, 50lb, 75lb and 100lb CO₂ cylinders Other information: N/A

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Gaseous Suppression System Cylinder Actuators

Kidde/Ginge Kerr—Argonite electric solenoid valve

Photo	Photo (reset position)	Photo (fired position)	Actuator description
	 1. Pressure gauge 2. Securing pin for manual release handle 3. Solenoid coil 4. Electric connection for low pressure monitoring 5. Electric connection for solenoid coil	N/A	Name: Release Unit Part number: 01-7172-1300 – Release Unit, 300 bar system 6-01-7172-8300 – Release Unit, 300 bar C60 system Resettable: Yes Reset Tool required: No, this actuation device is self-resetting once power is taken away from the solenoid. Used on: Kidde Argonite 300 bar systems. Applicable cylinder types and sizes: 80Litre, 300bar Other information: N/A To test: Disconnect the coil unit from the solenoid valve, initiate the actuation circuit and verify power at the coil.

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Gaseous Suppression System Cylinder Actuators

LPG—24VDC Solenoid

Photo	Photo (reset position)	Photo (fired position)	Actuator description
	N/A	N/A	Name: 24VDC Solenoid Part number: 3023024B Resettable: Yes Reset Tool required: No Used on: iFlow & FM-200 Applicable cylinder types and sizes: Nitrogen Pilot and FM-200 modular cylinders Other information: Refer to LPG Manuals

LPG—Manual Release

Photo	Photo (reset position)	Photo (fired position)	Actuator description
			Name: Manual Release Part number: 30180APB Resettable: Yes Reset Tool required: No Used on: iFlow & FM-200 Applicable cylinder types and sizes: Nitrogen Pilot and FM-200 modular cylinders Other information: Refer to LPG Manuals

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Gaseous Suppression System Cylinder Actuators

LPG—Activation Cones

Photo	Photo (reset position)	Photo (fired position)	Actuator description
 	 	 	Name: Activation cones Part number: Several (contact LPG) Resettable: Yes Reset Tool required: No Used on: iFlow & FM-200 Applicable cylinder types and sizes: iFlow and FM-200 slave cylinders Other information: Refer to LPG Manuals

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Gaseous Suppression System Cylinder Actuators

Tyco—Sapphire/FM-200 Electric Actuator

Photo	Photo (reset position)	Photo (fired position)	Actuator description
			Name: Removable electric actuator Part number: 304.205.010 Resettable: Yes Reset Tool required: Yes, supplied with actuator Used on: Sapphire and FM-200™ systems Applicable cylinder types and sizes: 4.5 to 343 litre containers with 1", 2" or 3" container valves Other information: N/A

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4.0 Manufacturer/Supplier Contacts

Contact details for the suppliers included in the listing above are as follows:

Supplier	Website	Phone
Chubb Fire and Security	www.chubb.com.au	13 15 98
Delta Fire Australasia Pty Ltd (Amerex/Janus Fire System)	www.deltafire.com.au	07 3349 7817
Kidde Australia	www.kidde.com.au	1800 672 171
LPG Fire Australia	lpgfire.com.au	07 5522 1953
Tyco Fire Protection Products (Supplier for LPG Fire Australia))	www.tycofsbp.com	03 9313 9712
Wormald (Ansul, Tyco)	www.wormald.com.au	133 166

5.0 Disclaimer

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