

Ardent CO2 Product Catalogue 2026



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At Ardent, previously known as DAB, we specialise in the design and manufacture of fire protection equipment. For over 40 years, our valves and actuators have been the preferred choice for some of the largest names in the fire protection industry.

Renowned for their reliability, durability and ease of servicing, each and every one of our products is hand built in the UK using components sourced from the best suppliers. Our product quality is monitored at all stages, from machining to assembly, testing and final dispatch.

CO₂ Cylinder Valves

Our CO₂ Cylinder Valves are designed to be fitted directly to the CO₂ cylinder. They are available with either DIN 477 or 1" NPT cylinder threads, with a standard 12mm CO₂ thread outlet port. They can be fitted with a wide range of CO₂ actuators.

All DAB CO₂ valves are fully tested and serialised prior to delivery and are supplied with full operating instructions and test certificates.

CO₂ Solenoid Operated Cylinder Valves

Our Solenoid Valves share the bodies and specifications of our standard CO₂ cylinder valves, the only modification being a valve block factory fitted to the side of the valve body. This valve block makes it possible to fit the solenoid and actuator to the assembly.

CO₂ Valve Actuators

Our wide range of actuators is designed to be fitted directly on top of our CO₂ Cylinder Valves. They include pressure and manual, pressure only, Metron Protractor and manual hand-wheel options.

CO₂ Valve Accessories

To complement our CO₂ valves and actuators, DAB also manufactures a range of CO₂ accessories. These include 12mm manifold check valves, manifold burst disc assemblies and bleed valves.

Check Valves

Available for both CO₂ and halocarbon systems, our check valves are designed to give high flow rates with a minimal pressure drop.

D10963

CO₂ Cylinder Valve

Developed specifically for the fire protection industry, this valve is servo assisted to provide light operating loads throughout the complete range of CO₂ cylinder pressures.

This valve is suitable for both marine and onshore use.



Features include:

- Servo assisted operation for smooth opening
- High flow characteristics
- Interchangeable head enabling a variety of actuators to be used
- Safety burst disc to protect valve and cylinder in the event of over-pressure
- NPT or DIN 477 cylinder threads
- Standard 12mm CO₂ threaded outlet
- Robust and compact body design
- Proven reliability through years of service

	DIN Valve- D10963/D/TS	NPT Valve- D10963/N/TS
Cylinder Thread	DIN 477	1" NPT
Syphon Tube Thread	M16 x 1	¾" x 20TPI Whit Form
Weight	0.592 kg	0.630 kg
Outlet Thread	12mm CO ₂ (0.86 x 14TPI)	
Burst Disk Pressure	190 Bar	
Flow Rate	80% CO ₂ in 23 seconds for NPT Valve	
Pressure Drop	Equivalent length 9 feet of ½" schedule 80 pipe	
Operating Temperature	-20°C to +50°C	
Pressure Range	7 Bar to 140 Bar	

D11095

CO₂ Solenoid Operated Cylinder Valve

Developed specifically for the fire protection industry, this valve is designed to be operated electrically. It is typically used as the master valve and to actuate other cylinder valves in the system.

This valve is suitable for both marine and onshore use.



Features include:

- Servo assisted operation for smooth opening
- High flow characteristics
- Internal cylinder pressure used to actuate the solenoid valve
- Actuator and solenoid can be safely disconnected from the valve for testing purposes
- Bleed valve fitted in event of leakage and manual over-ride lever fitted as standard
- Safety burst disc to protect valve and cylinder in the event of over-pressure
- NPT or DIN 477 cylinder threads
- Standard 12mm CO₂ threaded outlet
- Robust and compact body design with proven reliability through years of service

	DIN Valve - D11095/D/TS	NPT Valve - D11095/N/TS
Cylinder Thread	DIN 477	1" NPT
Syphon Tube Thread	M16 x 1	3/4" x 20TPI Whit Form
Outlet Thread	12mm CO ₂ (0.86 x 14TPI)	
Burst Disk Pressure	190 Bar	
Flow Rate	80% CO ₂ in 23 seconds for NPT Valve	
Pressure Drop	Equivalent length 9 feet of 1/2" schedule 80 pipe	
Operating Temperature	-20°C to +50°C	
Pressure Range	7 Bar to 140 Bar	

Solenoid Details Volts Watts	Volts	Watts
#22X0284OEM	24V CD	10
#22X0321OEM	240VAC 60 Hz (220VAC 50Hz)	10

Also available as 'valve only', with block assembly:

D11095/02D/TS

D11095/02N/TS

D10964

Manual/Pneumatic Actuator with Detent

This actuator is designed to be operated both manually and pneumatically.



Features include:

- Solid brass one-piece body
- Lever for manual operation
- Dual ports for easy daisy-chaining of pilot lines
- Detent device to lock the actuator in the open position once operated
- Safety clip to prevent accidental actuation
- Available with either 1/8" BSPT or 1/8" NPT actuation ports. Specify D10964/B or D10964/N.

When operated manually, a safety clip has to be removed before the lever can be operated. Actuation ports are machined in both sides of the body to enable several actuators to be 'daisy chained'.

Once operated, a detent device ensures that the actuator remains in the fully open position. To reset the actuator, simply reset the lever to the closed position, replace the safety clip and gently pull out the reset knob on the detent.

NOTE: When operated manually, a pressure of at least 31 Bar must be available at the last actuator to ensure correct actuation of CO₂ valve.

Operating Temperature	-20°C to +50°C
Pressure Range	7 Bar to 140 Bar

D10978/B

Single Slave Actuator

This actuator is designed to be operated pneumatically only.



Features include:

- Solid brass one-piece body
- Available as a 1/8" BSPT

NOTE: A pressure of at least 31 Bar must be available at the last actuator to ensure correct actuation of CO₂ valve.

Operating Temperature	-20°C to +50°C
Pressure Range	7 Bar to 140 Bar

D10980

Metron Actuator

This actuator is designed to be operated electrically using a Metron Protractor device.



Features include:

- Solid brass one-piece body
- Detent device to lock the actuator in the open position once operated

Once operated, a detent device ensures that the actuator remains in the fully open position. To reset the actuator, simply replace the Metron Protractor with a new unit and gently pull out the reset knob on the detent.

NOTE: Metron Protractors are 'one shot' actuation devices and should be replaced immediately after use.

Operating Temperature	-20°C to +50°C
Pressure Range	7 Bar to 140 Bar

D10980/20

Metron Actuator with Conduit Thread

This actuator is designed to be operated electrically using a Metron Protractor device. A standard 20mm conduit thread is machined to the top of the body to enable connection to a standard electrical conduit.



Features include:

- Solid brass one-piece body
- Detent device to lock the actuator in the open position once operated

Once operated, a detent device ensures that the actuator remains in the fully open position. To reset the actuator, simply replace the Metron Protractor with a new unit and gently pull out the reset knob on the detent.

NOTE: Metron Protractors are 'one shot' actuation devices and should be replaced immediately after use.

Operating Temperature	-20°C to +50°C
Pressure Range	7 Bar to 140 Bar

D11003

Double Slave Actuator with Detent

This actuator is designed to be operated pneumatically only. Actuation ports are machined in both sides of the body to enable several actuators to be 'daisy chained'.



Features include:

- Solid brass one-piece body
- Dual ports for easy daisy-chaining of pilot lines
- Detent device to lock the actuator in the open position once operated
- Available with either 1/8" BSPT (D11003/B) or 1/8" NPT (D11003/N) actuation ports

Once operated, a detent device ensures that the actuator remains in the fully open position. To reset the actuator, gently pull out the reset knob on the detent.

NOTE: A pressure of at least 31 Bar must be available at the last actuator to ensure correct actuation of CO₂ valve.

Operating Temperature	-20°C to +50°C
Pressure Range	7 Bar to 140 Bar

D10992

Manifold Ball Check Valve

This valve is designed to fit between the manifold and the CO₂ valve to stop any possible back pressure from occurring when the system is discharged.



Features include:

- Solid brass one-piece body
- Stainless steel ball

The 12mm Ball Check can be supplied with either a 3/4" BSPT (D10992/B) or a 3/4" NPT male thread (D10992/N). The NPT thread is identified by a series of notches machined in the hexagon portion of the valve body. On the other end of the Ball Check, a CO₂ thread is machined to take any standard CO₂ connector.

Operating Temperature	-20°C to +50°C
Pressure Range	0 Bar to 140 Bar

D11056

Bleed Vent Valve

The Bleed Valve is designed to prevent accidental initiation of the main system in the event of a slow build up of pressure into the pilot line caused by leakage from any actuation device.



Features include:

- Solid brass one-piece body
- Brass reset knob for easy operation

The valve, shown in the open position, allows pilot gas to pass to atmosphere thus preventing any rise in pressure in the pilot line. However, when the system is operated, the pilot pressure rises rapidly above the closing pressure and the valve closes thereby allowing actuation to take place immediately.

After operation, when the system is bled, the valve will reset automatically. However, if there is no provision for bleeding, this can be achieved by simply pushing in the reset knob.

The bleed valve is supplied with a ¼" NPT female thread. The valve is designed to shut fully at a pressure of 2 Bar.

Operating Temperature	-20°C to +50°C
Operating Pressure	Open below 1.5 Bar Closed above 2 Bar
Pressure Range	Maximum working pressure 140 Bar

D20002/B

Odouriser

The Odouriser adds a citrus odour to gaseous extinguishants such that their presence can be detected, the extinguishants otherwise being odourless. It is designed primarily for use on DAB high pressure CO2 fixed extinguishing systems, but can be used on all other extinguishing systems, except low pressure CO2.

The fitment of an Odouriser on CO2 systems is mandatory; its fitment on other systems is optional, but recommended.

This Odouriser is suitable for both marine and onshore use.



Features include:

- Distinctive citrus odour
- 1/2" BSPT connection thread
- One Odouriser per 1000kg of CO2
- Automatic operation

Operating Temperature	-20°C to +50°C
Operating Pressure	15 Bar
Pressure Range	Maximum working pressure 140 Bar
Media	CO2, inert gas, FK-5-1-12, HFC 227ea
Dosing Capacity	1000 45 kg CO2 / 22x 300 bar 80 litre inert gas cylinders / 450 kg chemical
Odour Fluid	Citronella

Hoses

Our flexible pilot hoses connect multiple slave cylinders to a master or pilot cylinder. They are used to connect pressure operated devices where a flexible connection is required.



- **D11114**, 1/2" CO2 Discharge Hose - 430 mm Long



- **D11114/90D**, 1/2" CO2 Discharge Hose - 430 mm Long with 90° Fitting



- **D11115**, 3/16" Pilot Hose - 15" Long

Hoses



- **D11115/24**, 3/16" Pilot Hose Pilot Hose - 24" Long



- **D20008/330**, 330mm long Pilot Hose 7/16" UNF JIC Female Both Ends
- **D20008/600**, 600mm long Pilot Hose 7/16" UNF JIC Female Both Ends

Adaptors



- **D20010/B**, 7/16" UNF JIC M x 1/8" BSPT M Adaptor



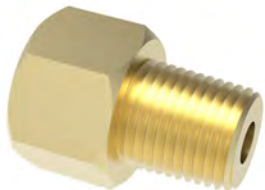
- **D20010/J**, 7/16" UNF JIC Male x 7/16" UNF JIC M Nipple



- **D20010/N**, 7/16" UNF JIC M x 1/8" NPT Straight Adaptor



- **D11095/23**, 1/8" NPT M - 1/4" NPT M Straight Adaptor - Brass



- **D11095/24**, 3/16" Enots F - M Straight Adaptor - Brass - 1/8" BSPT

To place an order or find out more about our products, give us a call on **+44 (0) 1423 326740** or email us on **info@ardent-uk.com**.

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