

HIGH PRESSURE CYLINDER VALVES

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CBA series **Commercial and POL Style Acetylene Cylinder Valves** O-Ring seal type

List Features

- O-Ring technology provides superior leak integrityEasy operation and long service life
- 100% leak test to 1.2 times service pressure
- All markings are located on the valve neck to protect them from damage
- Large orifice size provides faster vacuum and filling rates
- Durable forged brass body manufactured by Cavagna Group
- Unique seat holder design
- Available configurations include: Inlet threads (NGT, DIN477, BS, EN, EN ISO)

List Technical data

Pressure		
Maximum Service Pressure	34,5 bar	500 PSI
Test Pressure	60 bar	885 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 minimum	
Torque Values for PBA Acetylene valves		
Max Operating torque @ 0 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 240 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 2,900 PSIG inlet pressure	2 N/m	17.7 lbs / inch
Max Overtorque	25 N/m	221 lbs / inch
Flow Capacity (CV)	n/a	
Orifice Ø:	3.5 mm	0.137 inch



Valve Body	Forged Brass EN12165 alloy PTEF
Back up ring Handwheel	Aluminium
Seat	PA 612-Zytel
O-rings	EPDM
Antifriction ring	Delrin
Bonnet	Brass alloy conforming EN12164

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard

Ordering Information

Part Number	Туре	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBA 8 300 0	Commercial	300	.825"-14 NGO RH Ext.	1/2" NGT
CBA 1 300 0	Commercial	300	.825"-14 NGO RH Ext.	3/4"-14 NGT
CBA 6 300 0	Commercial	300	.825"-14 NGO RH Ext.	1"-11 1/2 NGT
CBA 1 415 0	Canadian Style	415	.850"-14 NGO LH Int.	3/4"-14 NGT
CBA 8 510 0	P.O.L.	510	.885"-14 NGO LH Int.	1/2" NGT
CBA 1 510 0	P.O.L.	510	.885"-14 NGO LH Int.	3/4"-14 NGT
CBA 6 510 0	P.O.L.	510	.885"-14 NGO LH Int.	1"-11 1/2 NGT



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CBO series Vertical Outlet Acetylene Valve with Handwheel For Collar Style Cylinders

List Features

- Rugged brass forged body manufactured by Cavagna Group
- O-Ring design provides industries best leak tightness and easy operation
- Compact Handwheel provides better access to the valve Handwheel and eliminates interference with cylinder collar
- Inlet screen prevents filler mass or felts from entering the valve
- Easy to read valve markings are roll stamped on the valve neck not on the wrench flats
- Soft seat design provides positive shut off

List Technical data

Pressure Maximum Service Pressure Test Pressure	34,5 bar 60 bar	500 PSI 885 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 m	ninimum
Torque Values for PBA Acetylene valves		
Max Operating torque @ 0 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 240 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 2,900 PSIG inlet pressure	2 N/m	17.7 lbs / inch

25 N/m

3.5 mm

n/a



221 lbs / inch

0.137 inch

Material components

Max Overtorque Flow Capacity (CV)

Orifice Ø:

material temper	
Valve Body	Forged Brass EN121645
Handwheel	Aluminium
Bonnet	Brass EN12164
Seat	PA 612 Zytel 158
O-Rings	EPDM
Back up Ring	PTFE
Antifriction ring	Delrin
Filter	Stainless Steel

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard

Ordering Information

Part Number	Туре	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBO 1 510 0	P.O.L.	510	.885"-14 NGO LH Int.	3/4" NGT
CBO 1 300 0	Commercial	300	.825"-14 NGO RH Ext.	3/4″ NGT



CBH/CBI series New Handwheel O-ring Seal B and MC Acetylene Cylinder Valves

List Features

- Handwheel design permits easy access to the valve stem and bonnet to perform leak checks in compliance with DOT requirements
- Positive spindle nut seal with the valve body eliminates the need for constant tightening of packing nuts
- Robust brass Handwheel prevents breakage and corrosion associated with aluminium versions
- Self locking zinc coated steel nut affixes Handwheel to the Sturdy Brass Stem
- Proven double O-Ring technology assures positive leak tight operation extending service life
- Easy low torque operation eliminates the need for wrenches or keys
- Soft seat extends service life and reduces leakage
- Handwheel design eliminates costly valve repairs reducing overall "Cost of Ownership"

List Technical data

Pressure		
Proof	100 bar min	1,465 PSI min
Test	60 bar	885 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 m	ninimum
Torque Values for PBH/PBI Acetyler	ie valves	
	3 lbs/inch	3 lbs/inch
Operating torque @ 500 PSIG	(CGA 200)	(CGA 520)
Max Overtorque	25 N/m	221 lbs / inch
Orifice Ø:	(200) .133 inch	(520) .133 inch

Material components

Valve Body	Forged Brass EN12165
Handwheel	Brass EN12164
Bonnet Nut	Brass EN12164
Seat	PA 612 Zytel 158
O-Rings	EPDM
Back up Ring	PTFE
Fusible plug	212° F Integral Fusible metal
Strainer	AISI 304 100 mesh

Conforms to all requirements of:

CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
CGAV9	Standard for Gas Cylinder valves

Ordering Information

Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBH 5 520 3	Acetylene	520	.895-18 NGO RH Ext.	3/8-18 NGT
CBI 5 200 3	Acetylene	200	.625-20 NGO RH Ext.	3/8-18 NGT







CBB/CBC series Wrench Operated Acetylene Valves

List Features

- Valve body made of rugged forged brass produced by Cavagna Group
- Fusible metal pressure relief device

- Large wrench flats for easy installation
 Teflon packing and anti extrusion rings prevent packing leakage
 Plated steel stem resists damage from wrenches and corrosion

List Technical data

Pressure		
Proof	100 bar min	1,465 PSI min
Test	60 bar	885 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 n	ninimum

Torque Values for PBB/PBC Acetylene valves:

See Ordering information below.

Material components

Valve Body	Forged Brass EN12165 alloy
Pressure Relief	212° F Integral Fusible Metal
Packing Nut	Brass EN12164
Packing	Teflon (PTFE)
Packing Gland	Brass EN12164 alloy
Packing Washer	Brass EN12165 alloy
Stem	Steel UNI4838
Strainer	AISI 304 100 mesh

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections

Ordering Information

Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBB 5 520 3	Acetylene	520	.895-18 NGO RH Ext.	3/8-18 NGT
CBC 5 200 3	Acetylene	200	.625-20 NGO RH Ext.	3/8-18 NGT

Torque Values

Description	Torque	
Operating Torque @ 0 psig Inlet Pressure	6 - 10 in lbs	
Closing Torque @ 500 psig Inlet Pressure	6 - 10 in lbs	
Packing Nut Installation Torque	80 - 100 in lbs	
Stem Installation Torque	45 ± 5 in lbs	

Flow Data

CGA Outlet Number	200	520
Orifice Ø: Diameter (inches)	.133	.133
Flow Constant: Cv - Full Open	n/a	n/a
Flow CFM @ 240 PSIG Inlet	n/a	n/a





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CBA series Brass High Pressure Cylinder Valve for Industrial Gases O-Ring seal type

List Features

- O-Ring technology provides superior leak integrity
- Easy operation under high pressure
- 100% leak test to 1.2 times cylinder service pressure
- All markings are located on the valve neck to protect them from damage
- Large Orifice Ø: provides faster vacuum and filling rates
- Available bursting discs for all DOT cylinders
- Durable forged brass body manufactured by Cavagna Group
- Passes stringent oxygen adiabatic compression test
- Unique seat holder design
- Standard pressure relief device thread .650-19UNS-2B
- Color coded safety device for easy burst disc identification
- Available configurations include: Inlet threads (NGT, UNF, DIN477, BS, EN, EN ISO)
 All CGA outlets available
- Available with inlet thread for DT
- Unitized "plug style" pressure relief device

List Technical data

Pressure		
Maximum Service Pressure	276 bar	4,000 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 n	ninimum
Torque Values for PBA Acetylene valves		
Max Operating torque @ 0 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 240 PSIG inlet pressure	1 N/m	8.8 lbs / inch
Max Operating torque @ 2900 PSIG inlet pressure	2 N/m	17.7 lbs / inch
Max Overtorque	25 N/m	221 lbs / inch
Flow Capacity CV / Full open n/a		/a
Orifice Ø:	4 mm	.160 inch

Material components

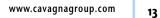
Valve Body	Forged Brass EN12165 alloy
Bursting disc	Nickel alloy or Stainless Steel
Bursting disc body	Brass (also available with 212°F fusible metal)
Back up Ring	Nylon or PTFE
Bonnet	Brass
Handwheel	Aluminium
Seat	Polyamide
O-rings	EPDM
Antifriction	Delrin
Stem	Brass according to EN 12164 alloy

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard
CGA V-1 ISO 10297	Standard for Pressure Relief Devices Compressed Gas Cylinder Valve Outlet and Inlet Connections International Standard

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Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBA 8 350 6 xxxx CBA 1 350 6 xxxx CBA 6 350 6 xxxx CBA 3 350 6 xxxx CBA 3 9 350 6 xxxx CBA 1 695 6 xxxx	Hydrogen 0 to 3,000 psi 3,000 to 5,500 psi	350 695	.825-14 NGO LH Ext. 1.045-14 NGO RH Int.	1/2".14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125"-12 UNF 3/4"-14 NGT
CBA 1 703 6 xxxx	5,500 to 7,500 psi	703	1.125-14 NGO LH Int.	3/4"-14 NGT
CBA 8 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx CBG 9 580 1 xxxx	Krypton 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 680 1 xxxx CBA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4″-14 NGT 3/4″-14 NGT
CBA 8 350 6 xxxx CBA 1 350 6 xxxx CBA 6 350 6 xxxx CBA 3 350 6 xxxx CBA 9 350 6 xxxx	Methane (R50) 0 to 3,000 psi	350	.825-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 695 6 xxxx CBA 1 703 6 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	695 703	1.045-14 NGO RH Int. 1.125-14 NGO LH Int.	3/4"-14 NGT 3/4"-14 NGT
CBA 8 350 6 xxxx CBA 1 350 6 xxxx CBA 6 350 6 xxxx CBA 3 350 6 xxxx CBA 9 350 6 xxxx	Natural Gas 0 to 3,000 psi	350	.825-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 695 6 xxxx CBA 1 703 6 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	695 703	1.045-14 NGO RH Int. 1.125-14 NGO LH Int.	3/4"-14 NGT 3/4"-14 NGT
CBA 8 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx CBA 9 580 1 xxxx	Neon 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 680 1 xxxx CBA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT
CBA 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx CBA 9 580 1 xxxx	Nitrogen 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 680 1 xxxx CBA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT
CBA 8 346 1 xxxx CBA 1 346 1 xxxx CBA 6 346 1 xxxx CBA 3 346 1 xxxx	Air (R729) 0 psi to 3,000 psi	346	.825"- 14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF
CBA 9 346 1 xxxx CBA 1 347 1 xxxx CBA 1 702 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	347 702	.825-14 NGO RH Ext. 1.125"-14 NGO RH Ext.	1.125″ -12 UNF 3/4″-14 NGT 3/4″-14 NGT
CBA 8 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx	Argon 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF
CBA 9 580 1 xxxx CBA 1 680 1 xxxx CBA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	1.125″ -12 UNF 3/4″-14 NGT 3/4″-14 NGT
CBA 8 555 1 xxxx CBA 1 555 1 xxxx CBA 5 555 1 xxxx CBA 3 555 1 xxxx CBA 3 555 1 xxxx CBA 9 555 1 xxxx	Butane/Propane Liquid Withdrawal	555	.903-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 8 320 1 xxxx CBA 1 320 1 xxxx CBA 6 320 1 xxxx CBA 3 320 1 xxxx CBG 9 320 1 xxxx	Carbon Dioxide (R744)	320	.825-14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF

CBA series Brass High Pressure Cylinder Valve for Industrial Gases O-Ring seal type Ordering Information







CBA series Brass High Pressure Cylinder Valves for Industrial Gases

Ordering Information				
Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CBA 8 350 6 xxxx CBA 1 350 6 xxxx CBA 6 350 6 xxxx CBA 3 350 6 xxxx CBA 9 350 6 xxxx CBA 9 655 6 xxxx	Carbon Monoxide 0 to 3,000 psi 3,000 to 5,500 psi	350	.825-14 NGO LH Ext. 1.045-14 NGO LH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF 3/4"-14 NGT
CBA 1 703 6 xxxx	5,500 to 7,500 psi	703	1.125-14 NGO LH Int.	3/4"-14 NGT
CBA 8 660 CBA 1 660 CBA 6 660 CBA 3 660 CBA 9 660	1,2 Dichloroethylene (R1130)	660	1.030-14 NGO RH Ext. (Face Washer Seal)	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 8 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx CBG 9 580 1 xxxx CBA 1 680 1 xxxx CBA 1 680 1 xxxx CBA 1 677 1 xxxx	Helium 0 to 3,000 psi 3,000 to 5,500 psi 5,500 to 7,500 psi	580 680 677	.965-14 NGO RH Int. 1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF 3/4"-14 NGT 3/4"-14 NGT
CBA 8 326 1 xxxx CBA 1 326 1 xxxx CBA 6 326 1 xxxx CBA 3 326 1 xxxx CBA 9 326 1 xxxx	Nitrous Oxide (R744a)	326	.825-14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 8 540 1 xxxx CBA 1 540 1 xxxx CBA 6 540 1 xxxx CBA 3 540 1 xxxx CBA 9 540 1 xxxx CBA 1 577 1 xxxx CBA 1 701 1 xxxx	Oxygen 0 to 3,000 psi 3,000 to 4,000 psi 4,000 to 5,500 psi	540 577 701	.903-14 NGO RH Ext. .960-14 NGO RH Ext. 1.103-14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125"-12 UNF 3/4"-14 NGT
CBA 8 660 1 xxxx CBA 1 660 1 xxxx CBA 6 660 1 xxxx CBA 3 660 1 xxxx CBA 9 660 1 xxxx	Sulfur Dioxide	660	1.030-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 8 580 1 xxxx CBA 1 580 1 xxxx CBA 6 580 1 xxxx CBA 3 580 1 xxxx CBA 3 580 1 xxxx	Xenon 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CBA 1 680 1 xxxx CBA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4″-14 NGT 3/4″-14 NGT

xxxx Denotes Pressure Relief Device burst disc rupture pressure.

Available with:

4 and 7 thread oversize inlets: To order change the first number "1" in the part number to "4" or "7"

example: CBA 1 320 1 xxxx becomes CBA 4 320 1 xxxx

Chromium plating: To order, change the letter "B" in the part number to letter "D" *example:* CBA 1 540 1 xxxx becomes CDA 1 540 1 xxxx

Fusible backed pressure relief devices in 165° F and 212° F nominal melting temperatures: To order, change the eigth position in the part number to "5" for 165° F and "6" for 212° F *example:* CBA 1350 1 xxxx becomes CBA 1 350 5 xxxx for 165° F or CBA 1 350 6 xxxx for 212° F



P 2009 series Residual High Pressure Cylinder Valves for Industrial Gases

List Features

- Residual pressure valve, o-ring seal type for various gases including CO2
- Filling connector available separately

List Technical data

Pressure Maximum Service Pressure	230 bar	3,336 PSI
Test	276 bar	4,000 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 minimum	
Guaranteed External Tightness Guaranteed Internal Tightness	leakage ≤ 6 cm³/h leakage ≤ 6 cm³/h	0.788 scfm 0.788 scfm
Residual pressure device	2.5 to 4 bar	35 to 58 PSI
	(according to customer's specifications)	



Material components

Handwheel Aluminium Brass alloy according to EN12165 Valve Body O-ring EPDM Seat pad Polyamide Bursting disc Nickel alloy or Stainless Steel Spring Stainless steel or copper beryllium Seal Plastic Bursting disc body Brass Spindle Brass Spring retainer Brass

Options

Customized Handwheel logo cap Dip tube Bursting disc safety available in various settings Chromium plating Plastic Handwheel Filter Parallel thread Thread for dip tube installation

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard
ISO 15996	International Standard





P 1020 series Residual High Pressure Cylinder Valves for Industrial Gases

List Features

- Residual pressure valve, o-ring seal type for various gases including CO2
- Filling connector available separately

List Technical data

Pressure Maximum Service Pressure	230 bar	3,336 PSI
Test	276 bar	4,000 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 minimum	
Guaranteed External Tightness Guaranteed Internal Tightness	leakage ≤ 6 cm³/h leakage ≤ 6 cm³/h	0.788 scfm 0.788 scfm
Residual pressure device	2.5 to 4 bar	35 to 58 PSI
	(according to customer's specifications)	



Material components

Handwheel	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Seat pad	Polyamide
Bursting disc	Nickel alloy or Stainless Steel
Spring	Stainless steel or copper beryllium
Seal	Plastic
Bursting disc body	Brass
Spindle	Brass
Spring retainer	Brass

Options

Customized Handwheel logo cap Dip tube Bursting disc safety available in various settings Chromium plating Plastic Handwheel Filter Parallel thread Thread for dip tube installation

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard
ISO 15996	International Standard





FILLING CONNECTORS

for Residual Pressure valves

List Features

- The filling connectors are available in brass, in accordance with all CGA standardized cylinder valve outlets
 The connectors can be used with all the different types of residual pressure valves:
- P2009 series
- P1020 series
- The design with a special retractile pin is also available, to allow the connectors to be used with the standard valves series.

Options

Chromium plating











IVIPR series Valve with Integrated Pressure Regulator for Oxygen

List Features

- Residual pressure valve with integrated Pressure Regulator
- Ergonomically designed with a compact, user friendly casing
- All of the user's primary functions are visible and accessible from one
- side without turning the cylinder
- Suitable for Oxygen
- Meets all the requirements of ISO 22435, EN-ISO 15996

List Technical data

230 or 300 bar	3,336 or 4,350 PSI
276 bar	4,000 PSI
adjustable 0 to 145 PSI	
-40°C ÷ +65°C	-40°F ÷ +149°F
2,000 minimum	
leakage ≤ 6 cm³/h	0.788 scfm
leakage ≤ 6 cm³/h	0.788 scfm
2.5 to 4 bar	35 to 58 PSI
(according to customer's specified	
Q1 30 m ³ /h	
	276 bar adjustable of -40°C \div +65°C 2,000 n leakage $\le 6 \text{ cm}^3/\text{h}$ leakage $\le 6 \text{ cm}^3/\text{h}$ 2.5 to 4 bar (according to custo





Material components

Handwheel	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Main shut off seat pad	PA66
Spring	Stainless steel AISI 302
Sealing cap	Acetal resin
Spring regulator	Cu Be, AISI
Filter	Sintered Bronze
Diaphragms pressure	
reducer seat	HYTREL 5526
Toroidal ring	EPDM

Options

Customized Handwheel logo cap Threaded connection and quick connection available according to EN 561



IVIPR series Valve with Integrated Pressure Regulator for Ar/CO2 Mix and Inert Gases Mix

List Features

- Residual pressure valve with integrated Pressure Regulator
- Ergonomically designed with a compact, user friendly casing
- All of the user's primary functions are visible and accessible from one side without turning the cylinder
- Suitable for Ar/CO2 mix and Inert Gases Mix
- Meets all the requirements of ISO 22435, EN-ISO 15996

List Technical data

Pressure		
Maximum Service Pressure	230 or 300 bar	3,336 or 4,350 PSI
Test	276	4,000 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 minimum	
Guaranteed External Tightness	leakage ≤ 6 cm³/h	0.788 scfm
Guaranteed Internal Tightness	leakage $\leq 6 \text{ cm}^3/\text{h}$	0.788 scfm
Residual pressure range	2.5 to 4 bar	35 to 58 PSI
	(according to customer's specifications)	
	· 5	

Flow rate:

Q1 0-40 L/min





Material components

Handwheel	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Main shut off seat pad	PA66
Spring	Stainless steel AISI 302
Sealing cap	Acetal resin
Spring regulator	Cu Be, AISI
Filter	Sintered Bronze
Diaphragms pressure	
reducer seat	HYTREL 5526
Toroidal ring	EPDM

Options

Customized Handwheel logo cap Threaded connection and quick connection available according to EN 561



IVIPR series Valve with Integrated Pressure Regulator for Acetylene

List Features

- Valve with integrated Pressure Regulator
- Ergonomically designed with a compact, user friendly casing
- All of the user's primary functions are visible and accessible from one
- side without turning the cylinder
- Suitable for Acetylene •
- Meets all the requirements of ISO 22435 (except acetylene decomposition test)

List Technical data

Pressure		
Maximum Service Pressure	25 bar	360 PSI
Test	30 bar	435 PSI
Outlet Pressure	adjustable () to 17.4 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 minimum	
Guaranteed External Tightness	leakage ≤ 6 cm ³ /h	0.788 scfm
Guaranteed Internal Tightness	leakage $\leq 6 \text{ cm}^3/\text{h}$	0.788 scfm
Flow rate:	Q1 1 m ³ /h	

Flow rate:

Material components

Handwheel	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Main shut off seat pad	PEEK
Spring	Stainless steel AISI 302
Sealing cap	Acetal resin
Spring regulator	AISI
Filter	Sintered Bronze
Diaphragms pressure	
reducer seat	HYTREL 5526
Toroidal Ring	EPDM

Options

Customized Handwheel logo cap Threaded connection and quick connection available according to EN 561



iVIPR



NOS series

Chromium Plated Brass High Pressure Cylinder Valves for Nitrogen Dioxide - O-Ring seal type

List Features

- O-Ring technology provides superior leak integrity
 Easy operation under high pressure
- 100% leak test to 1.2 times cylinder service pressure
 Available bursting discs for all DOT cylinders
 Different inlet threads available upon request

List Technical data

Pressure

Maximum Service Pressure Test	124 bar 149 bar	1,800 PSI 2,161 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 minimum	
Max Overtorque	9 N/m	79 lbs / inch
Flow Capacity CV / Full open	n/a	
Orifice Ø:	6 mm	.260″



Valve Body	Brass according to EN12164 alloy
Bursting disc	Nickel alloy
Bursting disc body	Brass
Back up Ring	PTFE
Bonnet	Brass
Handwheel	Plastic
Seat	Polyamide
O-rings	EPĎM
Stem	Brass according to EN 12164 alloy

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections

Ordering Information

Part Number	Gas Service	Outlet Thread Size	Inlet Thread Size
	Nitrous Dioxide	1/4-27 NPT	.625-18 UNF 2A
CC\$300013000		1/4-27 NP1	.750-16 UNF 2A





NOS series

Chromium Plated Brass High Pressure Cylinder Valves for Nitrogen Dioxide - O-Ring seal type

List Features

- O-Ring technology provides superior leak integrity
- Easy operation under high pressure
- 100% leak test to 1.2 times cylinder service pressure
- All marking on the valve neck, protects against damage
- Large Orifice Ø: provides faster vacuum and filling rates
- Gauge port available
- Bursting discs available for all DOT cylinders
- Available configurations include: Inlet threads (NGT, UNF, DIN477, BS, EN, EN ISO)

List Technical data

Pressure

Maximum Service Pressure Test	207 bar 249 bar	3,000 PSI 3,597 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 minimum	
Max Overtorque	25 N/m	221 lbs / inch
Flow Capacity CV / Full open	n/a	
Orifice Ø:	8 mm	.315″

Material components

Valve Body	Forged Brass according to EN12165 alloy
Bursting disc	Nickel alloy
Bursting disc body	Brass (also available with 212°F fusible metal)
Back up Ring	Polyamide
Bonnet	Brass
Handwheel	Aluminium
Seat	Polyamide
O-rings	EPĎM
Antifriction	Polyamide
Stem	Brass according to EN 12164 alloy

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections

Ordering Information

J				
Part Number Gas Service		Outlet Thread Size	Inlet Thread Size	
VOA9APA 001	Nitrous Dioxide	CGA 660	1.125-12 UNF 2A	





MEDICAL EQUIPMENT

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CDA series **Chromium Plated Brass High Pressure Cylinder Valves** for Medical Gases - O-Ring seal type



- O-Ring technology provides superior leak integrityEasy operation under high pressure
- 100% leak test to 1.2 times cylinder service pressure
- All marking on the valve neck, protects against damage
- Large Orifice Ø: provides faster vacuum and filling rates
- Available bursting discs for all DOT cylinders
- Durable forged brass body manufactured by Cavagna Group
- Passes stringent oxygen adiabatic compression test
- Color coded safety device for easy burst disc identification •
- Available configurations include: • Inlet threads (NGT, UNF, DIN477, BS, EN, EN ISO)
- All CGA outlets available
- Unitized "plug style" bursting disc

List Technical data

Pressure Maximum Service Pressure Test	230 bar 276 bar	3,336 PSI 4,000 PSI
Temperature - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 m	ninimum
Max Overtorque	25 N/m	221 lbs / inch
Flow Capacity CV / Full open	n/a	
Orifice Ø:	4 mm	.160″

Material components

Valve Body Bursting disc Bursting disc body Back up Ring Bonnet Handwheel Seat O-rings Antifriction	Forged Brass according to EN12165 alloy Nickel alloy Brass (also available with 212°F fusible metal) PTFE Brass Aluminium Polyamide EPDM Delrin Brass according to EN 12164 alloy
Stem	Brass according to EN 12164 alloy

Conforms to all requirements of:

ctions







CDA series Chromium Plated Brass High Pressure Cylinder Valves

		dering Informat		
Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CDA 8 350 6 xxxx CDA 1 350 6 xxxx CDA 6 350 6 xxxx CDA 3 350 6 xxxx CDA 9 350 6 xxxx CDA 9 350 6 xxxx	Hydrogen 0 to 3,000 psi	350 695	.825-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF 2/4" 14 NCT
CDA 1 695 6 xxxx CDA 1 703 6 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	703	1.045-14 NGO RH Int. 1.125-14 NGO LH Int.	3/4"-14 NGT 3/4"-14 NGT
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDG 3 580 1 xxxx CDG 9 580 1 xxxx	Krypton 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 1 680 1 xxxx CDA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT
	Methane (R50)			
CDA 8 350 6 xxxx CDA 1 350 6 xxxx CDA 6 350 6 xxxx CDA 3 350 6 xxxx CDA 3 350 6 xxxx CDA 1 695 6 xxxx	0 to 3,000 psi 3,000 to 5,500 psi	350 695	.825-14 NGO LH Ext. 1.045-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF 3/4"-14 NGT
CDA 1 703 6 xxxx	5,500 to 7,500 psi	703	1.125-14 NGO LH Int.	3/4"-14 NGT
CDA 8 350 6 xxxx CDA 1 350 6 xxxx CDA 6 350 6 xxxx CDA 3 350 6 xxxx	Natural Gas 0 to 3,000 psi	350	.825-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF
CDA 9 350 6 xxxx CDA 1 695 6 xxxx CDA 1 703 6 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	695 703	1.045-14 NGO RH Int. 1.125-14 NGO LH Int.	1.125″ -12 UNF 3/4″-14 NGT 3/4″-14 NGT
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDA 3 580 1 xxxx	Neon 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 9 380 1 xxxx CDA 1 680 1 xxxx CDA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDA 3 580 1 xxxx	Nitrogen 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 1 680 1 xxxx CDA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT
CDA 8 346 1 xxxx CDA 1 346 1 xxxx CDA 6 346 1 xxxx CDA 6 346 1 xxxx CDA 3 346 1 xxxx	Air (R729) 0 psi to 3,000 psi	346	.825"- 14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF
CDA 9 346 1 xxxx CDA 1 347 1 xxxx CDA 1 702 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	347 702	.825-14 NGO RH Ext. 1.125"-14 NGO RH Ext.	1.125" -12 UNF 3/4"-14 NGT 3/4"-14 NGT
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDA 9 580 1 xxxx CDA 4 680 1 xxxx	Argon 0 to 3,000 psi 3,000 to 5,500 psi	580	.965-14 NGO RH Int. 1.045-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF 3/4"-14 NGT
CDA 1 680 1 XXXX CDA 1 677 1 XXXX	,501 to 7,500 psi	677	1.030-14 NGO LH Ext.	3/4"-14 NGT
CDA 8 555 1 xxxx CDA 1 555 1 xxxx CDA 6 555 1 xxxx CDA 3 555 1 xxxx CDA 3 555 1 xxxx	Butane/Propane Liquid Withdrawal	555	.903-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 8 320 1 xxxx CDA 1 320 1 xxxx CDA 6 320 1 xxxx CDA 6 320 1 xxxx CDA 3 320 1 xxxx CDG 9 320 1 xxxx	Carbon Dioxide (R744)	320	.825-14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF

Ordering Information







Ordering Information

Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size
CDA 8 350 6 xxxx CDA 1 350 6 xxxx CDA 6 350 6 xxxx CDA 3 350 6 xxxx CDA 3 350 6 xxxx	Carbon Monoxide 0 to 3,000 psi	350	.825-14 NGO LH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 9 530 0 XXXX CDA 1 695 6 XXXX CDA 1 703 6 XXXX	3,000 to 5,500 psi 5,500 to 7,500 psi	695 703	1.045-14 NGO LH Int. 1.125-14 NGO LH Int.	3/4"-14 NGT 3/4"-14 NGT
CDA 8 660 CDA 1 660 CDA 6 660 CDA 3 660 CDA 9 660	1,2 Dichloroethylene (R1130)	660	1.030-14 NGO RH Ext. (Face Washer Seal)	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDG 9 580 1 xxxx CDG 9 580 1 xxxx CDA 1 680 1 xxxx	Helium 0 to 3,000 psi 3,000 to 5,500 psi	580 680	.965-14 NGO RH Int. 1.045-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125"-12 UNF 3/4"-14 NGT
CDA 1 677 1 xxxx CDA 8 326 1 xxxx CDA 1 326 1 xxxx CDA 6 326 1 xxxx CDA 3 326 1 xxxx CDA 3 326 1 xxxx CDA 9 326 1 xxxx	5,500 to 7,500 psi Nitrous Oxide (R744a)	677 326	1.030-14 NGO LH Ext.	3/4"-14 NGT 1/2"-14 NGT" 3/4"-14 NGT" 1-11 1/2 NGT .750"-16 UNF" 1.125" -12 UNF"
CDA 8 540 1 xxxx CDA 1 540 1 xxxx CDA 6 540 1 xxxx CDA 3 540 1 xxxx CDA 9 540 1 xxxx CDA 9 540 1 xxxx CDA 1 577 1 xxxx CDA 1 701 1 xxxx	Oxygen 0 to 3,000 psi 3,000 to 4,000 psi 4,000 to 5,500 psi	540 577 701	.903-14 NGO RH Ext. .960-14 NGO RH Ext. 1.103-14 NGO RH Ext.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT 1.750"-16 UNF 1.125" -12 UNF 3/4"-14 NGT 3/4"-14 NGT
CDA 8 660 1 xxxx CDA 1 660 1 xxxx CDA 6 660 1 xxxx CDA 3 660 1 xxxx CDA 9 660 1 xxxx	Sulfur Dioxide	660	1.030-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 8 580 1 xxxx CDA 1 580 1 xxxx CDA 6 580 1 xxxx CDA 3 580 1 xxxx CDA 3 580 1 xxxx	Xenon 0 to 3,000 psi	580	.965-14 NGO RH Int.	1/2"-14 NGT 3/4"-14 NGT 1-11 1/2 NGT .750"-16 UNF 1.125" -12 UNF
CDA 1 680 1 xxxx CDA 1 677 1 xxxx	3,000 to 5,500 psi 5,500 to 7,500 psi	680 677	1.045-14 NGO RH Int. 1.030-14 NGO LH Ext.	3/4"-14 NGT 3/4"-14 NGT

xxxx Denotes Pressure Relief Device burst disc rupture pressure.

Available with:

"4 and 7 thread oversize inlets: To order change the first number "1" in the part number to "4" or "7"

example: CBA 1 320 1 xxxx becomes CBA 4 320 1 xxxx

Chromium plating: To order, change the letter "B" in the part number to letter "D" *example:* CBA 1 540 1 xxxx becomes CDA 1 540 1 xxxx

Fusible backed pressure relief devices in 165 °F and 212 °F nominal melting temperatures: To order, change the eigth position in the part number to "5" for 165 °F and "6" for 212 °F example: CBA 1350 1 xxxx becomes CBA 1 350 5 xxxx for 165 °F or CBA 1 350 6 xxxx for 212 °F



P2009 series Residual Pressure Valve for Medical gases

List Features

- Residual pressure valve, o-ring seal type for various gases including Oxygen.
- Filling connector available separately

List Technical data

Pressure		
Maximum Service Pressure	230 bar	3,336 PSI
Test	276 bar	4,000 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 minimum	
Guaranteed External Tightness	leakage ≤ 6 cm ³ /h	0.788 scfm
Guaranteed Internal Tightness	leakage $\leq 6 \text{ cm}^3/\text{h}$	0.788 scfm
Residual pressure device	2.5 to 4 bar	35 to 58 PSI

(according to customer's specifications)

Material components

Handwheel	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Seat pad	Polyamide
Bursting disc	Nickel alloy or Stainless Steel
Spring	Stainless steel or copper beryllium
Seal	Plastic
Bursting disc body	Brass
Spindle	Brass
Spring retainer	Brass

Options Customized Handwheel logo cap Dip tube Bursting disc safety available in various settings Chromium plating Plastic Handwheel Filter Parallel thread Thread for dip tube installation

Conforms to all requirements of:

Standard for Gas Cylinder Valves
Standard for Pressure Relief Devices
Compressed Gas Cylinder Valve Outlet and Inlet Connections
International Standard
International Standard
International Standard







P1020 series Residual Pressure Valve for Medical gases



List Features

• Residual pressure valve, o-ring seal type for various gases including Oxygen.

• Filling connector available separately

List Technical data

Pressure Maximum Service Pressure Test	230 bar 276 bar	3,336 PSI 4,000 PSI
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F
Life Cycle	2,000 m	inimum
Guaranteed External Tightness Guaranteed Internal Tightness	leakage ≤ 6 cm³/h leakage ≤ 6 cm³/h	0.788 scfm 0.788 scfm
Residual pressure device	2.5 to 4 bar	35 to 58 PSI

(according to customer's specifications)

Material components

Handwheel -	Aluminium
Valve Body	Brass alloy according to EN12165
O-ring	EPDM
Seat pad	Polyamide
Bursting disc	Nickel alloy or Stainless Steel
Spring	Stainless steel or copper beryllium
Seal	Plastic
Bursting disc body	Brass
Spindle	Brass
Spring retainer	Brass

Options

Customized Handwheel logo cap Dip tube Bursting disc safety available in various settings Chromium plating Plastic Handwheel Filter Parallel thread Thread for dip tube installation

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard
ISO 15996	International Standard







PDE series Post Medical Cylinder Valves Pin Index System O-Ring seal type

List Features

- O-Ring technology provides superior leak integrity
- Easy operation under high pressure
- High quality Nickel Chromium plating protects against harmful chemicals
- 100% leak test to full cylinder service pressure
- Body made from extruded brass rod Fits all CGA specified yokes
- Passes stringent oxygen adiabatic compression test
- Unique stem design meets CGA performance criteria, designed shear point allows stem to break above the spindle nut if over torqued or shocked due to careless handling
- Aluminum cylinder valve supplied with Teflon O-Ring for fast and easy installation
- Oxygen cleaned to meet CGA G4.1 specifications
- Clean room assembly

List Technical data

Pressure		
Maximum Service Pressure	230 bar	3,336 PSI
Test	276 bar	4,000 PSI
Temperature range - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F
Temperature range - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F
Life Cycle	2,000 mi	nimum

Torque Values for PDE series valve

Wrench operated A

Operating torque @ 0 PSIG inlet pressure Closing torque @ 3000 PSIG inlet pressure	0.3 N/m 0.9 - 1.3 N/m	3 lbs/inch 8 - 12 lbs/inc
Toggle B Operating torque @ 0 PSIG inlet pressure Closing torque @ 2000 PSIG inlet pressure	0.2 N/m 0.9 - 1.1 N/m	2 lbs/inch 8 - 10 lbs/inch
Z Valve w/ Handwheel C Operating torque @ 0 PSIG inlet pressure Closing torque @ 2000 PSIG inlet pressure	0,2 N/m 0.9 - 1.1 N/m	2 lbs/inch 8 - 10 lbs/inch

Material components

Valve Body	Chromium plated Brass
Bursting disc	Nickel alloy 201
Handwheel	Aluminium
Seat	Polyamide
O-Rings	EPĎM
Anti Friction Ring	PEEK
Stem	Chromium plated Brass
Inlet O-ring	PTFE
Back up ring	Nylon
Toggle	Chromium Plated Brass

Conforms to all requirements of:

CGA V 9	Standard for Gas Cylinder Valves
CGA S-1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections
ISO 10297	International Standard
ISO 14246	International Standard



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В







Part Number Gas Service CGA Outlet Outlet Thread Size Inlet Thread				
PDE 8 950 5 3360 PDE 3 950 5 3360	Air	950	Pins #1 and #5	1/2-14 NGT .750-16 UNF-2A
PDE 8 940 1 3360 PDE 3 940 1 3360	Carbon Dioxide	940	Pins #1 and #6	1/2-14 NGT .750-16 UNF-2A
PDE 8 920 1 3360 PDE 3 920 1 3360	Cyclopropane	920	Pins #3 and #6	1/2-14 NGT .750-16 UNF-2A
PDE 8 900 5 3360 PDE 3 900 5 3360	Ethylene	900	Pins #1 and #3	1/2-14 NGT .750-16 UNF-2A
PDE 8 930 5 3360 PDE 3 930 5 3360	Helium	930	Pins #4 and #6	1/2-14 NGT .750-16 UNF-2A
PDE 8 973 5 3360 PDE 3 973 5 3360	Medical Gas Mixtures	973	Pins #11 and #24	1/2-14 NGT .750-16 UNF-2A
PDE 8 960 5 3360 PDE 3 960 5 3360	Nitrogen	960	Pins # 1 and #4	1/2-14 NGT .750-16 UNF-2A
PDE 8 910 1 3360 PDE 3 910 1 3360	Nitrous Oxide	910	Pins # 3 and #5	1/2-14 NGT .750-16 UNF-2A
PDE 8 965 5 3360 PDE 3 965 5 3360	Nitrous Oxide & Oxygen Mixtures	965	Pin #7	1/2-14 NGT .750-16 UNF-2A
PDE 8 870 5 3360 PDE 3 870 5 3360	Oxygen	870	Pins #2 and #5	1/2-14 NGT .750-16 UNF-2A
PDE 8 880 5 3360 PDE 3 880 5 3360	Oxygen & Carbon Dioxide Mixtures	880	Pins # 2 and #6	1/2-14 NGT .750-16 UNF-2A
PDE 8 890 5 3360 PDE 3 890 5 3360	Oxygen & Helium Mixtures	890	Pins # 2 and #4	1/2-14 NGT .750-16 UNF-2A

Ordering Information

All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are flush style CG-4 devices backed by 165 F fuse metal, except valves specified for Carbon Dioxide (CGA 940), Cyclopropane (CGA 920) and Nitrous Oxide (CGA 940), where a CG-1 hex style pressure relief device without fuse metal is required.

All valves are supplied with rupture discs rated for cylinders with a service pressure of 2,015 psig. Rupture discs rated for other cylinder service pressures are available upon request.

Optional Features:

Handwheel - example: PDE 8 890 5 3360 changes to PDU 8 890 5 3360

Chromium Plated Toggle- example: PDE 8 890 5 3360 changes to PDF 8 890 5 3360

1/8"-27 NPT gauge port - example: PDE 8 890 5 3360 changes to PDP 8 890 5 3360 (only available with toggle)



PDE R

Post Medical Residual Pressure Valves Pin Index System O-Ring seal type

List Features

- O-Ring technology provides superior leak integrity
- Easy operation under high pressure
- · High quality Nickel Chromium plating protects against harmful chemicals
- 100% leak test to full cylinder service pressure
- Body made from extruded brass rod Fits all CGA specified yokes
- Passes stringent oxygen adiabatic compression test
- Unique stem design meets CGA performance criteria, designed shear point allows stem to break above the spindle nut if over torqued or shocked due to careless handling
- Aluminum cylinder valve supplied with Terlon O-Ring for fast and easy installation
- Oxygen cleaned to meet CGA G4.1 specifications
- Clean room assembly

List Technical data

Pressure

Test (without b. disc) Test with b. disc at 80% of set pressure Residual pressure	518 bar 276 bar 43.5 to 72.5	7,500 PSI 4,000 PSI 3 to 5			
Temperature range - Storage	-50° C ÷ 65° C	-60° F ÷ 149° F			
Temperature range - Operating	-45° C ÷ 65° C	-50° F ÷ 149° F			
Life Cycle	2,000 minimum				

Torque Values for PDE series valve

Wrench operated A Operating torque @ 0 PSIG inlet pressure 3 lbs/inch 0.3 N/m 8 - 12 lbs/inch 0.9 - 1.3 N/m Closing torque @ 3000 PSIG inlet pressure Toggle B Operating torque @ 0 PSIG inlet pressure 2 lbs/inch 0.2 N/m Closing torque @ 2000 PSIG inlet pressure 8 - 10 lbs/inch 0.9 - 1.1 N/m PDU C Operating torque @ 0 PSIG inlet pressure 2 lbs/inch 0.2 N/m Closing torgue @ 2000 PSIG inlet pressure 8 - 10 lbs/inch 0.9 - 1.1 N/m

Material components

Valve Body	Chromium plated Brass
Bursting disc (If required)	Nickel alloy 201
Handwheel or toggle (if required)	Chromium Plated brass
Seat	Polyamide
O-Rings	EPDM
Back up ring	Teflon®
Anti Friction Ring	PEEK
Stem	Chromium Plated Brass
Inlet O-ring	Teflon®

Conforms to all requirements of:

CGA V 9Standard for Gas Cylinder ValvesCGA S-1.1Standard for Pressure Relief DevicesCGA V-1Compressed Gas Cylinder Valve Outlet and Inlet ConnectionsISO 10297International StandardISO 14246International StandardISO 15996Test on RP Device



C





PDE R



Post Medical Residual Pressure Valves Pin Index System O-Ring seal type

Ordering Information

Ordering information									
Part Number	Gas Service	CGA Outlet	Outlet Thread Size	Inlet Thread Size					
PDE R 8 950 5 3360 PDE R 3 950 5 3360	Air	950	Pins #1 and #5	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 940 1 3360 PDE R 3 940 1 3360	Carbon Dioxide	940	Pins #1 and #6	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 920 1 3360 PDE R 3 920 1 3360	Cyclopropane	920	Pins #3 and #6	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 900 5 3360 PDE R 3 900 5 3360	Ethylene	900	Pins #1 and #3	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 930 5 3360 PDE R 3 930 5 3360	Helium	930	Pins #4 and #6	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 973 5 3360 PDE R 3 973 5 3360	Medical Gas Mixtures	973	Pins #11 and #24	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 960 5 3360 PDE R 3 960 5 3360	Nitrogen	960	Pins #1 and #4	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 910 1 3360 PDE R 3 910 1 3360	Nitrous Oxide	910	Pins #3 and #5	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 965 5 3360 PDE R 3 965 5 3360	Nitrous Oxide & Oxygen Mixtures	965	Pin #7	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 870 5 3360 PDE R 3 870 5 3360	Oxygen	870	870 Pins #2 and #5						
PDE R 8 880 5 3360 PDE R 3 880 5 3360	Oxygen & Carbon Dioxide Mixtures	880	Pins #2 and #6	1/2-14 NGT .750-16 UNF-2A					
PDE R 8 890 5 3360 PDE R 3 890 5 3360	Oxygen & Helium Mixtures	890	Pins #2 and #4	1/2-14 NGT .750-16 UNF-2A					

All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are flush style CG-4 devices backed by 165 °F fuse metal, except valves specified for Carbon Dioxide (CGA 940) and Nitrous Oxide (CGA 940), where a CG-1 hex style pressure relief device without fuse metal is required. All valves are supplied with rupture discs rated for cylinders with a service pressure of 2,015 psig.

All valves are supplied with rupture discs rated for cylinders with a service pressure of 2,015 psig Rupture discs rated for other cylinder service pressures are available upon request.

Optional Features:

Handwheel - example: PDE R 8 890 5 3360 changes to PDU 8 890 5 3360 Chromium Plated Toggle- example: PDE R 8 890 5 3360 changes to PDF 8 890 5 3360 1/8"-27 NPT gauge port - example: PDE R 8 890 5 3360 changes to PDP 8 890 5 3360 (only available with toggle)



VIPROXY series Valve with Integrated Pressure Reducer for medical Oxygen - 3336 PSI -

List Features

- Valve with integrated pressure reducer for Medical Oxygen
- MRI compatible
- Positive pressure device incorporated
- Non return valve with synterized bronze filter integrated in the filling port
- Compensated regulator
- Synterized bronze filter in the cylinder connection
- Tested and approved in accordance with the International Standards EN-ISO 10524-3
- CE and π marked according to the European Directives for Medical and trasportable pressure devices
- Active gauge with fluorescent scales

List Technical data

Pressure					
Maximum Service Pressure	230 bar	3,336 PSI			
Outlet Pressure	4 bar	58 PSI			
Test	276 bar	4,000 PSI			
Residual Positive Pressure	3 - 5 bar	43 - 72 psi			
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F			
Life Cycle	5,000 m	ninimum			
Flow Rate	2,400 NI/m				
Hose-barb Ø	6 mm				



Body in forged brass Valve Main Sealing in Nylon Regulator Sealing in Nylon Elastomer in EPDM The valve is not made of any ferrous material and steel

Options

5 different flow scales with the following characteristics:

Application	l/min											
Baby care	0	1/4	1/2	3/4	1		2		3	4	5	6
Home care	0	1/2	1	2	3	4	5	6	8	10	12	15
Home care	0	1/4	1/2	1	2	3	4	6	8	10	12	15
Intensive therapy	0	1	2	3	4	5	6	8	10	12	15	25
Intensive therapy	0	1/4	1/2	1	2	3	4	6	8	10	15	25

Quick hospital connection, with 4 bar (58 psi) outlet pressure, in accordance with the main International Standards (DIN, BS, DISS, AFNOR, UNI)

Excess Flow valve with synterized bronze filter in the valve's inlet

Plastic protection handle complying with ISO 11117, available in green or white color Hospital bed handle available

Bursting disc

Antifilling device and non return valve in the filling port

Mantainance

Please refer only to the "User Maintenance Instruction" that is provided with this product. It is recommended to replace the valve when the cylinder is being retested.













VIPROXY series

Valve with Integrated Pressure Reducer for medical Oxygen

- 4350 PSI -

List Features

- Valve with integrated pressure reducer for Medical Oxygen
- MRI compatible
- Positive pressure device incorporated
- Non return valve with synterized bronze filter integrated in the filling port
- Compensated regulator
- Synterized bronze filter in the cylinder connection
- Tested and approved in accordance with the International Standards EN-ISO 10524-3
- CE and π marked according to the European Directives for Medical and trasportable pressure devices
- Active gauge with fluorescent scales

List Technical data

Pressure					
Maximum Service Pressure	300 bar	4,350 PSI			
Outlet Pressure	4 bar	58 PSI			
Test	360 bar	5,220 PSI			
Residual Positive Pressure	3 - 5 bar	43 - 72 psi			
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F			
Life Cycle	5,000 m	ninimum			
Flow Rate	2,400 NI/m				
Hose-barb Ø	6 mm				

Material components

Body in forged brass Valve Main Sealing in Nylon Regulator Sealing in Nylon Elastomer in EPDM The valve is not made of any ferrous material and steel

Options

5 different flow scales with the following characteristics:

Application		l/min										
Baby care	0	1/4	1/2	3/4	1	11/2	2	21/2	3	4	5	6
Home care	0	1/2	1	2	3	4	5	6	8	10	12	15
Home care	0	1/4	1/2	1	2	3	4	6	8	10	12	15
Intensive therapy	0	1	2	3	4	5	6	8	10	12	15	25
Intensive therapy	0	1/4	1/2	1	2	3	4	6	8	10	15	25

Quick hospital connection, with 4 bar (58 psi) outlet pressure, in accordance with the main International Standards (DIN, BS, DISS, AFNOR, UNI)

Excess Flow valve with synterized bronze filter in the valve's inlet

Plastic protection handle complying with ISO 11117, available in green or white color Hospital bed handle available

Bursting disc

Antifilling device and non return valve in the filling port

Mantainance

Please refer only to the "User Maintenance Instruction" that is provided with this product. It is recommended to replace the valve when the cylinder is being retested.











VIPROXY 1 Touch series Valve with Integrated Pressure Reducer for medical Oxygen - 3336 PSI -

List Features

- 1 Touch incorporates a low torque non rotating spindle shut off valve with an integrated ten position flow setting device
- Valve with integrated pressure reducer for Medical Oxygen
- MRI compatible
- Non return valve with synterized bronze filter integrated in the filling port
- Compensated regulator
- Synterized bronze smart filter in the cylinder connection
- Tested and approved in accordance with the International Standards EN-ISO 10524-3, CGA E-18
- CE and π marked according to the European Directives for Medical and trasportable pressure devices
- Positive pressure device incorporated
- Active gauge with fluorescent screen

List Technical data

230 bar	2 226 001				
	3,336 PSI				
4 bar	58 PSI				
276 bar	4,000 PSI				
3 - 5 bar	43 - 72 psi				
-40°C ÷ +65°C	-40°F ÷ +149°F				
5,000 m	inimum				
2,400 NI/m					
6 mm					
	5,000 m 2,400				

Material components

Body in forged brass Valve Main Sealing in Nylon Regulator Sealing in Nylon Elastomer in EPDM The valve is not made of any ferrous material and steel

Options

5 different flow scales with the following characteristics:

Application	l/min											
Baby care	0	1/4	1/2	3/4	1	11/2	2	21/2	3	4	5	6
Home care	0	1/2	1	2	3	4	5	6	8	10	12	15
Home care	0	1/4	1/2	1	2	3	4	6	8	10	12	15
Intensive therapy	0	1	2	3	4	5	6	8	10	12	15	25
Intensive therapy	0	1/4	1/2	1	2	3	4	6	8	10	15	25

Quick hospital connection, with 4 bar (58 psi) outlet pressure, in accordance with the main International Standards (DIN, BS, DISS, AFNOR, UNI) Excess Flow valve with synterized bronze smart filter in the valve's inlet Plastic protection handle complying with ISO 11117, available in green or white color Hospital bed hook available

Russing disc

Bursting disc

Antifilling device and non return valve in the filling port

Mantainance

Please refer only to the "User Maintenance Instruction" that is provided with this product. It is recommended to replace the valve after 10 years starting from the printed date on the valve body.













VIPROXY 1 Touch series Valve with Integrated Pressure Reducer for medical Oxygen

- 4350 PSI -

List Features

- 1 Touch incorporates a low torque non rotating spindle shut off valve with an integrated ten position flow setting device
- Valve with integrated pressure reducer for Medical Oxygen
- MRI compatible
- Non return valve with synterized bronze filter integrated in the filling port
- Compensated regulator
- Synterized bronze smart filter in the cylinder connection
- Tested and approved in accordance with the International Standards EN-ISO 10524-3, CGA E-18
- CE and π marked according to the European Directives for Medical and trasportable pressure devices
- Positive pressure device incorporated
- Active gauge with fluorescent screen

List Technical data

Pressure					
Maximum Service Pressure	300 bar	4,350 PSI			
Outlet Pressure	4 bar	58 PSI			
Test	360 bar	5,220 PSI			
Residual Positive Pressure	3 - 5 bar	43 - 72 psi			
Temperature Range	-40°C ÷ +65°C	-40°F ÷ +149°F			
Life Cycle	5,000 m	ninimum			
Flow Rate	2,400 NI/m				
Hose-barb Ø	6 mm				

Material components

Brass Forged Body Valve Main Sealing in Nylon Regulator Sealing in Nylon Elastomer in EPDM The valve is not made of any ferrous material or steel

Options

5 different flow scales with the following characteristics:

Application	l/min											
Baby care	0	1/4	1/2	3/4	1	11/2	2	21/2	3	4	5	6
Home care	0	1/2	1	2	3	4	5	6	8	10	12	15
Home care	0	1/4	1/2	1	2	3	4	6	8	10	12	15
Intensive therapy	0	1	2	3	4	5	6	8	10	12	15	25
Intensive therapy	0	1/4	1/2	1	2	3	4	6	8	10	15	25

Quick hospital connection, with 4 bar (58 psi) outlet pressure, in accordance with the main International Standards (DIN, BS, DISS, AFNOR, UNI) Excess Flow valve with synterized bronze smart filter in the valve's inlet Plastic protection handle complying with ISO 11117, available in green or white color Hospital bed hook available Bursting disc

Antifilling device and non return valve in the filling port

Mantainance

Please strictly rely on the "User maintenance instruction" It is recommended to replace the valve after 10 years starting from the printed date on the valve body.











VIPROXY ATOM series Valve with Integrated Pressure Reducer for medical Oxygen - 4350 PSI -

List Features

- The first optimized solution for home healthcare
- Compact and light design suitable for <5 L capacity cylinders
- Suitable for up to 300 bar oxygen service pressure (4350 PSI)
- Active gauge available with PSI or bar scales and fluorescent dial
- Non return valve in the filling port
- Total weight with protection cap: 900 gr. ~ (for the fully equipped version)
- Conforms all the requirement of EN-ISO 10524-3
- CE and π marked according to the European Directives for Medical and trasportable pressure devices
- List Technical data

Pressure					
Maximum Service Pressure	300 bar	4,350 PSI			
Outlet Pressure	4 bar	58 PSI			
Test	360 bar	5,220 PSI			
Residual Positive Pressure	3 - 5 bar	43 - 72 psi			
Temperature Range - Operating	-20°C ÷ +65°C	-4°F ÷ +149°F			
Temperature Range - Storage	-40°C ÷ +65°C	-40°F ÷ +149°F			
Life Cycle	5,000 n	ninimum			
Flow Rate	See Flow scale				
Hose-barb Ø	6 mm				





Material components

Brass Forged Body Valve Main Sealing in Nylon Regulator Sealing in Nylon Elastomer in EPDM The valve is not made of any ferrous material or steel

Options

Flow Scales:

Application	l/min											
Home care	0	1/2	1	2	3	4	5	6	8	10	12	15
Home care	0	1/10	1/4	1/2	1	2	3	4	6	8	10	15

Custom Flow Scales available upon request

Other Active gauge

Configuration available with 1 outlet. Barbed fitting for 1/4" I.D. hose or Quick

connection with pressure fixed at 4 bar (58 PSI)

Antifilling device available upon request

Filling port protection plug in metal or plastic

Excess flow device available upon request

Special dip tube or special smart filter cartridge

Mantainance

Please strictly rely on the "User maintenance instruction" It is recommended to replace the valve after 10 years starting from the printed date on the valve body.





List Features

Suitable for up to 230 bar oxygen service pressure (3,336 PSI) Inlet pressure range: Up to 230 bar Nominal outlet pressure: 4 bar Flow ranges*: 0 to 15 lpm 0;0,5;1;2;3;4;5;6,8;10;12;15 Inlet connection: According to national standards Outlet connections: Hose barb connector and Port for quick connect outlet on request Regulatory status: Complies with Medical Devices Directive 93/42/EEC Complies with EN ISO 10524-1 Classification: Class IIb * Flow rates expressed at 23°C and 101,3 kPa

PLEIN AIR series Pressure Regulator for Medical Oxygen - 3336 PSI -



List Technical data

Pressure Maximum Service Pressure Outlet Pressure	230 bar 4 bar	3,336 PSI 58 PSI				
Temperature Range	-20°C ÷ +65°C	-4°F ÷ +149°F				
Life Cycle	5,000 m	5,000 minimum				
Flow Rate	2,400 NI/m					
Hose-barb Ø	6 r	6 mm				



Material components

Chromium Plated, Brass Forged Body Control knob: Polyamide O-rings: EPDM Filter: Sintered bronze

Options

Flow Scale:

		l/min									
0	1/2	1	2	3	4	5	6	8	10	12	15

360° Rotable gauge Configuration available with 1 outlet. Barbed fitting for 1/4" I.D. hose or Quick connection with pressure fixed at 4 bar (58 PSI)

Mantainance

Please strictly rely on the "User maintenance instruction" It is recommended to replace the regulator after 10 years starting from the printed date on the regulator body.