

Cryogenic Valves



This section has some of the most common cryogenic valves. For the complete line with more options and engineering specs, see our detailed section for Cryogenic Valves at the end of the catalog.

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Cryogenic Valves

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We carry a huge inventory of cryogenic valves — ready to ship same day. Call us at 800-264-7793



with your application. We'll help you choose the right product for your needs. Or if you prefer, email us at sales@rmimfg.com.

For more Cryogenic Valves see Section 21

DIVERTER & CRYO BALL VALVES

HEROSE

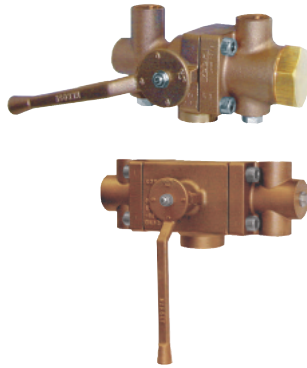


Diverter Valves

Only valve worldwide that meets German approval test program ensuring tight shut off giving the same performance as a globe valve

- Life cycled by user to over 174 years service without leakage
- High pressure options
- CO2 option for 4 safeties
- Bellow sealed options
- 1" and 1 1/2" as standard, others are available

"A valve that shuts tight!"



Most Common Diverter Valves

Size	Vendor Reference Number	To Order Part Number	Inlet	Outlet
0.787"	06510.2004.6620	DVBB-A-FEAJ	1"	1/2"
0.787"	06510.2006.6620	DVBB-B-FEAJ	1"	3/4"

Size	Vendor Reference Number	To Order Part Number	Inlet	Outlet
1.259"	06510.3214.6620	DVBB-F-FEAJ	1 1/2"	1"

APPLICATIONS:

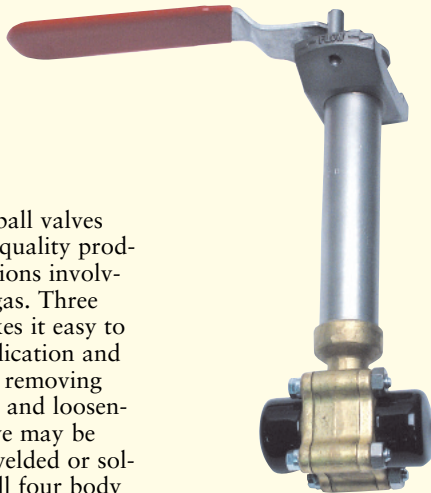
Approved for air gases and cryogenic liquefied gases such as oxygen, nitrogen, krypton, carbon dioxide, argon, dinitrogen monoxide, trifluormethan, carbon oxide, methane, ethane and ethylene.

Working temperature: -196°C/-321°F (77K) up to +120°C/+248°F (393K)

Cleaned for Oxygen Service

Extended Bonnet Three Piece Cryogenic Ball Valve

Three piece cryogenic ball valves are high performance, quality products for tough applications involving all types of liquid gas. Three piece construction makes it easy to install, versatile in application and simple to maintain. By removing three of the body bolts and loosening the fourth, the valve may be swung out of line. In welded or soldered piping systems all four body bolts may be removed and the center section lifted out for maintenance or replacement.

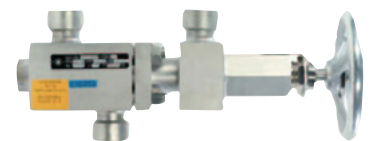
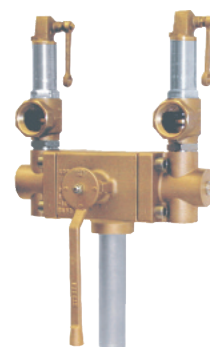


Ball Valve

Call for Other Models Available

Technical Data

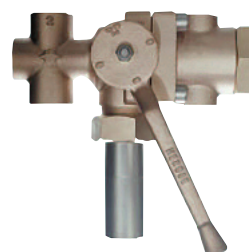
1/2" - 1 1/2" (12-40mm)	Screwed	Ball Diverters	720psi (48 Bar)
1/2" - 3" (12-500mm)	Screwed	Globe Diverters	720psi (45 Bar)
1/2" - 2" (12-50mm)	Flanged/ Screwed	CO2 Diverters	2400psi (160 Bar)
1/4" - 2" (6-50mm)	Weld	Bellow Sealed Diverters	720psi (48 Bar)
2" - 12" (50-200mm)	Flanged	Globe Diverters	600psi (40 Bar)



Globe Diverters
Bronze and Stainless Steel
1/2" to 12" (12-300 mm)

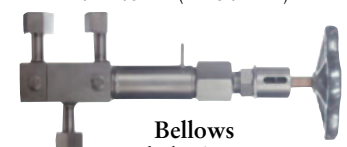


CO2 Diverters
Stainless Steel
1/2" to 2" (12-50 mm)



Ball Diverters
Bronze

1/2" to 1 1/2" (12-40 mm)



Bellows Sealed Diverters
Stainless Steel

1/2" to 2" (12-50 mm)

Cryogenic Ball Valves

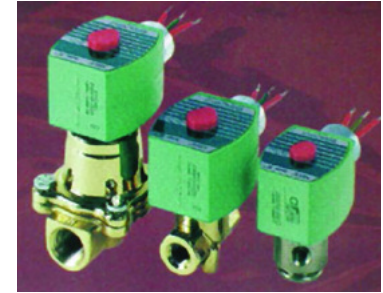
Part #	Inlet Connection	Outlet Connection	Body Material
CBV-B14	1/4" Female NPT	1/4" Female NPT	Brass
CBV-B38	3/8" Female NPT	3/8" Female NPT	Brass
CBV-B12	1/2" Female NPT	1/2" Female NPT	Brass
CBV-B34	3/4" Female NPT	3/4" Female NPT	Brass
CBV-B1	1" Female NPT	1" Female NPT	Brass
CBV-B112	1 1/2" Female NPT	1 1/2" Female NPT	Brass
CBV-B2	2" Female NPT	2" Female NPT	Brass
CBV-S14	1/4" Female NPT	1/4" Female NPT	316LSS
CBV-S38	3/8" Female NPT	3/8" Female NPT	316LSS
CBV-S12	1/2" Female NPT	1/2" Female NPT	316LSS
CBV-S34	3/4" Female NPT	3/4" Female NPT	316LSS
CBV-S1	1" Female NPT	1" Female NPT	316LSS
CBV-S112	1 1/2" Female NPT	1 1/2" Female NPT	316LSS
CBV-S2	2" Female NPT	2" Female NPT	316LSS

CRYOGENIC SOLENOID VALVES

ASCO Cryogenic Solenoid Valves designed to operate with liquid nitrogen, liquid oxygen, and liquid argon. These solenoid valves are superior because they can be operated in any orientation, they require minimal current, and they are rated for continuous or intermittent use.

These 2-way, normally closed, solenoid valves have brass bodies with female NPT ports for both input and output. Solenoids are equipped with three 18-inch long leads; the green lead is “ground.” These cryogenic solenoid valves are CSA certified and can be supplied for either AC or DC operation.

The following table summarizes the valve specifications for AC and DC valves. When ordering, please specify the valve number as well as the required voltage and Hertz.



AC CRYOGENIC SOLENOID VALVES, 2 WAY, NORMALLY CLOSED

These Valves Are Available in the Following Voltages (Volts/Hertz): 24/60, 120/60, 240/60

(Please Call for Other Available Voltages (Volts/Hertz))

Part #	Pipe Size (NPT)	Orifice Size (in.)	CV Flow Factor	Min. Diff. Pres. (psi)	Max. Diff. Pres. (psi)	VA Holding	VA Inrush
SV2WNC-1818-AC	1/8	1/8	0.35	0	130	23	47
SV2WNC-1418-AC	1/4	1/8	0.35	0	130	23	47
SV2WNC-14732-AC	1/4	7/32	0.56	0	100	34	64
SV2WNC-14932-AC	1/4	9/32	0.70	0	40	23	47
SV2WNC-3818-AC	3/8	1/8	0.35	0	130	23	47
SV2WNC-38732-AC	3/8	7/32	0.56	0	100	34	64
SV2WNC-38932-AC	3/8	9/32	0.70	0	40	23	47
SV2WNC-1258-AC	1/2	5/8	3.80	0	90	34	64
SV2WNC-3434-AC	3/4	3/4	5.80	0	90	34	64
SV2WNC-0101-AC	1	1	13.50	5	200	34	64
SV2WNC-114118-AC	1 1/4	1 1/8	15.00	5	200	34	64
SV2WNC-112114-AC	1 1/2	1 1/4	22.50	5	200	34	64

How to Order

Add the required Volts/Hertz to the end of the Part Number Prefix.

Example:

For an AC 1/8" NPT Pipe with an 1/8" Orifice 2-Way, Normally Closed Solenoid Valve with a 24/60 required Voltage and Hertz, the part number will be: **SV2WNC-1818-AC24/60**

CRYOGENIC SOLENOID VALVES

Features

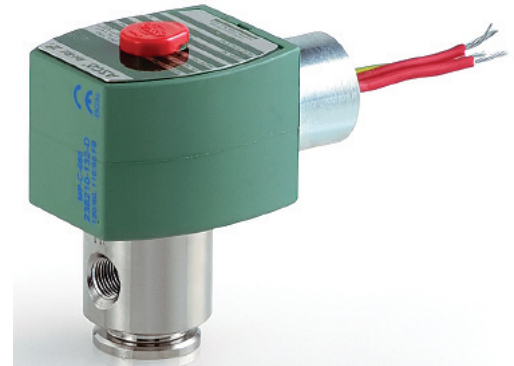
- “LT” suffix valves are built to control cryogenic fluids, including liquid oxygen (-297°F/-181°C), liquid argon (-303°F/-184°C), and liquid nitrogen (-302°F/-194°C).
- All suffix “LT” valves are degreased, cleaned, tested free of moisture, and black light tested for hydrocarbons.
- Liquid CO₂ valves are suitable for remote mounting or for direct mounting to the refrigerated component by using four-hole bracket, provided.



Construction

Valve Parts in Contact with Fluids

Body Cryogenic Valves	Brass
Body LCO ₂ Valves	Nickel-Plated Brass
Seals	PTFE and/or Lead-Free Copper/UR
Discs	PTFE/UR (8264 only)
Core and Plugnut	430F Stainless Steel or 49 FM Alloy
Core Spring	302 Stainless Steel
Shading Coil	Copper
Seats	Stainless Steel (8264 Series)



DC CRYOGENIC SOLENOID VALVES, 2 WAY, NORMALLY CLOSED

These Valves Are Available in the Following Voltages: 6, 12, 24, 120, 240

(Please Call for Other Available Voltages)

Part #	Pipe Size (NPT)	Orifice Size (in.)	CV Flow Factor	Min. Diff. Pres. (psi)	Max. Diff. Pres. (psi)	DC Watts
SV2WNC-1818-DC	1/8	1/8	0.35	0	75	11.6
SV2WNC-14732-DC	1/4	7/32	0.56	0	30	11.6
SV2WNC-14932-DC	1/4	9/32	0.70	0	18	11.6
SV2WNC-3818-DC	3/8	1/8	0.35	0	75	11.6
SV2WNC-38732-DC	3/8	7/32	0.56	0	30	11.6
SV2WNC-38932-DC	3/8	9/32	0.70	0	18	11.6
SV2WNC-1258-DC	1/2	5/8	3.80	0	50	40.6
SV2WNC-3434-DC	3/4	3/4	5.80	0	50	40.6
SV2WNC-11-DC	1	1	13.50	5	100	40.6
SV2WNC-114118-DC	1 1/4	1 1/8	15.00	5	100	40.6
SV2WNC-112114-DC	1 1/2	1 1/4	22.50	5	100	40.6

How to Order

Add the required Voltage to the end of the Part Number Prefix.

Example:

For an DC 1/8" NPT Pipe with an 1/8" Orifice 2-Way, Normally Closed Solenoid Valve with a 24 required Voltage, the part number will be: **SV2WNC-1818-DC24**

CRYOGENIC VALVES

SHORT STEM CRYOGENIC SHUT-OFF VALVES

Application

These valves are designed for use on portable cryogenic cylinders and other in-line shut-off valve applications.

Features

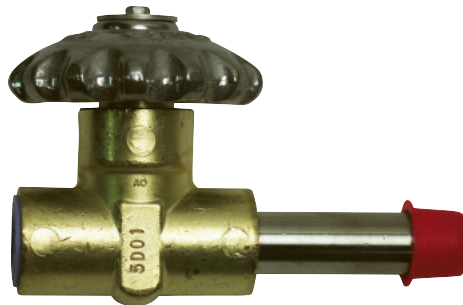
- Spring loaded stem seal automatically adjusts for any gasket wear, eliminating the need to constantly retighten the packing nut.
- Non-rising stem and low profile allow the valve to be opened and closed in tight areas and still provide easy access.
- Unique pressure-sealed moisture barrier helps prevent freeze up at cryogenic temperatures.
- Conical swivel seal design helps prevent seat assembly from over torquing.
- Cleaned for liquid oxygen service.
- Maximum working pressure is 600 PSI.
- Working temperature range is -320° to + 165°.

Materials

Body – Brass
 Bonnet – Brass
 Seal Disc – Kel-F®
 Stem Seal Gasket – Teflon
 Handwheel – Aluminum
 Spring – Stainless Steel
 Upper Stem – Brass
 Lower Stem – Mariganese Bronze



Pt # VR-38F38F



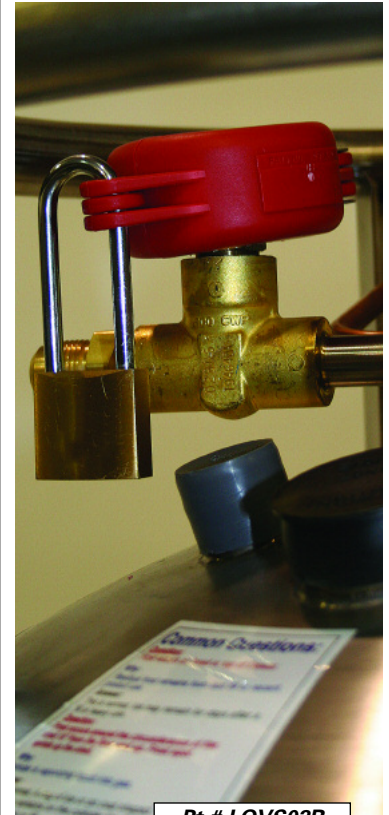
Pt # VR-38F338TB

Short Stem Shut-off Valves

Part #	Inlet	Outlet	Orifice	Length of Valve	Height (Approx.) of Valve	Tube Length	CV Factor
VR-14F14F	1/4" FNPT	1/4" FNPT	.250	2 1/2"	2 3/4"	None	.72
VR-38F38F	3/8" FNPT	3/8" FNPT	.406	2 1/2"	2 3/4"	None	1.08
VR-12F12F	1/2" FNPT	1/2" FNPT	.406	2 1/2"	2 3/4"	None	1.10
VR-38F112TB	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	1 1/2"	1.08
VR-38F218TB	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	2 1/8"	1.08
VR-38F338TB	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	3 3/8"	1.08

Lockout

To Secure your Dewars



Pt # LOVS02R

For more *Lockout* Products available, please see Lockout Section **17**.

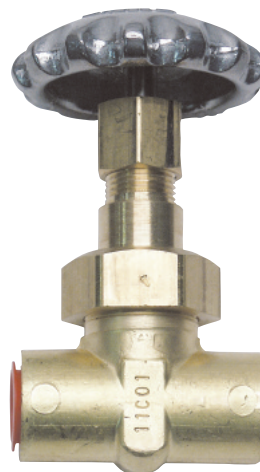
EXTENDED STEM SHUT-OFF VALVES

Applications

These retrofit kits can be used to convert short stem shut-off valves into extended stem style. The conversion can be done without removing the valve from your system. Available in two stem lengths. All kits are oxygen cleaned and packaged.

Materials

Bonnet Brass
 Seal Disc Kel-F®
 Handwheel Aluminum
 Packing Teflon
 Stem Stainless Steel
 Stem Seal Gasket Teflon



Part # VR-E4-38

Extended Stem Shut-off Valves

Part #	Inlet Connection	Outlet Connection	Height
VR-E4-14	1/4" Female NPT	1/4" Female NPT	4"
VR-E4-38	3/8" Female NPT	3/8" Female NPT	4"
VR-E4-12	1/2" Female NPT	1/2" Female NPT	4"
VR-E65-14	1/4" Female NPT	1/4" Female NPT	6 1/2"
VR-E65-38	3/8" Female NPT	3/8" Female NPT	6 1/2"
VR-E65-12	1/2" Female NPT	1/2" Female NPT	6 1/2"

EXTENDED STEM RETROFIT KITS

Used to convert short stem shut-off valves into extended stem style.



Extended Stem Retrofit Kits

Part #	Description
VR-E4	4" Stem
VR-E65	6 1/2" Stem

CRYOGENIC GLOBE VALVES



Manual Globe Valves
Bronze
1/4" to 3"
(6-80 mm)

This product range includes a full offering from bronze to complete stainless steel valves for many specialist industrial gas applications. These are available to 10" (250mm) and numerous options include long and short spindle valves, actuated valves, high-pressure valves, cylinder filling valves, bellows sealed valves, cluster assemblies, electronic grade valves etc. This range is used on numerous applications and mediums with many valves specifically designed for customer applications. Global contracts are in place to supply major customers within the industry.

This comprehensive range includes globe valves that have been extensively cycle tested by industrial gas leaders, and proven to have an extended operating life against industry standards.



Bronze Globe Valve Socket Ends

SBT	Vendor Reference Number	To Order Part Number	Extension
1/2"	01311.1515.0010	GVMPB-B-A-ACAA	10 5/8"
1/2"	01311.1515.0020	GVMPB-B-B-ACAA	14 1/2"
3/4"	01311.2022.0020	GVMPB-D-B-ACAA	14 1/2"
1"	01311.2528.0010	GVMPB-E-A-ACAA	10 5/8"
1"	01311.2528.0020	GVMPB-E-B-ACAA	14 1/2"
1 1/2"	01311.4042.0010	GVMPB-G-A-ACAA	10 5/8"
1 1/2"	01311.4042.0020	GVMPB-G-B-ACAA	14 1/2"
2"	01311.5054.0010	GVMPB-H-A-ACAA	10 5/8"
2"	01311.5054.0020	GVMPB-H-B-ACAA	14 1/2"

Bronze Globe Valve with Stainless Steel Stub

ST Stubbed	Vendor Reference Number	To Order Part Number	Extension
1/2"	01311.1521.0017	GVMSSB-C-A-ACAA	10 5/8"
3/4"	01311.2026.0017	GVMSSB-D-A-ACAA	10 5/8"
1"	01311.2533.0027	GVMSSB-E-B-ACAA	14 1/2"
1 1/2"	01311.4048.0027	GVMSSB-G-B-ACAA	14 1/2"
2"	01311.5060.0027	GVMSSB-H-B-ACAA	14 1/2"

Bronze Globe Valve with Pipe Thread

NPT	Vendor Reference Number	To Order Part Number	Extension
1/2"	01315.0400.0016	GVMTB-C-A-ACAE	10 5/8"
3/4"	01315.0600.0016	GVMTB-D-A-ACAE	10 5/8"
1"	01315.1000.0016	GVMTB-E-A-ACAE	10 5/8"
1"	01315.1000.0026	GVMTB-E-B-ACAE	14 1/2"
1 1/2"	01315.1400.0026	GVMTB-G-B-ACAE	14 1/2"
2"	01315.2000.0026	GVMTB-H-B-ACAE	14 1/2"

Stainless Steel Globe Valve with Bronze Top Work – Socket Weld Connector for Stainless Steel Pipe

ST Bodied SW	Vendor Reference Number	To Order Part Number	Extension
1/2"	01321.1521.0014	GVMSB-C-A-ACBA	10 5/8"
3/4"	01321.2026.0014	GVMSB-D-A-ACBA	10 5/8"
1"	01321.2533.0014	GVMSB-E-A-ACBA	10 5/8"
1"	01321.2533.0024	GVMSB-E-B-ACBA	14 1/2"
1 1/2"	01321.4048.0014	GVMSB-H-A-ACBA	10 5/8"
1 1/2"	01321.4048.0024	GVMSB-H-B-ACBA	14 1/2"
2"	01321.5060.0024	GVMSB-I-B-ACBA	14 1/2"

Stainless Steel Globe Valve – Socket Weld Connection for Stainless Steel Pipes

Stainless SW	Vendor Reference Number	To Order Part Number	Extension
1/2"	01341.1521.0014	GVMSS-C-A-ACDA	10 5/8"
3/4"	01341.2026.0014	GVMSS-D-A-ACDA	10 5/8"
1"	01341.2533.0024	GVMSS-E-B-ACDA	14 1/2"
1 1/2"	01341.4048.0024	GVMSS-H-B-ACDA	14 1/2"
2"	01341.5060.0024	GVMSS-I-B-ACDA	14 1/2"

Bronze Globe Valve Female 130 NPT Thread Connection

NPT	Vendor Reference Number	To Order Part Number	Extension
1/2"	01305.0400.0006	GVNB-C-ACJE	non
3/4"	01305.0600.0006	GVNB-D-ACJE	non
1"	01305.1000.0006	GVNB-E-ACJE	non
1 1/2"	01305.1400.0006	GVNB-G-ACJE	non
2"	01305.2000.0006	GVNB-H-ACJE	non

Cleaned for Oxygen Service

Call Us with Your Specifications and We'll Help You Choose the Correct Valve for Your Application



Actuated Globe Valves
Bronze and Stainless Steel
1/4" to 10"
(6-250 mm)



Large Globe Valves
Bronze and Stainless Steel
4" to 10"
(100-250 mm)

Technical Data Cleaned for Oxygen Service

1/4" - 1 1/4" (6-32mm)	Screwed	High Pressure	2100psi (160 Bar)
1/4" - 3" (6-80mm)	Screwed/Weld Pipe/Flanged	Manual Valves	750psi (50 Bar)
1/4" - 10" (4-750mm)	Screwed/Weld Pipe/Flanged	Actuated Valves	750psi (50 Bar)
4" - 10" (100-250mm)	Flanged	Manual/ Actuated Valves	750psi (50 Bar)
1" - 2" (25-50mm)	Screwed/Weld	Cluster Valves	750psi (50 Bar)
1/4" - 2" (4-50mm)	Weld	Bellows Seated Valves	750psi (50 Bar)
1/4" - 1" (6-25mm)	Screwed	Filling Plant Valves	6000psi (400 Bar)