

REGO RELIEF VALVES FOR GAS & CRYOGENIC SYSTEMS

9400 SERIES BRASS OR STAINLESS STEEL, NON-ASME

All valves are cleaned and packaged for oxygen service per CGA G-4.1.

- Bubble tight at 95% of set pressure.
- Easy to read color coded psig/bar labels.
- Unique tamper resistant adjusting screw.
- Adapters provide standard pipe thread connections for venting gas to the outdoors.
- Repeatable performance.
- 100% factory tested.
- Temperature range -320 to + 165 degrees.

FLOW PERFORMANCE

PRV and SS style flow at 0.783 SCFM Air/PSIA at 110% of set pressure.
 B-9425N has a flow at 6.7 SCFM Air/PSIA at 120% of set pressure.
 B-9426N has a flow at 11.0 SCFM Air/PSIA at 120% of set pressure.

ORDERING INFORMATION

Fill in the blanks with options below:

PRV 9432 T blank or "P" 350 blank or "P"
 (style) (size) (seat material) (drain hole) (set pressure) (pipe-away option)

This example part number indicates: 1/4" PRV style brass relief valve with PTFE seat, set at 350psig and no pipe-away adaptor.

Materials	SS style	PRV and B style
Body	stainless steel	brass
Spring	stainless steel	stainless steel
Seat Retainer	stainless steel	brass
Adjusting Screw	stainless steel	brass
Pipe-Away Adapter	stainless steel	brass



Style	Size	Inlet A	Body and Valve Material	Pressure Setting Range PSIG	Height B	Wrenching Hex C	Orifice Size Sq. Inch	Pipe-Away Adapter P/N	Pipe-Away Outlet F.N.P.T
PRV	9432	1/4"	brass	17-600	2.6"	7/8"	.062	B-9412-2	3/8"
SS	9432	1/4"	ss	17-600	2.6"	7/8"	.062	SS-9412-4	1/2"
PRV	9433	3/8"	brass	17-600	2.6"	7/8"	.062	B-9412-2	3/8"
SS	9433	3/8"	ss	17-600	2.6"	7/8"	.062	SS-9412-4	1/2"
PRV	9434	1/2"	brass	17-600	2.6"	7/8"	.062	B-9412-2	1/2"
SS	9434	1/2"	ss	17-600	2.6"	7/8"	.062	SS-9412-4	1/2"
B-	9425	3/4"	brass	50-300	3.4"	1 3/4"	.43	B-3131-10	1"
B-	9426	1"	brass	100-300	5.5"	2 3/8"	.62	B-3132-10	1 1/4"

SEAT MATERIAL OPTION

F for Fluorosilicone for PPV and SS styles for 15-139 psi.
 T for PTFE for PRV and SS styles for 140-600 psi.
 N for B-9425 and B-9426, Fluorosilicone seat, all set pressures.

SET PRESSURE

Specify set pressure within range specified for style and size. The B-9426N is available in select settings only. Special order.

PIPE-AWAY OPTION

P - Pipeaway included and attached. No drain hole in relief valve. For example PRV9432TP350P. Leave blank for relief valve without pipeaway attached. For example: PRV9432T 350.

For Easy Identification, the following standard settings have color coded labels for all PRV and SS Style sizes and settings marked in PSIG and bar:

- 22 psig - yellow 35 psig - purple 50 psig - white 100 psig - gray 150 psig - red
 230 psig - blue 350 psig - orange 500 psig - light blue 450 psig - pink

DRAIN HOLE OPTION

Relief valves without pipe-away typically provided with drain holes, leave blank. P - for relief valves without drain hole, for example RPV9432TP350.



RELIEF VALVES

- Packaged and cleaned for oxygen service per CGA G-4.1
- Bubble tight at 95% of set pressure.
- 100% factory tested
- Repeatable performance.
- Temperature range -320 to + 165°F.
- Easy to read color coded psig/bar labels.
- Adapters provide standard pipe thread connections for venting gas to the outdoors.



Materials	SS style	PRV and B style
Body	stainless steel	brass
Spring	stainless steel	stainless steel
Seat Retainer	stainless steel	brass
Adjusting Screw	stainless steel	brass
Pipe-Away Adapter	stainless steel	brass

NOISE REDUCTION ORDERING INFORMATION

RMI Part No.	Seat Material	Inlet Connections (F.NPT)	"B"	"C"	Orifice Size In	Factory Pressure Setting (PSIG)	Pipe-Away Adapter
NR009432F022	Fluorosilicone	1/4"	2.60"	7/8"	.062	22	B-9412-2
NR009432F050	Fluorosilicone	1/4"	2.60"	7/8"	.062	50	B-9412-2
NR009432F100	Fluorosilicone	1/4"	2.60"	7/8"	.062	100	B-9412-2
NR009432F230	PTFE	1/4"	2.60"	7/8"	.062	230	B-9412-2
NR009432F250	PTFE	1/4"	2.60"	7/8"	.062	250	B-9412-2
NR009432F300	PTFE	1/4"	2.60"	7/8"	.062	300	B-9412-2
NR009432F350	PTFE	1/4"	2.60"	7/8"	.062	350	B-9412-2
NR009432F360	PTFE	1/4"	2.60"	7/8"	.062	360	B-9412-2

VALVES RELIEF

APPLICATION:

The ASME approved 90° relief valves AR series, provide precise control set points which protect cryogenic vessels and piping systems for over-pressurization.

FEATURES:

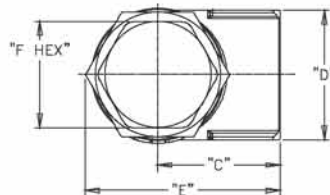
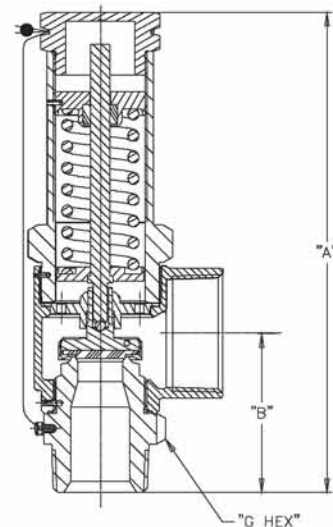
- High flow rates are approved by ASME rigorous testing to Code VIII.
- The ninety degree configuration provides relief of cryogenic gases directly avoiding flow through the spring
- Bubble tight seat provides 100% shut off when resealing or static mode.
- A variety of inlets and pressure settings assure adherence to application requirements.
- Temperature Range: -320°F (-196C) to +165°F (+74°C)
- Cleaned for Liquid Oxygen Service per CGA G-4.1
- 100% Factory Tested.

MATERIALS:

Body	Bronze ATM B61
Upper Body	Stainless Steel ASTM A582
Seat & Stem	Brass ASTM B16
Poppet Guide	Brass ASTM B16
Spring Retainer.....	Brass ASTM B16
Adjusting Screw	Brass ASTM B16
Cap	Brass ASTM B16
Bushing	Hostafion TFM1600 (Teflon)
Ball.....	Stainless Steel
Upper Gasket	PTFE ASTM D4894
Lower Gasket.....	Copper ASTM B152-17
Spring	Stainless Steel ASTM A 313
Screw	Brass ASTM B16
Grooved Pin.....	Stainless Steel ASTM A581
Cable & Tie Assy	Stainless Steel & Lead



AR Series



RMI Part No.	Inlet Inches DN	Outlet Inches DN	Ends	A	B	C	D	E	ASME Flow Capacity SCFM/Air @ 250 PSI	Weight Lbs
AR4106A	3/4"	1"	Thread NPT	6.03"	1.97"	1.63"	1.63"	2.49"	450	2.75
AR4108A	1"	1 1/4"	Thread NPT	6.88"	2.37"	2.00"	1.90"	3.01"	1,003	3.75
AR4112A	1 1/2"	2"	Thread NPT	9.64"	3.20"	2.45"	2.60"	3.89"	2,277	8.00

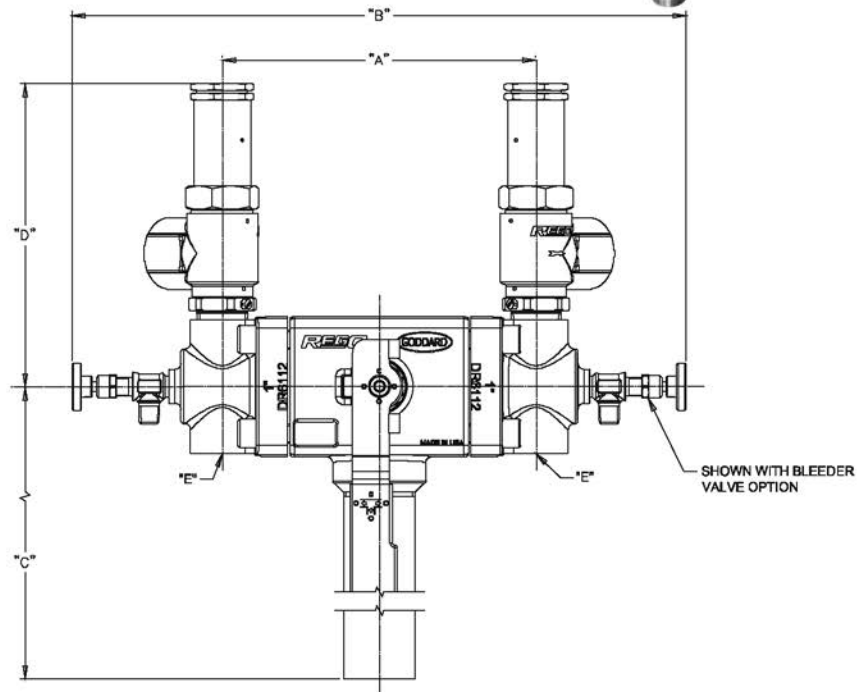
VALVES RELIEF

APPLICATION:

Provides a complete solution for pressure relief devices assembled in a factory setting, pressure and oxygen cleaned ready for attachment to cryogenic bulk tanks. Ideal for OEM applications where pre-fabricated assemblies are favored to streamline constructions. Ideal for all cryogenic liquids including Liquified Nitrogen, Oxygen and Argon. Safe and reliably used in LNG Systems. Excellent for protecting bulk cryogenic liquid vessels, transport trailers and industrial pipelines.

FEATURES:

- High flow rates complement our AR series pressure relief valves and burst disc.
- Valve side selection is accomplished with a heavy duty control arm clearly labeled for positive isolation.
- Needle valves accessorize for easy bleed of gas before removing pressure relief devices.
- Cleaned for Liquid Oxygen Service per CGA G-4.1
- Pressure Rating: 725 PSI (50 bar)
- Temperature Rating: -325°F (-198°C) to +165°F (+74°C)



RMI Part No.	Inlet Inches DN	Connection Type	A	B	C	D	E
DA6206	1"	Thread NPT	4.76"	13.08"	9.75"	7.00"	3/4" NPT
DA6208	1 1/2"	Thread NPT	8.33"	16.30"	15.75"	8.06"	1" NPT

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VALVES RELIEF

APPLICATION:

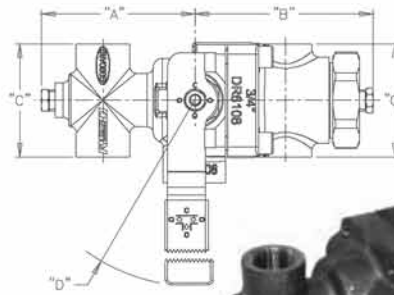
The Diverter Valve DR Series, provide a simple solution for the isolation of pressure relief devices during routine change out of a Relief Valve without evacuating the cryogenic vessel. Ideal for all cryogenic liquids including Liquefied Nitrogen, Oxygen and Argon. Safe and reliably used in LNG Systems. Excellent for protecting bulk cryogenic liquid vessels, transport trailers and industrial pipelines.

FEATURES:

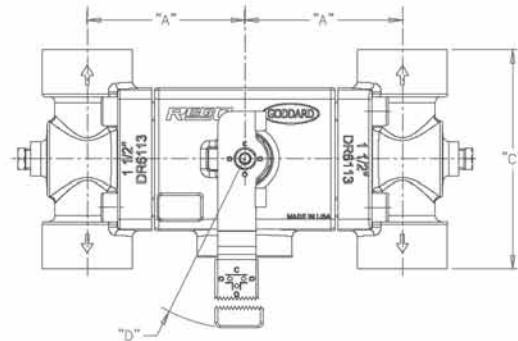
- High flow rates compliment our AR series pressure relief valves.
- Valve side selection is accomplished with a heavy duty control arm clearly labeled for positive isolation.
- Needle valves accessorize for easy bleed of gas before removing pressure relief devices.
- Fitted with threaded top Relief Valve ports and bottom Burst Disk connections.
- Cleaned for Liquid Oxygen Service per CGA G-4.1
- Pressure Rating: 600 PSI (41.37 bar) CWP
- Temperature Rating: -320°F (-196°C) to +165°F (+74°C).
- 100% Factory tested

MATERIALS:

Body Bronze ASTM B61 UNS C92200
 Bushing, End Cap Brass B16 C36000
 Spring Clamp Brass
 Thread Ring Brass ASTM B16 C36000
 Seat Rings PTFE ASTM D1430
 Gasket PTFE
 Screw Stainless Steel
 Ball 316 Stainless Steel
 Pipe Plug Brass ASTM B16 UNS C360000
 Spring Washer Stainless Steel
 Spacer Brass ASTM B16 UNS C360000
 Lever Cadmium Plated Steel
 Packing PTFE
 Stem Stainless Steel ASTM A582 UNS S30300
 Packing Nut Brass ASTM B16 UNS C36000
 Lock Washer Stainless Steel



DR6108



DR6112 & DR6113

RMI Part No.	Inlet Inches DN	Outlet Inches DN	Connection Type	A	B	C	D	Height	Weight Lbs
DR6108	1"	3/4"	Thread NPT	4"	4.65"	2.94"	R 7.36"	5.18"	10
DR6112	1 1/2"	1"	Thread NPT	5.94"	-	5.70"	R 7.36"	5.77"	28
DR6113	1 1/2"	1 1/2"	Thread NPT	5.94"	-	5.70"	R 7.36"	5.770"	30

MANIFOLD

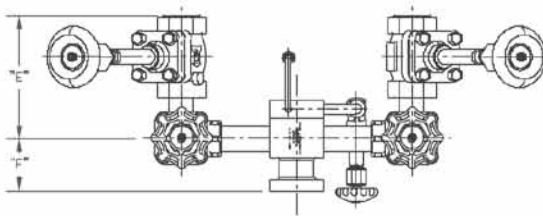
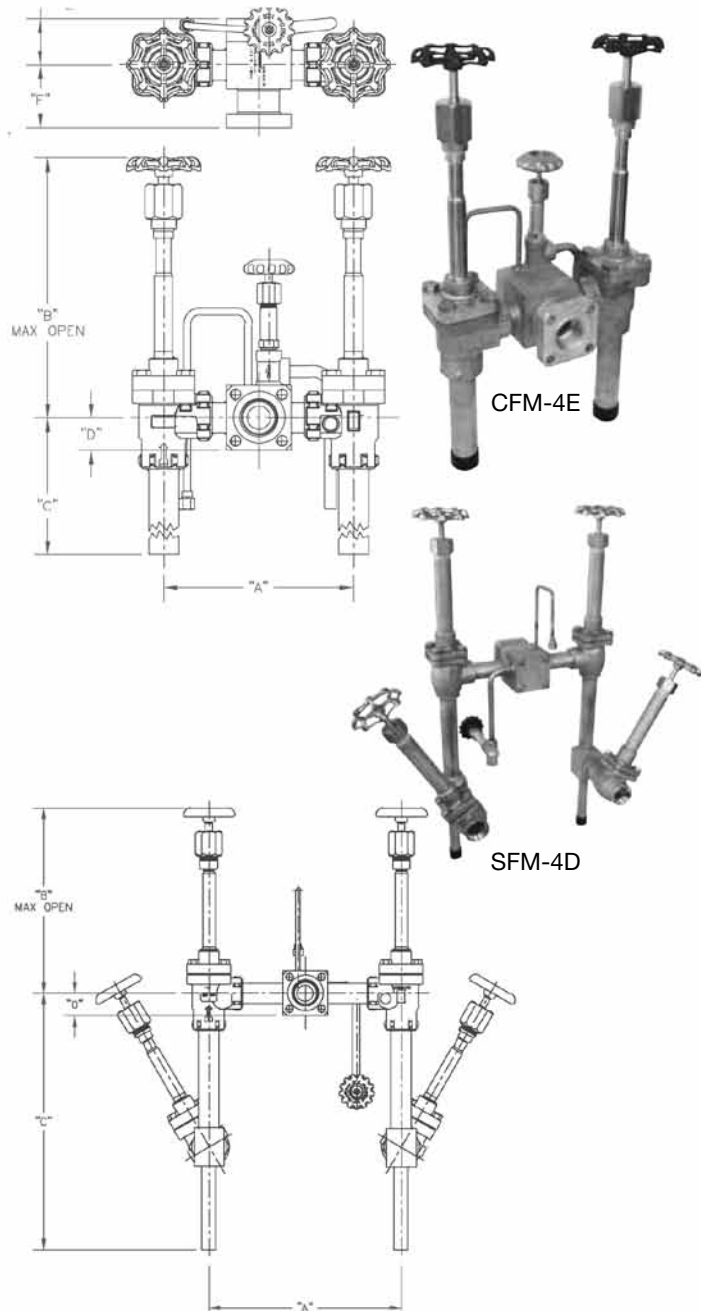
APPLICATION:

High quality brazed and welded assemblies are ideally suited for the original equipment manufacturer of bulk cryogenic vessels. A wide variety of valve types including union or bolted bonnet, bronze or stainless steel bodies & top works and piping of stainless steel or copper onstruction are available as production unit.

Ideal for all cryogenic liquids including Liquified Nitrogen, Oxygen and Argon. Safe and reliably used in LNG systems. In addition we can custom design configurations that are welded and brazed in a factory setting.

FEATURES:

- Unitized construction eliminates leaks and provides easy fit-up to tank piping.
- Modules commonly include top and bottom fill valves, fill check with strainer and hose bleed and relief valve.
- Many options are available which include redundant isolation valves or specific end user dimensions and specifications.
- Our valve products stand up to high cycle environments, without the need for field adjustment of valve packing.
- Available alone or as a unitized welded assembly for bulk tank filling.
- Repeatable performance and geometry.
- Precision silver brazed and welded assembly.
- Cleaned for Liquid Oxygen Service per CGA G-4.1
- Pressure Rating: SFM Series 725 PSI (50 bar) – CFM Series 600 PSI (41 bar)
- Temperature Rating: -320°F (-196°C) to +165°F (+74°C)
- 100% Factory tested



RMI Part No.	Size	Bonnet Type	Pipe Material	A	B	C	D	E	F
CFM00002D	1"	Union	Stainless Steel	10.25"	14.64"	7.5"	1.75"	2.5"	3.4"
CFM00004D	1 1/2"	Union	Stainless Steel	10.25"	15.00"	9.5"	1.75"	2.5"	3.4"
CFM00004E	1 1/2"	Bolted	Stainless Steel	10.25"	13"	9.5"	1.75"	2.5"	3.4"
AFM00004D	1 1/2"	Bolted	Stainless Steel	10.25"	13"	9.5"	1.75"	8"	3.4"
PFM00004D	1 1/2"	Bolted	Copper	15.00"	14.63"	20"	1.75"	8"	3.4"
SFM00004D	1 1/2"	Bolted	Stainless Steel	15.00"	14.63"	20"	1.75"	2.54"	3.4"