





HYDR-STAR FLUID CONTROL COMPANY LIMITED



Control Valves and Components

(For Process, Wellhead and Safety Shutdown Systems)













HYDT-STAR's pumps and valves are widely used in various industries. We provide quality products and services with international standard for

many well know and outstanding companies worldwide. Choose HYDR-STAR,

we will provide you with comprehensive products and professional services.





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RELIEF VALVE





About HYDR-STAR

HYDR-STAR Fluid Control Company Limited specialize and focus on the R&D, design and manufacture of stainless steel instrumentation valves, high pressure valves, control valves, high pressure pumps and boosters with international standard.

The company occupies 54 acres and owns 20,000 square meters of modern workshop and office buildings; an engineering team with more than 15 years of professional fluid control technology; advanced testing and manufacturing equipment; complete quality control system; customer oriented, timely and professional sales team and superior services to provide high quality products and solutions for the global fluid control industry.

HYDR-STAR passed the ISO9001 quality management system certification and our products passes SIL and EAC certification. Our products are recognized by clients and customers in Middle East, European Union, Russia, China and other countries.

After years of hard work, HYDR-STAR has become an industry leader and has established list of regular customers from around the globe. Our products are being used in oil&gas, petrochemical, energy, mining, aerospace, military, automotive, firefighting and conventional hydraulic machinery Industries.









A corner of workshop

High Precision Lathe Three Coordinate Measuring Machine

VMC

Warehouse





Relay Valve

Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Type to NACE MR-0175 available.
- ★ Operating force is small.

Description

The 'MRR' series relays are multi-pressure control valve for production control and safety systems. It functions as a manual reset, pilot operated, normally closed, block and bleed valve.

The 'ARR' indicator relay is a multi-pressure control valve for production control and safety systems. It functions as an automatic reset, pilot operated, normally closed, block and bleed valve. Red indicates that there is no pressure in the pilot chamber. Green indicates that pilot chamber is pressurized.

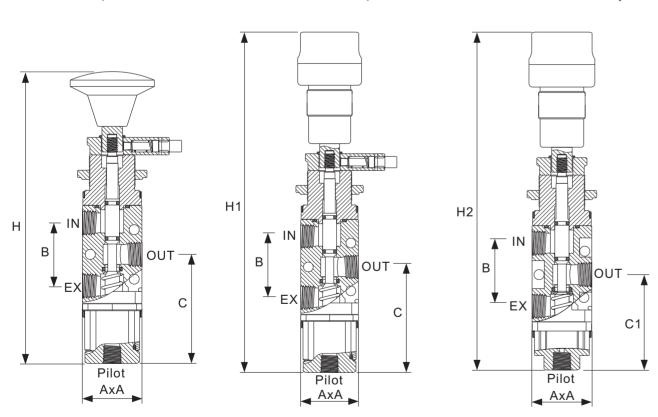


Construction & Specifications

Manual Reset Relay

Indicator Manual Reset Relay

Indicator Automatic Reset Relay

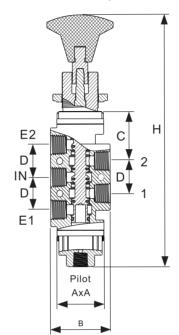


Valve Pressure	MAX.150 psig(10.3 bar)	Pilot Pressure	25~150 psig(1.6~10.3 bar)pneumatic valve
Wetted Material	316 SS,X-750		40~150 psig(2.8~10.3 bar)hydraulic valve
Seal Material	Buna N standard	Work Temperature	-40~250°F(-40~120°C)standard valve
Cv	1.3		

Dimensions

SizeA	1.28 in.(32.5 mm)	Size B	1.36 in.(34.5 mm)
SizeC	2.35 in.(59.6 mm)	Size C1	2.05 in.(52 mm)
SizeH	6.28 in.(159.5 mm)	Size H1	7 .56 in.(192 mm)
SizeH2	7.28 in.(185 mm)	Valve Ports	1/4 Female NPT
Panel Hole	1 in.(25.4 mm)	Pilot Port	1/8 Female NPT

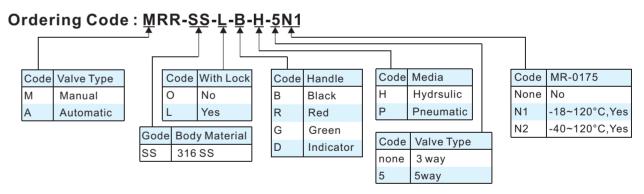
1/4 Valve ,5 way



Valve Pressure	MAX.150 psig(10.3 bar)
Pilot Pressure	25~150 psig(1.6~10.3 bar)pneumatic valve
	40~150 psig(2.8~10.3 bar)hydraulic valve
Work Temperature	-40~250 °F(-40~120°C)standard valve
Wetted Material	316,X-750,Buna N standard
Cv	2.1

Dimensions

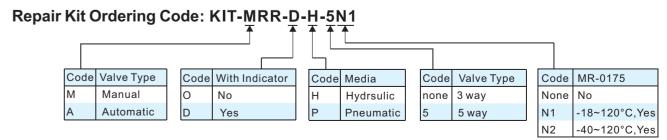
D 1111 C 1131 C 1			
SizeA	1.28 in.(32.5 mm)	Size B	1.63 in.(41.3 mm)
Size C	1.24 in.(31.5 mm)	Size D	0.81 in.(20.6 mm)
Size H	6.38 in.(162 mm) MAX.	Panel Hole	1 in.(25.4 mm)
Valve Port	1/4 Female NPT	Pilot Port	1/8 Female NPT



Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.





Interface Valve

Features

- ★ 316 stainless steel construction (models to NACE MR-0175 available).
- ★ Large spring load assures fast system response.
- ★ Smooth ball seal assures zero leakage and long life
- ★ Manual override handle available.

Description

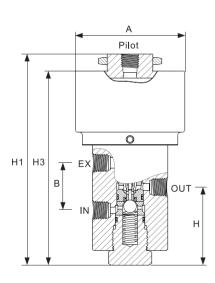
3-way Interface Valves are normally closed block and bleed Hydraulic Controllers. They allow the system to control Hydraulic pressures as high as 10,000 psi with a relatively low Pilot Supply Hydraulic or Pneumatic pressure.

2-way Interface Valves are normally opened or closed Hydraulic Controllers. They are designed to block incoming hydraulic Supply pressure with a relatively low Pilot Hydraulic or Pneumatic pressure. Valves with manual handles can be operated by the handle, when there is no pilot pressure.

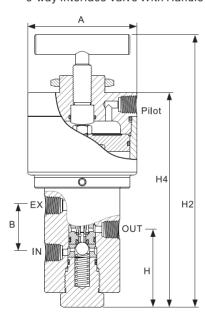


Construction & Specifications

3-way Interface Valve



3-way Interface Valve With Handle

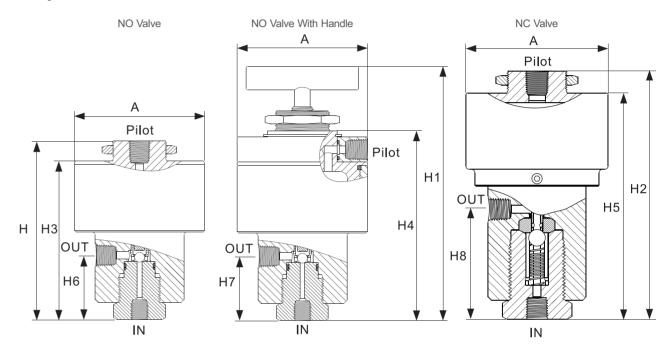


Operate Pressure	MAX.10000 psig(689 bar)
Pilot Pressure	30~150 psig(2-10.3 bar)
Work Temperature	-40~250°F(-40~120°C) standard valve
Wetted Material	316, 17-4PH
Seal Material	Buna N & PEEK standard

Dimensions

Size A	3.25 in.(82.5 mm)	Size B	1.4 in.(35.6 mm)
Size H	2.31 in.(58.7 mm)	Size H1	6.26 in.(159 mm)
Size H2	8.11 in.(206 mm)	Size H3	5.76 in.(146.2 mm)
Size H4	6.39 in.(162.2 mm)	Panel Hole	1.38 in.(34.9 mm)
Pilot Port	1/4 Female NPT	Orifice	0.156 in. (4 mm)

2-way Interface Valves

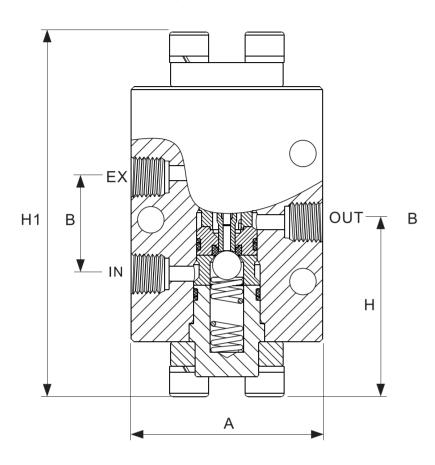


Operate Pressure	MAX.30000 psig (2069 bar)
Pilot Pressure	30-120 psig (2~8 bar)
Work Temperature	-40~250°F(-40~120°C) standard valve
Wetted Material	316,17-4PH
Seal Material	Buna N

Dimensions

Size A	3.25 in.(82.5 mm)	Size H	4.5 in.(114.3 mm)
Size H1	6.41 in.(162.8 mm)	Size H2	5.67 in.(143.9 mm)
Size H3	4 in.(101.5 mm)	Size H4	4.78 in.(121.5 mm)
Size H5	5.16in.(131.1 mm)	Size H6	1.62 in.(41.2 mm)
SizeH7	1.62 in.(41.2 mm)	SizeH8	2.51 in.(63.8 mm)
Panel Hole	1.38 in.(34.9 mm)	Orifice	0.156 in. (4 mm) 10000psig
Pilot Port	1/4 Female NPT		0.125 in. (3.2 mm) 20000psig
			0.094 in. (2.3mm) 30000psig

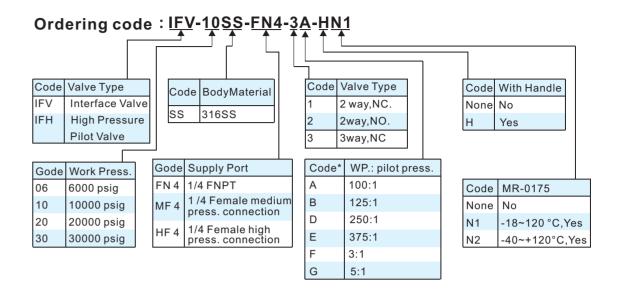
High Pressure Pilot Valves



Operate Pressure	MAX.10000 psig (689 bar)
Pilot Pressure	MAX.10000 psig (689bar)
Work Temperature	-40~250°F(-40~120°C) standard valve
Wetted Material	316,17-4PH
Seal Material	Buna N &PEEK standard

Dimensions

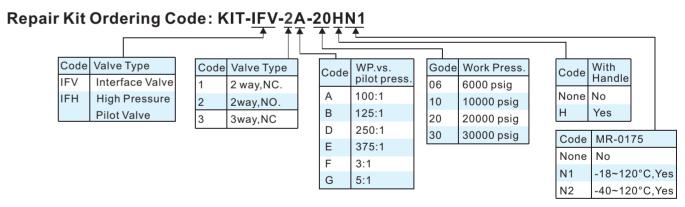
Size A	2.5 in.(63.5 mm)	Size H	2.28 in.(57.9 mm)
Size B	1.28in.(32.5 mm)	Size H1	4.76in.(121 mm)
Valve Ports	1/4Female NPT	Orifice	0.156 in.(4 mm)
Pilot Port	1/4Female NPT		



 * D for 20000 psig valve only, E for 30000 psig valve only, F and G for High Pressure Pilot Valve only. Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.





Pilot Operated Valve

Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Large CV factor available.

Description

The NC valves are normally closed, block and bleed valves. Controlled by a pressure signal applied to a small integral pilot piston that actuates the valve.

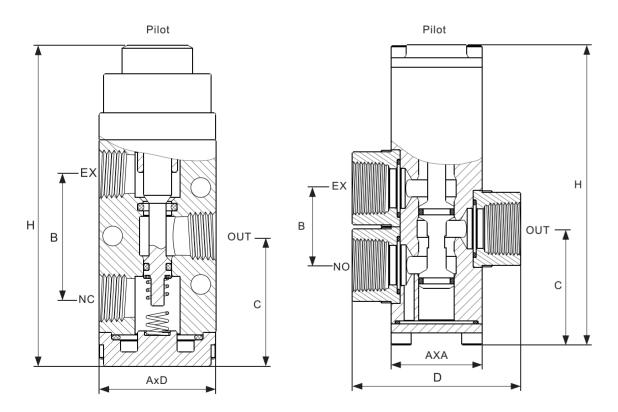
The NO valves are normally open, block and bleed valves. Controlled by a pressure signal applied to a small integral pilot piston that actuates the valve.



Construction & Specifications

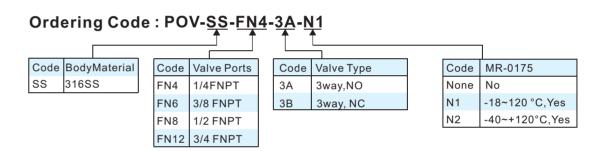
1/4, 3/8 NC Valve

1/2,3/4 NO Valve



Operate Pressure	MAX.200 psig(13.8 bar)	Wetted Material	316 SS ,X-750,Buna N standard
Pilot Pressure	25~200 psig(1.6~13.8 bar)	Seal Material	Buna N standard
Work Temperature	-40~250°F(-40~120°C)		

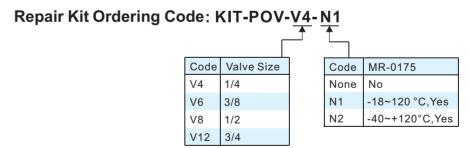
Valve Size	Cv	Valve Ports	Pilot Port	Ain.(mm)	B in.(mm)	C in.(mm)	D in.(mm)	H in.(mm)
1/4	1.3	1/4 FNPT	1/8 FNPT	1.28(32.5)	1.36(34.5)	1.37(34.8)	1.28(32.5)	3.46(87.9)
3/8	2.1	3/8 FNPT	1/8 FNPT	1.28(32.5)	1.36(34.5)	1.77(45)	1.63(41.3)	3.74(95)
1/2	4	1/2 FNPT	1/4 FNPT	1.5(38.1)	1.49(38)	1.97(50)	2.5(63.5)	4.72(120)
3/4	6.6	3/4 FNPT	1/4 FNPT	1.77(45)	1.49(38)	2.26(57.5)	3.28(83.4)	5.85(148.5)



Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.





Manual Operated Valve

Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Operating force is small.
- ★ Type to NACE MR-0175 available.

Description

The 3 way NC valves are normally closed, block and bleed valves. Push the manual handle to open the valve. Release the handle, spring return to close the valve.

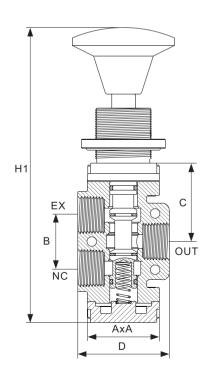
The 3 way NO valves are normally open, block and bleed valves. Push the manual handle to close the valve. Release the handle, spring return to open the valve.

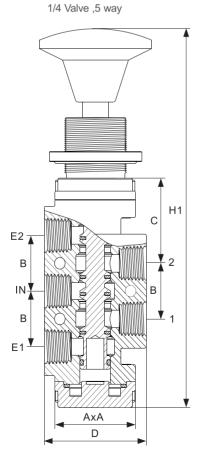
The 5 way valves are two position, five-way valves. When pull the handle, port 1(one of the two out ports) will on pressure, port 2(another out port) will to exhaust. When push the handle, port 2 will on pressure port 1 will to exhaust.

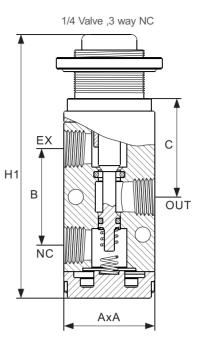


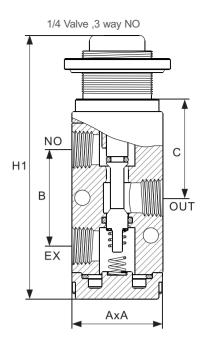
Construction & Specifications

3/8 Valve ,3 way, NC





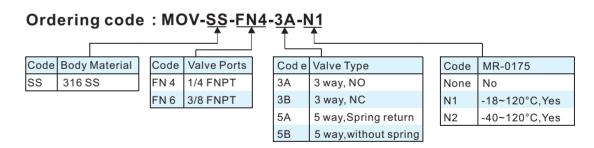




Operate Pressure	MAX.200 psig(13.8 bar)	Wetted Material	316,X-750,Buna N standard
Work Temperature	-40~250 °F (-40~120°C)standard valve	Spring Material	X-750

Dimensions in.(mm)

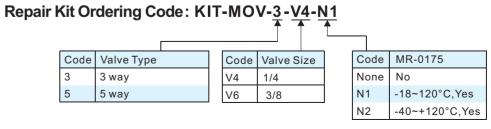
Valve Size	Valve Type	Ports	А	В	С	D	H1	Cv	Panel Hole
1 /4	5 way	1/4 NPT	1.28(32.5)	0.81 (20.6)	1.24(31.5)	1.62(41.3)	5.8(146.2)	2.1	1.28(32.5)
3/8	3 way NC	3/8 NPT	1.28(32.5)	0.94(24)	1.38(35.3)	1.62(41.3)	5.2(133.2)	2.7	1.28(32.5)
1/4	3 way NC	1/4 NPT	1.28(32.5)	1.36(34.5)	1.78(45.2)	-	3.5(89.4)	1.3	1.28(32.5)
1/4	3 way NO	1/4 NPT	1.28(32.5)	1.36(34.5)	1.78(45.2)	-	3.5(89.4)	1.3	1.28(32.5)



Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.





Quick Exhaust Valve

Features

- ★ 316 stainless steel construction.
- ★ Large CV factor assures fast system response.
- ★ Small operating noise.
- ★ Type to NACE MR-0175 available.
- ★ Standard Buna N seals, other seals available.

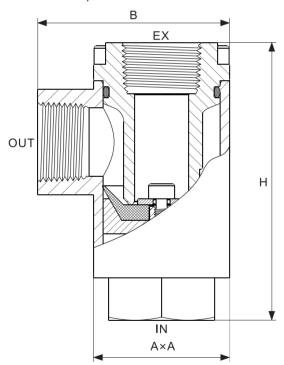
Description

The qucik exhaust Valve is designed to rapidly bleed the control pressure from an actuator or other device .It is typically used on safety valves, control valves, or other devices that must respond quickly when the control signals are removed . It is easy to install and maintain. No special tools are needed for repair and assembly.



Construction & Specifications

Low pressure Pneumatic Valve

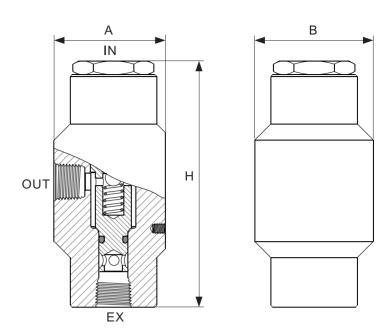


Working Pressure	MAX.200 psig(13.8 bar)	Wetted Material	316 & Buna N standard
Inlet Cracking Press.	5 psig(0.3 bar)	Work Temperature	-40~250 °F(-40~120°C)standard valve

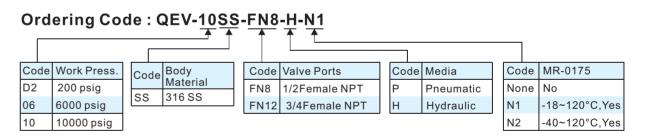
Dimensions

Valve Size	Valve Ports	H in.(mm)	A in.(mm)	B in.(mm)	Cv Factor (IN)	Cv Factor (EX)
1/2	1/2 FNPT	3.25(88.9)	1.50(38.1)	2.25(57.2)	5.4	7.6
3/4	3/4 FNPT	3.61 (91.8)	1.75(44.5)	2.50(63.5)	6.6	9.8

High Pressure Hydraulic Valve, size 1/2



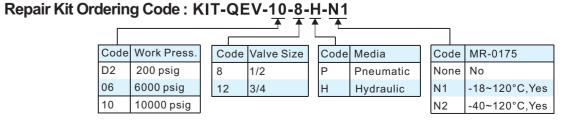
Working Pressure	MAX.10000 psig(689 bar)	Inlet Cracking Press.	80 psig(5.5 bar)
Wetted Material	316,X-750 & Buna N standard	Valve Ports	1/2 Female NPT
Work Temperature	-40~250°F(-40~120°C)standard	Size A	2.58 in.(65.5mm)
Size B	2.75 in.(69.8mm)	CV Factor (IN)	1.1 for 689bar, 1 .4 for 414 bar
Size H	5.69 in.(144.5mm)	CV Factor (EX)	5.4 for 689bar, 7 for 414 bar



6000 psig and 10000 psig just for hydraulic valve. Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.





Pressure Switch Valve

Features

- ★ 316 stainless steel construction (models to NACE MR-0175 available).
- * Hydraulic and Pneumatic service.
- ★ Designed for 1% plus or minus repeatability on set point.
- ★ Minimum dead band between trip and reset, about 5%.

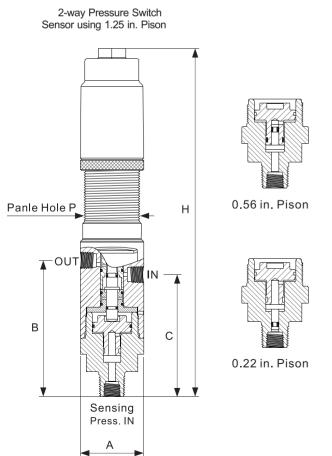
Description

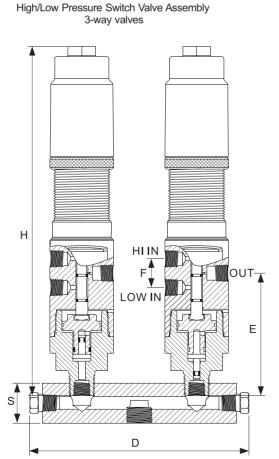
These valves are operated by the pressure applied to the sense port acting on a piston opposing an adjustable spring force. 3 way valve is a block and bleed valve. It functions as either a normally closed or normally open valve, depending on through which port the instrument pressure is supplied. These ports are marked as 'HI IN' or 'LO IN' on the switch body. The output port, marked 'OUT' on the switch body, is the same for either mode of operation. 2 way valve is functions as a normally closed or normally open valve, depending on customer requirement.

See Valve Ordering Code.



Construction & Specifications





MAX.Valve Pressure	150 psig (10. 3 bar) for 3 way valves	Valve Part Wetted Material	316 & Buna N
MAX.Valve Pressure	6000 psig (414 bar) for 2 way valves	Sense Part Wetted Material	316,Buna N standar
Sense Pressure	10~10000psig (0.7~689bar)	Cv Factor (2 way valves)	0.12
Work Temperature	-40 250 °F(-40~120°C standard	Cv Factor (3 way valves)	0.09

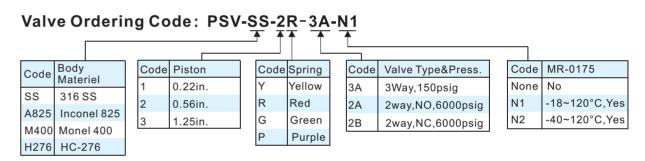
Dimensions

in.(mm)

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	Α	2(50.8)	D	7(177.8)	S	1.25(31.8)	Valve Sense Port	1/4 FNPT &1/2 MNPT
	В	4.31(109.5)	E	3.86(98)	Н	11.5(292.1)MAX.	Assembly Sense Port	1/2FNPT
	С	3.86(98)	F	0.91(23)	Р	1.78(45.2)	Valve Port	1/4 FNPT

Sense Pressure Ranges

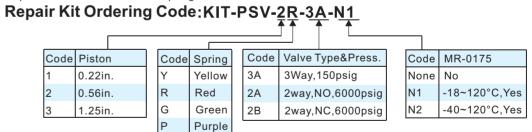
Spring Code	Piston Code & (Size)							
&(Colour)	1 (0. 22 in. 5.6mm)	2(0.56 in. 14.3mm)	3(1.25 in. 31.7mm)					
Y(Yellow)	10000~6000psig(689~414 bar)	1500~750psig(103~51.7 bar)	×					
R(Red)	6000~3000psig(414~207 bar)	900~400psig(62~27.6 bar)	200~80psig(13.8~5.5 bar)					
G(Green)	3000~1500psig(207~103 bar)	450~200psig(27.6~13.8 bar)	100~30psig(6.9~2 bar)					
P(Purple)	x	×	45~10psig(3.1~ 0.7 bar)					

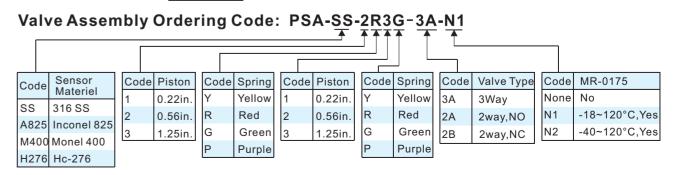


Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals & spring.





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The first piston code means The piston of the higher pressure valve in the assembly. So as the first spring code. The second piston code means The piston of the lower press. valve in the assembly. So as the second spring code.



Gas Regulator & Filter

Features

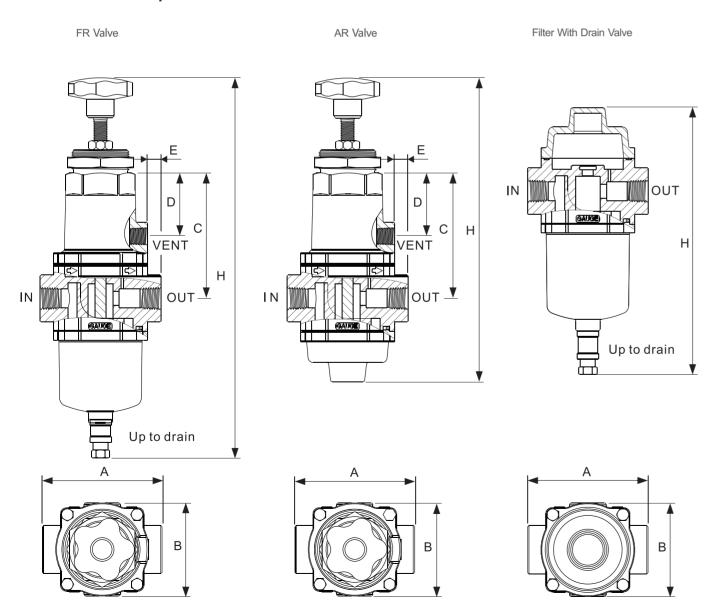
- ★ 316 stainless steel construction.
- ★ Standard Buna N seals, other seals available.
- ★ Type to NACE MR-0175 available.
- ★ Operating torque is small.
- * Relief port will prevent excessive build up of down stream pressure.

Description

The FR and AR valves are gas reducing regulators. The down stream pressure can be accurately set through a set handle. Every valve has a relief port can prevent excessive build up of down stream pressure. Not like FR valves, AR valves do not with filter. All FR & AR valves and Filters can stand up to the harshest environments, such as sour gas and off-shore environments. Valves or Filters with drains can artificial drainage.



Construction & Specifications



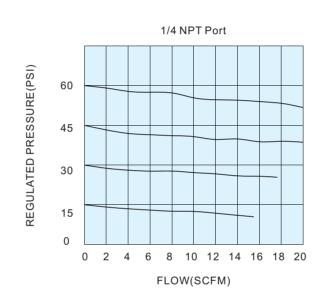
Inlet Pressure	MAX.300 psig(20. 7 bar)	Wetted Material	316,X -750
Outlet Pressure	Outlet Pressure 0-150 Psig(0~10.3bar) Regulator		Buna N standard
	MAX.300 Psig(0~20.7bar) Filter	Element Pore Size	25um
Work Temperature	-40~250°F(-40~120°C)standard valve	Media	Natural gas, N2, Air

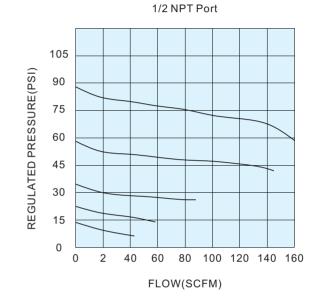
Dimensions

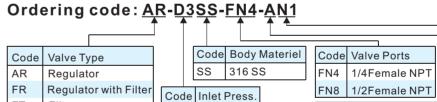
in.(mm)

Туре	Valve Ports	A	В	С	D	Е	Н
FR	1/4 or 1/2NPT	2.74(69.5)	2.13 (54)	1.48(37.5)	2.88(73.2)	0.3(7.7)	8.66(220)
AR	1/4 or 1/2NPT	2.74(69.5)	2.13(54)	1.48(37.5)	2.88(73.2)	0.3(7.7)	6.89(175)
FT	1/4 or 1/2NPT	2.74(69.5)	2.13(54)				6.61(168)

Flow base on 100 psi







300 Psig Drain Valve is just for FR&FT valves. Other sizes and types available upon request. For special requirements, please contact us.

FN8 1/2Female NPT Output Range 0-100 psig, regulator 0-150 psig, regulator Filter, the same as inlet

	Code	MR-0175
	None	NO
	N1	-18~120°C, Yes
t	N2	-40~120°C,,Yes

Repair Kit

Filter

Repair kit: Contains all seals.

Repair Kit Ordering Code: KIT-AR-D3-N1

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Code	Valve Type	Code	Inlet Press.	Code	MR-0175
AR	Regulator	D3	300 Psig	None	NO
FR	Regulator with Filter			N1	-18~120°C, Yes
FT	Filter			N2	-40~120°C, Yes



ESD Valve

Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Type to NACE MR-0175 available.
- ★ Operating force is small.
- ★ Large Cv factor provides a fast system response.
- ★ Easily repaired without removing valve from panel.

Description

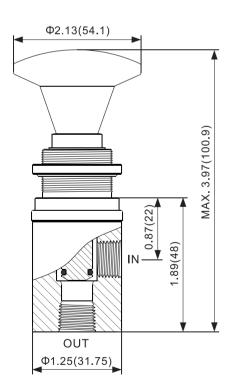
The ESD Valves are two way or three way valves used to close or exhaust a system. They are typical used in Emergency Shutdown (ESD) control circuits to immediately close SSV or SDV Actuators and Surface Controlled SubSurface Safety Valves. Push the handle to operate the valve. The valve push to exhaust is normally closed. The valve push to close is normally

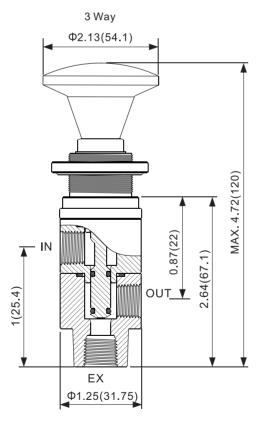


Construction & Specifications

Push To Close in.(mm)

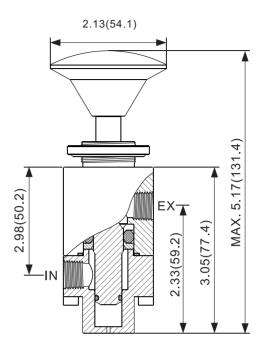






Work Pressure	MAX.200 psig(10.3 bar)	Ports Size	1/4 Female NPT
Work Temperature	-40~250°F(-40~120°C)standard valve	Panel Hole	1 in.(25.4 mm)
Orifice	2 Way:11mm 3 Way:8 mm	Wetted Material	316,Buna N standard

Push To Exhaust 2 Way Valve in.(mm)



Work Pressure	MAX.200 psig(13.8 bar)	Ports Size	1/4 Female NPT
Work Temperature	-40~250°F(-40~120°C)standard valve	Orifice	0.55 in.(14mm)
Wetted Material	316,Buna N standard	Panel Hole	1 in.(25.4 mm)

Ordering code: ESV-SS-FN4-2B-PE-N1

Code	Body Materiel	Code	Ports	Code	Valve Type	Code	Handle	Code	Valve Type	Code	MR-0175
		FN4	1/4FNPT	2	2-way	R	Red	PC	Push to close	None	No
SS	316 SS			3	3-way	В	Black	PE	Push to exhaust	N1	-18~120°C,Yes
						G	Green			N2	-40~120°C,Yes

Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.

Repair Kit Ordering Code:KIT-ESV-2-PE-N1

Г			J	T		
Code	Valve Type	Ī	Code	Valve Type	Code	MR-0175
2	2-position,2-way		PC	Push to close	None	No
3	2-position,3-way		PE	Push to exhaust	N1	-18~120°C
					N2	-40~120°C

-18~120°C,Yes -40~120°C,Yes



Indicator

Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Type to NACE MR-0175 available.

Description

The Indicator provides visual indication of pressure in a system. when system pressure is up to the minimum display pressure, the indicator displays a green field marked with the recognition character "G". Complete loss of pressure causes the indicator to display a red field, marked with the recognition character "R".

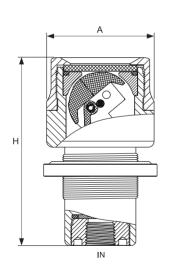
The low pressure indicator is used for system pressure up to 200 psig. The high pressure indicator is used for system pressure up to 10000psig.

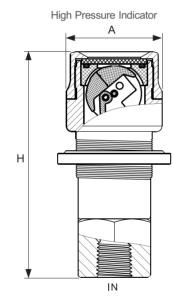
The Trip Indicator will display a red field to show that the corresponding sensing device in a safety control system has tripped. It will keep red until manually reset.



Construction & Specifications

Low Pressure Indicator



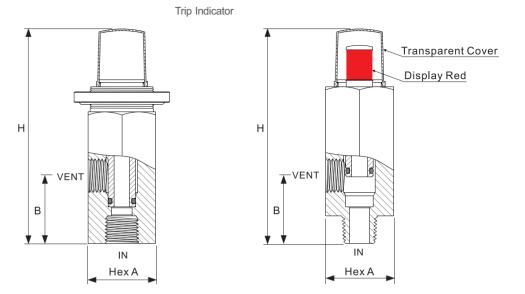


Low Pressure Indicator

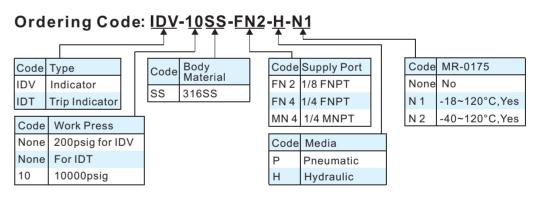
Work Pressure	MAX.200 psig(13.8 bar)	Size A	1.42 in.(36 mm)
MIN.Display Pressure	20 psig(1.4 bar) Pneumatic	Size H	2.48 in.(63 mm)
MIN.Display Pressure	35 psig(2.4 bar) Hydraulic	Panel Hole	1 in·(25.4mm)
Work Temperature	-40~250°F (-40~120°C) standard valve	Port Size	1/8 Female NPT
Wetted Material	316 SS		

High Prssure Indicator

•			
Operate Pressure	MAX.10000 psig(689 bar)	SizeA	1.42 in.(36 mm)
MIN.Display Pressure	120 psig(8.2 bar)	Size H	3.49 in.(88.7 mm)
Work Temperature	-40~250°F (-40~120°C)standard valve	Panel Hole	1.13 in·(28.6mm)
Wetted Material	316 SS	Port Size	1/8 Female NPT
Seal Material	Buna N standard		



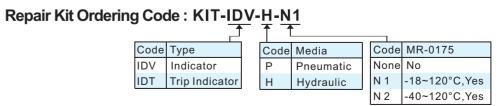
MIN.Display Pressure	MAX. 3 Psig(0.2bar)Pneumatic	SizeA	1 .06 in.(27 mm)
MIN.Display Pressure	MAX.15 psig(1 bar)Hydraulic	Size B	1.06 in.(27 mm)
MAX-Vent Pressure	200 Psig(13.8 bar) Pneumatic	Size H	3.35 in.(85mm)
MAX.Vent Pressure	6000 psig(414 bar)Hydraulie	Panel Hole	1 in.(25.4 mm)
work Temperature	-40~250°F(-40~120°C)standard	Inlet Port	1/4 Female NPT or 1/4 Male NPT
Wetted Material	316 SS & Buna N standard	Vent Port	1/4 Female NPT



Other sizes and types available upon request. For special requirement s, please contact us

Repair Kit

Repair kit: Contains all seals



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Shuttle Valve

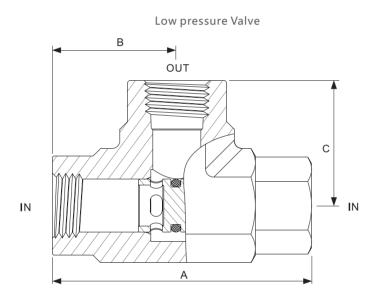
Features

- ★ 316 stainless steel construction.
- ★ Large CV factor assures fast system response.
- ★ Small operating noise.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Type to NACE MR-0175 available.

Description

The Shuttle Valve is a two inlet, one outlet device utilizing a free moving shuttle which blocks one of two inlet ports while allowing the unblocked inlet port to flow to the outlet .When a pressure signal is applied to one of the inlet ports, the shuttle shifts blocking off the opposite inlet port and flow goes through the outlet.



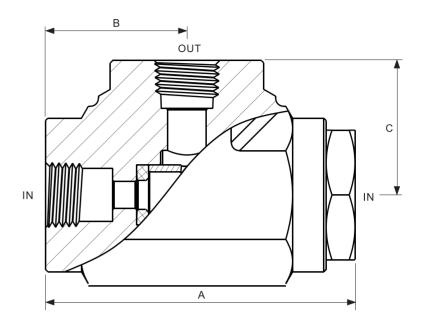


Work Pressure	MAX.200 psig(13.8 bar)
Work Temperature	-40~ 250°F (-40~120°C) standard
Wetted Material	316 SS & Buna N standard
Media	Pneumatic & Hydraulic

Dimensions

Valve Ports	Orifice	A	В	С	Body Hex
1/4 FNPT	0.28 in.(7.1 mm)	2.13 in.(54 mm)	1.02 in.(26 mm)	1.02 in.(26 mm)	0.81 in.(20.6 mm)
3/8 FNPT	0.36 in.(9.2 mm)	2.24 in.(57 mm)	1.06 in.(27 mm)	1.06 in.(27 mm)	0.94 in.(23.8 mm)
1/2FNPT	0.5 in.(12.7 mm)	2.56 in.(65 mm)	1.18 in.(30 mm)	1.18 in.(30 mm)	1.06 in.(27 mm)

High Pressure Hydraulic Valve

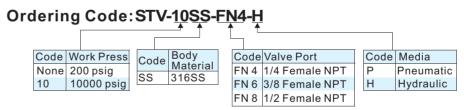


Working Pressure	MAX.10000 psig(689 bar)
Work Temperature	-40~250°F (40~120°C)standard
Wetted Material	316 SS, PEEK & Buna N standard
Media	Hydraulic

Dimensions

Valve Ports	Orifice	A	В	С	Body Hex
1/4 FNPT	0.22 in.(5.6mm)	2.54 in.(64.5 mm)	1.16 in.(29.5mm)	1.1 in.(28mm)	1.5 in.(38.1mm)
3/8 FNPT	0.33 in.(8.4 mm)	2.54 in.(64.5 mm)	1.16 in.(29.5mm)	1.1 in.(28mm)	1.5 in.(38.1mm)

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10000 psig just for hydraulic valves. Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.

Repair Kit Ordering Code: KIT-STV-10-4-H									
	Code	Work Press	Code	Valve S	ize	Code	Media		
	D2	200 psig	4	1/4 NPT	port	Р	Pneumatic		
	10	10000 psig	6	3/8 NPT	port	Н	Hydraulic		
			8	1/2 NPT	port				



Flow Control Valve

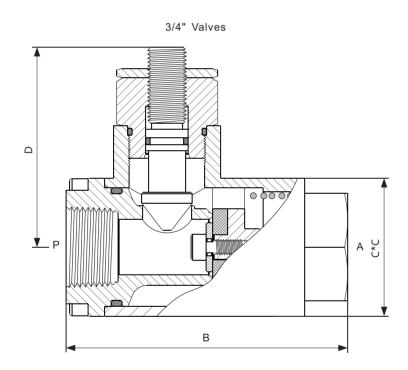
Features

- ★ 316 stainless steel construction.
- ★ May be used in pneumatic or hydraulic systems.
- ★ Standard Buna N seals, other seals available.
- ★ Type to NACE MR-0175 available.
- ★ Operating force is small.
- ★ Large Cv factor provides a fast system response.

Description

From port P to port A, the valve as a Throttle valve. And from port A to port P, the valve as a check valve.

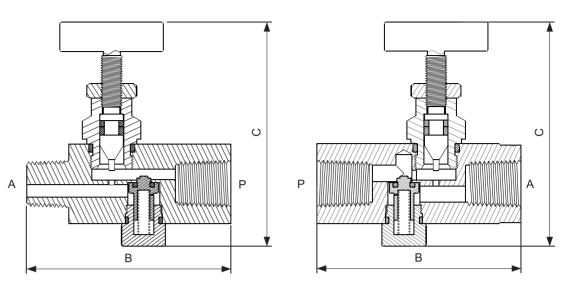
Construction & Specifications



Work Pressure	MAX.200 psig(13.8 bar)	Wetted Material	316 SS & Buna N
Check Pressure	5 psig(0.3 bar)	Valve Ports	3/4 Female NPT
Work Temperature	-40~203°F(-40~95°C)standard valve		

Size B	3.61 in.(91.8 mm)	Cv Factor	5.93 (A to P) MAX.
Size C	1.7 in.(45 mm)	Cv Factor	11 (P to A)
Size D(MIN)	2.56 in.(65.1 mm)		





Work Pressure	MAX.1000Psig(68.9bar)	Wetted Material	316 SS & Buna N standard
Check Pressure	5 psig(0.3 bar)	Valve Ports	1/8 FNPT &1/8 NPT
Work Temperature	-40~250°F(-23~120°C)standard	_	-

Size B	1.75 in.(44.5 mm)	Cv Factor	0.4 (P to A)
Size C	1.92 in.(48.8 mm)	Cv Factor	0.1 (A to P) MAX.

Ordering Code:FCV-SS-FN2-M

Code	Body Material	Code	Port P	Code	Port A
		FN 2	1/8 Female NPT	None	Same as port P
SS	316SS	FN 8	1/2 Female NPT	М	Male NPT, but the
		FN 12	3/4 Female NPT		same size as port P

Other sizes and types available upon request. For special requirements, please contact us.

Repair Kit

Repair kit: Contains all seals.

Repair Kit Ordering Code: KIT-FCV-12

Code	Valve Port
2	1/8 NPT
8	1/2 NPT
12	3/4 NPT

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Volume Bottle & Accumulator

Features

- ★ 316 stainless steel construction.
- ★ Quick response to fluid system demands.
- ★ Completely repairable.
- ★ Proven durability and performance.

Description

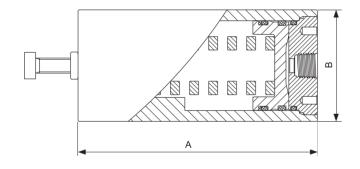
Volume bottle & accumulator as a buffer element in the system. It can compensate for temperature-induced pressure changes. When the discharge pressure, it can extend the time.

The accumulator is for hydraulic service. It is a spring return device and the initial load of the spring can be set by a bolt.

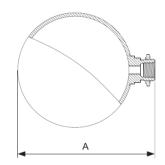


Construction & Specifications

Accumulator for Hydraulic service ACL-D3SS-1A-H



Volume bottle for pneumatic service DVB-D3SS-1A-P



Ordering Code: ACL-D3SS-1A-H

Working Pressure	MAX.300 psig(20.7 bar)	Wetted Material	316 SS & Buna N
Spring Set Pressure	0~60 psig(0~4.1 bar)	Port	1/4 Female NPT
Work Temperature	-40~250°F(-40~120°C)standard	Volume	0.1L

Size A	5 in.(127 mm)
Size B	2.31 in.(58.7 mm)

Ordering Code for volume bottle: DVB-D3SS-1A-P

Working Pressure	MAX.300 psig(20.7 bar)	Wetted Material	316
Work Temperature	-100~1200°F(-73~639°C)	Port	1/4 Female NPT
Size A	4 in.(101.6 mm)	Volume	0.35L
Ball Diameter	4 in.(101.6 mm)	Mount Panel Hole	0.75 in.(19.1 mm)



Vent Fill Cap & Flame Arrestor

Features

★ All 316 stainless steel construction.

Description

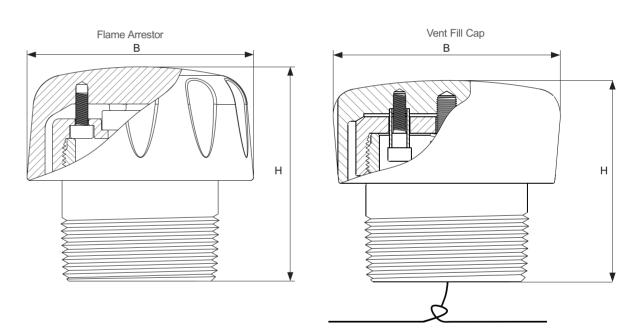
The Flame Arrestor provides protection for the enclosure or the tank contents in case of fire or any possible ignition source outside. Under normal conditions, the cover prevents rain, dust or other contaminants from entering the enclosure or tank.

The vent cap designed to relieve pressure due to entrapped gases in a hydraulic reservoir through a spring loaded cover. Under normal conditions, the cover prevents rain, dust or other contaminants from entering into the hydraulic reservoir.



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Construction & Specifications



Flame Arrestor Ordering Code: VP-SS-FN24

Element Port Size	100 um	Port	1-1/2Female NPT
Size H	2.27 in.(57.7 mm)	Size B	2.68 in.(68 mm)

Vent Fill Cap Ordering Code: VF-SS-FN24

Port	1-1/2Female NPT	Size B	2.75 in.(69.8 mm)
Size H	2.6 in.(66 mm)		



Hydraulic Regulator

Features

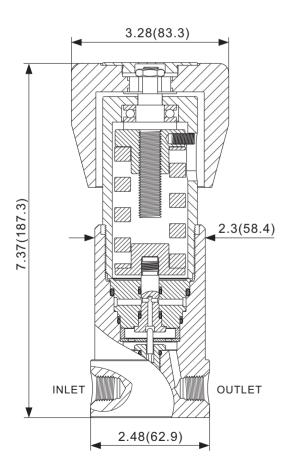
- ★ 316 stainless steel construction makes the valve has good corrosion resistance.
- ★ Main valve metal to metal seal.
- ★ Maximum inlet pressure:10000 psig(689 bar).
- ★ Six outlet pressure ranges: B(200-10000 psig)、C(50-6000 psig)、D(25-4000 psig)、E(15-2500 psig)、F(5-800 psig)、G(5-300 psig).
- ★ Working temperature:-15°F~165°F(-26°C~74°C).
- ★ Spring loaded pressure reducing regulator.
- ★ Piston-sensed design ensures safety and reliability
- ★ Downstream pressure vent(relief) port optional.
- ★ Flow coefficient : 0.12

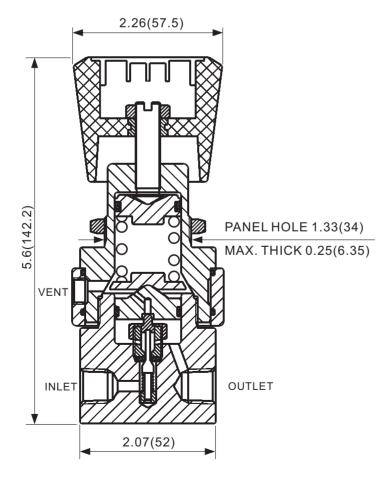
Description

Turning the handle clockwise will increase the spring exerted tension to increase the regulator output pressure. Rotating the handle counter-clockwise will decrease the regulator output pressure. When the downstream pressure is higher than the set pressure the downstream pressure will relief from the vent port.

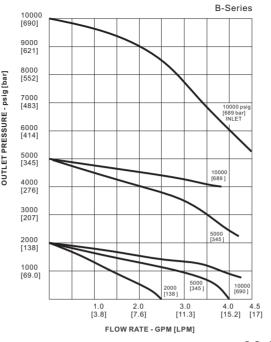
Construction & Specifications

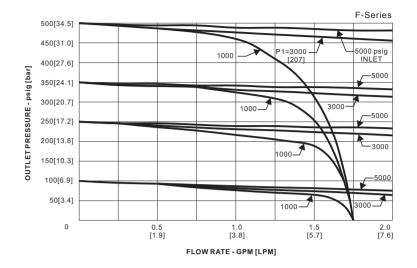
in.(mm)

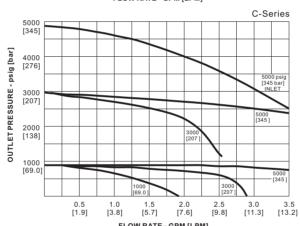




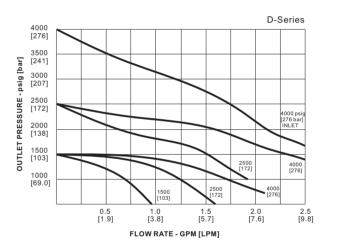
Typical Flow Chart



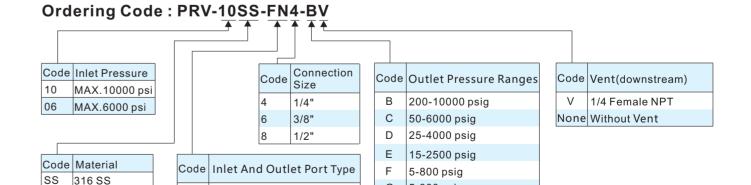




Female NPT



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5-300 psig



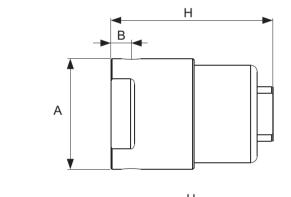
High Pressure Filter

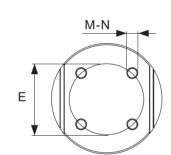
- Features
 ★ Up to 30,000 psig (2069 bar) capability.
- ★ Stainless Steel wetted materials.
- ★ Standard Buna N seals, other seals available.
- ★ 316 sintered elements, 316 stainless steel mesh elements and glass Fiber elements available.
- ★ Filter element replaceable without removing body from system.
- ★ Filters with indicator available.
- ★ Filters with drain port available.

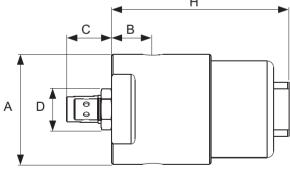


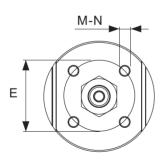
Specifications & Dimensions

10000 psig filters





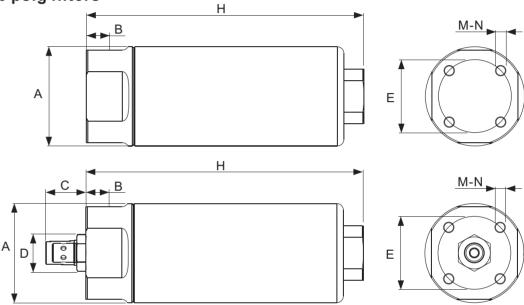




Body Material	316 SS
Max.Work Pressure(psig)	10000
Housing Rated(L/min)	5,10,15,25
Micron Rating(μ)	1,5,7,15,25,35,50,75,100
Seal Material	Buna-N,
Visual Indicator Setting(Bar)	5,10

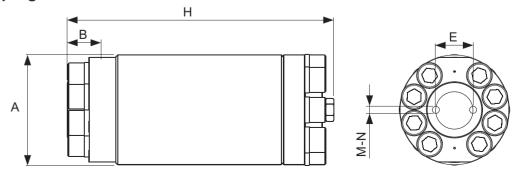
Size	Without Indicator	With Indicator
A	3.31 in.(84 mm)	3.31 in.(84 mm)
В	0.61 in.(15.5 mm)	1.24 in.(31.5 mm)
С	-	1.35 in.(34.3 mm)
D	-	1.26 in.(32 mm)
E	2.17 in.(55 mm)	2.17 in.(55 mm)
M-N	4-M8	4-M8
H (5L/min)	3.74 in.(95 mm)	5.59 in.(142 mm)
H (10L/min)	4.84 in.(123 mm)	6.69 in.(170 mm)
H (5L/min)	5.94 in.(151 mm)	7.80 in.(198 mm)
H (10L/min)	8.27 in.(210 mm)	10.04 in.(255 mm)
Inlet/Outlet port	1/4,3/8,1/2 FNPT	1/4,3/8,1/2 FNPT

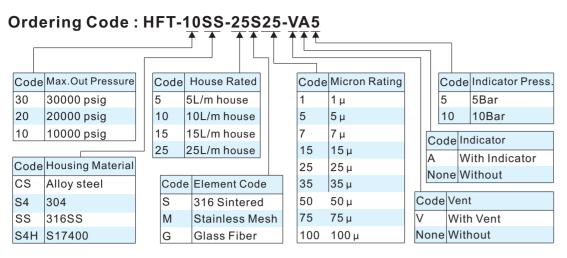
20000 psig filters



Body Material	17-4 PH	Size	Without Indicator	With Indicator
Max.Work Pressure	20000 psig	A	2.95 in.(75 mm)	2.95 in.(75 mm)
Housing Rated(L/min)	5,10,15,25	В	0.75 in.(19 mm)	1.26 in.(32 mm)
Micron Rating(µ)	1,5,7,15,25,35,50,75,100	С		1.35 in.(34.3 mm)
Seal Material	Buna-N,	D		1.26 in.(32mm)
Indicator Setting	5bar,10bar	H (5L/min)	5.67 in.(144 mm)	7.56 in.(192 mm)
Inlet/Outlet port	3/8 female medium press. connection	H (10L/min)	6.34 in.(161 mm)	8.23 in.(209 mm)
Size E	2.17 in.(75 mm)	H (15L/min)	7.01 in.(178 mm)	8.90 in.(226 mm)
Size M-N	4-M8	H (25L/min)	8.27 in.(210 mm)	10.16 in.(258 mm)

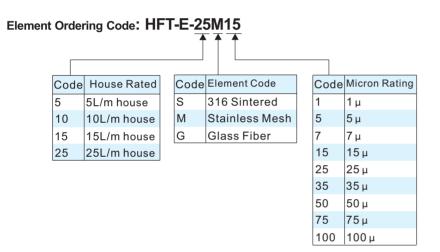
30000 psig filters





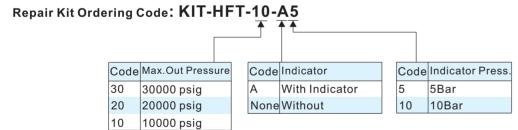
Indicator not for 30000 psig filters.

Other sizes and types available upon request. For special requirements, please contact us.



Repair kit

Repair kit: Contains all seals





Gauge Valve

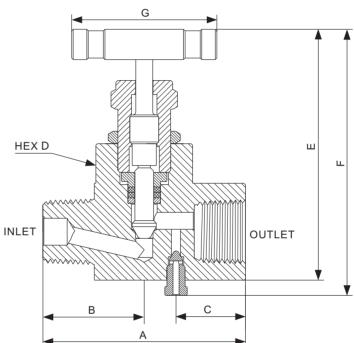
Features

- ★ 316 stainless steel construction.
- ★ Prevents galling due to the no-rotation stem.
- ★ Packing blow stem threads designed for reliable sealing.
- ★ Vee or Regulating stem for flow control and shut-off.
- ★ Working temperature ranges from -100°F to 450°F(-73°C to 232°C) for standard valves with PTFE packing. And other packing materials available, such as graphite.
- ★ Gland locking device prevent loosening of the packing gland.





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Ordering Code

•				
Work	Size	Size Orifice Connection, Inlet to Out let		
Pressure	0.20	in(mm)	Female-Female	Male-Female
10000nsia	1/4"	0.15(3.80)	NV-10SS-FN4-V	NV-10SS-MN4-FN4-V
10000psig	1/2"	0.22(5.60)	NV-10SS-FN8-V	NV-10SS-MN8-FN8-V

Dimensions in.(mm)

Ordering Code	А	В	С	D	E	F	G
NV-10SS-FN4-V	2.20(56.00)	1.10(28.00)	0.80(20.20)	0.87(22.00)	3.04(77.30)	3.44(87.50)	2.17(55.00)
NV-10SS-FN8-V	2.64(67.00)	1.32(33.50)	0.91(23.00)	1.26(32.00)	3.26(82.90)	3.46(88.00)	2.17(55.00)
NV-10SS-MN4-FN4-V	2.20(56.00)	1.10(28.00)	0.80(20.20)	0.87(22.00)	3.04(77.30)	3.44(87.50)	2.17(55.00)
NV-10SS-MN8-FN8-V	2.64(67.00)	1.32(33.50)	0.91(23.00)	1.26(32.00)	3.26(82.90)	3.46(88.00)	2.17(55.00)

- 1. MN means male NPT. FN means female NPT.
- 2. Ordering codes listed are standard. Other sizes, materials and types are available upon request. For special requirements, please contact us.



BB Valve & DBB Valve

Features

- ★ 316 stainless steel Bar stock body.
- ★ combines piping & instrument valves in one body.
- ★ Weight, space and cost saving over traditional designs.
- ★ Standard high performance bonnet design.
- ★ Blowout-proof valve stems and needles.
- ★ Working temperature ranges from -100°F to 450°F(-73°C to 232°C) for standard valves with PTFE packing. And other packing materials available, such as graphite.

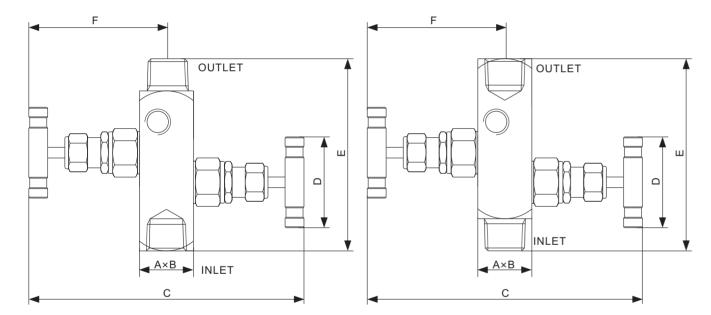
Description

The BB valves are block and bleed valves. The DBB valves are double block and bleed valves. The opening and closing of these valves is accomplished by needle valves. They mainly used to connect pressure gauges and other instruments.



Construction & Specifications

BB Valves



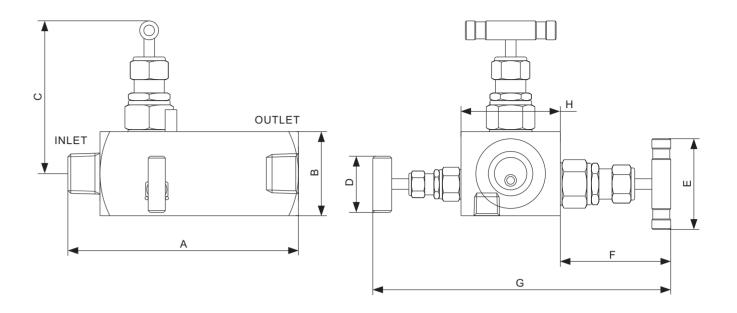
Work	Size	Orifice	Vent/Bleed	Connection, Inle	t to Out let
Press.	0.20	in(mm)		1/2 Female - 1/2 Male NPT	1/2 Male-1/2 Female NPT
10000psig	1/2"	0.22(5.60)	1/4 Female NPT	BBV-10SS-FN8-MN8	BBV-10SS-MN8-FN8

in.(mm)

								()
Ordering Code	А	В	C open	C close	D	Е	F open	F close
BBV-10SS-FN8-MN8-V	1.56(39.60)	1.75(44.50)	6.22(158.00)	5.98(152.00)	2.17(55.00)	4.00(102.00)	3.64(92.50)	3.52(86.50)
BBV-10SS-MN8-FN8-V	1.56(39.60)	1.75(44.50)	6.22(158.00)	5.98(152.00)	2.17(55.00)	4.00(102.00)	3.64(92.50)	3.52(86.50)

- 1. MN means male NPT . FN means female NPT.
- 2. Ordering codes listed are standard. Other sizes, materials and types are available upon request. For special requirements, please contact us.

DBB Valves



Ordering Code

Work	Size	Orifice	Vent/Bleed	Connection, Inle	t to Out let
Press.	0.20	in(mm)	veiit/bleed	1/2 Female - 1/2 Female	1/2 Male-1/2 Female
10000psig	1/2"	0.22(5.60)	1/4 Female NPT	DBB-10SS-FN8	DBB-10SS-MN8-FN8

Dimensions in.(mm)

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Ordering Code	A	В	С	D	Е	F open	G open	Н
DBB-10SS-FN8-MN8	4(101.6)	1.56(39.60)	4.33(110.00)	1.25(31.80)	2.17(55.00)	3.64(92.50)	6.22(158.00)	1.75(44.50)
DBB-10SS-MN8-FN8	4(101.6)	1.56(39.60)	4.33(110.00)	1.25(31.80)	2.17(55.00)	3.64(92.50)	6.22(158.00)	1.75(44.50)

- 1. MN means male NPT . FN means female NPT.
- 2. Ordering codes listed are standard. Other sizes, materials and types are available upon request. For special requirements, please contact us.



Relief Valve

Features

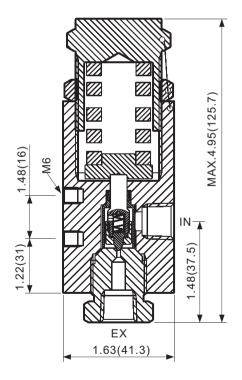
- ★ 316 stainless steel construction makes the valve has good corrosion resistance.
- ★ Set pressure:50~15000 psig (3.5~1035 bar).
- ★ Working temperature:-22°F~250°F(-30°C~120°C).
- * Spring loaded relief valve.
- ★ Piston-sensed design ensures safety and reliability
- ★ Longer life due to metal to metal sealing .

Description

When the system pressure is higher than the set pressure, the relief valve spool will crack and the valve will exhaust until the system pressure is lower than the set pressure and the valve will reseal.

Turning the Spring housing clockwise will increase the relief valve pressure setting. Rotating the Spring housing counterclockwise will decrease the relief valve pressure setting. Once the exact pressure relief setting required is achieved, the lock nut should be tightened against the spring housing to maintain the appropriate setting.

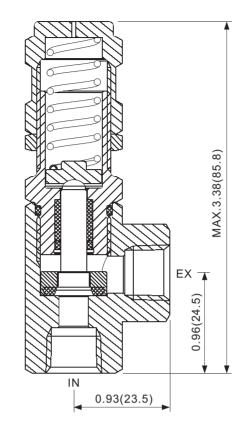




Ordering Code	Set press. range	MAX. Flow	Port
RV-15SS-FN4-D	751-1500 psig	3.2L/min water	1/4Female NPT
RV-15SS-FN4-E	1501-3000 psig	3.6L/min water	1/4Female NPT
RV-15SS-FN4-F	3001-6000 psig	4.4L/min water	1/4Female NPT
RV-15SS-FN4-G	6001-10000 psig	5.2L/min water	1/4Female NPT
RV-15SS-FN4-H	10000-15000 psig	6.1L/min water	1/4Female NPT

Ordering codes listed are standard. Other sizes, materials and types are available upon request. For special requirements, please contact us.

06 Series



Ordering Code	Set press. range	MAX. Flow	Port
RV-06SS-FN4-A	50-150 psig	5.9L/min water	1/4Female NPT
RV-06SS-FN4-B	151-350 psig	5.6L/min water	1/4Female NPT
RV-06SS-FN4-C	351-750 psig	5.7L/min water	1/4Female NPT
RV-06SS-FN4-D	751-1500 psig	5.7L/min water	1/4Female NPT
RV-06SS-FN4-E	1501-3000 psig	6.1L/min water	1/4Female NPT
RV-06SS-FN4-F	3001-6000 psig	6.1L/min water	1/4Female NPT

Ordering codes listed are standard. Other sizes, materials and types are available upon request. For special requirements, please contact us.

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