BVF

CATALOGUE-2022

Pressure control solutions for your fluid system

SUMMARY

Major considerations in the selection of a regulator are listed here.Within the requirements of your specific application,use this catalog to find the regulator that matches your parameters.Our standard products are only a starting point. We can modify or create a control that will solve any application problem. Detailed information is available through your local BVF representative.

BVF regulators is a leading designer and manufacturer of standardized and specialty pressure regulators, diaphragm valves, and filters to the analytical, instrumentation, petrochemical, oil & gas, and specialty gas industries. BVF Regulators and Valves are designed to fulfill a wide range of applications, controlling pressure while accommodating low to moderate flow rates of many gases and liquids.

BVF manufacture located at Xiang'he city,is very closed to Beijing.BVF has two representative offices in Beijing and Shanghai,and a international sales office in NSW of Australia.please view our website. http://www.bvftech.com and http://www.bvf.com.cn

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Component Material Selection Guide

Material	CODE	Features	Disadvantages
Plastic	PTFE Telfon	Best chemical resistance	Soft
	PCTFE	Pressure above or temperature lower than the PTFE option is preferred	Less resistant than the chemicals found in PTFE
	PEEK	Excellent resistance to acids and good mechanical strength。	Halogens and aromatic are not applicable
	POLYMIDE	High temperature and pressure resistance, chemical corrosion resistance	expensive
Rubber	BNR	Excellent resistance, low cost	No use for ketones, esters, and nitrogenous mediators of acids and bases
	FKM VITON	Widused, oil resistance and high temperature resistance	Not suitable for Ketones, low molecular weight esters
	PU	Good solvent resistance and wear resistance	No use in thick acids, ketones, chlorination, and nitrogenous hydrocarbons
	FFKM	Keep elasticity and chemical stability of PTFE	expensive
Metal	Copper plated nickel	Use for non-corrosive	NO
	316SS	the best choice for high temperature and high pressure and corrosive	NO
	Hastelloy alloy	Good corrosion resistance and thermal stability	
	Monel	Used for seawater and steam and salt	

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Pressure reducing regulators

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Back Pressure Regulators

Special Pressure Regulators

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Valves Fittings & Accessories

Pressure regulators

- Pressure reducing regulators
- Back pressure regulators
- Custom applications

BR0 Economical Pressure regulators

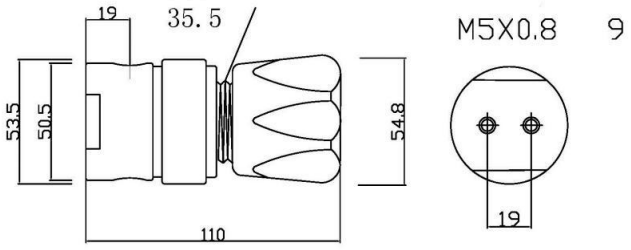
The BR0 series is applied to laboratory gas cylinder pressure relief valves with excellent accuracy and stability.

Features & Specifications

- For gas or liquids
- Choose of plated nickel or stainless steel
- Inlet 20um filter
- Optional rubber or metal diaphragm seal
- Maximum inlet pressure of 3000psi (207bar)
- Pressure control range: 0-500psi(34.4bar)
- Flow coefficients(CV) 0.06
- NPT 1 / 4 " F threaded connection
- Weight: 0.84KG

Seal material	Inlet pressure (maximum)	Working temperature (maximum)
PU	20 MPa	80°C
VITON	2 MPa	121°C

unit ㎜



BR0 Series How to Order

BR 0 — A 1 A B C 1 1 1 1

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316LSS B = Brass,Nickle-plated

2 Seat materials

1 = PU(Standard) 3 = VITON

3 PORT CONFIGURATION

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4 OUTLET RANGE

B = 0 - 6 psi (0 - 0.41 bar) C = 0 - 10 psi (0 - 0.69 bar)

D = 0 - 25 psi（0 - 1.7 bar) E = 0 - 50 psi （0 - 3.4 bar)

F = 0 - 100 psi（0 - 6.8 bar) G = 0 - 250 psi（0 - 17.2 bar)

H = 0 -350 psi（0 - 24.1 bar) J = 0 - 500 psi（0 - 34.4 bar)

5 DIAPHRAGM materials

C = PTFE/NBR（STANDRAD) D = PTFE/METAL E = PTFE/VITON

6 Handle & CAP ASSEMBLY

1 = Standard 2 = Panel mount, aluminum 3 = Panel mount（SS)

7 Gauge

0 = No gauge 1 = SS GAUGE(OLD) 2 = SS GAUGE(NEW)

8 Inlet port options

0 = no 1 = CGA 2= Tube fitting 3 = HOSE

9 Outlet port options

0 = no 1 = Tube fitting 2 = Cylinder fitting 3 = Bleed valves

BR1 series pressure regulator

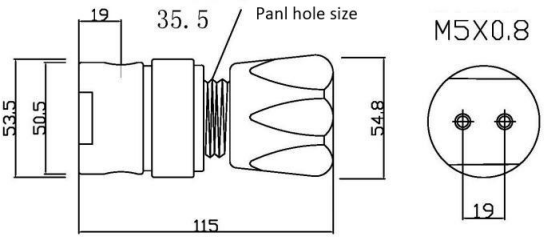
BR1 Series is a versatile pressure reducing regulator designed to fulfill a wide range of needs in instrumentation sample systems and other applications such as semiconductor processing gases. Many features of the BR-1 make it ideal for a wide range of applications controlling pressures at low to moderate flows in gas or liquid service. 316L body material is used to facilitate welded connections. Stainless steel caps and adjusting screws prevent atmospheric corrosion and maintain appearance. Four different seat materials, three alternate orifice sizes and seven pressure control ranges with stainless diaphragms offer the user a wide spectrum of capabilities for pressure control with inlet pressures up to 6000 psig and standard operating temperatures up to 500° F (260° C).

Features & Specifications

- Gases or liquids services
- 316L stainless steel or HC alloy body,Weight:0.86kg
- Maximum inlet pressure 6000psi(414bar)
- Metal diaphragm or liquid Application diaphragm
- Multiple inlet and outlet port types
- Pressure control range: 0-500psi(34.4bar)
- Cv flow coefficients 0.025, 0.06, 0.20, and 0.50 (0.06 standard)
- Entrance 20,40,80um filter
- Captured vent.Special fi ttings and Self-relieving options

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
POLYIMIDE	500°F/(260°C)	6000 psig (41.4 MPa)

Unit： mm



BR1 Series How to order:

BR 1 —	A	1	A	1	E	1	A	1	0
	1	2	3	4	5	6	7	8	9

1 Body materials

A = 316L SS B = Hastolly C Alloy C = Monel Alloy D = Brass

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = POLYIMIDE

3 Port configurations

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4 Process port style

1=1/4" FNPT Other options contact your local sales office

5 Outlet pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar)

E = 0 - 50 psi （0 - 3.4 bar) F = 0 - 100 psi（0 - 6.8 bar)

G = 0 - 250 psi（0 - 17.2 bar) J = 0 - 500 psi（0 - 34.4 bar)

6 Flow coefficients（Cv）

1 = 0.06（Standard) 2 = 0.025 3 = 0.2 4 = 0.5

7 DIAPHRAGM TYPE

A = SS diaphragm B = Self-relieving

C = VITON diaphragm D = Special diaphragm assembly for liquid service

8 Handle and panel mount

1 = Standard handle 2 = Panel mount,aluminum 3 = Tighten nut

4 =Tamper-proof, stainless steel 5 = Metal knob 6 = Metal knob, panel mount

7 = Captured vent, panel mount, stainless steel

9 Process gauge and special options

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new) 3 = relief valves

BR2 Series Medium Pressure Regulator

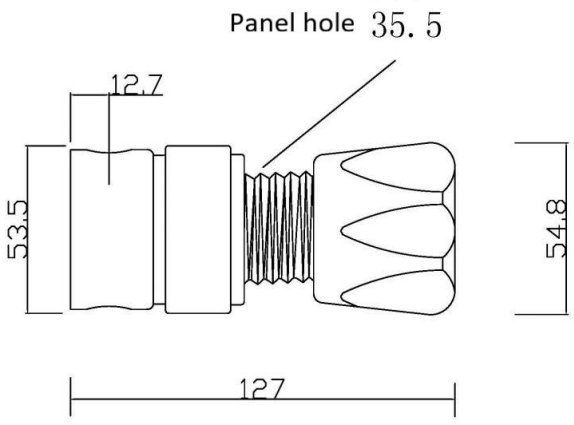
BR2 series is equipped with high adjustment accuracy and small installation space for a piston design with an outlet pressure of up to 3000PSI .To meet the economic,small space,medium to high pressure control,BVF release this high quality 316SS BR2 series pressure regulator

Features & Specifications

- Piston type design is compact
- 316L stainless steel material
- Inlet 40um filter
- A variety of valve seat sealing materials are available
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range of 0-3000psi (207bar)
- Flow coefficients (CV)0.06/0.025/0.2
- NPT 1 / 4 " F threaded connection
- Weight 1KG

Seat material	maximum temperature	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
POLYIMIDE	500°F/(260°C)	6000 psig (41.4 MPa)

Unit : mm



BR2 series How to order:

BR2 — A 1 A 1 N 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body material

A =316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PCTFE（Standard） 2 = PEEK 3 = POLYIMIDE 4 = PTFE (outlet max 1000PSI)

3 Port configurations

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4 Process port style

1=1/4” FNPT Other options contact your local sales office

5 Pressure control range

L = 0-1000psi（0–69bar） N = 0-2000psi（0-138bar） I = 0-3000psi（0-207bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard） 2 = 0.025 3 = 0.2

7 Piston style

P = 316L piston

8 Handle and mount style

1 = Standard handle 2 = Panel mount,aluminum 3 = Tighten nut

4 =Tamper-proof, stainless steel 5 = Metal knob 6 = Metal knob, panel mount

7 = Captured vent, panel mount, stainless steel

9 Process gauge

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new)

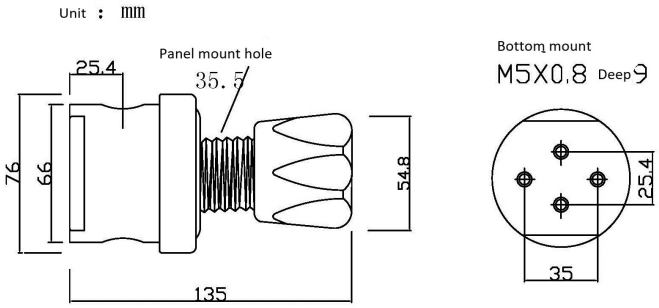
BR3 Series Ultra High Flow Adjustable Pressure Reducing Regulator

BR3 Series has been designed for those applications using high flow rates while still requiring a compact package. This valve has been constructed to withstand inlet pressures up to 3600 psig. With capability of holding outlet pressures closely with large changes of flow requirements, this valve is very suitable as a primary pressure supply to other pressure regulators located downstream.

Features & Specifications

- Minimal droop with large flow increased
- SS diaphragm,Body is 316L or brass Hastelloy, Monel
- T-handle in the 250 and 500 psig ranges
- Seals material : Viton, Teflon, PEEK™
- Cv flow coefficient = 1.1
- Operating temperatures up to +250° F (+121° C)
- Maximum inlet pressure of 3600 psig with PEEK™
- Inlet/outlet connections: 1/4″,1/2″ 3/4”FNPT
- Outlet pressure ranges of: 0–10, 0–25, 0–50, 0–100,0–250 & 0–500 psig
- Self-relieving, Panel mount,Captured vent optional

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F (66°C)	0-500 psig (34.4 bar)
PCTFE	175°F (80°C)	0-500 psig (34.4 bar)
Viton	250°F (121°C)	0-250 psig(17.2bar)
PEEK	260°C(500)°F	0-500 psig (34.4 bar)



BR3 Series How to order

BR3 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = PTFE (Inlet max pressure 500psi)New 2 = PCTFE 3 = PU

4 = Viton 5 = PTFE (Inlet upto 1000psi)old 6 = PEEK

3 Port configurations Page 72

4 Process port style

1 = 1/2" FNPT 2 = 1/4" FNPT 3 = 3/4"FNPT

(Other options contact your local sales office)

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） J = 0 - 500 psi（0 - 34.4 bar）

Note: T handle for outlet pressure higher than 200 psi

6 Flow coefficients（Cv）

1 = 1.1 2 = 1.8 (outlet pressure upto 200PSI)

7 DIAPHRAGM TYPE

A = stainless steel B =stainless steel/Self-relieving C = VITON diaphragm

8 Handle & mounting

1 = Standard 2 = Panel mount, standard 3 =Anti-loose tight

4 = tighten bottle 5 = Metal Handle 6 = Panel mount, metal handle

7 = T handle 8 = Panel mount, stainless steel

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

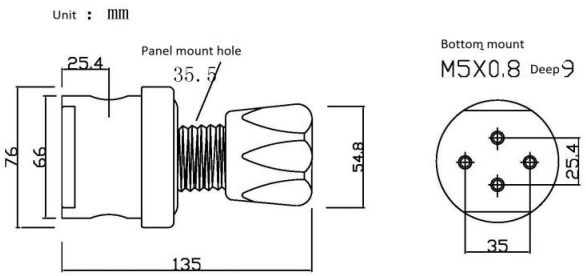
BR3L Series High Sensitivity Pressure Reducing Regulator

BR3L series pressure reducing regulator is designed to furnish precise low outlet pressure control to analytical instrumentation. With the combination of the large diaphragm sensing area of the BR3 Series regulator and the low flow seat assembly of theBR1 Series pressure regulator,pressure control down to 10 inches of water is easily obtainable.

Features & Specifications

- Used for corrosive gases or liquids
- Same style and size as BR3
- Inlet 20um filter
- Options seat and sealing materials are vailable
- Maximum inlet pressure of 3000psi (207bar)
- Pressure control range: 0-250psi(17.2bar)
- (CV)0.06/ 0.025 / 0.2 / 0.5
- NPT1 / 2 "F NPT1 / 4" F threaded connection
- Weight: 1.45KG

Seat material	Maximum temperature	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7MPa)
PCTFE	175°F /(80°C)	3000 psig (20.7MPa)
PEEK	500°F/(260°C)	3000 psig (20.7MPa)
POLYIMIDE	500°F/(260°C)	3000 psig (20.7MPa)



BR3L Series How to order

BR3L — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = POLYIMIDE

3 Port configurations Page 72

4 Process port style

1=1/2” FNPT 2 = 1/4” FNPT Other options contact your local sales office

5 Pressure control range

B = 0 - 6 psi (0 - 0.45bar) C = 0 - 10 psi (0 - 0.69bar)

D = 0 - 25 psi（0 - 1.7 bar） E = 0 - 50 psi （0 - 3.4 bar）

F = 0 - 100 psi（0 - 6.8 bar） G = 0 - 250 psi（0 - 17.2 bar）

6 Flow coefficients（Cv）

1 = 0.06 2 = 0.025 3 = 0.2 4 = 0.5

7 DIAPHRAGM TYPE

A = Stainless steel B =Stainless steel/Self-relieving C = VITON diaphragm

8 Handle & mounting

1 = Standard 2 = Panel mount, standard 3 =Anti-loose tight

4 = tighten bottle 5 = Metal Handle 6 = Panel mount, metal handle

7 = T handle 8 = Panel mount, stainless steel

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

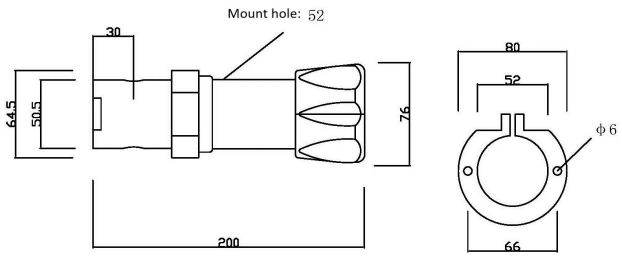
BR5 Series Corrosion Resistant High Pressure Regulator

To meet the demands for the safe reduction of inlet pressures up to 10,000 psig, BVF Regulator has designed the BR5 Series regulator.This precision regulator features a piston sensing design which provides the operator with low adjusting torque requirements when setting the outlet pressure. The body is constructed from 316L stainless steel, providing the ultimate in safety and corrosion resistance.The optional self-relieving feature provides an additional level in operational ease, as it allows for trapped downstream pressure to be safely vented to atmosphere through the bonnet.

Features & Specifications

- Gas or liquid service
- Stainless steel spring loaded piston sensor
- Ball roller bearings are easy to operate
- Many seat&sealing materials
- Maximum inlet pressure of 10,000 psi
- Pressure control range of 6000psi
- Cv flow coefficient 0.05 or 0.2
- NPT1 / 4 " F threaded connection
- Weight 2KG

Seat material	Maximum temperature	Maximum inlet pressure
PEEK	500° F (260° C)	10000 psig (68.9 MPa)
POLYIMIDE	500° F (260° C)	10000 psig (68.9 MPa)



BR5 Series How to order

BR5 — A 1 A 1 D 1 P 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS　　B = HastollyC Alloy　　C = Monel Alloy

2 Seat materials

3 = PEEK　　4 = POLYIMIDE

3 Port configurations　　Page 72

4 Process port style

1=1/4” FNPT　Other options contact your local sales office

5 Pressure control range

D = 0 - 1000 psi （0 - 68.9bar）　F = 0 - 2000psi (0 - 137.9 bar)

E = 0 - 4000 psi（0 - 275.8bar）　G = 0 - 6000psi（0 - 413.7 bar）

6 Flow coefficients（Cv）

1 = 0.05（Standard）　　3 = 0.2

7 Piston type

P = SS Piston　　V = SS Piston/Self-relieving

8 Handle & mounting

1 = Standard　　2 = Panel mount, standard

9 Pressure gauge options

0 = No　　1 = SS Gauge (old)　2 = SS gauge(New)

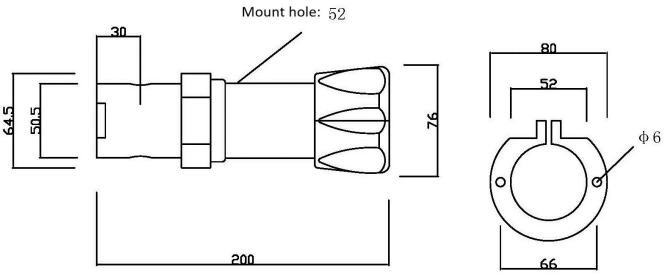
BR6 Series Diaphragm Type High Pressure Regulator

The BR6 Series pressure regulator is designed to meet the demands for outlet pressures up to 1500 psig while maintaining superior corrosion protection.The optional self-relieving feature provides an additional level in operational ease,as it allows for trapped downstream pressure to be safely vented to atmosphere through the bonnet.

Features & Specifications

- Can be used for corrosive gases or liquids
- Pistons and diaphragm combination, high precision, safe and reliable
- Ball roller bearings are easy to operate
- Many seat materials are available
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range: 1500psi (103bar)
- (CV)0.06/0.025/0.2
- NPT1 / 4 " F threaded connection
- Weight 2KG

Seat material	Maximum temperature	Maximum inlet pressure
PTFE	150° F (66° C)	3000 psig (20.7MPa)
PCTFE	175° F (80° C)	6000 psig (41.4MPa)
PEEK	500° F (260° C)	6000 psig (41.4MPa)
POLYIMIDE	500° F (260° C)	6000 psig (41.4MPa)



BR6 Series How to order

BR6 — A 1 A 1 D 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = POLYIMIDE

3 Port configurations Page 72

4 Process port style

1=1/4” FNPT Other options contact your local sales office

5 Pressure control range

D = 0-1000psi（0-68.9bar） L = 0-1500psi（0-103bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard） 2 = 0.025 3 = 0.2

7 Piston type

A = PTFE/316SS B = PCTFE/316SS

8 Handle & mounting

1 = Standard 2 = Panel mount, standard

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

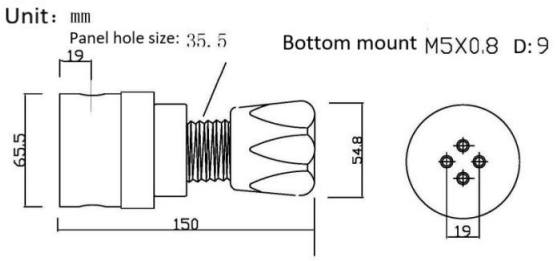
BR7 High accuracy micro-adjustment pressure regulators

BR7 series uses 316L stainless steel bellows structure design, used for low pressure range of precision adjustment control, large straight.The radial bellows without perforation improves the pressure sensing sensitivity for accurate adjustment.

Features & Specifications

- It can be used for corrosive gases or liquids
- Design of the bellows structure
- 316L stainless steel body
- Inlet with 20um filter element
- inlet pressure upto300psi（20.7bar）
- Pressure control range 0 to 5psi(34.47kpa)
- CV：0.2
- Weight: 1.45KG
- NPT1 / 4 " F threaded connection

Seal material	Maximum temperature	Maximum inlet pressure
VITON	121°C	20bar



BR7 Series How to order

BR7 — A 1 A 1 E 3 A 1

1 2 3 4 5 6 7 8

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = VITON

3 Port configurations Page 72

4 Process port style

1=1/4” FNPT Other options contact your local sales office

5 Pressure control range

C = 0 - 1psi (0 -6.89kpa) D = 0 - 3 psi（0 -20.68kpa）

E = 0 - 5psi（0 - 34.47kpa）

6 Flow coefficients（Cv） 3 = 0.2

7 Handle & mounting

1 = Standard 2 = Panel mount, standard 3 =Anti-loose tight 4 = tighten bottle

5 = Metal Handle 6 = Panel mount, metal handle 7 = SS Panel mount

8 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

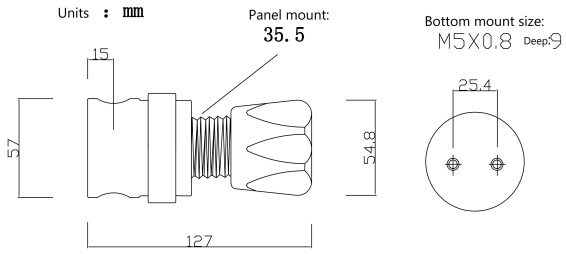
BR8 Series high accuracy pressure regulators

BR8 series is a high-precision diaphragm induction pressure reducing valve with a maximum pressure control range of 0-250 PSI offering a variety of flow Cv options.

Features & Specifications

- It can be used for corrosive gases or liquids
- Design of the Diaphragm structure
- 316L stainless steel body
- Inlet with 20um filter element
- Maximum inlet pressure of 6000 psi (414bar)
- Pressure control range: 0-250psi(17.2bar)
- Flow factor (CV)0.06/0.2/0.6
- NPT 3 / 8 " F thread connection
- Weight is 1.25 KG

Seal material	Maximum temperature	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
POLYIMIDE	500°F/(260°C)	6000 psig (41.4 MPa)



BR8 Series How to order

BR8 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS　　B = HastollyC Alloy　　C = Monel Alloy

2 Seat materials

1 = PTFE （Standard）　　2 = PCTFE　3 = PEEK　4 = POLYIMIDE

3 Port configurations　　Page 72

4 Process port style

1=3/8” FNPT　Other options contact your local sales office

5 Pressure control range

E = 0 to 50 psi （0 to 3.4 bar）　　F = 0 to 100 psi（0 to 6.8 bar）

G = 0 to 250 psi（0 to 17.2 bar）

6 Flow coefficients（Cv）　1 = 0.6（Standard）　2 = 0.06　3 = 0.2

7 Diaphragm Types

A = VITON diaphragm（Standard）　B = VITON/PTFE Dual-diaphragm

C = Self-Relieving

8 Handle & mounting

1 = Standard　2 = Panel mount, standard　3 =Anti-loose tight　4 = tighten bottle

5 = Metal Handle　6 = Panel mount, metal handle　7 = SS Panel mount

9 Pressure gauge options

0 = No　1 = SS Gauge (old)　2 = SS gauge(New)

BR10 Series High Sensitive Low Pressure Regulator

BR10 is designed according to the structural characteristics of BR1 and BR0, enabling pressure control at low pressure with high sensitivity and high flow to minimize attenuation.It is widely used in the fluid output of low-pressure systems and retains the exterior size of BR1 for better exchange.

Features & Specifications

- Can be used for corrosive gases or liquids
- Optional stainless steel, VITON diaphragm seal
- 316L stainless steel body
- Inlet with 20um / 60um filter element
- Maximum inlet pressure of 300psi(20.7bar)
- Pressure control range from 0 to 250psi(17.2bar)
- Flow coefficients(Cv) 0.2
- NPT1 / 4 " F threaded connection
- Operating temperature upto + 204°C (400 °F)

Seal material	Maximum temperature	Maximum inlet pressure
VITON	20.7bar	204°C

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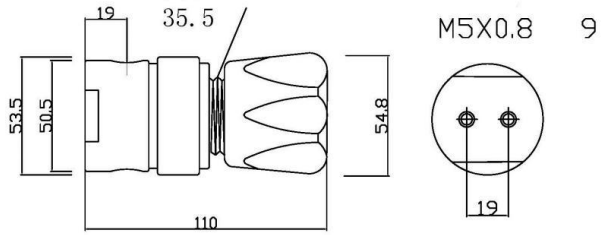


BR10 Series How to order

BR10 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = VITON

3 Port configurations Page 72

4 Process port style

1=1/4” FNPT Other options contact your local sales office

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） I = 0 -15 psi（0 -1.03 bar）

6 Flow coefficients（Cv） 3 = 0.2

7 DIAPHRAGM TYPE

A = PTFE/ALLOY diaphragm B =SS with Self-relieving C =PTFE/ VITON diaphragm

D = Special diaphragm assembly for liquid service

8 Handle & mounting

1 = Standard 2 = Panel mount, standard 3 =Anti-loose tight 4 = tighten bottle

5 = Metal Handle 6 = Panel mount, metal handle 7 = SS Panel mount

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

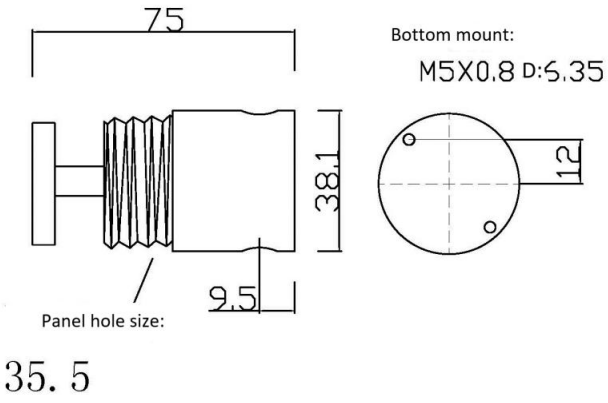
BR11 Ultra Miniature Pressure Regulator

BR11 is an ultra-miniature pressure regulator that has many of the same features found in the time-tested design of the BR0 & BR1 series Pressure regulators.。

Features & Specifications

- Gas or liquid service
- 316 Stainless steel structure
- 20 micron inlet filter
- Special diaphragm seal for metal or fluorine rubber
- Micro volume
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv 0.025 or 0.06
- NPT 1 / 8 " F threaded connection
- weighs 350 grams

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
POLYIMIDE	500°F/(260°C)	6000 psig (41.4 MPa)



BR11 Series How to order

BR11 — A 1 A 1 E 1 A 1

1 2 3 4 5 6 7 8

1 Body materials

A = 316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = POLYIMIDE

3 Port configurations

Page 72

4 Process port style

1=1/8” FNPT

5 Outlet pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） J = 0 - 500 psi（0 - 34.4 bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard） 2 = 0.025

7 DIAPHRAGM TYPE

A = Stainless steel B = VITON diaphragm

8 Handle and mount

1 = Standard handle 2 = Panel mount,aluminum

3 = Tighten nut 4 =Tamper-proof, stainless steel

7 = T Metal knob 8 = panel mount, stainless steel

BR12 Medium-High pressure Miniature Pressure Regulator

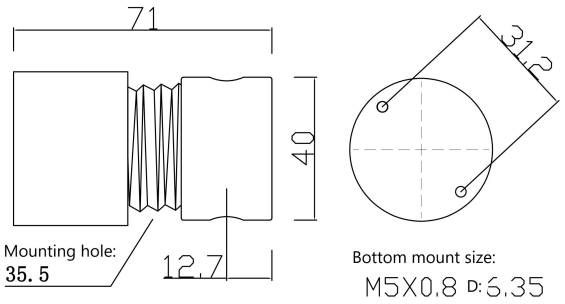
BR12 series is a mini stainless steel piston induction pressure reducing valve, light in weight, small in installation volume and light in weight, suitable for the use of small space.

Features & Specifications

- Gas or liquid service
- 316 Stainless steel structure
- 40 micron inlet filter
- Stainless steel piston design
- Micro volume
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range: 0-1500psi(100bar)
- Cv 0.06
- NPT 1 / 8 " F threaded connection
- weighs 500 grams

Seat material	Temperature (max)	Maximum inlet pressure
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)

Units : mm



BR12 Series How to order

BR12	—	A	1	A	1	N	1	A	1	0
		1	2	3	4	5	6	7	8	9

1 Body materials

A = 316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PCTFE(Standard)

3 Port configurations

Page 72

4 Process port style

1=1/8” FNPT

5 Outlet pressure control range

F = 0-100psi（0–6.9bar） G = 0-250psi（0-17.2bar） J = 0-500psi（0-34.4bar）

L = 0-1000 psi（0–69bar） M = 0-1500 psi（0-103bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard）

7 PISTON TYPE

A = Stainless steel

8 Handle and mount

1 = Standard handle 2 = Panel mount,aluminum

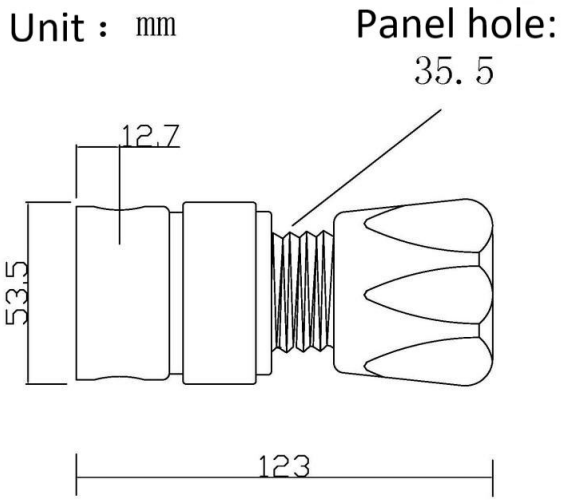
BR18 Series Medium-High Pressure Regulators

The BR18 series is an economical stainless steel piston induction pressure relief valve, with light weight and small installation space and outlet pressure up to 3000PSI.

Features & Specifications

- The piston-type design is compact
- 316L stainless steel material structure
- 40 micron inlet filter
- Internal volume is small
- Max. Inlet pressure: 6000psi (414bar)
- Pressure control range of 0-3000psi (207bar)
- Cv flow coefficient 0.06
- NPT 1 / 4 " F threaded connection
- Weight: 0.9KG

Seat material	Temperature (max)	Maximum inlet pressure
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)



BR18 Series How to order

BR18 — A 1 A 1 N 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body material

A =316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PCTFE（Standard）

3 Port configurations

Page 72

4 Process port style

1=1/4” FNPT Other options contact your local sales office

5 Pressure control range

L = 0-1000psi（0–69bar） N = 0-2000psi（0-138bar） I = 0-3000psi（0-207bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard）

7 Piston style

P = 316L piston

8 Handle and mount style

1 = Standard handle 2 = Panel mount,aluminum

3 = Tighten nut 4 =Tamper-proof, stainless steel

5 = Metal knob 6 = Metal knob, panel mount

7 = Captured vent, panel mount, stainless steel

9 Process gauge

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new)

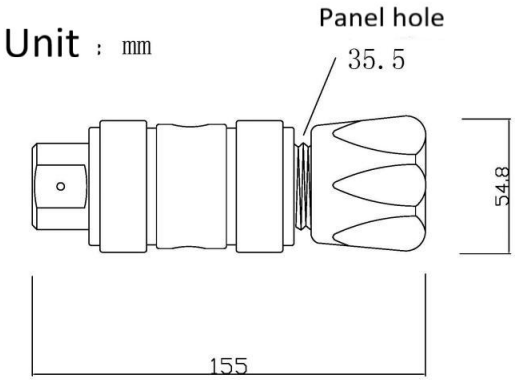
BR20 Series Two-stage Pressure Reducing Regulator

B20 series is a two-stage pressure reducing Regulator, mainly used when the inlet pressure varies greatly, along with the outlet pressure request for accurate and stable occasions.This two-stage regulator is equivalent to connecting two first-stage regulators together. It greatly reduces the impact of the outlet pressure of the pressure in the cylinder.

Features & Specifications

- Gas or liquids service
- Stainless steel or rubber material diaphragm
- 20,40,80um filter inlet
- The pressure different range 0.01%
- Excellent and stable outlet control
- Max. inlet pressure of 3000psi (200bar)
- Pressure control range: 0-500psi(34.4bar)
- Flow coefficients（Cv）0.06
- NPT 1 / 4 " F threaded connection
- Weight is 1.5KG

Seat material	Temperature (max)	Maximum inlet pressure
PU	20 MPa	80°C
VITON	2 MPa	121°C



BR20 Series How to order

BR20 — A 1 A 1 E 1 1 A 1 1

1 2 3 4 5 6 7 8 9 10

1 Body material

A =316L SS

2 Seat materials

1 = PU 3= VITON

3 Port configurations Page 72

4 Process port style

1=1/4" FNPT Other options contact your local sales office

5 Outlet pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） J = 0 - 500 psi（0 - 34.4 bar）

6 DIAPHRAGM Materials

A = Stainless steel diaphragm B = PU/ NBR C = PTFE/VITON

7 Handle and mount style

1 = Standard handle 2 = First stage panel installation

3 = Second stage panel installation 4 = First/Second stage panel installation

8 Process gauge

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new)

9 Relief valves

0 = N 1 = Y

BR21 Series Two-stage Pressure Reducing Regulator

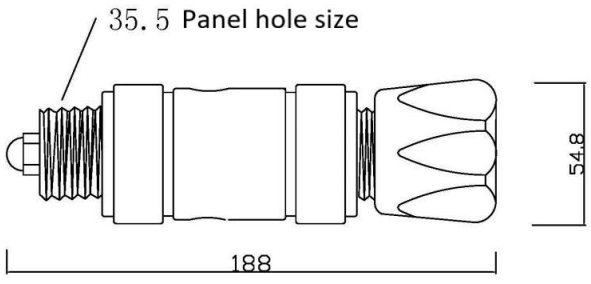
BR21 Series regulator is now possible of precision pressure control.This two-stage regulator, constructed of 316L stainless steel and Teflon, has less than 0.01 percent outlet pressure change with varying inlet pressures and is designed for use in gas calibration systems and semiconductor materials processing.With materials of only 316L stainless steel, Teflon and Peek, this regulator is suitable for service in corrosive streams as well as non-corrosive streams with potential surface absorption problems. This regulator accepts inlet pressures up to 6000 psig and has bubble-tight shutoff .Operating temperature ranges may vary from －40° C up to +260° C and outlet pressure ranges of 0–10 psig up to 0–500 psig are easily adjustable by a fluted knob

Features & Specifications

- Corrosive gases or liquids services
- More selection of seal/seat materials
- 20,40,80um filter inlet
- The impact of the supply pressure is about 0.01%
- Excellent and stable output pressure
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- (CV)0.06/0.025/0.2/0.5
- NPT 1 / 4 " F connection
- Weight: 1.9KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
POLYIMIDE	500°F/(260°C)	6000 psig (41.4 MPa)

Units: mm



BR21 Series How to order

BR21 — A 1 A 1 E 1 1 A 1 1

1 2 3 4 5 6 7 8 9 10

1 Body material

A =316/316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = POLYMIDE 5 = VITON

3 Port configurations

Page 72

4 Process port style

1=1/4" FNPT Other options contact your local sales office

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） J = 0 - 500 psi（0 - 34.4 bar）

6 Fist stage Flow coefficients（Cv）

1 = 0.06（standard） 2 = 0.025 3 = 0.2 4 = 0.5

7 Second stage Flow coefficients（Cv）

1 = 0.06（standard） 2 = 0.025 3 = 0.2 4 = 0.5

8 DIAPHRAGM Materials

A = Stainless steel diaphragm B = Stainless steel diaphragm/self relief

C = PTFE/VITON D=with bleed/relief valves

9 Handle and mount style

1 = Standard handle 2 = First stage panel installation

3 = Second stage panel installation 4 = First/Second stage panel installation

8 Process gauge

3 = No gauge/bleed valves 1 = SS gauge(old) 2 = SS gauge((new)

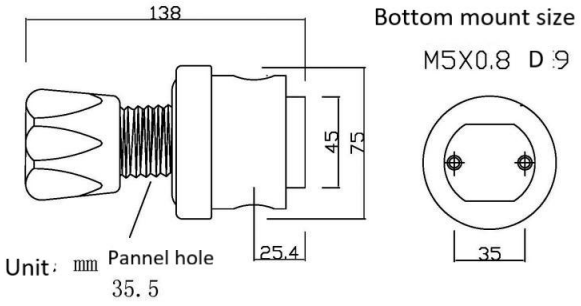
BR32 Series High Pressure/High Flow Pressure Regulators

BR32 series pressure regulators is designed to meet the piston structure with a high flow outlet pressure of 3000psi (206bar), the pressure compensation design of the poppet valve reduce the impact on the outlet when the inlet pressure changes.

Features & Specifications

- Corrosive gases or liquids services
- A large size piston sensor
- 40um filter inlet
- More selection of seal/seat materials
- Inlet pressure up to 4000psi(276bar)
- Pressure control O-3000psi(206bar)
- Flow coefficients (CV)1.0
- NPT 1 / 2 " F thread connection
- Weight: 2KG

Seat material	Temperature (max)	Maximum inlet pressure
PCTFE	175°F (80°C)	4000 psig (27.6 MPa)
PEEK	392°F/(200°C)	4000 psig (27.6 MPa)



BR32 Series How to order

BR32 —	A	1	A	1	E	1	A	1	0
	1	2	3	4	5	6	7	8	9

1 Body material

A =316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PCTFE 2 = PEEK

3 Port configurations

Page 72

4 Process port style

1=1/2" FNPT Other options contact your local sales office

5 Pressure control range

L = 0-1000psi（0–69bar） N = 0-2000psi（0-138bar） I = 0-3000psi（0-207bar）

6 Flow coefficients（Cv）

1 = 1.0

7 Piston style

P = 316L piston

8 Handle & mounting

1 = Standard 2 = Panel mount, standard 3 =Anti-loose tight

4 = tighten bottle 5 = Metal Handle 6 = Panel mount, metal handle

7 = T handle 8 = Panel mount, stainless steel

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

BP1 Series Adjustable Back Pressure Regulators

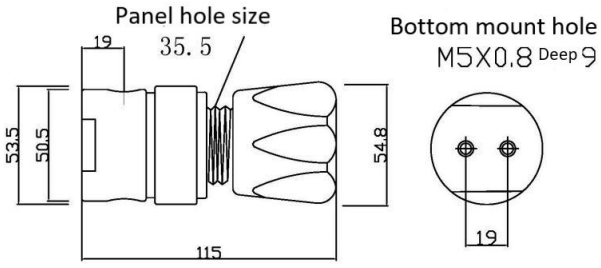
The BP1 Series is designed for either liquid or gas service in instrumentation systems. Similar in design to pressure reducing control regulators which regulate outlet pressures,back pressure regulators control the inlet pressure. In low flow or closed systems, over-pressures often are released by pressure relief valves. This type of relief is on-off with no throttling control. In contrast to relief valves, the back pressure control regulator with its throttling action substantially improves system pressure regulation.

Features & Specifications

- Corrosive gases or liquids service
- Optional metal, rubber diaphragm seal
- 316L stainless steel and other optional materials
- Multiple seal and seat material
- Pressure control range from 0 to 500psi (34.4 bar)
- Flow coefficients (CV)0.06/0.025/0.01/0.2/0.3
- NPT1 / 4 " F threaded connection
- Maximum operating temperature: 260°C (500 °F)
- Weight: 0.86KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	66°C(150)°F	0-500psi(34.4)bar
PCTFE	130°C(266)°F	0-500psi(34.4)bar
Viton	121°C(250)°F	0-250psi(17.2)bar
PEEK	260°C(500)°F	0-500psi(34.4)bar

Units： ㎜



BP1 Series How to order

BP 1 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS　　B = Hastolly C Alloy　　C = Monel Alloy

2 Seat materials

1 = PTFE　　2 = PCTFE　　3 = PEEK　　4 = POLYIMIDE

3 Port configurations

Page 72

4 Process port style

1=1/4” FNPT　Other options contact your local sales office

5 Outlet pressure control range

C = 0 - 10 psi (0 - 0.69bar)　　D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5　　5 = 0.3

7 DIAPHRAGM TYPE

A = SS diaphragm　B = VITON diaphragm

8 Handle and panel mount

1 = Standard handle　　2 = Panel mount,aluminum　　3 = Tighten nut

4 =Tamper-proof, stainless steel　5 = Metal knob　　6 = Metal knob, panel mount

7 = Captured vent, panel mount, stainless steel

9 Process gauge and special options

0 = No gauge　　1 = SS gauge(old)　2 = SS gauge((new)

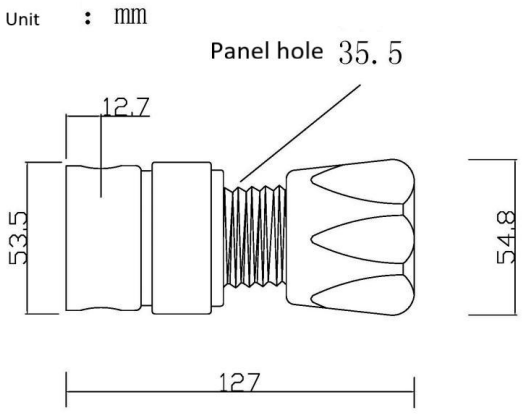
BP2 Series Medium Pressure Back Pressure Regulators

The BP2 back pressure valve is a stainless steel piston induction design, light weight, small installation space, and control pressure up to 3000PSI can be achieved enough to meet needs in multiple gas or liquid applications

Features & Specifications

- Corrosive gases or liquids service
- Optional metal, rubber diaphragm seal
- 316L stainless steel and other optional materials
- Multiple seal and seat material
- Pressure control range 0-3000psi(206.8bar)
- Flow coefficients (CV)0.06
- NPT1 / 4 " F threaded connection
- Maximum working temperature: 260°C (500 °F)
- Weight: 1KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	66°C(150)°F	0-1000psi/68bar
PCTFE	130°C(266)°F	0-3000psi/207bar
PEEK	260°C(500)°F	0-3000psi/207bar



BP2 Series How to order

BP 2 — A 1 A 1 N 1 P 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS　　B = Hastolly C Alloy　　C = Monel Alloy

2 Seat materials

1 = PTFE　　2 = PCTFE　3 = PEEK　4 = POLYIMIDE

3 Port configurations

Page 72

4 Process port style

1=1/4" FNPT　Other options contact your local sales office

5 Outlet pressure control range

L = 0-1000psi（0–69bar）　　N = 0-2000psi（0-138bar）　　I = 0-3000psi（0-207bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard）

7 DIAPHRAGM TYPE

P=Piston SS

8 Handle and panel mount

1 = Standard handle　2 = Panel mount,aluminum　3 = Tighten nut

4 =Tamper-proof, stainless steel　5 = Metal knob　6 = Metal knob, panel mount

7 = Captured vent, panel mount, stainless steel

9 Process gauge and special options

0 = No gauge　　1 = SS gauge(old)　2 = SS gauge((new)

BP3 Series High Flow Adjustable Back Pressure Regulator

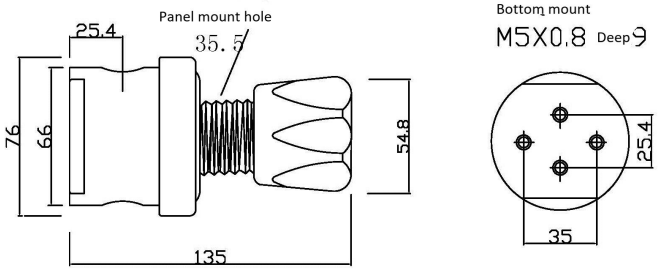
The BP3 Back Pressure Valve is a large flow back pressure valve designed based on the BR3 series pressure regyulators.The Cv is up to 1.1 and the soft seat allows the valve to accurately set the back pressure value。

Features & Specifications

- Corrosive gases or liquids service
- Large diaphragm design is sensitive
- Body material is 316L SS
- Seat materials options are available
- Max. Temperature 260°C (500°F)
- Pressure control range: 0-500psi(34.4bar)
- Cv:1.1
- NPT1/2",1/4”F threaded connection
- Weight: 1.45KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F (66°C)	0-500 psig (34.4 bar)
PCTFE	175°F (80°C)	0-500 psig (34.4 bar)
Viton	250°F (121°C)	0-250 psig(17.2bar)
PEEK	260°C(500)°F	0-500 psig (34.4 bar)

Unit : mm



BP3 Series How to order

BP3 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = Hastolly C Alloy C = Monel Alloy

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = Viton

3 Port configurations

Page 72

4 Process port style

1 = 1/2" FNPT 2 = 1/4" FNPT Other options contact your local sales office

5 Outlet pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar） F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar） J = 0 - 500 psi（0 - 34.4 bar）

Note: A T handle is required for a pressure higher than 200psi

6 Flow coefficients（Cv）

1 = 1.1（Standard）

7 DIAPHRAGM TYPE

A = Stainless steel diaphragm B = VITON

8 Handle and panel mount

1 = Standard handle 2 = Panel mount,aluminum 3 = Tighten nut

4 =Tamper-proof, stainless steel 5 = Metal knob 6 = Metal knob, panel mount

7= T handle 8 = T handle, panel mount, stainless steel

9 Process gauge and special options

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new)

BP3L Series High Sensitivity Back Pressure Regulators

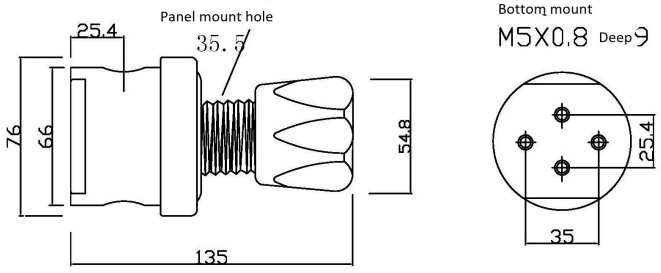
The BP3L is a low-pressure and high-precision fluid-controlled back-pressure regulator, combined with a large diaphragm design.

Features & Specifications

- Corrosive gases or liquids service
- Large diaphragm design is sensitive
- Body material is 316L SS
- Seat materials options are available
- Max. Temperature 260°C (500°F)
- Pressure control range: 0-250psi
- Cv:0.025/0.06/0.01/0.2/0.3
- NPT1/2",1/4"F threaded connection
- Weight: 1.45KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F(66° C)	0-250psig (17.2 bar)
PCTFE	175°F(80° C)	0-250psig (17.2 bar)
PEEK	500°F(260° C)	0-250psig (17.2 bar)
VITON	250°F(121° C)	0-250psig (17.2 bar)

Unit : mm



BP3L Series How to order

BP3L — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK 4 = Viton

3 Port configurations

Page 72

4 Process port style

1 = 1/2" FNPT 2 = 1/4" FNPT Other options contact your local sales office

5 Outlet pressure control range

B = 0 - 6 psi (0 - 0.45bar) C = 0 - 10 psi (0 - 0.69bar)

D = 0 - 25 psi（0 - 1.7 bar） E = 0 - 50 psi （0 - 3.4 bar）

F = 0 - 100 psi（0 - 6.8 bar） G = 0 - 250 psi（0 - 17.2 bar）

6 Flow coefficients（Cv）

1 = 1.1（Standard）

7 DIAPHRAGM TYPE

A = Stainless steel diaphragm B = VITON

8 Handle and panel mount

1 = Standard handle 2 = Panel mount,aluminum 3 = Tighten nut

4 =Tamper-proof, stainless steel 5 = Metal knob 6 = Metal knob, panel mount

7= T handle 8 = T handle, panel mount, stainless steel

9 Process gauge and special options

0 = No gauge 1 = SS gauge(old) 2 = SS gauge((new)

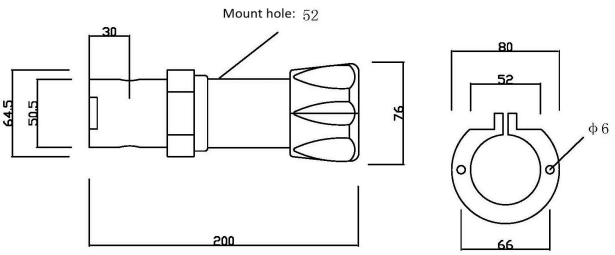
BP5 Series High Pressure Back Pressure Regulator

BP5 back pressure regulator is used for pressure regulation at the medium flow rate, provided by the piston assembly at Maximum sensitivity discharge during system over pressure.

Features & Specifications

- Corrosive gases or liquids services
- Piston-type structure, safe and reliable
- Needle roller bearings easy to operate
- Multiple seat materials are available
- Pressure control range from 0 to 6000psi (414bar)
- Maximum temperature: 260°C（500 °F）
- CV: 0.01/0.04/0.12
- NPT1 / 4 " F threaded connection
- Weight:2Kg

Seat material	Temperature (max)	Maximum inlet pressure
PEEK	500°F(260°C)	0-6000psig(414bar)
POLYIMIDE	500°F(260°C)	0-6000psig(414bar)



BP5 Series How to order

BP5 — A 3 A 1 D 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

3 = PEEK 4 = POLYIMIDE

3 Port configurations Page 72

4 Process port style

1=1/4" FNPT Other options contact your local sales office

5 Pressure control range

D = 0 - 1000 psi (0 - 68.9bar) F = 0 - 2000psi (0 - 137.9 bar)

E = 0 - 4000 psi (0 - 275.8bar) G = 0 - 6000psi (0 - 413.7 bar)

6 Flow coefficients (Cv)

1 = 0.04 (Standard) 2 = 0.01 3 = 0.12

7 Piston type

P = SS Piston

8 Handle & mounting

1 = Standard 2 = Panel mount, standard

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

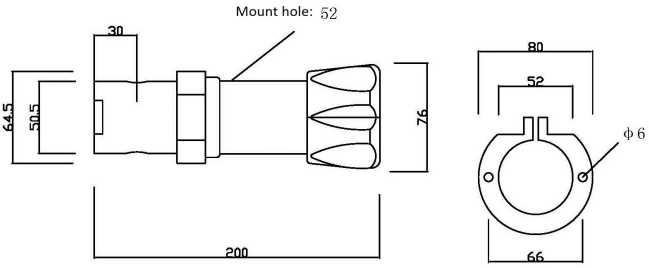
BP6 Series Medium Pressure Back Pressure Regulator

BP6 is provided by the piston diaphragm assembly for the maximum sensitivity discharge during the system over pressure. The application of the piston diaphragm assembly makes the pressure sensitive to effectively improve.

Features & Specifications

- Corrosive gases or liquids service
- Piston with diaphragm structure high precision
- Needle roller bearings are easy to operate
- Many seat materials are optional
- Pressure control range from 0 to 1500psi(103.4bar)
- Maximum temperature: 260°C（500 °F）
- Cv: 0.025 / 0.04 (standard) / 0.1
- NPT1 / 4 " F threaded connection
- Weight 2KG

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F(66°C)	0-1000psi（68.9bar）
PCTFE	175°F(80°C)	0-1500psi（103bar）
PEEK	500°F(260°C)	0-1500psi（103bar）



BP6 Series How to order

BP6 — A 1 A 1 D 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = PTFE 2 = PCTFE 3 = PEEK

3 Port configurations Page 72

4 Process port style

1=1/4" FNPT Other options contact your local sales office

5 Pressure control range

D = 0 - 1000 psi (0 - 68.9bar) L = 0 - 1500psi (0 - 103 bar)

6 Flow coefficients（Cv）

1 = 0.04（Standard） 2 = 0.025 3 = 0.1

7 Piston type

A = PTFE B = PCTFE

8 Handle & mounting

1 = Standard 2 = Panel mount

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

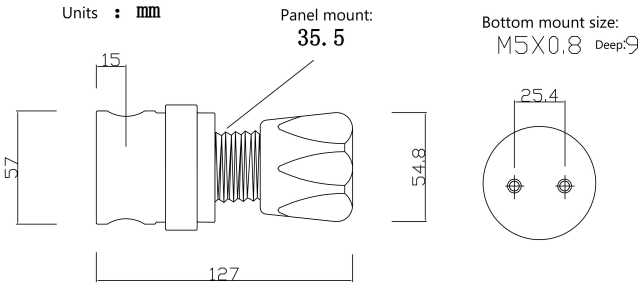
BP8 Series Medium Pressure Back Pressure Regulator

BP6 series is a high-precision diaphragm induction back pressure regulator with a maximum pressure control range of 0-250 PSI offering a variety of flow Cv options.

Features & Specifications

- It can be used for corrosive gases or liquids
- Design of the Diaphragm structure
- 316L stainless steel body
- Inlet with 20um filter element
- Maximum inlet pressure of 6000 psi (414bar)
- Pressure control range: 0-250psi(17.2bar)
- Cv: 0.06/0.2/0.6
- NPT 3 / 8 " F thread connection
- Weight is 1.25 KG

Seal material	Maximum temperature	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)



BP8 Series How to order

BP8 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

1 = PTFE

3 Port configurations

Page 72

4 Process port style

1=3/8" FNPT Other options contact your local sales office

5 Pressure control range

E = 0 to 50 psi （0 to 3.4 bar） F = 0 to 100 psi（0 to 6.8 bar）

G = 0 to 250 psi（0 to 17.2 bar）

6 Flow coefficients（Cv）

1 = 0.6（Standard） 2 = 0.06 3 = 0.2

7 Diaphragm type

A = VITON B =VITON/ PCTFE Dual-Tied

8 Handle & mounting

1 = Standard handle 2 = panel mounting (aluminum) 3 = anti-loose nut

4 = locking bolt 5 = Metal handle 6 = Metal handle with panel installation

7 = Installation with panel (stainless steel)

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

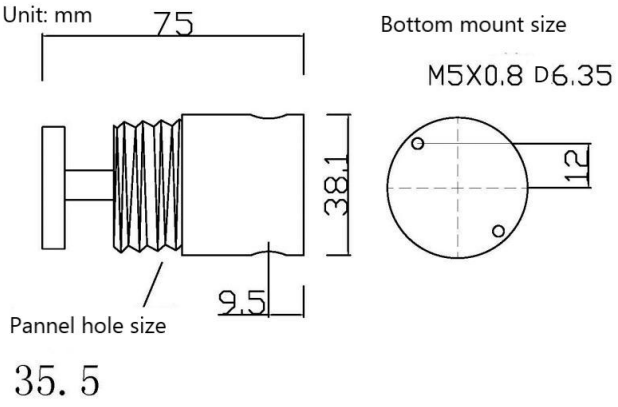
BP11 Series MINI Back Pressure Regulator

BP11 series is a MINI diaphragm-type back pressure-regulator.

Features & Specifications

- Corrosive gases or liquids service
- 316L stainless steel material
- Multiple seal materials are available
- Metal or fluorine rubber diaphragm
- MINI design
- Pressure control range: 0-500psi(34.4bar)
- Cv= 0.025 / 0.06 / 0.2
- NPT 1 / 8 " F threaded connection
- Weighs 350 grams

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	66°C(150)°F	0-500psi(34.4bar)
PCTFE	130°C(266)°F	0-500psi(34.4bar)
Viton	121°C(250)°F	0-250psi(17.2bar)
PEEK	260°C(500)°F	0-500psi(34.4bar)



BP11 Series How to order

BP11 — A 1 A 1 E 1 A 1

1 2 3 4 5 6 7 8

1 Body materials

A = 316L SS　　B = HastollyC Alloy　　C = Monel Alloy

2 Seat materials

1 = PTFE　　2 = PCTFE　　3 = PEEK　　4=Viton

3 Port configurations Page 72

4 Process port style

1=1/8" FNPT　Other options contact your local sales office

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar)　　D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

Note:Pressure over 200psi must be T metal handle

6 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.01　　4 = 0.2

7 Diaphragm type

A = SS　　B = VITON

8 Handle & mounting

1 = Standard handle　　2 = Standard handle/ Panel mount(Al)　　3 = Tighten nut

4 =Tamper-proof, stainless steel　5 = Metal knob　　6 = Metal knob, panel mount

7= T handle　8 = T handle, panel mount, stainless steel

BP12 Medium-high pressure MINI Back Pressure Regulator

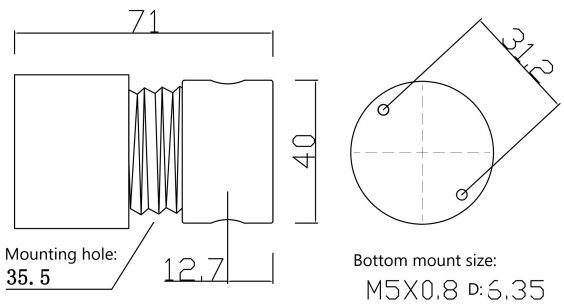
BP12 series is a mini stainless steel piston induction back pressure regulator , light in weight, small in installation volume and light in weight, suitable for the use of small space.

Features & Specifications

- Gas or liquid service
- 316 Stainless steel structure
- 40 micron inlet filter
- Stainless steel piston design
- Micro volume
- Max. inlet pressure: 6000psi (414bar)
- Pressure control range: 0-1500psi(100bar)
- Cv 0.06
- NPT 1 / 8 " F threaded connection
- weighs 500 grams

Seat material	Temperature (max)	Maximum inlet pressure
PCTFE	60°C	1000psig (68.8bar)
PEEK	260°C(500)°F	1000psig (68.8bar)

Units : mm



BP12 Series How to order

BP12	—	A	1	A	1	N	1	A	1	0
		1	2	3	4	5	6	7	8	9

1 Body materials

A = 316L SS　　B = HastollyC Alloy　　C = Monel Alloy

2 Seat materials

2 = PCTFE　　3 = PEEK

3 Port configurations　Page 72

4 Process port style

1=1/8" FNPT　Other options contact your local sales office

5 Pressure control range

F = 0-100psi（0–6.9bar）　G = 0-250psi（0-17.2bar）　J = 0-500psi（0-34.4bar）

K = 0-750PSI（0–51.6bar）　L = 0-1000psi（0–69bar）

6 Flow coefficients（Cv）

1 = 0.2（Standard）

7 Piston type

A = SS

8 Handle & mounting

1 = Standard handle　2 = Standard handle/ Panel mount(Al)

9 Pressure gauge options

0 = No　1 = SS Gauge (old)　2 = SS gauge(New)

H1BR1 Series Electrically Heated Regulators

The H1BR1 Series heated pressure regulator is designed to supply heat to samples entering instrumentation systems.It can be used to preheat liquids, to prevent condensation of gases or to vaporize liquids prior to gas analysis.The modular design of the H1BR1 consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time proven design of the BR1 pressure reducing regulator and provides the same excellent outlet pressure stability.

Features & Specifications

- Pressure control regulator is BR1
- CPU temperature module control
- Ex-box and the valve body are explosion-proof design
- The power supply is either DC or 220V AC
- Maximum inlet pressure of 3,600 p s i (248bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv:0.06/0.025/0.2/0.5
- Heating temperature range-40-120°C (302 °F)

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20.7 MPa)
PCTFE	175°F /(80°C)	3600 psig (25 MPa)
PEEK	500°F/(260°C)	3600 psig (25 MPa)
POLYIMIDE	500°F/(260°C)	3600 psig (25 MPa)

H1BR1Series How to order

H1BR1 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

A = 316L SS　　B = HastollyC Alloy　　C = Monel Alloy

2 Seat materials

1 = PTFE　　2 = PCTFE　　3 = PEEK(Standard)

3 Port configurations

Page 72

4 Process port style

1=1/4" FNPT　Other options contact your local sales office

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar)　　D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

6 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

7 Diaphragm type

A = SS　　B = VITON

8 Handle & mounting

1 = Tighten nut　　2 = Tighten nut/ Panel mount(Al)　　3 = Tamper-proof, stainless steel

4 =Tamper-proof, stainless steel / panel mount

9 Pressure gauge options

0 = No　　1 = SS Gauge (old)　2 = SS gauge(New)

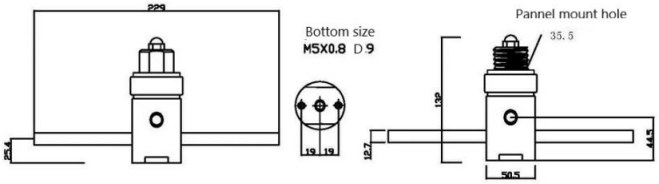
H2BR1 Series Steam Heated Regulators

H2BR1 Series heated pressure regulator is designed to supply heat to samples entering instrumentation systems. It can be used to preheat liquids, to prevent condensation of gases or to vaporize liquids prior to gas analysis.The modular design of the H2BR1 consists of heat exchanger and pressure control sections. The pressure control section is patterned after the time proven design of the BR1 pressure reducing regulator and provides the same excellent outlet pressure stability. The heat exchanger section is made up of a body and heat exchange element.

Features & Specifications

- Pressure control regulator is BR1
- 316L SS Body
- Diaphragm is metal or rubber
- Weight:1.5KG
- Maximum inlet pressure of 3,600 p s i (248bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv:0.06/0.025/0.2/0.5
- Heating temperature range-40-200°C (302 °F)
- Steam connection 1/2" tube

Seat material	Temperature (max)	Maximum inlet pressure
PEEK	500°F/(260°C)	3600psig(25MPa)
POLYIMIDE	500°F/(260°C)	3600psig(25MPa)



H2BR1 Series How to order

H2BR1 — A 1 A 1 E 1 A 1 0

1 2 3 4 5 6 7 8 9

1 Body materials

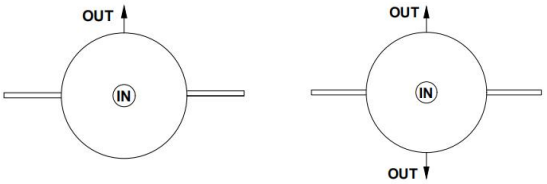
A = 316L SS B = HastollyC Alloy C = Monel Alloy

2 Seat materials

3 = PEEK(Standard)

3 Port configurations

1/8" FNPT Inlet ; 1/4" FNPT Outlet



4 Steam connection

1=1/2" tube Other options contact your local sales office

5 Pressure control range

C = 0 - 10 psi (0 - 0.69bar) D = 0 - 25 psi (0 - 1.7 bar)

E = 0 - 50 psi (0 - 3.4 bar) F = 0 - 100 psi (0 - 6.8 bar)

G = 0 - 250 psi (0 - 17.2 bar) J = 0 - 500 psi (0 - 34.4 bar)

6 Flow coefficients (Cv)

1 = 0.06 (Standard) 2 = 0.025 3 = 0.2 4 = 0.5

7 Diaphragm type

A = SS B = VITON

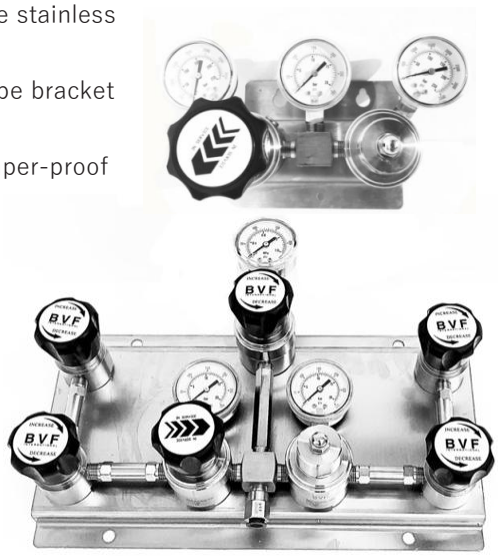
8 Handle & mounting

1 = Tighten nut 2 = Panel mount(Al) 3 = Panel mount stainless steel

9 Pressure gauge options

0 = No 1 = SS Gauge (old) 2 = SS gauge(New)

BCM1 Series Crossover Manifold Regulator System



The COM-1 Series crossover manifold system consists of two BR1-type stainless steel regulators (other type optional) mounted on a panel-mounting-type bracket shown with optional gauges. The primary regulator,supplied with a tamper-proof nut, is set at an outlet operating pressure at least 15 psig higher than the secondary regulator (supplied with a standard adjusting knob). As the primary supply source depletes and the operating outlet pressure of the primary regulator falls below the preset operating pressure of the secondary regulator, the secondary regulator takes over. Once this occurs, the secondary regulator can be manually adjusted 1⁄8-turn clockwise, the secondary regulator is now the primary and the depleted supply source can be replaced.

Features & Specifications

- Inlet 20μm filter longer service life
- Safety relief valve protection equipment
- Wall-mounted is easy to operate
- Pressure switch alarm is optional
- Maximum inlet pressure of 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv: 0.06/0.025/0.2/0.5
- Operating temperature: -40°C to + 260°C

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
PU	175°F /(80°C)	3000 psig (20 MPa)

BCM1 Series How to order

BCM1	—	A	2	1	F	1	1	A	1
		1	2	3	4	5	6	7	8

1 Body materials

A = 316L SS

2 Seat materials

1 = PU　　2 = PTFE　　3 = PCTFE　　4 = PEEK

3 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

4 Pressure control range

C = 0 - 10 psi (0 - 0.69bar)　　D = 0 - 25 psi（0 - 1.7 bar）

E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

5 Option style

1 = With purge, with output valve　　2 = with purge, no output valve

3 = No purge, with output valve　　4 = No purge valve, no output valve

6 Inlet and outlet port style

1 = Upright in with double ferrule　　2 = in-level with double ferrule

3 = 1/4NPT(F) upright in　　4 = 1/4NPT(F) in-level

7 Gas connection

A = 无　　B = Metal hose/CGA　　C = Metal pipe/CGA

8 Pressure gauge options

1 = SS Gauge (old)　2 = SS gauge(New)

BCM2 Crossover Manifold Regulator System

The COM-2B Series crossover manifold system uses two BR1 type stainless steel regulators built in a single body functioning as the changeover regulators with the common outlet port connected to a single line regulator to provide constant unchanging supply pressure unaffected by supply source depletion. All are mounted on a bracket complete with gauges. As the primary supply source depletes and the operating outlet pressure of the primary regulator falls below the preset changeover pressure of the secondary regulator, the secondary regulator takes over. Once this occurs, the primary regulator can be manually adjusted 1/8-turn counterclockwise, the secondary regulator is now the primary and the depleted supply source can be replaced.

Features & Specifications

- Inlet 20μm filter longer service life
- Safety relief valve protection equipment
- Wall-mounted is easy to operate
- Pressure switch alarm is optional
- Maximum inlet pressure of 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv: 0.06/0.025/0.2/0.5
- Operating temperature: -40°C to + 260°C

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
PU	175°F /(80°C)	3000 psig (20 MPa)

BCM2 Series How to order

BCM2	—	A	2	1	F	1	1	A	1
		1	2	3	4	5	6	7	8

1 Body materials

A = 316L SS

2 Seat materials

1 = PU　　2 = PTFE　　3 = PCTFE　　4 = PEEK

3 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

4 Pressure control range

D = 0 - 25 psi（0 - 1.7 bar）　　E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

5 Option style

1 = With output valve　　2 = with BR0 output valve　　3 = With BR1 output valve

6 Gas connection

A = 无　　B = Metal hose/CGA　　C = Metal pipe/CGA

7 Process port style

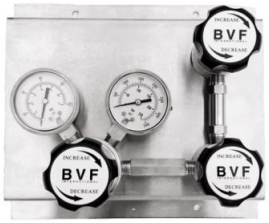
1 = 1/4NPT(F) inlet　　2 = 1/4NPT(M)inlet　　3 = 1/4” double ferrule

8 Pressure gauge options

1 = SS Gauge (old)　　2 = SS gauge(New)

BCM3 Series Single or Two Gas Supply Manifold

BCM3 is applied to high pressure gas cylinders and can be selected by single or two ways gas supply blow function.



Features & Specifications

- Inlet 20μm filter longer service life
- Safety relief valve protection equipment
- Wall-mounted is easy to operate
- 316 SS construction
- Maximum inlet pressure of 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv: 0.06/0.025/0.2/0.5
- Operating temperature: -40°C to + 260°C

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20 MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
PU	175°F /(80°C)	3000 psig (20 MPa)

BCM3 Series How to order

BCM3	—	A	2	1	F	1	1	A	1
		1	2	3	4	5	6	7	8

1 Body materials

A = 316L SS

2 Seat materials

1 = PU　　2 = PTFE　　3 = PCTFE　　4 = PEEK

3 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

4 Pressure control range

D = 0 - 25 psi（0 - 1.7 bar）　　E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

5 Option style

1 = Single way gas supply　　2 = Double ways gas supply

6 Inlet and Outlet Gas connection

1 = Upright in with double ferrule　　2 = in-level with double ferrule

3 = 1/4NPT(F) upright in　　4 = 1/4NPT(F) in-level

7 Process port style

A = 无　　B = Metal hose/CGA　　C = Metal pipe/CGA

8 Pressure gauge options

1 = SS Gauge (old)　2 = SS gauge(New)

BCM4 Series Gas cylinder Manifold System

BCM4 manifold is a kind of no-stop gas supply equipment, in order to improve work efficiency and safe production of multiple gas supply. The device assembling together to achieve centralized gas supply can reduce the number of cylinder replacement and make the convenient management of cylinders

Features & Specifications

● Inlet 20μm filter longer service life
● Safety relief valve protection equipment
● Wall-mounted is easy to operate
● 316 SS construction

● Maximum inlet pressure of 6000psi (414bar)
● Pressure control range: 0-500psi(34.4bar)
● Cv: 0.06/0.025/0.2/0.5
● Operating temperature: -40°C to + 260°C

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150° F /(66° C)	3000 psig (20 MPa)
PCTFE	175° F /(80° C)	6000 psig (41.4 MPa)
PEEK	500° F/(260° C)	6000 psig (41.4 MPa)
PU	175° F /(80° C)	3000 psig (20 MPa)

BCM4 Series How to order

BCM4 —	A	2	1	F	1	1	A	1
	1	2	3	4	5	6	7	8

1 Body materials

A = 316L SS

2 Seat materials

1 = PU　　2 = PTFE　　3 = PCTFE　　4 = PEEK

3 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

4 Pressure control range

D = 0 - 25 psi（0 - 1.7 bar）　　E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

5 Option style

1 = With purge, with output valve　　2 = with purge, no output valve

6 Inlet and Outlet Gas connection

1 = Upright in with double ferrule　　2 = in-level with double ferrule

3 = 1/4NPT(F) upright in　　4 = 1/4NPT(F) in-level

7 Process port

A = 2 ways　　B = 4 ways　　C = 6ways

8 Pressure gauge options

1 = SS Gauge (old)　2 = SS gauge(New)

BM Series Terminal Gas Control

BM is used for end pressure adjustment with single stage diaphragm relief valve outlet

Features & Specifications

- Inlet 20μm filter longer service life
- Use BR1 series regulator
- Wall-mounted is easy to operate
- 316 SS and Brass construction
- Maximum inlet pressure of 6000psi (414bar)
- Pressure control range: 0-500psi(34.4bar)
- Cv: 0.06/0.025/0.2/0.5
- Operating temperature: -40°C to + 260°C

Seat material	Temperature (max)	Maximum inlet pressure
PTFE	150°F /(66°C)	3000 psig (20MPa)
PCTFE	175°F /(80°C)	6000 psig (41.4 MPa)
PEEK	500°F/(260°C)	6000 psig (41.4 MPa)
PU	175°F /(80°C)	3000 psig (20 MPa)

BM Series How to order

BM	—	A	2	1	F	1	1	A	1
		1	2	3	4	5	6	7	8

1 Body materials

A = 316L SS

2 Seat materials

1 = PU　　2 = PTFE　　3 = PCTFE　　4 = PEEK

3 Flow coefficients（Cv）

1 = 0.06（Standard）　　2 = 0.025　　3 = 0.2　　4 = 0.5

4 Pressure control range

D = 0 - 25 psi（0 - 1.7 bar）　　E = 0 - 50 psi （0 - 3.4 bar）　　F = 0 - 100 psi（0 - 6.8 bar）

G = 0 - 250 psi（0 - 17.2 bar）　　J = 0 - 500 psi（0 - 34.4 bar）

5 Diaphragm Option

A = PTFE / rubber diaphragm　　B = PTFE / stainless steel diaphragm

6 Inlet and Outlet Gas connection

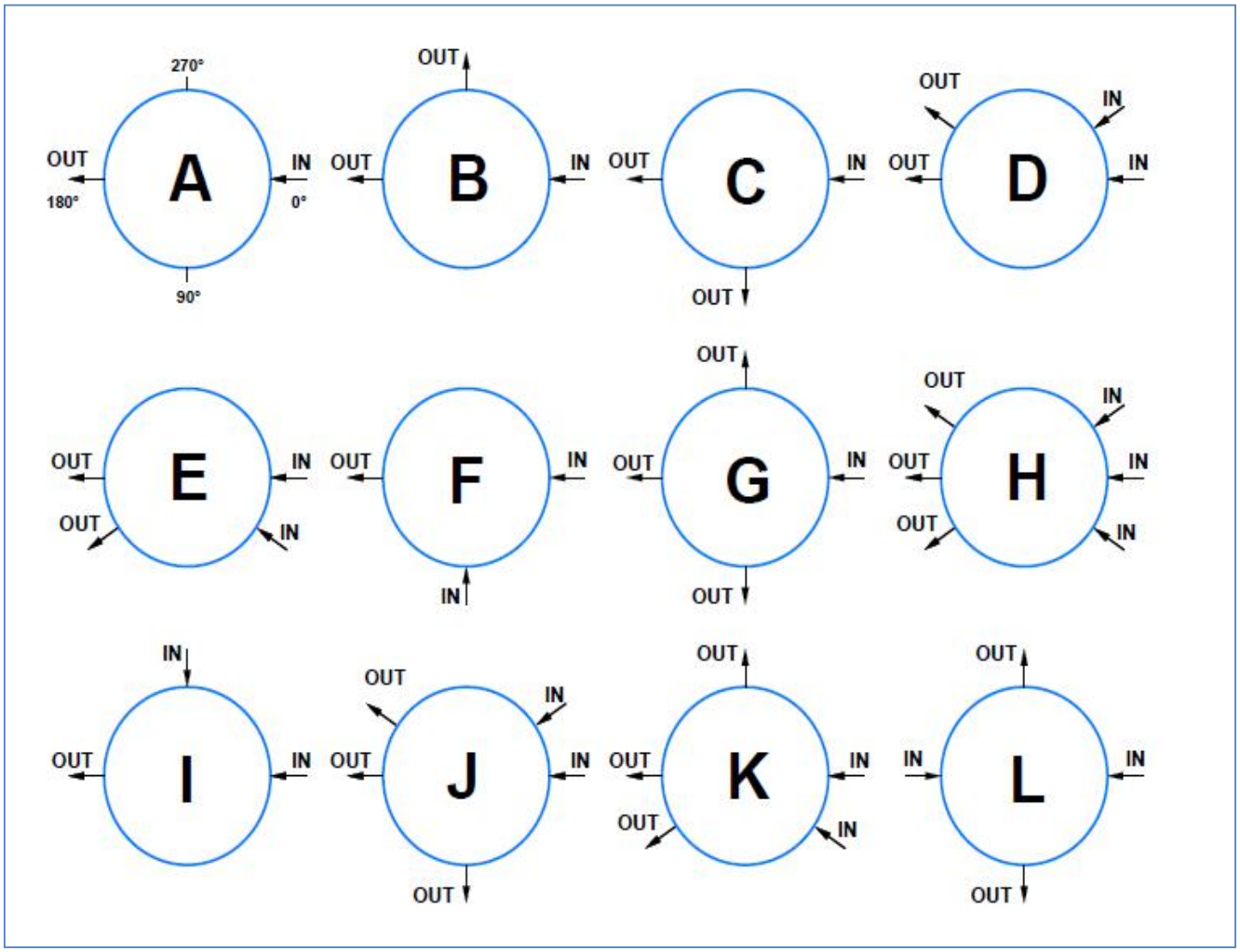
1 = 1 in 1 out　　2 = 1 in 2 out　　3 = 1 in 3 out

7 Pressure gauge options

1 = SS Gauge (old)　2 = SS gauge(New)

Port Locations

Note: Special required configuration can be OPTION



BDV - Series 2-way Disphragm Valve

The BDV Series Diaphragm Valves are totally free of springs, bellows, packing, o-rings and lubricants in the process wetted area. Metal-to-metal seals to atmosphere ensure that there is no transport of indesirable elements into the fl ow stream, and no escaping of process material into the atmosphere. ElgiloyR diaphragms ensure the utmost in corrosion resistance and extend overall valve life.

Features & Specifications

● Working pressure：3600PSI
● Material:316LSS
● Seal material:：PCTFE、PEEK
● Inlet with 40μ　SS filter element
● CV：0.17

How to order:　BDV　- 1 - A - 1 - A

Series	Materials	Port	Inlet pressure(PSI)	Connection size
BDV -	1 = 316L	Page 59	1 = 500 2 = 1000 3 = 3600	A=1/4NPT(F) B=1/4 Double Ferrule C=1/8 Double Ferrule D=6mm Double Ferrule

70-Series Ball valves

The ball valve is operated by the valve stem of the ball from open to close the rotation of 90° to quickly open and close, small fluid resistance, simple structure,Easy to operation is widely used in gas system.

Features & Specifications

● The valve body is made of 316L SS forged
● Body is 1 piece and 3 pieces design
● Seal materials：PTFE、PEEK
● Working pressure 0-1000PSI、 0-3000PSI

How to order:

70 - TD4 -SS

Series number	Connections size	Materials
70(1000PSI) 71(3000PSI) 72(6000PSI)	TD2=1/8 Double Ferrule TD4=1/4 Double Ferrule TD3MM=3MM Double Ferrule TD6MM=6MM Double Ferrule	SS=316

31-Series Needle valves

The 31 series needle valve mainly adjusts the medium from close to open to control the flow, relying on the valve needle and the valve seat It can be applied to gases or liquids.

Features & Specifications

● The Body is Forged 316L SS
● Panel mount
● Optional many connections
● Working pressure 0-5000PSI

How to order:

31ND - F4 - SS

Series number	Connection size	Materials
30ND（0-1000） 31ND（0-5000）	D2=1/8 Double Ferrule D4=1/4 Double Ferrule F4=1/4NPT(F) 3MM=3MM Double Ferrule 6MM=6MM Double Ferrule	SS=316L

Tube Fittings

Tube fittings is connected by two ferrules and one nut,one body.It can be used in instrumentation system,working pressure up to 40PMa, The two ferrules separate sealing and tube gripping functions; each ferrule is optimized for its function.The front ferrule creates a seal:

- against the fitting body
- on the tubing outside diameter.

As the nut is turned, the back ferrule:

- axially advances the front ferrule
- radially applies an effective tube grip

Features & Specifications

● Materials:Brass,316SS
● Excellent gas-tight sealing and tube-gripping action
● Easily achieved proper installation
● excellent vibration fatigue resistance and tube support

How to order:

Series	item	Materials
400-1-2	1/4OD X 1/8NPTM	SS=316L
400-1-4	1/4OD X 1/4NPTM	B=Brass
400-1-6	1/4OD X 3/8NPTM	
400-1-8	1/4OD X 1/2NPTM	

RV-Series Relief Valves

Relief valves can protect the system when the pressure over the set point to ensure that the system pressure is not too high and accidents.

Features

- Relief pressure 0-3000PSI adjustable
- 316L SS
- Seal materials：VITON
- Process port has many connections type and size

How to order:

RV60 - 4M -4F - SS - P1

Series number	Inlet	Outlet	Materials	Crack pressure
RV-60 (0-500psi)	4M=1/4NPT(M)	4F=1/4NPT(F)	SS=316L	P1=0-50PSI
RV-600 (0-3000psi)	4F=1/4NPT(F)	4M=1/4NPT(M)		P2=0-500PSI
	4D=1/4 Double Ferrule	4D=1/4 Double Ferrule		P3=0-1000PSI
				P4=0-3000PSI

BC-Series CHECK VALVES

The function of this BC series Check valve is to maintain system integrity by preventing back flow of a wide variety of fluids over a broad range of pressures.。

Features

● 316LSS
● Working pressure up to 6000PSI
● Spring-loaded poppet make noise-free closing and zero leakage
● Many connections optional

How to order:

BC - 4 -SS -10

Series	Connections	Materials	Crack pressure
BC-	2=1/8 Double Ferrule	SS=316	1 = PSI
	4=1/4Double Ferrule		10 =PSI
	3MM=3MMDouble Ferrule		25 = PSI
	6MM=6mmDouble Ferrule		

BF Series Filters

BF series Filter can remove a small number of solid particles in the system pipeline, can protect the normal operation of the equipment. T-type filtration can achieve online replacement of the filter element, when needed to clean, as long as the removable filter cartridge is removed and processed again put it in.

- 316LSS
- Working pressure up to 3000PSI
- Multiple connection type and size
- Stainless steel firing filter element

How to order

BF-316 - 4 -SS -20

serial number	connection size	material	Micron Range um
BF-316 online	2=1/8 double ferrule		5
BFT-316 T-type	4=1/4double ferrule	SS=316	20
	3MM=3MMdouble ferrule		40
	6MM=6mmdouble ferrule		80

BFA -Series Back-fire Relief Valve

BFA series back-fire relief valves are used to prevent flammable gases and flammable liquid tempering caused by explosion, generally installed in the delivery of combustible gases in the pipeline, fire retarders are also commonly used in the delivery of flammable gas pipeline in order to prevent danger Firearms are used for low-pressure lines.

- 316 Stainless steel material
- Suitable for gas, acetylene, hydrogen and other flammable gases
- Multiple connection options are available

How to order

Serial number	Gas	Pressure psi	Connections
BFA-F	ethyne	50	1/4NPTF
BFA-X	oxygen	150	1/4NPTF
BFA-H	hydrogen	150	1/4NPTF

Pressure Switches

Pressure switch is when pressure increases acting on different sensing pressure components produce deformation that will move up, through Over the railing spring and other mechanical structures, and finally start the top end of the micro switch, so that the electrical signal output.

- stainless steel or brass
- Select ordinary type and explosion-proof type
- Alarm pressure adjustable
- Provide an alarm signal to monitor the pipeline pressure

How to order

Serial number	Pressure range	Connection	Materials
12 Ex Class	0-3000PSI	1/4NPTF	316SS
10 OEM Class	0-3000PSI	1/4NPTF	Brass

316/316L Seamless TUBE

TUBE generally used in 16mm or below 1 / 2 “ of the connected, mainly the connection side easy, compared to the thread connection to save trouble, beautiful.Press the pipes to the fittings with locking nuts and double ferrules connection mode on the.Applied in clean gas, electronic medicine industry, laboratory and other fields, to meet the high purity clean fluid requirements.

- Material: 316/316L stainless steel
- Fractional and metric
- Electropolishing with small surface roughness

How to order

Model	Tube size	Materials
SS-T3MM-S	3MM	316/316L SS
SS-T6MM-S	6MM	
SS-T1/8-S	1/8”	
SS-T1/4-S	1/4”	

Accessories 1

Cylinder Connection

Model	Materia	Connection size
G5/8-RH G5/8-LH W21.8-RH W21.8-LH	316=316 SS B=Brass	1/4NPT（M） 1/4 Double ferrule

316 SS Metal Hose

Inlet	Outlet	Length M	Material
1/4NPTF	1/4NPTF	0.5	316=316SS
G5/8-RH	1/4NPTM	1	
G5/8-LH	1/4 Double ferrule	1.5	
W21.8-RH			
W21.8-LH			

Accessories 2

Panel Mount

Single stage regulator panel

Double stage regulator panel

Ball valves panel

Tube&Pipe support

Accessories 3

Pressure gauge

Pressure gauge with back connection(PSI /bar)

Pressure gauge with bottom connection PSI/ bar

Sampling cylinder

Technical Reference Material

Flow Calculations for GO Regulator Products

Formulas and Examples

Liquid Flow Formulas: $C_v = \frac{Q_L\sqrt{S_L}}{\sqrt{\Delta P}} \therefore Q_L = \frac{C_v\sqrt{\Delta P}}{\sqrt{S_L}}$

Example: Determine liquid flow (assume water) through a regulator in gallons per minute with the following conditions:

Given:

P_1 = 1000 psia

P_2 = 600 psia

S_L = 1.0

C_v = .08

Q_L = $\frac{C_v\sqrt{\Delta P}}{\sqrt{S_L}} = \frac{0.8\sqrt{1000-600}}{\sqrt{1}} = \frac{0.8\times 20}{1}$ = **16 GPM (Water)**

Gaseous Flow Formulas: a $C_v = \frac{Q_g\times 2\sqrt{S_g}}{P_1}$ b $C_v = \frac{Q_g\sqrt{S_g}}{\sqrt{\Delta P\times P_1}}$

Example: Determine C_v required for a regulator when inlet pressure (P_1) is equal or greater than two times outlet pressure (P_2) and the following items are known:

Given:

P_1 = 1000 psia

P_2 = 400 psia

Q_g = 400 SCFM

S_g = 1.0 (assume air in this example)

C_v = $\frac{Q_g\times 2\sqrt{S_g}}{P_1} = \frac{400\times 2}{1000}$ = **0.8 C_v**

* **Caution:** When sizing components for flow applications, attention must also be directed to the size of the plumbing. When flow requirements are at low pressures, the plumbing may be the flow limiting item rather than the regulator or valve.

Definitions:

C_v: Flow coefficient for regulators and valves that expresses flow capabilities of a unit at full open condition. For liquids, this coefficient is defined as the flow of water at 60° F in gallons per minute at a pressure drop of one psig. For gases, this coefficient is defined as the flow of air at standard conditions in standard cubic feet per minute for each psig of inlet pressure.

S_L: Specific gravity of liquids relative to water, both at standard temperature of 60° F. (Specific gravity of water = 1.0 @ 60° F).

S_g: Specific gravity of a gas relative to air; equals the ratio of the molecular weight of the gas to that of air. (Specific gravity of air = 1.0 @ 60° F).

P: Line pressure (psia).

P_1: Inlet pressure expressed in psia.

P_2: Outlet pressure expressed in psia.

DP: Differential pressure ($P_1 - P_2$).

psia: Absolute pressure which is gauge pressure (PSIG) plus 14.7 (atmospheric pressure).

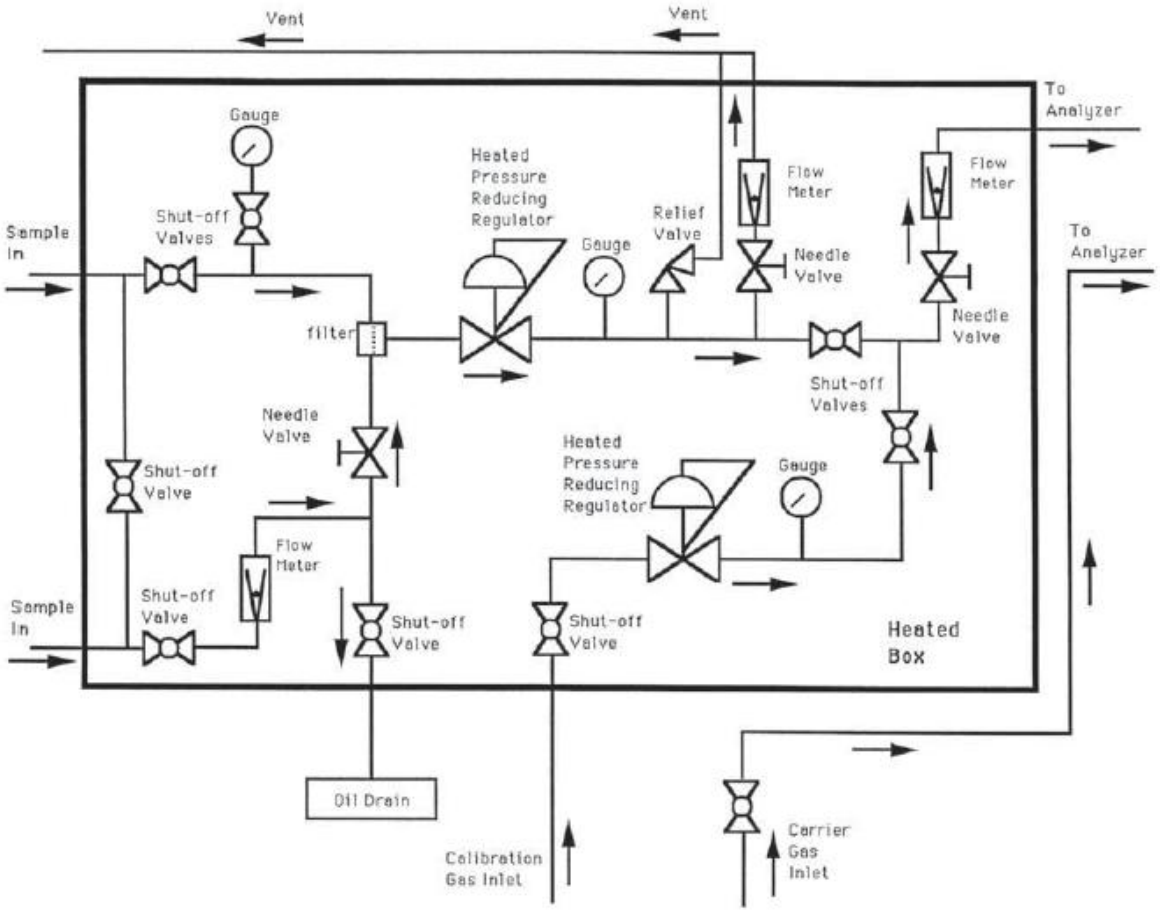
Q_L: Liquid flow in gallons per minute (GPM).

Q_g: Gas flow in standard cubic feet per minute (SCFM). (At standard conditions of 60° F and 14.7 psia).

Q: Volume flow rate in cubic feet per minute (CFM).

M: Mass flow rate in pounds per minute (lbs/min.).

Typical Pressure Regulator Applications



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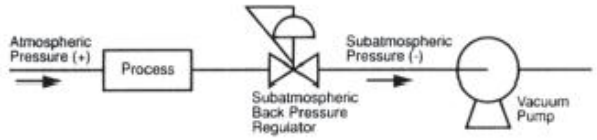

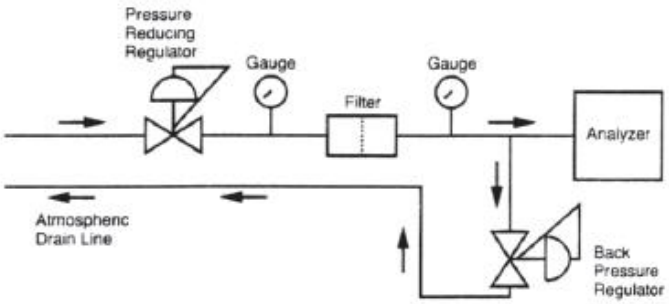

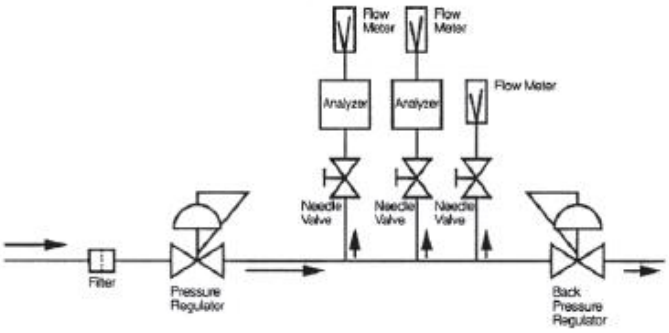

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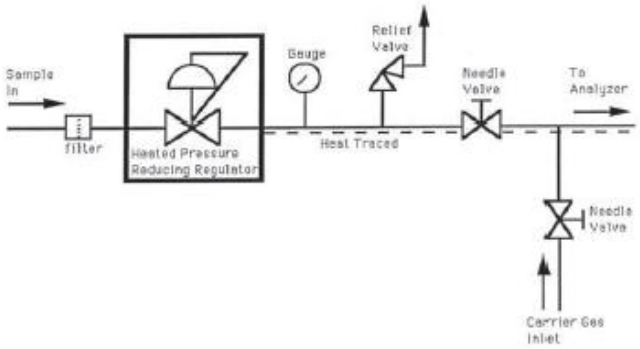

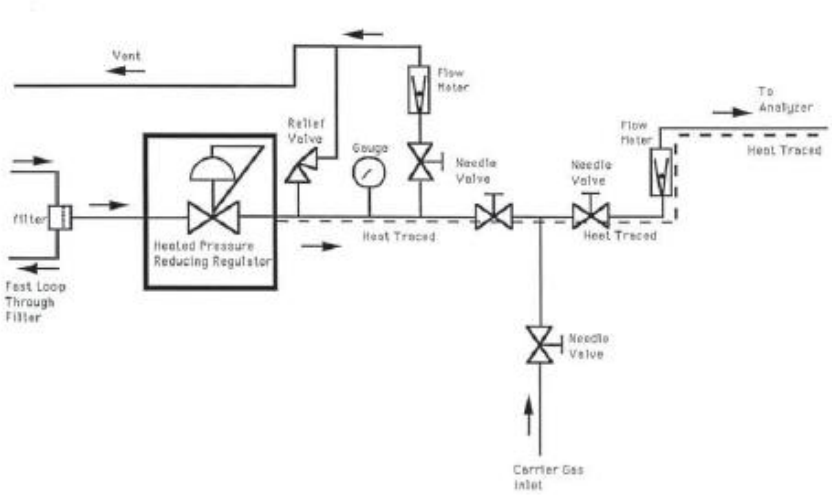

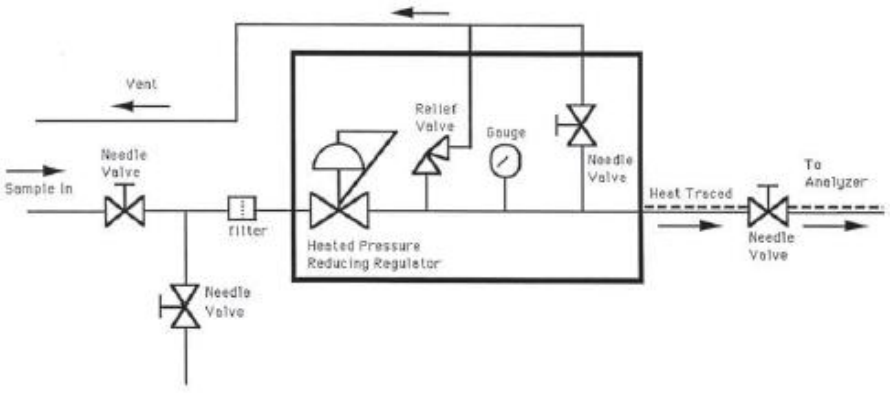

Typical Pressure Regulator Applications