

## Single Stage Pressure Regulators

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pressure regulators

### GO Regulator

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## **For Your Safety**

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It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. When selecting products, the total system design must be considered to ensure safe, trouble-free performance. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.

Contact your authorized GO Regulator sales and service representative for information about additional sizes and special alloys.

## **SAFETY WARNING:**

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GO Regulator products are designed for installation only by professional suitably qualified licensed system installers experienced in the applications and environments for which the products are intended. These products are intended for integration into a system. Where these products are to be used with flammable or hazardous media, precautions must be taken by the system designer and installer to ensure the safety of persons and property. Flammable or hazardous media pose risks associated with fire or explosion, as well as burning, poisoning or other injury or death to persons and/or destruction of property. The system designer and installer must provide for the capture and control of such substances from any vents in the product(s). The system installer must not permit any leakage or uncontrolled escape of hazardous or flammable substances. The system operator must be trained to follow appropriate precautions and must inspect and maintain the system and its components including the product(s) and at regular intervals in accordance with timescales recommended by the supplier to prevent unacceptable wear or failure. We recommend that the regulators will be serviced every 5 Years after first installation.

## PR-1 Series

Adjustable Pressure Reducing Regulator



The PR-1 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 PR-1 make it ideal for a wide range of applications controlling pressures at low to moderate flows in gas or liquid service. Stainless steel caps and adjusting screws prevent atmospheric corrosion and maintain appearance. Enhanced internal body surface finish of better than 25 Ra plus electropolishing allows easier cleaning and potentially less particle contamination in the flow stream.

Three different seat materials, three alternate orifice sizes and 7 pressure control ranges with INCONEL® 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

- Gas or liquid service
- 316L stainless steel, INCONEL®, PTFE, and Tefzel® (or optional main seat material choice) only in flow stream
- Electropolished 316L body with better than 25 Ra diaphragm cavity surface finish
- Stainless steel cap with SS adjusting screw
- Inlet pressures of up to 6000 psi
- Adjustable outlet pressure ranges of 0–10, 0–25, 0–50, 0–100, 0–250, 0–500, and 0–750 psig
- Operating temperatures of –40° F up to +500° F (–40° C up to +260° C)
- 20 micron filters
- Bubble-tight shutoff under most conditions
- Cv flow coefficients 0.025, 0.06, 0.20, and 0.50 (0.06 standard)

### Options

- Wetted materials of construction: MONEL®, HASTELLOY®, Titanium and 6MO
- Panel mount (1 $\frac{3}{8}$ " mounting hole)
- Special diaphragm assembly for water service
- SS inlet pressure gauges
- SS outlet pressure gauges
- Base-mounting brackets
- Captured vent
- Self-relieving

pressure regulators

# PR-1 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR1 –

#### BODY MATERIAL

- 1 316L stainless steel, stainless steel diaphragm
- 4 MONEL®, INCONEL® diaphragm
- 5 HASTELLOY® B, INCONEL® diaphragm
- 6 HASTELLOY® C, INCONEL® diaphragm
- 7 Titanium, INCONEL® diaphragm
- B 6MO, INCONEL® diaphragm
- C SS316L, INCONEL® diaphragm

#### PORT CONFIGURATION

- A Standard
- For more port configurations see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports), standard
- 4 ⅜" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- A Tefzel®
- B CF PTFE
- H PCTFE (formerly Kel-F® 81)
- P PEEK™ High Temp Service, Metal Knob
- Q PEEK™ Low Temp Service, Plastic Knob

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR
- S 70 Micron inlet filter screen for liquid app.
- 9 Sulfur coating

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper-proof, stainless steel
- J Captured vent, panel mount, stainless steel

#### DIAPHRAGM FACING/BACKING MATERIAL

- 1 PTFE/metal backing, standard
- 6 Tefzel® ring/metal backing

#### DIAPHRAGM TYPE

- 1 Standard diaphragm
- 3 Self-relieving
- 7 Liquid Service

#### OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig
- J 0–500 psig
- W 0–750 psig

#### FLOW COEFFICIENT (Cv)

- 3 0.06, standard
- 5 0.2
- C 0.025
- H 0.5

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	500° F (260° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	175° F (80° C)	@	3600 psig (24.82 MPa)
CF PTFE	175° F (80° C)	@	3600 psig (24.82 MPa)

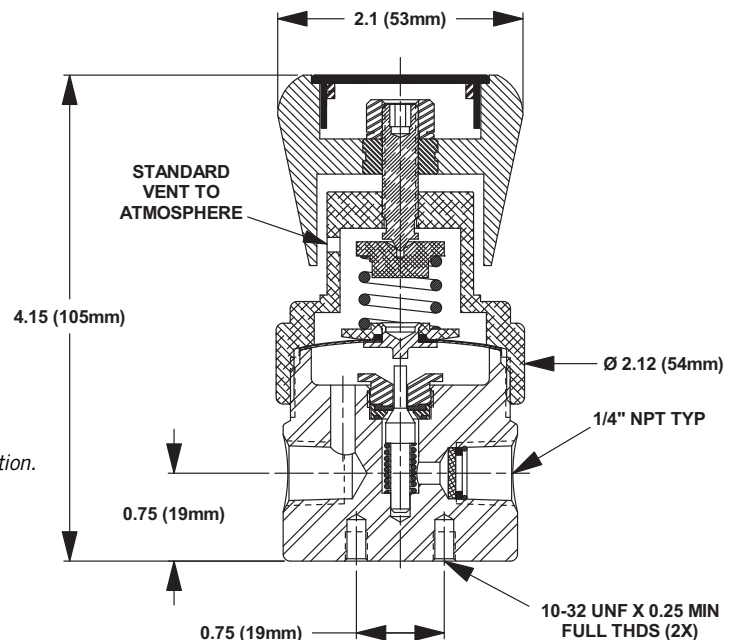
\* Temperatures in excess of 175° F (80° C) require a metal knob or the tamper-proof option.

INCONEL® and MONEL® are registered trademarks of Special Metals Corporation.  
 Tefzel® is a registered trademark of the DuPont Company.  
 HASTELLOY® is a registered trademark of Haynes International, Inc.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.

## Outline and Mounting Dimensions

Panel mount option requires 1.390 (35.3mm) minimum diameter panel cut out. 0.150 maximum panel thickness.

Weight = 1.9 lbs (0.86 kg)



## PR-2 Series

Economy Brass Pressure Reducing Regulator



The PR-2 Series are compact, brass body regulators designed for maximum flexibility in many classes of instrumentation service. Specifically designed for gas applications, this regulator is capable of accepting high pressures directly from cylinders and other high pressure, non-corrosive systems. It is ideally suited for carrier gas pressure regulation, and is economical enough to use in low pressure air systems, such as instrument cabinet air purge service.

### Features & Specifications

- Gas or liquid service
- Brass (alloy 360) construction
- Stainless steel diaphragm with PTFE lining
- Stainless steel poppet and stainless steel cap
- Better than 25 Ra finish in diaphragm cavity
- 20 micron inlet filter
- Bubble-tight shutoff
- Outlet pressure ranges 0–10, 0–25, 0–50, 0–100, 0–250, 0–500 and 0–750 psig
- Operating temperatures -40° F to +175° F (-40° C to +80° C)
- Inlet and outlet connection 1/4" FNPT
- Cv flow coefficients: 0.025, 0.06, 0.20, and 0.5 (0.06 standard)

### Options

- 3/8" FNPT connections
- Panel mount (requires 1 3/8" mounting hole)
- Extra ports
- Pressure gauges

pressure regulators

# PR-2 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR2 –

#### BODY MATERIAL

- 2 Brass
- 8 Brass, chrome-plated
- A Brass, electroless nickel-plated

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports), standard
- 4 ⅜" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- A Tefzel®
- B CF PTFE
- H PCTFE (formerly Kel-F® 81)
- Q PEEK™

#### FLOW COEFFICIENT (Cv)

- 3 0.06
- 5 0.2
- C 0.025
- H 0.5

#### OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig
- J 0–500 psig
- W 0–750 psig

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR
- S 70 Micron inlet filter screen for liquid app.

#### OPTIONAL CAP MATERIAL/FINISH

- 0 Standard material with options
- 1 Aluminum, chrome-plated
- 2 Aluminum, electroless nickel-plated
- 3 Aluminum, black anodized

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel
- 7 Captured vent, stainless steel
- J Captured vent, panel mount, stainless steel
- 8 Tamper-proof, stainless steel

#### DIAPHRAGM FACING/BACKING MATERIAL

- 1 PTFE/stainless steel
- 6 Tefzel® ring/stainless steel

#### DIAPHRAGM TYPE

- 1 Standard diaphragm
- 3 Self-relieving
- 7 Liquid service

NOTE: Contact the factory for any additional requirements.

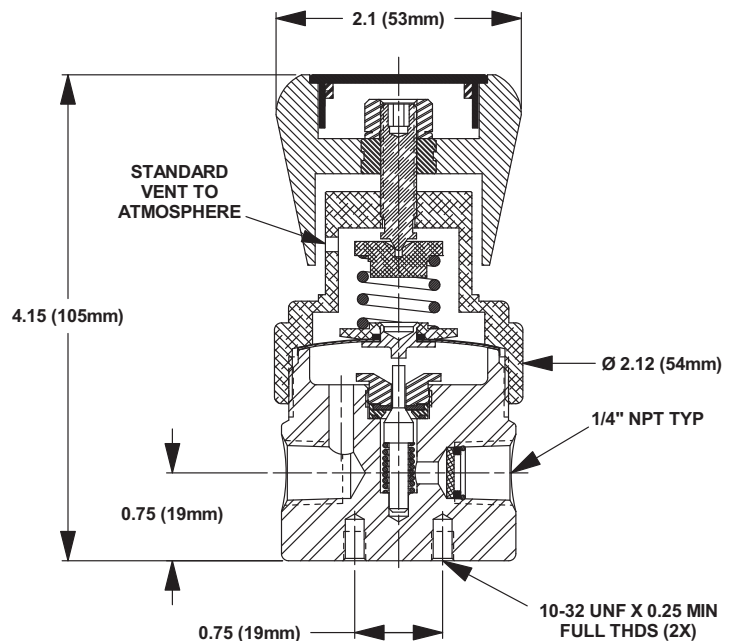
## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	3600 psig (24.82 MPa)
CF PTFE	175° F (80° C)	@	3600 psig (24.82 MPa)

## Outline and Mounting Dimensions

Panel mount option requires 1.390 (35.3mm) minimum diameter panel cut out. 0.150 maximum panel thickness.

Weight = 1.9 lbs (0.86 kg)



Tefzel® is a registered trademark of the DuPont Company.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.

## PR-5 Series

High Flow Adjustable Pressure Reducing Regulator



The PR-5 Series pressure regulator is designed for service at high flows with good sensitivity and regulation. While the design was originated for gas systems, this valve is perfectly suitable for liquid systems that are compatible with the materials of construction. The PR-5 also performs well with just a few liters per minute of flow.

This series is a variation of the time proven PR-1 Series which has been used for many applications in systems requiring stainless steel construction. The exact package size of the PR-1 has been retained making it convenient for the user to interchange these units if better control at high flow rates is required.

### Features & Specifications

- High flow capability in compact size
- Minimum droop with large flow increases
- Bubble-tight shutoff
- Stainless steel cap & adjusting screw
- Materials of construction: stainless steel, Brass, MONEL®, HASTELLOY® C, Brass chrome plated
- 20 micron inlet filter
- Operating temperatures up to +400° F (+204° C)
- Ideal for line regulator applications
- PTFE/Viton diaphragm standard up to 50 psig
- Inlet pressure 300 psig
- Adjustable outlet ranges 0–10, 0–25, 0–50, 0–100, & 0–250 psig
- Cv flow coefficient 0.20

### Options

- Panel mount (requires 1 $\frac{3}{8}$ " mounting hole)
- Extra ports
- Pressure gauges
- Captured vent

pressure regulators

# PR-5 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR5 –

#### BODY MATERIAL

- 1 316L stainless steel, stainless steel diaphragm
- 2 Brass, stainless steel diaphragm
- 4 MONEL®, INCONEL® diaphragm
- 6 HASTELLOY® C, INCONEL® diaphragm
- 8 Brass, chrome plated, stainless steel diaphragm
- A Brass, electroless nickel plated, stainless steel diaphragm
- C SS 316L, INCONEL® diaphragm

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge port)
- 4 ⅜" FNPT (¼" FNPT gauge port)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- D Viton® (standard)
- J Buna N
- K Kalrez®

#### FLOW COEFFICIENT (Cv)

- 5 0.2

#### OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig
- R 0–150 psig
- Y 0–15 psig

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR
- S 70 Micron inlet filter screen for liquid app.

#### OPTIONAL CAP MATERIAL/FINISH

- 0 Standard materials with options
- 1 Aluminum, chrome-plated (brass body only)
- 2 Aluminum, electroless nickel-plated (brass body only)
- 3 Aluminum, black anodized (brass body only)

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel
- J Captured vent, panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper Proof, stainless steel

#### DIAPHRAGM FACING/BACKING MATERIAL

- 2 PTFE/Viton®
- 1 PTFE/metal backing
- 6 Tefzel® ring/metal backing

#### DIAPHRAGM TYPE

- 1 Standard diaphragm
- 3 Self-relieving
- 7 Liquid service

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

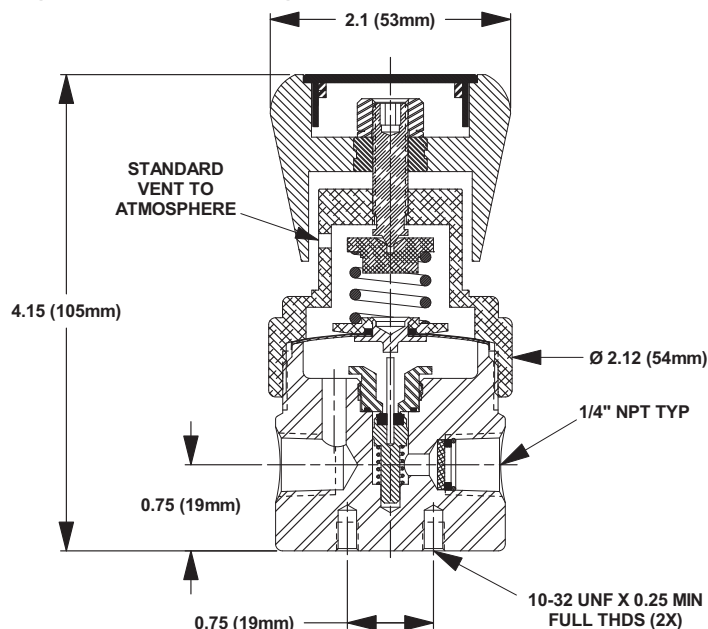
SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Viton®	400° F (204° C)	@	300 psig (2.07 MPa)
Buna N	150° F (66° C)	@	300 psig (2.07 MPa)
Kalrez®	400° F (204° C)	@	300 psig (2.07 MPa)

\* Temperatures in excess of 175° F (80° C) require a metal knob or the tamper-proof option.

MONEL® is a registered trademark of Special Metals Corporation.  
 Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.  
 HASTELLOY® is a registered trademark of Haynes International, Inc.

## Outline and Mounting Dimensions

Weight = 1.9 lbs (0.86 kg)





## PR-7 Series

Ultra High Flow Adjustable Pressure Reducing Regulator



The PR-7 Series has been designed for those applications using high gas flow rates while still requiring a compact package. In addition, this unit will handle hydrogen flows up to 1000 liters per minute with none of the resonance problems typical with many regulators attempting such an application.

While designed for gas flow applications with low inlet pressures and low differential pressures, 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
- No resonance with large hydrogen flows
- Stainless steel diaphragm or INCONEL® diaphragm
- 316L stainless steel or brass construction (optional HASTELLOY®, MONEL®, or chrome-plated brass)
- T-handle adjusting assembly for easier adjustment in the 250 and 500 psig ranges
- Material of construction: Brass, stainless steel, Viton®, PTFE, PEEK™, or Kalrez®
- Stainless steel cap
- Cv flow coefficient = 1.1 (full Cv with ½" ported unit only)
- Operating temperatures up to +250° F (+121° C)
- Maximum inlet pressure of 3600 psig with PEEK™ seat
- Inlet/outlet connections: ¼", ⅜", or ½" FNPT
- Outlet pressure ranges of: 0–10, 0–25, 0–50, 0–100, 0–150, 0–250 & 0–500 psig

### Options

- Self-relieving
- Panel mount
- Captured vent

pressure regulators

## How to Order

### PR7 –

#### BODY MATERIAL

- 1 316L stainless steel, stainless steel diaphragm
- 2 Brass, stainless steel diaphragm
- 4 MONEL®, INCONEL® diaphragm
- 6 HASTELLOY® C, INCONEL® diaphragm
- 8 Brass, chrome-plated, stainless steel diaphragm
- C SS 316L, INCONEL® diaphragm

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)
- 5 ½" FNPT (¼" FNPT gauge ports)
- J ½" Tri-clover (¼" FNPT gauge ports)
- L ¾" Tri-clover (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

#### SEAT MATERIAL

- D Viton®
- I PTFE
- K Kalrez®
- Q PEEK™

#### FLOW COEFFICIENT (Cv)

- 8 1.1

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 2 T-handle, stainless steel
- 3 T-handle, panel mount, stainless steel
- 4 Panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper-proof, stainless steel
- C Captured vent, panel mount, stainless steel
- E Tamper-proof, panel mount, stainless steel

#### DIAPHRAGM MATERIAL

- 1 PTFE/metal backing
- 2 PTFE/Viton®
- 5 Viton®/metal backing
- 6 Tefzel® ring/metal backing

#### DIAPHRAGM TYPE

- 1 Non-self-relieving
- 3 Self-relieving

#### OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig
- J 0–500 psig
- R 0–150 psig

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

### Up to 100 psig Outlet Pressure

SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
PTFE	150° F (66° C)	@	1000 psig (6.90 MPa)
PEEK™	250° F (121° C)	@	3600 psig (24.82 MPa)
Viton®	250° F (121° C)	@	300 psig (2.07 MPa)
Kalrez®	250° F (121° C)	@	300 psig (2.07 MPa)

\* Temperatures in excess of 175° F (80° C) require a metal knob or the tamper-proof option.

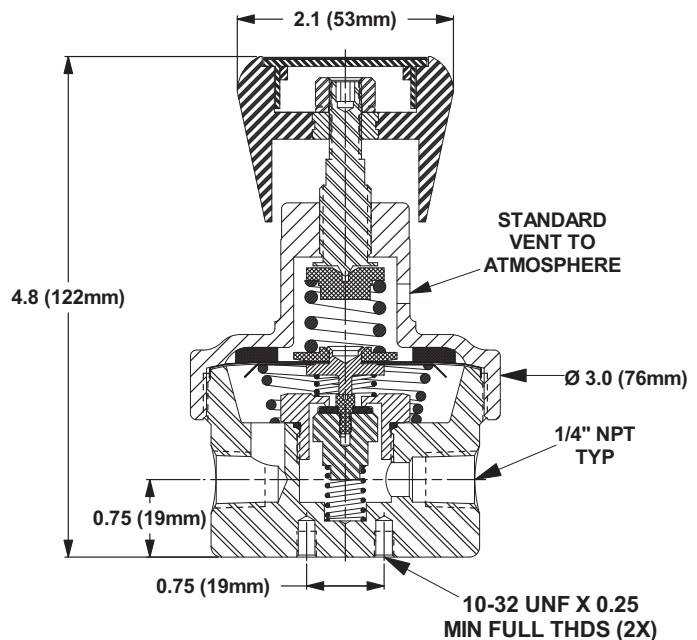
### 0–250 psig & 0–500 psig Outlet Pressure (T-handle or Tamper-proof)

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
PTFE	150° F (66° C)	@	1000 psig (6.90 MPa)
PEEK™	250° F (121° C)	@	3600 psig (24.82 MPa)

HASTELLOY® is a registered trademark of Haynes International, Inc.  
 MONEL® is a registered trademark of Special Metals Corporation.  
 Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.  
 PEEK™ is a trademark of Victrex PLC.

## Outline and Mounting Dimensions

Weight = 3.2 lbs (1.45kg)



## PR-7LF Series

High Sensitivity Pressure Reducing Regulator



The PR-7LF 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 PR-7 Series regulator and the low flow seat assembly of the PR-1 Series pressure regulator, pressure control down to 10 inches of water is easily obtainable.

The PR-7LF Series of regulators are available in a choice of stainless steel or brass construction; special alloys are available on special request.

### Features & Specifications

- Sensitive pressure control
- Low pressure adjustability
- Stainless steel or Brass construction (optional MONEL® or HASTELLOY® C construction)
- 20 micron inlet filter
- Inlet pressure to 3600 psig
- Adjustable outlet pressure ranges 0–6, 0–25, 0–50, 0–75, 0–125, 0–250 psig & 500 psig
- Cv flow coefficients of 0.025; 0.06; 0.20; 0.50
- PTFE/Viton® diaphragm available up to 25 psig
- 316L stainless steel or brass, INCONEL® and Tefzel®
- Operating temperatures -40° F to +250° F (-40° C to +121° C)
- Inlet and outlet connections ¼" FNPT standard

pressure regulators

# PR-7LF Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR7L –

#### BODY MATERIAL

- 1 316L stainless steel, ss diaphragm
- 2 Brass, ss diaphragm
- 4 MONEL®, INCONEL® diaphragm
- 6 HASTELLOY® C, INCONEL® diaphragm
- C SS 316L, INCONEL® diaphragm

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)
- 5 ½" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

#### SEAT MATERIAL

- A Tefzel®
- D Viton® (0.2 Cv only)
- H PCTFE (formerly Kel-F® 81)
- K Kalrez® (0.2 Cv only)
- Q PEEK™

#### FLOW COEFFICIENT (Cv)

- 3 0.06
- 5 0.2
- C 0.025
- H 0.5

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 2 T-handle, stainless steel
- 3 T-handle, panel mount, stainless steel
- 4 Panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper-proof, stainless steel
- 9 Fine adjust, ½" panel mount, stainless steel
- 0 Fine adjust, 1⅜" panel mount, stainless steel
- C Captured vent, panel mount, stainless steel
- D Captured vent, tamper proof, stainless steel
- E Tamper-proof, panel mount, stainless steel

#### DIAPHRAGM FACING/BACKING MATERIAL

- 1 PTFE/metal backing, standard
- 2 PTFE/Viton®
- 5 Viton®/metal backing
- 6 Tefzel® ring/metal backing

#### DIAPHRAGM TYPE

- 1 Standard diaphragm
- 3 Self-relieving

#### OUTLET RANGE

- B 0–6 psig
- D 0–25 psig
- E 0–50 psig
- F 0–75 psig
- H 0–125 psig
- I 0–250 psig
- J 0–500 psig

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

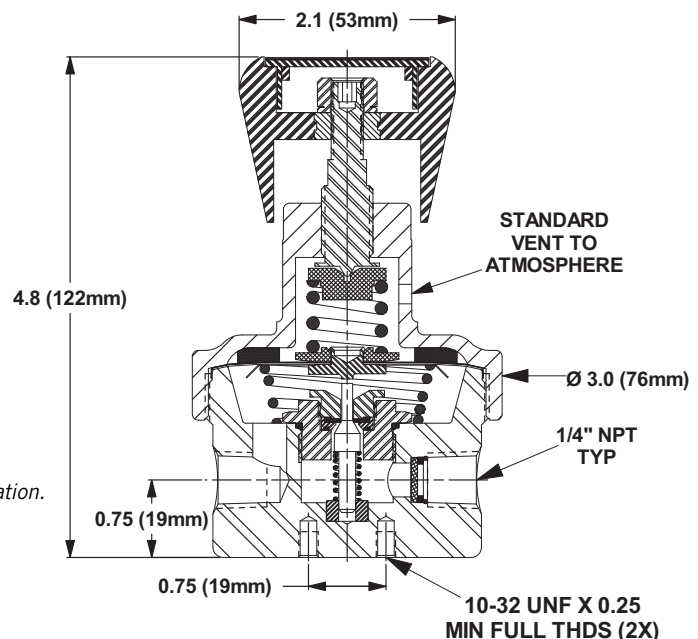
SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	3600 psig (24.82 MPa)
Viton®	250° F (121° C)	@	300 psig (2.07 MPa)
Kalrez®	250° F (121° C)	@	300 psig (2.07 MPa)

\* Temperatures in excess of 175° F (80° C) require a metal knob or the tamper-proof option.

INCONEL® and MONEL® are registered trademarks of Special Metals Corporation.  
 HASTELLOY® is a registered trademark of Haynes International, Inc.  
 VCR® is a registered trademark of Cajon Co.  
 Tefzel® is a registered trademark of the DuPont Company.  
 Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.  
 PEEK™ is a trademark of Victrex PLC.

## Outline and Mounting Dimensions

Weight = 3.2 lbs (1.45kg)



## PR-7ULF Series

Pressure Reducing Regulator



The PR-7ULF Series pressure reducing regulator is designed to furnish ultra precise low outlet pressure control to analytical instrumentation. With the combination of the large diaphragm sensing area of the PR-7 Series regulator and a super low flow valve seat assembly, pressure control down to 1 inch of water at 2cc of flow is easily obtainable.

### Features & Specifications

- Gas service
- 316L stainless steel or Brass (alloy 360) construction
- PTFE / Viton® diaphragm
- Electropolished body (316L) with better than 25 Ra finish in diaphragm cavity
- 20 micron inlet filter
- Bubble-tight shutoff
- Outlet pressure ranges are 0–6, 0–25, 0–50, and 0–100 psig
- Viton® seat
- 0.004 Cv flow coefficient

pressure regulators

# PR-7ULF Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR7U –

#### BODY MATERIAL

- 1 316L stainless steel
- 2 Brass

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

#### VENT VALVE

- 0 No
- 1 Yes

#### DIAPHRAGM TYPE

- 1 Standard

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

#### OUTPUT RANGE

- B 0–6 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig

#### CAP ASSEMBLY

- 4 Hand knob, 1⅜" panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper-proof, stainless steel
- 9 Fine adjust, ½" panel mount, stainless steel
- 0 Fine adjust, 1⅜" panel mount, stainless steel
- Y Hand knob, stainless steel
- C Captured vent, panel mount, stainless steel

#### DIAPHRAGM MATERIAL

- 1 Viton®
- 6 Tefzel® ring/stainless steel

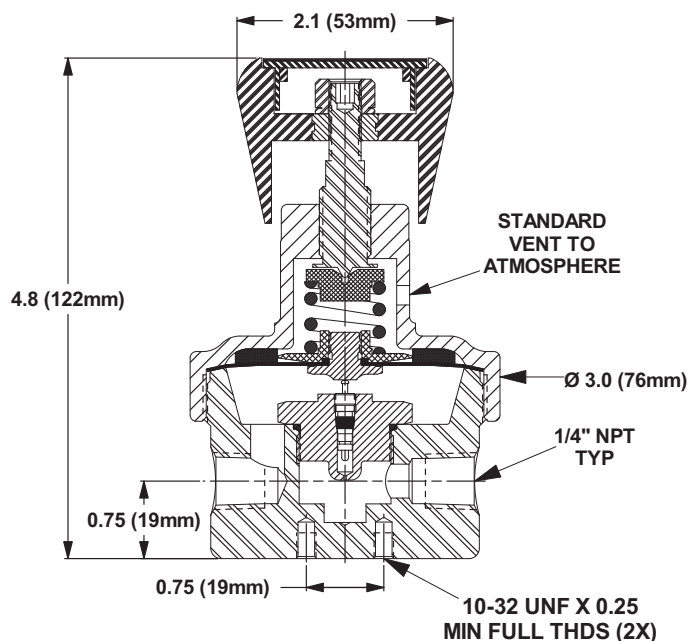
NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Viton®	120° F (49° C)	@	250 psig (1.73 MPa)

## Outline and Mounting Dimensions

Weight = 3.2 lbs (1.45kg)



Tefzel® is a registered trademark of the DuPont Company.  
 Viton® is a registered trademark of DuPont Dow Elastomers.

## PR-9 Series

High Temperature Stainless Steel Pressure Regulator



The PR-9 Series high temperature pressure regulator is designed for the pressure control of gases and liquids up to 1000° F. All metal components in and out of the flow stream provide the user with extended reliability in rigorous high temperature ambient and process applications. This regulator can also be used in applications where no elastomers are allowed in the flow stream. The PR-9 is equipped with a metal-to-metal seat and will not provide bubble-tight shutoff. If shutoff is required, a high temperature shutoff valve must be placed upstream of this regulator

### Features & Specifications

- 650° F (340° C) or 1000° F (540° C)
- All metal construction, no elastomers
- Gas or liquid service
- Inlet pressure 3000 psig at 650° F (343° C), 1500 psig at 1000° F (538° C)
- Adjustable outlet pressure ranges of 0-25, 0-50, 0-100 and 0-250 psig
- Stainless steel (316L or 347), INCONEL®, tungsten carbide in flow stream
- Cv flow coefficient of 0.06 and 0.2
- Metal-to-metal seat seal
- Inlet and outlet connections 1/4" FNPT
- Operating temperature -382° F (-200° C) to +1000° F (+540° C)

### Options

- 3/8" FNPT connection
- Panel mount (requires 1 3/8" mounting hole)
- Extra inlet and outlet ports

pressure regulators

PR-9 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

How to Order

PR9 –

BODY MATERIAL

- 1 316L stainless steel (650° F)
- 9 347 stainless steel (1000° F)

PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)

SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel

DIAPHRAGM LINER/BACKING

- G Tantalum

DIAPHRAGM TYPE

- 1 Standard

OUTLET RANGE

- C 0–10 psig
- D 0–25 psig
- E 0–50 psig
- G 0–100 psig
- I 0–250 psig

FLOW COEFFICIENT

- 3 0.06
- 5 0.2

SEAT MATERIAL

- M 347 stainless steel

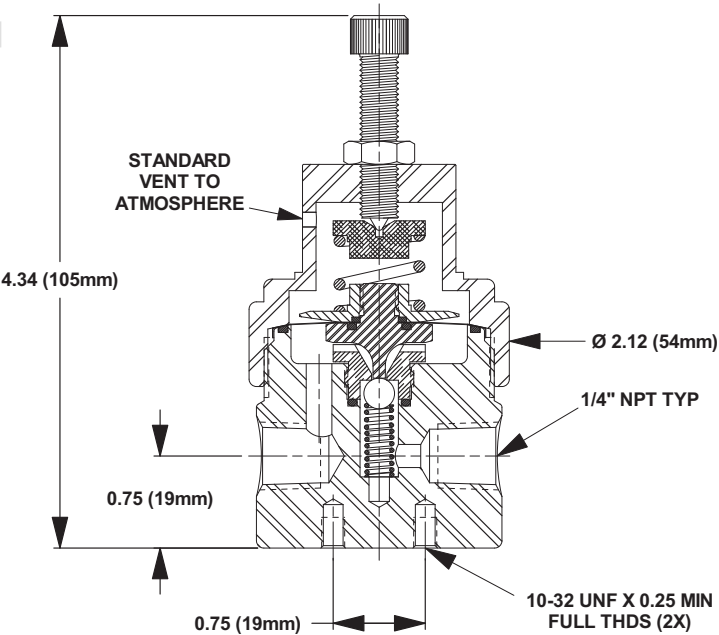
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
316 stainless steel	650° F (343° C)	@	3000 psig (20.68 MPa)
347 stainless steel	1000° F (538° C)	@	1500 psig (10.34 MPa)

Outline and Mounting Dimensions

Weight = 2.1 lbs (0.95kg)



INCONEL® is a registered trademark of Special Metals Corporation.  
VCR® is a registered trademark of Cajon Co.



## PR-11 Series

Ultra Sensitive Pressure Control Regulator



This precision pressure regulator has been designed to allow the user complete flexibility in application. The instrument design engineer can now choose the optimum operating parameters he needs for a particular flow system.

Flow and pressure regulation can now be easily and economically accomplished in laboratory and process chromatographs, air pollution analyzers and other general process and laboratory instruments. The low internal volume and no trapped areas mean efficient operation and cleanliness in instrumentation with high sensitivity detectors. The standard stainless diaphragm prevents permeability of undesired contaminants into the flow stream.

This regulator offers greater pressure and flow stability for critical applications such as chemiluminescent type analyzers and is considered the ultimate in maximum stability with ambient temperature change. The PR-11 Series has truly been designed by experienced instrumentation engineers for use in that industry.

### Features & Specifications

- Single stage precision regulation in a compact design package
- Bubble-tight shutoff
- Pressure gauge and relief valve ports optional
- PTFE lined stainless steel or Viton® diaphragm standard
- Outlet pressure ranges 0–10, 0–25, 0–50, 0–100, 0–250 and 0–500 psig
- 40 micron inlet filter
- Suitable for gas or liquid service
- Panel mounting ½" diameter, standard
- ⅛" FNPT connections
- Inlet pressures to 3600 psig
- Cv flow coefficient of 0.025, 0.06, and 0.20
- Materials in contact with operating media are aluminum, 300 series stainless steel, Viton®, PTFE and INCONEL®

### Options

- ¼" FNPT connection
- Extra ports
- Pressure gauges
- Panel mount, (requires a 1⅜" mounting hole)

pressure regulators

# PR-11 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR11 –

#### BODY MATERIAL

3 Aluminum

#### PORT CONFIGURATION

A Standard

For more port configurations, see page 33.

#### PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

0 1/8" FNPT (1/8" FNPT gauge ports)

1 1/4" FNPT (1/4" or 1/8" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

1 < 25 Ra

#### SEAT MATERIAL

A Tefzel®

B CF PTFE

D Viton® (0.2 Cv only)

H PCTFE (formerly Kel-F® 81)

Q PEEK™

#### OPTIONS

B EB5

D Helium leak test

E Pressure test certificate

F Certificate of Conformity

G CMTR

#### CAP ASSEMBLY

1 1/2" panel mount, aluminum

4 1 3/8" panel mount, aluminum

#### DIAPHRAGM FACING/BACKING MATERIAL

1 PTFE/stainless steel

2 PTFE/Viton®

#### DIAPHRAGM TYPE

1 Standard

3 Self-relieving

#### OUTLET RANGE

C 0–10 psig

D 0–25 psig

E 0–50 psig

G 0–100 psig

I 0–250 psig

#### FLOW COEFFICIENT (Cv)

3 0.06

5 0.2

C 0.025

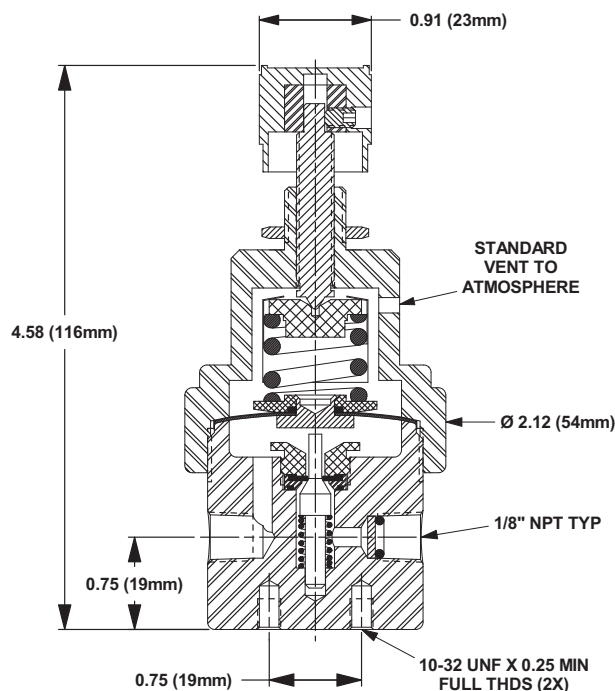
NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Viton®	225° F (107° C)	@	300 psig (2.07 MPa)
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	3600 psig (24.82 MPa)
CF PTFE	175° F (80° C)	@	3600 psig (24.82 MPa)

## Outline and Mounting Dimensions

Weight = 0.7 lbs (0.31kg)



Tefzel® is a registered trademark of the DuPont Company.  
 Viton® is a registered trademark of DuPont Dow Elastomers.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.

## SPR Series

Subatmospheric Pressure Regulator



The SPR Series Subatmospheric Pressure Regulator is designed for the introduction of a low vapor pressure reactive or purge gas into a subatmospheric process. The large diameter diaphragm provides optimum sensitivity for subatmospheric or positive pressure control.

Standard features allow service in many varied applications including corrosive fluids and, with the optional features available, the user can tailor this regulator to applications ranging from semiconductor processing to analytical instrumentation.

### Features & Specifications

- Subatmospheric or positive pressure control
- 20 micron inlet filter
- 316L stainless steel or INCONEL® construction
- Large stainless steel diaphragm with PTFE lining for optimal pressure control
- Inlet pressure range from 15–160 psia (0–145 psig)
- Adjustable outlet pressure range of 1–30 psia (27.88 in. H<sub>2</sub>O = 15.3 psig)
- Cv flow coefficient of 0.2
- Bubble-tight shutoff
- Operating temperatures -40° F to +250° F (-40° C to +121° C)
- Inlet/outlet connections 1/4" FNPT

### Options

- Class 100 assembly
- Extra ports
- Panel mount (requires 1 3/8" mounting hole)
- Pressure gauges

pressure regulators

# SPR Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### SPR –

#### BODY MATERIAL

- 1 316L stainless steel, stainless steel diaphragm
- 2 Brass, stainless steel diaphragm
- 4 MONEL®, INCONEL® diaphragm
- 6 HASTELLOY® C, INCONEL® diaphragm
- C SS 316L, INCONEL® diaphragm

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- A Tefzel®
- D Viton®
- K Kalrez®

#### FLOW COEFFICIENT (Cv)

- 5 0.2
- C 0.025
- H 0.5

#### OUTLET RANGE

- A 0–30 psia

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

#### CAP ASSEMBLY

- 1 Standard, stainless steel
- 2 T-handle, stainless steel
- 3 T-handle, panel mount, stainless steel
- 4 Panel mount, stainless steel
- 7 Captured vent, stainless steel
- 8 Tamper-proof, stainless steel
- 9 Fine adjust, ½" panel mount, stainless steel
- 0 Fine adjust, 1⅜" panel mount, stainless steel
- C Captured vent, panel mount, stainless steel
- E Tamper-proof, panel mount, stainless steel

#### DIAPHRAGM FACING/BACKING

- 1 PTFE/metal backing, standard
- 2 PTFE/Viton®
- 5 Viton®/metal backing
- 6 Tefzel® ring/metal backing

#### DIAPHRAGM TYPE

- 1 Standard

NOTE: Contact the factory for any additional requirements.

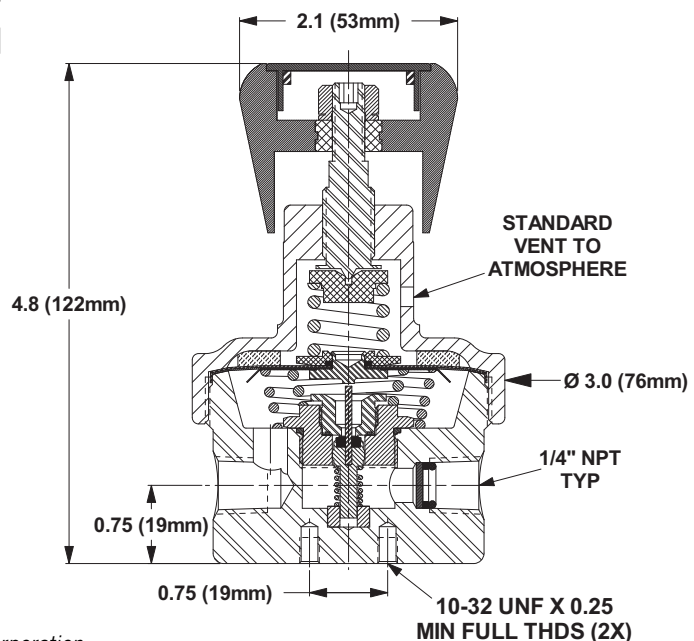
## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	145 psig (1000 kPa)
Viton®	250° F (121° C)	@	145 psig (1000 kPa)
Kalrez®	250° F (121° C)	@	145 psig (1000 kPa)

\* Temperatures in excess of 175° F (80° C) require a metal knob or the tamper-proof option.

## Outline and Mounting Dimensions

Weight = 3.2 lbs (1.45kg)



Tefzel® is a registered trademark of the DuPont Company.  
 INCONEL® and MONEL® are registered trademarks of Special Metals Corporation.  
 HASTELLOY® is a registered trademark of Haynes International, Inc.  
 Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.

## CPR-1 Series

Compact Stainless Steel Pressure Reducing Regulator



The CPR-1 Series is a compact pressure regulator with most of the same internal design features employed in our time proven PR-1 Series. This regulator was designed to provide optimum performance as a “lecture bottle regulator” for pressure control in any application where a small size and low internal volume are required. The low internal volume allows more rapid purging in analytical instrumentation and semiconductor doping gas applications.

### Features & Specifications

- Internal dead volume less than 4cc
- Gas or liquid service
- 316L stainless steel body
- Stainless steel diaphragm
- 40 micron inlet filter
- Bubble-tight shutoff
- Outlet pressure 0–10, 0–25, 0–50, 0–100, 0–250, 0–500 and 0–750
- Cv flow 0.025, 0.06, and 0.20
- Operating temperatures -40° F to +500° F (-40° F to +260° C)
- Inlet/outlet connections 1/8" FNPT

### Options

- Panel mount (requires 1 3/8" mounting hole)
- Pressure gauges
- Captured vent

pressure regulators

# CPR-1 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### CPR1 –

#### BODY MATERIAL

- 1 316L stainless steel

#### PORT CONFIGURATION

- A Standard

For more port configurations, see page 33.

#### PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 0 1/8" FNPT (1/8" FNPT gauge ports), standard

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- A Tefzel®  
 B CF PTFE  
 H PCTFE (formerly Kel-F® 81)  
 Q PEEK™

#### FLOW COEFFICIENT (Cv)

- 3 0.06  
 5 0.2  
 C 0.025

#### OUTLET RANGE

- A 1–30 psia  
 C 0–10 psig  
 D 0–25 psig  
 E 0–50 psig  
 G 0–100 psig  
 I 0–250 psig  
 J 0–500 psig  
 W 0–750 psig

#### OPTIONS

- A EB33  
 B EB5  
 D Helium leak test  
 E Pressure test certificate  
 F Certificate of Conformity  
 G CMTR

#### CAP ASSEMBLY

- 1 Standard, aluminum  
 4 Panel mount, aluminum  
 5 Captured vent, aluminum  
 7 Captured vent, stainless steel  
 8 Tamper-proof, aluminum  
 9 Fine adjust, 1/2" panel mount, aluminum  
 O Fine adjust, 1 3/8" panel mount, aluminum  
 D Captured vent, tamper-proof, stainless steel

#### DIAPHRAGM FACING/BACKING/

#### O-RING MATERIAL

- 1 Tefzel® ring/stainless steel/PTFE  
 2 PTFE/Viton®/Viton®  
 3 PTFE/Viton®/PTFE  
 4 PTFE/stainless steel/Viton®  
 7 Tefzel® ring/stainless steel/Viton®  
 8 Tefzel® ring/INCONEL®/PTFE  
 H Tefzel® ring/INCONEL®/Viton®

#### DIAPHRAGM TYPE

- 1 Standard, Nylon dia. slip ring (170° F maximum temperature)  
 2 Standard, Polyimide dia. slip ring (high temperature service)

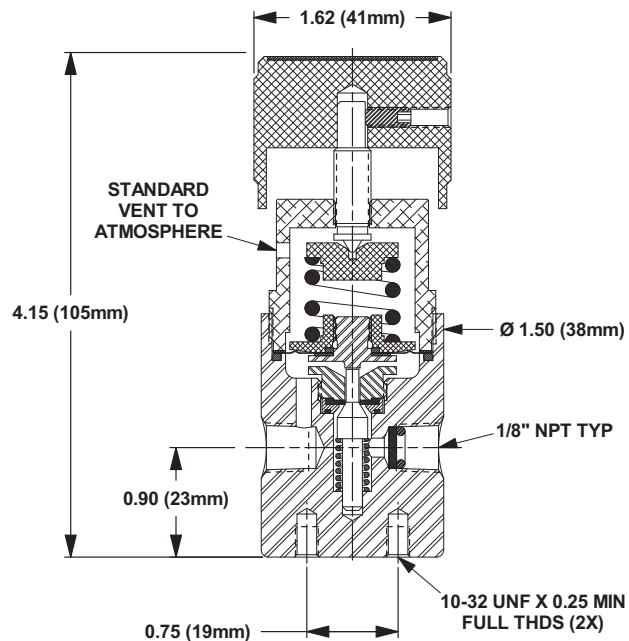
## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	500° F (260° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)
CF PTFE	175° F (80° C)	@	3600 psig (24.82 MPa)

NOTE: Contact the factory for any additional requirements.

## Outline and Mounting Dimensions

Weight = 1.1 lbs (0.50kg)



Viton® is a registered trademark of DuPont Dow Elastomers.  
 Tefzel® is a registered trademark of the DuPont Company.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.  
 INCONEL® is a registered trademark of Special Metals Corporation.

## CPR-5 Series

Compact Stainless Steel Pressure Regulator



The CPR-5 Series pressure control valve is designed for service at high flows with good sensitivity and regulation utilizing a small footprint. While the design was originated for gas systems, this valve is perfectly suitable for liquid systems that are compatible with the materials of construction. Also of interest is the fact that while being able to perform with moderately high flows, this valve also provides very good performance in flow ranges of only a few liters a minute.

This series is a variation of the time proven CPR-1 Series which has been used for many applications in systems requiring stainless steel construction. The exact package size of the CPR-1 has been retained making it convenient for the user to interchange these units if better control at higher flows is required.

### Features & Specifications

- Gas or liquid service
- 316L stainless steel construction
- PTFE/stainless steel diaphragm up to 250 psig
- PTFE/Viton® diaphragm up to 50 psig
- Electropolished body with better than 25 Ra finish in diaphragm
- 40 micron inlet filter
- Bubble-tight shutoff
- Outlet pressure ranges are 0–10, 0–25, 0–50, 0–100 and 0–250 psig
- Cv flow coefficient 0.2

pressure regulators

# CPR-5 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### CPR5 –

#### BODY MATERIAL

- 1 316L stainless steel

#### PORT CONFIGURATION

- A Standard

For more port configurations, see page 33.

#### PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 0 1/8" FNPT (1/8" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

#### SEAT MATERIAL

- D Viton®  
 J Buna N  
 K Kalrez®

#### FLOW COEFFICIENT (Cv)

- 5 0.2

#### OPTIONS

- A EB33  
 B EB5  
 D Helium leak test  
 E Pressure test certificate  
 F Certificate of Conformity  
 G CMTR

#### CAP ASSEMBLY

- 1 Standard, aluminum  
 4 Panel mount, aluminum  
 5 Captured vent, aluminum  
 7 Captured vent, stainless steel  
 8 Tamper-proof, aluminum  
 9 Fine adjust, 1/2" panel mount, aluminum  
 0 Fine adjust, 1 3/8" panel mount, aluminum

#### DIAPHRAGM FACING/BACKING/

#### O-RING MATERIAL

- 1 Tefzel® ring/stainless steel/PTFE  
 2 PTFE/Viton®/Viton®  
 3 PTFE/Viton®/PTFE  
 7 Tefzel® ring/stainless steel/Viton®  
 8 Tefzel® ring/INCONEL®/PTFE  
 H Tefzel® ring/INCONEL®/Viton®

#### DIAPHRAGM TYPE

- 1 Standard, Nylon dia. slip ring  
 (170° F maximum temperature)  
 2 Standard, Polyimide dia. slip ring  
 (high temperature service)

#### OUTLET RANGE

- C 0–10 psig  
 D 0–25 psig  
 E 0–50 psig  
 G 0–100 psig  
 I 0–250 psig

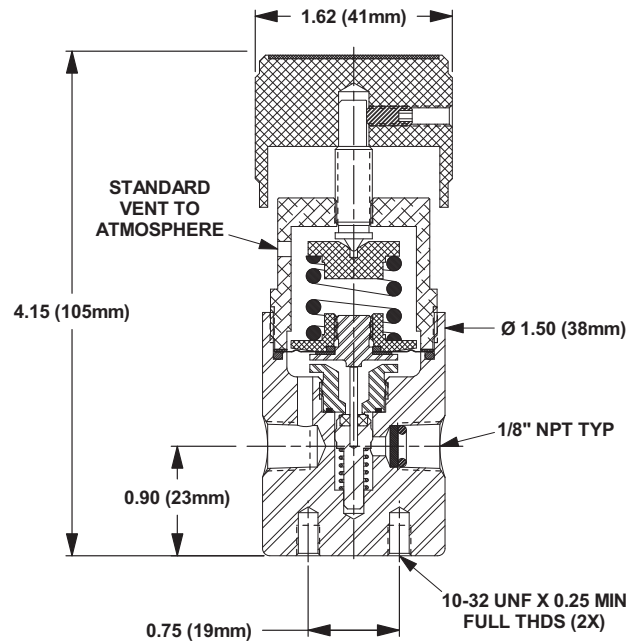
NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Viton®	400° F (204° C)	@	300 psig (2.07 MPa)
Buna N	150° F (66° C)	@	300 psig (2.07 MPa)
Kalrez®	400° F (204° C)	@	300 psig (2.07 MPa)

## Outline and Mounting Dimensions

Weight = 1.1 lbs (0.50kg)



Tefzel® is a registered trademark of the DuPont Company.  
 Kalrez® and Viton® are registered trademarks of DuPont Dow Elastomers.



## MR Series

Ultra Miniature Pressure Regulator



The MR is an ultra-miniature pressure regulator that has many of the same features found in the time-tested design of the CPR-1 & PR-1 Series pressure regulators. Designed for surface, panel or manifold mounting, the MR offers the utmost in versatility to the systems designer. It's low internal volume of less than 2.7cc makes the MR the perfect choice for systems that require rapid purge cycles. Standard features permit using this regulator in a wide variety of services, including corrosive fluids. The MR can be tailored to virtually any application by utilizing the optional features. All of this is attainable while achieving as low as 0.2% accuracy during supply pressure fluctuations. This regulator is designed to allow the construction of compact and sophisticated analytical instrumentation where the optimum in pressure control is required and space is at a premium.

### Features & Specifications

- Gas or liquid service
- 316L stainless steel construction
- Internal volume is less than 2.7cc
- Electropolished body with better than 25 Ra finish in diaphragm cavity
- 20 micron inlet filter
- Bubble-tight shutoff
- Outlet pressure ranges are 0–10, 0–25, 0–50, 0–100, 0–250 and 0–500 psig
- Cv flow coefficient 0.025 or 0.06
- Option: surface mount (for manifolds)
- Optional INCONEL® diaphragm

pressure regulators

# MR Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

**MR –**

### BODY MATERIAL

- 1 316L stainless steel

### PORT CONFIGURATION

- A Standard

For more port configurations, see page 33.

### PORT TYPE

- 0 1/8" FNPT (all ports)  
 1 Surface mount (consult factory for configurations)  
 A 1/16" FNPT (all ports)  
 B 1/8" FNPT inlets; 1/16" FNPT outlets

### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

### SEAT MATERIAL

- A Tefzel®  
 H PCTFE (formerly Kel-F® 81)  
 Q PEEK™

### FLOW COEFFICIENT (Cv)

- 3 0.06  
 C 0.025

### OPTIONS

- A EB33  
 B EB5  
 D Helium leak test  
 E Pressure test certificate  
 F Certificate of Conformity  
 G CMTR

### CAP ASSEMBLY

- 1 Hand knob (0–100 psig maximum)  
 2 T-handle  
 3 T-handle, panel mount  
 4 Hand knob, panel mount (0–100 psig maximum)  
 8 Tamper-proof  
 E Tamper-proof, panel mount

### DIAPHRAGM FACING/BACKING/ O-RING MATERIAL

- 1 Tefzel® ring/stainless steel/PTFE  
 7 Tefzel® ring/stainless steel/Viton®  
 8 Tefzel® ring/INCONEL®/PTFE  
 H Tefzel® ring/INCONEL®/Viton®

### DIAPHRAGM TYPE

- 1 Standard, Nylon dia. slip ring (170° F maximum temperature)  
 2 Standard, Polyimide dia. slip ring (high temperature service)

### OUTLET RANGE

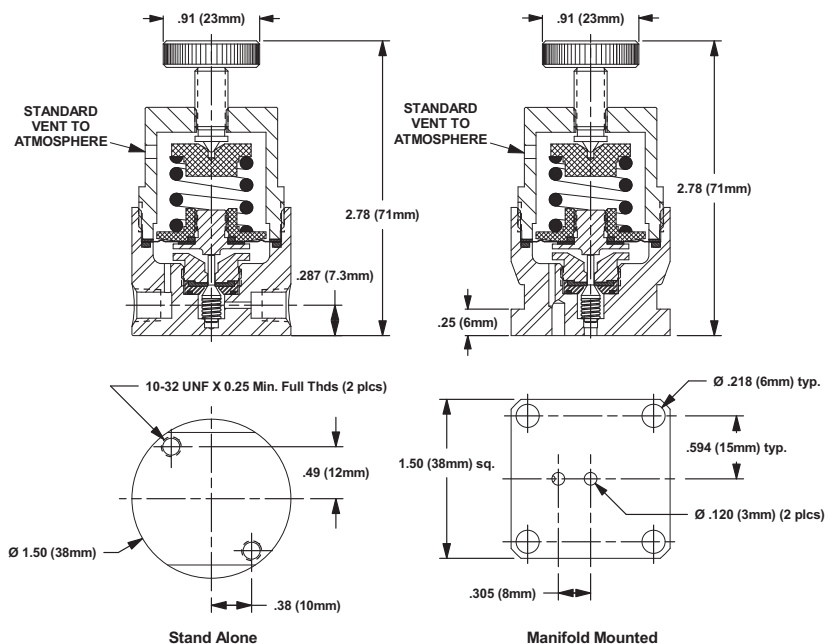
- C 0–10 psig  
 D 0–25 psig  
 E 0–50 psig  
 G 0–100 psig  
 I 0–250 psig (requires T-handle or tamper-proof)  
 J 0–500 psig (requires T-handle or tamper-proof)

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	500° F (260° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)

## Outline and Mounting Dimensions



## PR-50 Series

Diaphragm-type High Pressure Regulator



The PR-50 Series pressure regulator is designed to meet the demands for outlet pressures up to 2000 psig while maintaining superior corrosion protection.

For reliability in operation, this precision regulator features a stainless steel body (optional brass) which provides maximum corrosion resistance and safety. 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.

To prolong regulator life, this unit is supplied with an integral inlet filter which protects the seat against any foreign contamination introduced by the upstream supply.

### Features & Specifications

- Gas or liquid service
- Inlet pressure to 6000 psig
- Outlet pressure ranges 0–500, 0–1000, and 0–2000 psig
- 316L stainless steel or Brass (alloy 360) construction
- 20 micron inlet filter
- Bubble-tight shutoff
- 1/4" FNPT standard
- Diaphragm material standard stainless steel, nylon or PTFE
- Flow coefficients (Cv) of 0.025, 0.06, and 0.20

### Applications

- R & D systems
- Cylinder gas regulation
- Sampling systems
- Airline charging carts
- Pilot plants
- Offshore drillings

pressure regulators

# PR-50 Series

To Order, contact your local Distributor Link below:  
[www.goreg.com/distributor/index.htm](http://www.goreg.com/distributor/index.htm)

Verify that your chosen part number is valid using the GO Wizards at  
[www.goreg.com/products/matrix/index.htm](http://www.goreg.com/products/matrix/index.htm)

## How to Order

### PR50 –

#### BODY MATERIAL

- 1 316L stainless steel
- 2 Brass
- 4 MONEL®
- 8 Chrome plated brass

#### PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

#### PROCESS PORT TYPES

##### (GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra, standard

#### SEAT MATERIAL

- A Tefzel®
- H PCTFE (formerly Kel-F® 81)
- Q PEEK™

#### FLOW COEFFICIENT (Cv)

- 3 0.06
- 5 0.2
- C 0.025

#### OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

#### CAP ASSEMBLY

- 1 Standard, aluminum
- 4 Panel mount, aluminum
- 5 Captured vent, aluminum
- 6 Captured vent, panel mount, aluminum
- 7 Captured vent, stainless steel
- 9 Plastic knob, stainless steel
- A Captured vent, plastic knob, stainless steel
- B Panel mount, plastic knob, stainless steel
- F Stainless steel panel mount
- V Captured vent, stainless steel
- W Panel mount, stainless steel

#### DIAPHRAGM FACING/BACKING MATERIAL

	Facing	Backing	O-rings	Actuator
1	St. steel	Nylon	Viton®	St. steel
2	—	Nylon	PTFE	St. steel
3	Polyimide	Nylon	Viton®	St. steel
4	St. steel	Nylon	PTFE	St. steel
5	—	Nylon	PTFE	MONEL®
6	Polyimide	Nylon	PTFE	St. steel
7	INCONEL®	Nylon	Viton®	MONEL®
8	INCONEL®	Nylon	PTFE	MONEL®
B	—	Nylon	Viton®	MONEL®
H	—	Nylon	Viton®	St. steel
Q	St. steel	PTFE	PTFE	St. steel
V	INCONEL®	PTFE	PTFE	MONEL®

#### DIAPHRAGM TYPE

- 1 Non-self-relieving
- 3 Self-relieving

#### OUTLET RANGE

- J 0–500 psig
- K 0–1,000 psig
- L 0–2,000 psig

NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

### Nylon Diaphragm Backing

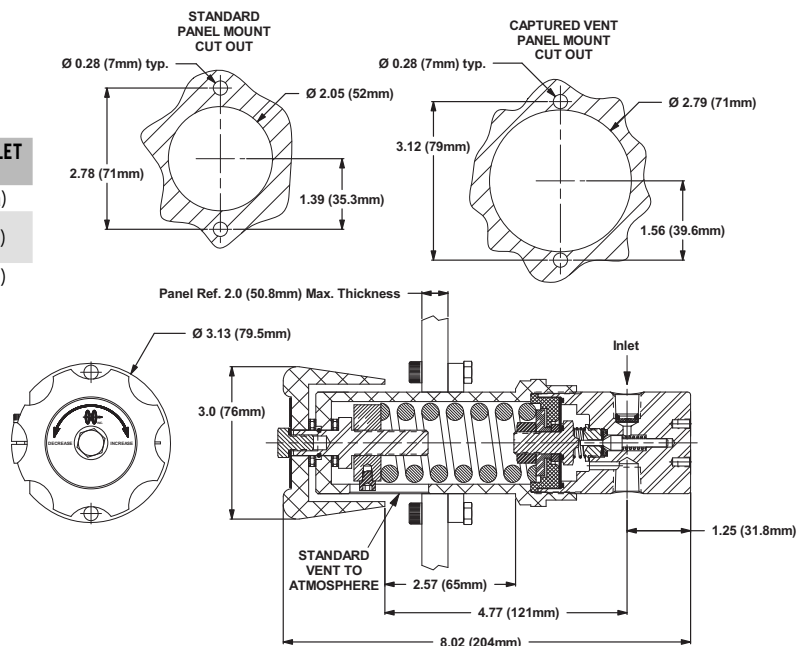
SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)

### PTFE Diaphragm Backing

SEAT MATERIAL	MAXIMUM TEMPERATURE*	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	350° F (176° C)	@	6000 psig (41.37 MPa)

## Outline and Mounting Dimensions

Weight = 4.4 lbs (2.0kg)



Tefzel® is a registered trademark of the DuPont Company.  
 MONEL® is a registered trademark of Special Metals Corporation.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.  
 Viton® is a registered trademark of DuPont Dow Elastomers.

## PR-56 Series

High Pressure Brass Regulator (6,000 psig Inlet)



To meet the demands for the safe reduction of inlet pressures up to 6,000 psig, GO Regulator has designed the PR-56 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 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
- Brass (alloy 360) construction
- Better than 25 Ra finish in diaphragm cavity
- Stainless steel spring loaded piston sensor
- 20 micron filter
- Bubble-tight shutoff
- Viton® seals (other elastomers optional)
- Inlet pressure maximum 6,000 psig
- Outlet pressure ranges are 0–250, 0–500, 0–750, 0–1000, 0–2000, 0–4000, and 0–6000 psig
- 1/4" FNPT standard
- Cv flow coefficient 0.05 or 0.2

### Options

- Gauges and CGA fittings for cylinder gas application
- Self-relieving and captured vent
- 3/8" FNPT

pressure regulators

## How to Order

### PR56 –

#### BODY MATERIAL

2 Brass

#### PORT CONFIGURATION

A Standard

For more port configurations, see page 33.

#### PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

1 ¼" FNPT (¼" FNPT gauge ports)

4 ⅜" FNPT (¼" FNPT gauge ports)

#### SURFACE FINISH OF DIAPHRAGM CAVITY

1 < 25 Ra

5 < 25 Ra with 10-32 mounting holes

#### SEAT MATERIAL

A Tefzel®

H PCTFE (formerly Kel-F® 81)

Q PEEK™

#### FLOW COEFFICIENT (Cv)

2 0.05

5 0.2

#### OPTIONS

A EB33

B EB5

D Helium leak test

E Pressure test certificate

F Certificate of Conformity

G CMTR

#### CAP ASSEMBLY

1 Standard, stainless steel

4 Panel mount, stainless steel

J Captured vent, panel mount, stainless steel

7 Captured vent, stainless steel

8 Tamper Proof, stainless steel

#### PISTON MATERIAL

4 Stainless steel/PTFE cavity O-ring

5 Stainless steel/Viton® cavity O-ring

#### PISTON TYPE

1 Non-self-relieving

3 Self-relieving

#### OUTLET RANGE

I 0-250 psig

J 0-500 psig

W 0-750 psig

K 0-1000 psig

L 0-2000 psig

N 0-4000 psig

O 0-6000 psig

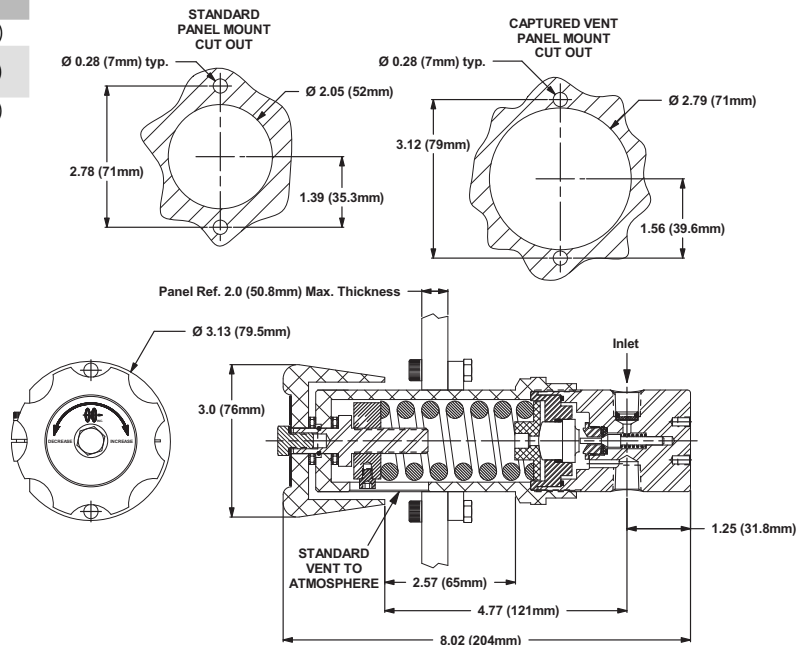
NOTE: Contact the factory for any additional requirements.

## Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)

## Outline and Mounting Dimensions

Weight = 4.4 lbs (2.0kg)



Tefzel® is a registered trademark of the DuPont Company.  
 Kel-F® is a registered trademark of 3M Company.  
 PEEK™ is a trademark of Victrex PLC.  
 Viton® is a registered trademark of DuPont Dow Elastomers.

## PR-57 Series

High Pressure Corrosion-resistant Regulator (10,000 psig Inlet)



To meet the demands for the safe reduction of inlet pressures up to 10,000 psig, GO Regulator has designed the PR-57 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
- 316L stainless steel construction
- Better than 25 Ra finish in diaphragm cavity
- Stainless steel spring loaded piston sensor
- 20 micron filter
- Bubble-tight shutoff
- Viton® seals (other elastomers optional)
- Inlet pressure maximum 10,000
- Outlet pressure ranges are 0–250, 0–500, 0–750, 0–1000, 0–2000, 0–4000, 0–6000, 0–7500 and 0–10,000 psig
- 1/4" FNPT standard
- Operating temperatures -40° F to +150° F (-40° C to +66° C)
- Cv flow coefficient 0.05 or 0.2

### Options

- Gauges and CGA fittings for cylinder gas application
- Self-relieving and captured vent
- 3/8" FNPT

pressure regulators

How to Order

PR57 –

BODY MATERIAL

- 1 316L stainless steel
- 4 MONEL®

PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 1 ¼" FNPT (¼" FNPT gauge ports)
- 4 ⅜" FNPT (¼" FNPT gauge ports)

SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra
- 5 < 25 Ra with 10-32 mounting holes

SEAT MATERIAL

- C Polyimide
- Q PEEK™

FLOW COEFFICIENT (Cv)

- 2 0.05
- 5 0.2

OPTIONS

- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

CAP ASSEMBLY

- 1 Standard, aluminum
- 4 Panel mount, aluminum
- 5 Captured vent, aluminum
- 6 Captured vent, panel mount, aluminum
- 7 Captured vent, stainless steel
- 9 Plastic knob, stainless steel
- A Captured vent, plastic knob, stainless steel
- B Panel mount, plastic knob, stainless steel
- F Stainless steel
- V Captured vent, panel mount, stainless steel
- W Panel mount, stainless steel

PISTON MATERIAL

- 4 Stainless steel/PTFE cavity O-ring
- 5 Stainless steel/Viton® cavity O-ring
- 6 MONEL®/Viton® cavity O-ring
- 7 MONEL®/PTFE cavity O-ring

PISTON TYPE

- 1 Non-self-relieving
- 3 Self-relieving

OUTLET RANGE

- I 0–250 psig
- J 0–500 psig
- W 0–750 psig
- K 0–1000 psig
- L 0–2000 psig
- N 0–4000 psig
- O 0–6000 psig
- P 0–7500 psig
- Q 0–10,000 psig

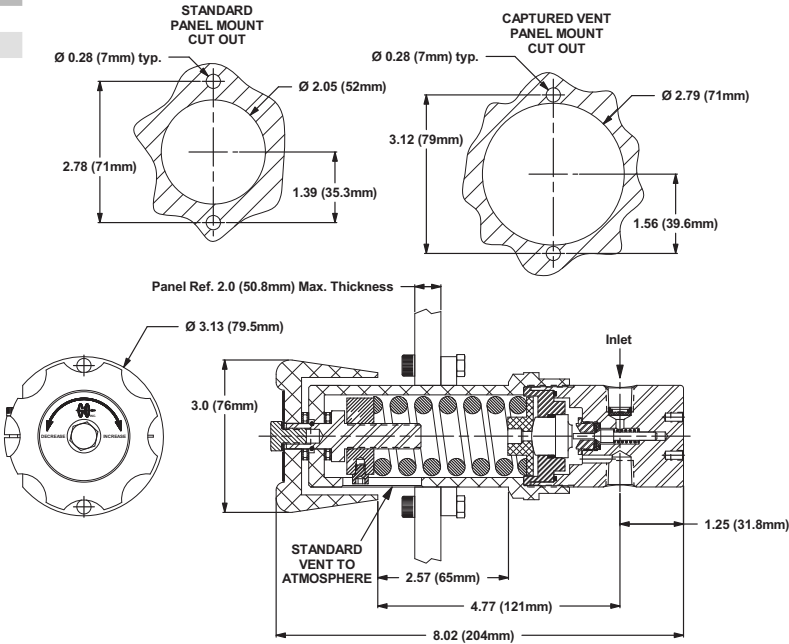
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
Polyimide	150° F (66° C)	@	10,000 psig (68.95 MPa)
PEEK™	150° F (66° C)	@	10,000 psig (68.95 MPa)

Outline and Mounting Dimensions

Weight = 4.4 lbs (2.0kg)



MONEL® is a registered trademark of Special Metals Corporation.  
PEEK™ is a trademark of Victrex PLC.



## PR-59 Series

High Pressure/High Flow Pressure Reducing Regulator



Designed for low and high pressures up to 4000 psig inlet, the PR-59 Series pressure reducing regulator controls high flow with its Cv flow coefficient of 1.2. Though normally supplied without self-relieving capability, this feature can be added as an option.

While primarily designed for use with gas streams, the PR-59 can be used with virtually any liquid systems that are compatible with the seals. A large size piston sensor gives good sensitivity of control even at low outlet pressures and the Kel-F® valve seat assembly gives normal bubble-tight shutoff.

### Features & Specifications

- 316L stainless steel, Brass and MONEL® body construction
- Inlet pressure capability up to 4000 psig
- Outlet control ranges from 250 psig up to 4000 psig
- Optional self-relieving feature
- Inlet and outlet ports of ½" or ¾" FNPT with ¼" FNPT gauge ports optional
- ½" FNPT standard
- Balanced poppet valve design for constant pressure control
- Viton® seals (other elastomers optional)
- PCTFE seat
- Cv flow coefficient is 1.2
- Operating temperatures of -40° F to +175° F (-40° C to +80° C)

pressure regulators

How to Order

PR59 –

BODY MATERIAL

- 1 316L stainless steel
- 2 Brass
- 4 MONEL®

PORT CONFIGURATION

- A Standard
- For more port configurations, see page 33.

PROCESS PORT TYPES

(GAUGE PORT TYPES, IF SPECIFIED)

- 5 ½" FNPT (¼" FNPT gauge ports)
- A ¾" FNPT (¼" tube gauge ports)

SURFACE FINISH OF DIAPHRAGM CAVITY

- 1 < 25 Ra

SEAT MATERIAL

- H PCTFE (formerly Kel-F® 81)
- I PTFE (0–1000 psig maximum inlet)

FLOW COEFFICIENT (Cv)

- 9 1.2

OPTIONS

- A EB33
- B EB5
- D Helium leak test
- E Pressure test certificate
- F Certificate of Conformity
- G CMTR

CAP ASSEMBLY

- 1 Standard, stainless steel
- 4 Panel mount, stainless steel
- 5 Captured vent, stainless steel
- 6 Captured vent, panel mount, stainless steel
- 9 Plastic knob, stainless steel
- A Captured vent, plastic knob, stainless steel
- B Panel mount, plastic knob, stainless steel

PISTON MATERIAL

- 5 Stainless steel
- B MONEL®

PISTON TYPE

- 1 Non-self-relieving
- 3 Self-relieving

OUTLET RANGE

- I 0–250 psig
- J 0–500 psig
- W 0–750 psig
- K 0–1000 psig
- L 0–2000 psig
- N 0–4000 psig

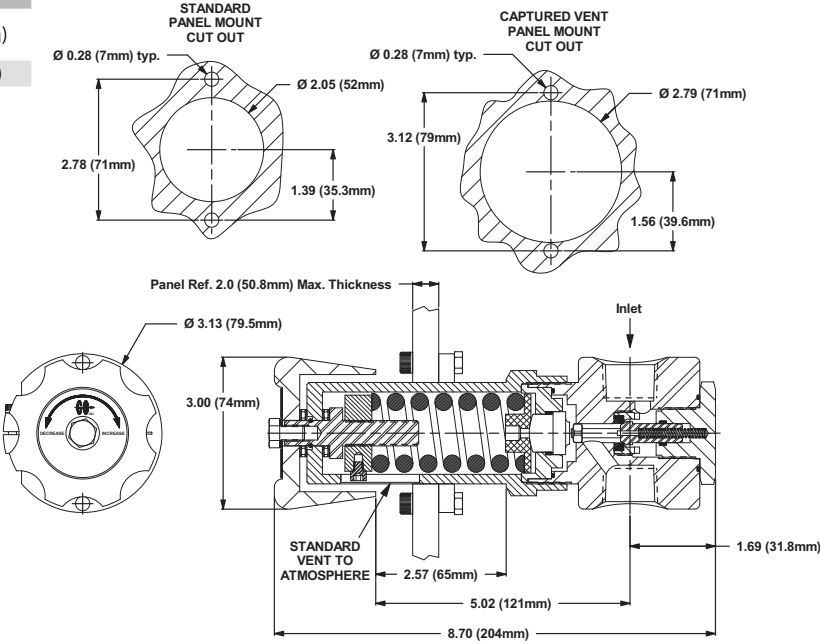
NOTE: Contact the factory for any additional requirements.

Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM OPERATING INLET PRESSURE
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	4000 psig (27.58 MPa)
PTFE	150° F (66° C)	@	1000 psig (6.90 MPa)

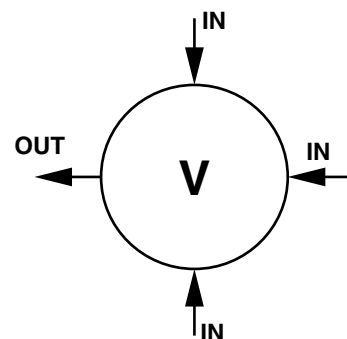
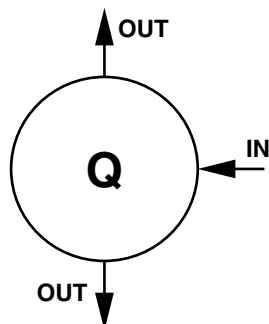
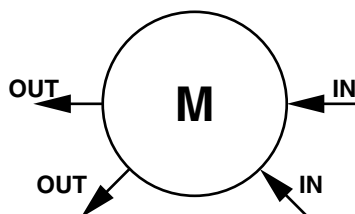
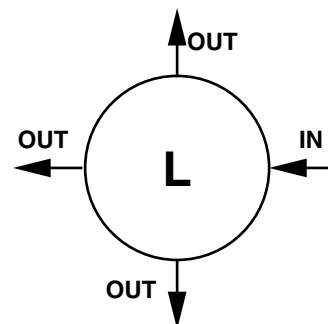
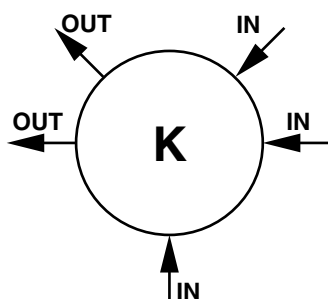
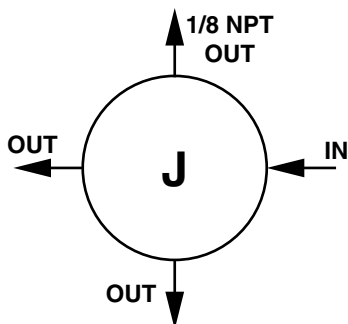
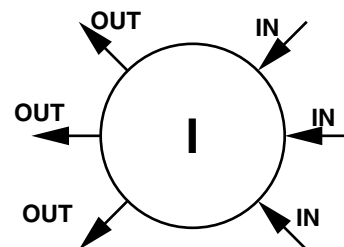
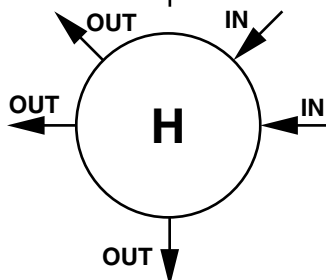
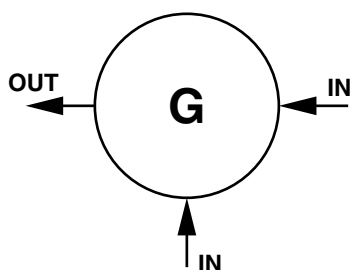
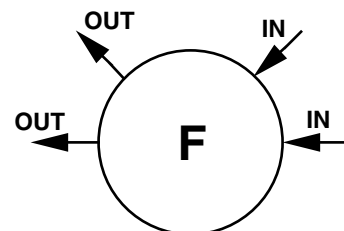
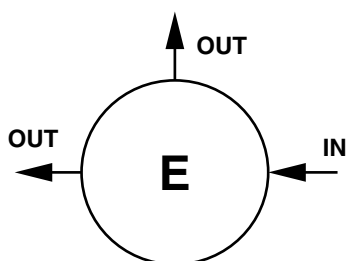
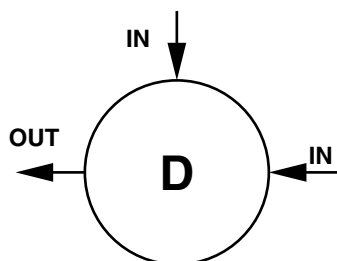
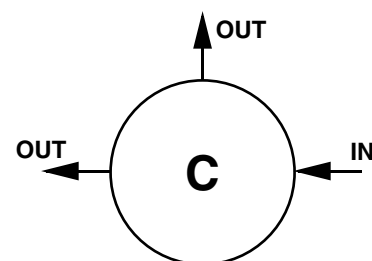
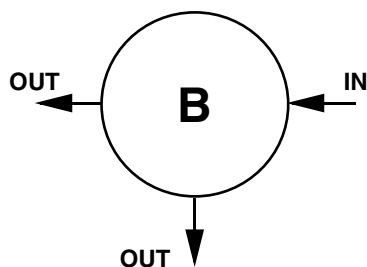
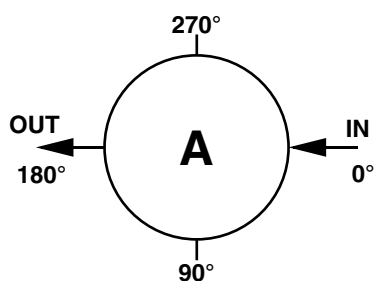
Outline and Mounting Dimensions

Weight = 4.4 lbs (2.0kg)



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Viton® is a registered trademark of DuPont Dow Elastomers.  
MONEL® is a registered trademark of Special Metals Corporation.

# Port Locations (Back Pressure Regulators)



LOCATION OF PORTS FROM  
TOP VIEW

[illegible]

Notes

[illegible]

## **GO Regulator Literature and Published Information - Disclaimer:**

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The Small Bore  
Instrumentation Specialists



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We specialize in small bore instrumentation products up to 2" that deliver benchmark performance quality & safety; provide the broadest array of superior alloy offerings in the market; decades of proven success in a wide range of industries; a roster of "who's who" customers & projects globally; original "Best Solution" engineering & designs; and are focused on continuous improvement in all aspects of our business.

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