GENTEC®

www.gentec.com

SPECIALTY GAS EQUIPMENT

Regulators • Manifold Systems • Pressure Gauges • Valves & Filters

Technology for a Better Future

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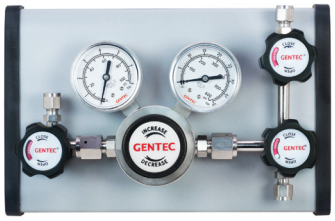
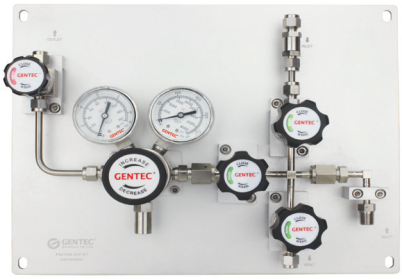


Gas Panels



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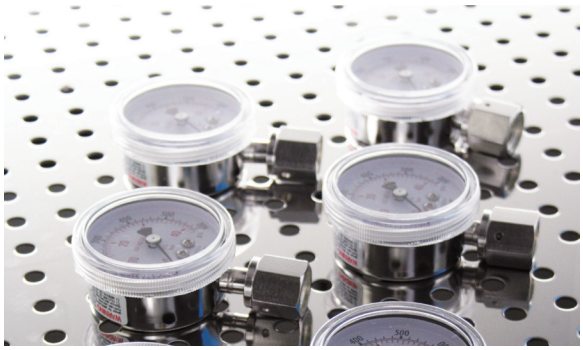


Company Overview

Genstar Technologies is a global leader in Gas Flow Control Systems for the industrial, specialty gas and medical sectors. We pride ourselves in our ability to provide our customers with high quality, value-added products and services that go beyond the industry standards. As a result, we have a global network of thousands of satisfied customers in over 60 countries.

Our Team

Our highly educated team of engineers, salespeople, technicians, managers, and customer service personnel are dedicated to providing you with products with the highest quality, reliability and performance. We hold the highest standards to our manufacturing processes; our total process management maximizes our production efficiency while ensuring product quality.

We work closely with all of our customers to design products specific to your needs. This includes developing new products, redesigning existing products, and customizing configuration / packaging. It is our priority to foster a strong relationship with each and every customer.

Quality Assurance

All of our products are manufactured under stringent quality control. We are ISO 9001:2001, ISO13485, and API certified. Our products meet UL, CE, SEMI, and various international standards and certifications.

Manufacturing Capabilities

The manufacturing facility is equipped with CNC machining centers, electoral polishing equipment, and precision automatic orbital welding systems, among other features, to ensure the production of the highest quality products.

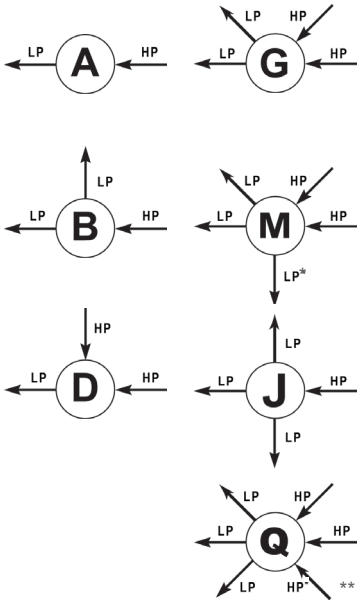
Clean Room Facilities

Our class 10/100/1000 clean rooms are designed for Ultra High Purity (UHP) products. UHP products undergo precision machining, surface finishing, electro-polishing and passivation. All UHP products are cleaned by 18MΩ DI water in a cascade ultrasonic tank. To ensure the highest UHP product quality, they are then vacuum-dried and double-bagged.

REGULATOR COMPONENTS

A GENTEC® Company Profile

Regulator Port Configurations



** For R31 Series, this high pressure "Q" port configuration is plugged. This port can be used for purging purpose only.

* For the "M" port configuration of R31 Series, this port is plugged and cannot be used for relief valve installation.

1. Inlet (High) Pressure Gauge

- Fabricated from German imported Bourdon tubes
- High accuracy and stability

2. Inlet Connection

- Multiple connections available
- Compliant with CGA/BSP/DIN/JIS/GB standards

3. Safety Valve

- Accurate relief of pressure
- Reliable and positive shut-off

4. Outlet Connection

- Multiple connections available

5. Outlet (Low) Pressure Gauge

- Fabricated from German imported Bourdon tubes
- High accuracy and stability

6. Regulator Body

- Fabricated from high-strength corrosion-resistant material
- Fabricated with advanced CNC machines to produce the highest quality of parts
- Wetted area is polished to ensure a clean and smooth flow
- 316L and Hastelloy diaphragms produce a metal-to-metal, leak-proof seal

7. Diaphragm Valve

- Designed to withstand temperature and vibration fluctuations
- Assure a consistent outlet flow
- Ergonomically designed control knob for easy adjustment

Note: Please consult the GENTEC® facility about special port configurations or requests.

Gas Service and Material Compatibility

1. Assess the gas application against the material of construction of the regulator.
2. Regulator components that come into contact with the gas stream called “wetted surfaces” should be compatible with the intended gas service.
3. CGA connections are determined by gas usage. Please refer to the “Cylinder Connection Table,” on Page 128 for the recommended connection.

Gas Purity

High Purity grade gases will require more “diffusion resistant” components than lower purity grade gases. Diffusion means that gases can either desorb or adsorb from the seat or diaphragm material of the regulator resulting in impurity contamination of the gas stream. Stainless Steel diaphragms should also be used since Elastomeric (rubber-based) diaphragms tend to absorb and outgas and they can compromise gas purity.

Outlet Connections

Specific outlet connections are determined by usage, flow, and pressure requirements. Most regulators are available with custom fittings and configured at the time of ordering. GENTEC® offers a wide range of outlet fittings in addition to hose connections, needle and diaphragm valves, and tube fittings.

Single vs. Dual Stage

Single-Stage Regulators reduce pressure by passing through a pressure reducing valve area in one step to deliver a pressure within a specific range. These regulators demonstrate a slight increase in delivery pressure as the cylinder pressure falls during use, also known as “Inlet Pressure Decay.” This reduced Inlet Pressure Decay provides less force against the regulator valve causing it to open wider resulting in increased outlet pressure.

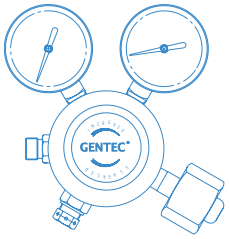
Dual-Stage Regulators perform a similar function as Single-Stage Regulators. The Dual-Stage Regulator delivery pressure remains constant as the cylinder pressure decreases. However, greater accuracy in pressure control is maintained because the pressure is reduced by passing through two pressure reducing valves instead of one. The first stage reduces the incoming high pressure into the second stage. The second stage then reduces the remaining pressure to the desired working pressure. Because the inlet pressure on the second stage is relatively stable from the first stage, Dual-Stage Regulators maintain constant delivery pressure and do not require periodic adjustment as the cylinder pressure decreases.

In summary, for a Single-Stage Regulator, the outlet pressure may increase as the cylinder pressure drops. In a Dual-Stage Regulator, the outlet pressure should remain constant as the cylinder pressure drops.

REGULATOR FAMILY

Specialty Gas Regulator Family

GENTEC® GENERAL PURPOSE REGULATORS

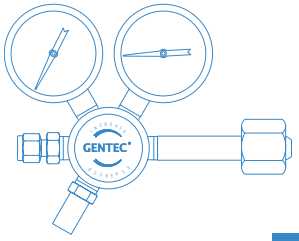


1

Recommended for use with inert and non-corrosive pure and mixed gas applications where elastomeric outgassing is not critical.

These regulators are not recommended for analytical or high purity applications. Typical applications include general laboratory or plant use. GENTEC® regulators can provide safety relief valves to protect downstream equipment from over-pressurization. Needle and Diaphragm Valves on the outlet are also available.

GENTEC® HIGH PURITY REGULATORS

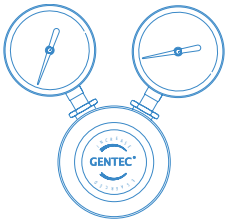


2

Recommended for use with inert, flammable, and semi-corrosive pure and mixed gas applications.

Typical applications include GC analytical instrumentation, chromatographic carrier gas, and process gas regulation. These units minimize outgassing and inboard diffusion through the use of stainless steel convoluted diaphragms, high purity seats and seal rings.

GENTEC® ULTRA & HIGH PURITY CORROSION RESISTANT REGULATORS



3

Recommended for use with semi-corrosive and some toxic applications.

The stainless steel convoluted metal-to-metal diaphragm seal provides superior leak performance and eliminates the need for seal rings. This metal-to-metal seal eliminates outgassing and inboard diffusion in the gas stream.

		Material											
		Body			Diaphragm			Type					
Regulator	Application	FBR	BR	SS	N	SS	P	HS	Single Stage	Dual Stage	Line	Other	Catalog Page
G152	General Purpose	•			•				•				07.
G152T	General Purpose	•			•					•			09.
HP152L	High Purity, Medium Flow	•				•					•		11.
HP152	High Purity, Medium Flow	•				•			•				13.
HP152T	High Purity, Medium Flow	•				•				•			15.
R12B	High Purity, Low Flow			•		•			•				17.
R13B	High Purity, Low Flow		•			•			•				19.
R21B	High Purity, Low Flow		•			•			•		•		21.
R21B	High Purity, Low Flow		•			•			•				23.
R22B	High Purity, Medium Flow		•			•			•		•		25.
R31B	High Purity, Low Flow		•			•				•			27.
R66B	High Purity, Low Flow		•			•					•		29.
R72B	High Purity, Back Pressure		•			•						•	31.
R77B	Sensitive, Back Pressure		•			•						•	33.
R12SL	High Purity, Low Flow			•		•			•				35.
R13SL	High Purity, Low Flow			•		•			•				37.
R15SL	High Purity, Medium Flow			•		•			•		•		39.
R21SL	High Purity, Low Flow			•		•					•		41.
R21SL	High Purity, Low Flow			•		•			•				43.
R22SL	High Purity, Medium Flow			•		•			•		•		45.
R23SL	High Purity, High Flow		•			•			•		•		47.
R31SL	High Purity, Low Flow			•		•				•			49.
R42SL	High Pressure, High Flow			•		•			•				51.
R43SL	High Pressure, High Flow			•		•			•				53.
R44SL	High Purity, Low Flow			•			•		•				55.
R45SL	Ultra High Pressure			•			•		•				57.
R51SL	High Purity, Corrosion			•				•	•			FSR	59.
R66SL	Ultra High Flow			•	•			•					61.
R72SL	High Purity, Back Pressure			•		•						•	63.
R73SL	High Pressure, Back Pressure			•		•						•	65.
R77SL	Back Pressure, Low Flow			•		•			•				67.
U21SL	Ultra High Purity			•		•			•		•	FSR	69.
U22SL	Ultra High Purity			•		•			•		•	FSR	71.
U23SL	Ultra High Purity			•		•			•		•	FSR	73.
U53SL	Ultra High Purity			•		•					•	FSR	75.

FBR = Forged Brass BR = Brass Barstock SS = Stainless Steel N = Neoprene P = Piston HS = Hastelloy FSR = Face Seal

WARRANTY

GENTEC® Warranty Information

Any GENTEC® apparatus found to be defective either in material or workmanship during the time set forth below will be replaced by Genstar Technologies Company, Inc. or its Authorized Distributors, provided that said apparatus was used under normal conditions for the purpose intended.

GENTEC® apparatus damaged or rendered inoperative due to abuse, negligence, misuse, accident or abnormal wear and tear is not covered by this warranty and must be repaired at the sole expense of the equipment owner. GENTEC® apparatus should be serviced facilities only. Service or repair of this apparatus by other than Genstar Technologies Company, Inc. or designated service facilities may void any warranties and relieve Genstar Technologies Company, Incorporated of any claims for damage and/or liability.

To make a claim under this warranty, Buyer must notify Genstar Technologies Company, Inc. or its Authorized Distributor of the details of such claim within 30 days of discovering a defect in material or workmanship along with proof of purchase. The Buyer will be responsible for transportation costs and related risks.

Genstar Technologies Company, Inc. shall not, under any circumstances, be liable for any damages including but not limited to: indirect, incidental, consequential, or special damages, wether such damages result from negligence, breach of warranty or otherwise.

There are no other warranties, expressed or implied, except as stated herein. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Genstar Technologies company, Incorporated reserves the right to discontinue manufacturing of any product or change product materials, design or specifications without notice.

Warranty from the Date of Original Purchase

1 YEAR

GENTEC® High Purity Regulators

- **90 days corrosive service**

1 YEAR

Pigtails

* GENTEC® Industrial Manifold Systems are not included in this catalog.

G152 SERIES

General Purpose Medium Flow Regulator

G152-DKK-C320-01-NR

GENTEC® G152 Series is a Single-Stage Brass Regulator designed for General Purpose laboratory applications where occasional readjustment of the working pressure is acceptable.

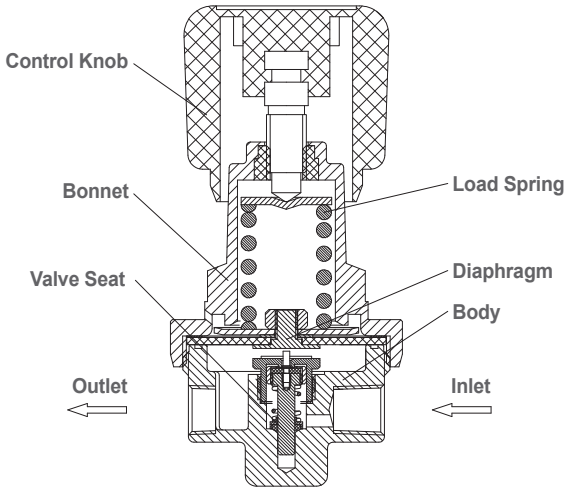
Not recommended for high purity application in which outgassing due to elastomeric components would adversely affect the process.

Product Features

- 2" Neoprene Diaphragm
- 2" Dual-Scale Pressure Gauges in gold steel casing
- Optional outlet: Needle Valve or Diaphragm Valve
- Conforms to CGA E-4 standard for Gas Pressure Regulators

Materials

• **Body**	Forged Brass
• **Bonnet**	Nickel-Plated Forged Brass
• **Seat**	PU
• **Diaphragm**	Neoprene
• **Seal**	Nylon
• **Adjusting Knob**	ABS plastic



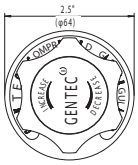
Applications

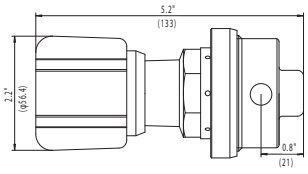
- Non-Corrosive Gases
- Purging
- Leak Testing
- Gas Shielding

Specifications

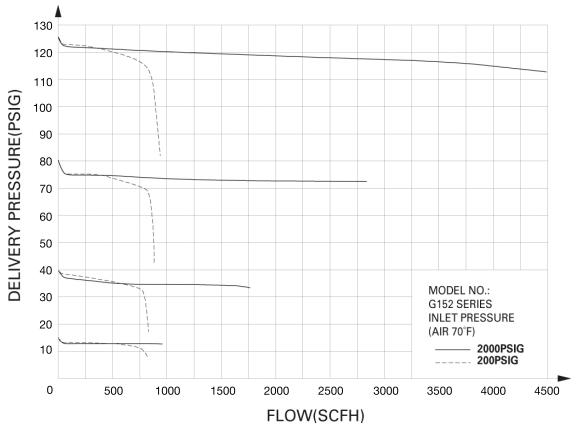
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Operating temperature range:** 0 to 140°F (-17 to 60°C)
- **Weight:** 3 lb 2 oz

Dimensions





Flow Data



Ordering Information

EX: G152- Series	D Inlet Pressure Range	K Outlet Pressure Ranges	K - Gauge	C320 - Inlet Connections	01 - Outlet Connections	NR Options
• G152	D: 3000 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve R: Relief Valve

G152T SERIES

General Purpose Medium Flow Regulator

G152T-DGK-C540-01-NR

GENTEC® G152T Series is a Dual-Stage Brass Regulator designed for General Purpose laboratory applications where continuous outlet flow and pressure are desired.

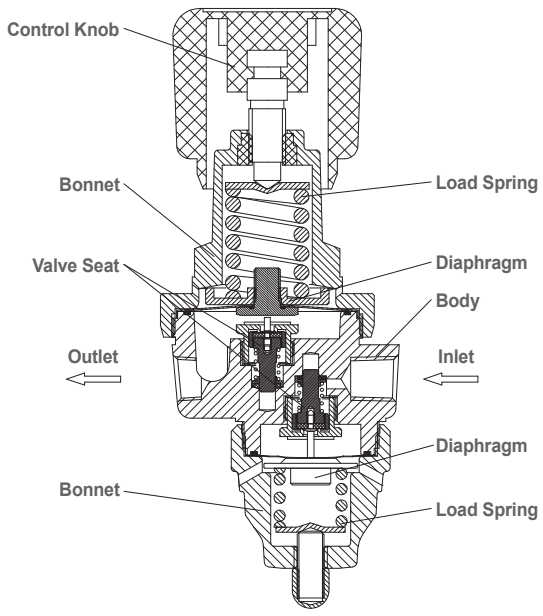
Not recommended for high purity application in which outgassing due to elastomeric components would adversely affect the process.

Product Features

- Neoprene Diaphragm: 1-1/4" for Single-Stage, 2" for Dual-Stage
- 2" Dual-Scale Pressure Gauges in gold steel casing
- Optional outlet: Needle Valve or Diaphragm Valve
- Conforms to CGA E-4 standard for Gas Pressure Regulators

Materials

• **Body**	Forged Brass
• **Bonnet**	Nickel-Plated Forged Brass
• **Seat**	PU
• **Diaphragm**	Neoprene
• **Seal**	Nylon
• **Adjusting Knob**	ABS plastic



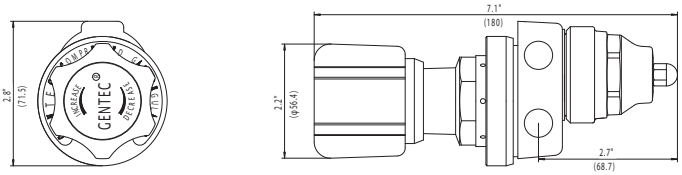
Applications

- Non-Corrosive Gases
- Purging
- Leak Testing
- Gas Shielding

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Operating temperature range:** 0 to 140°F (-17 to 60°C)
- **Weight:** 4 lb 1 oz

Dimensions



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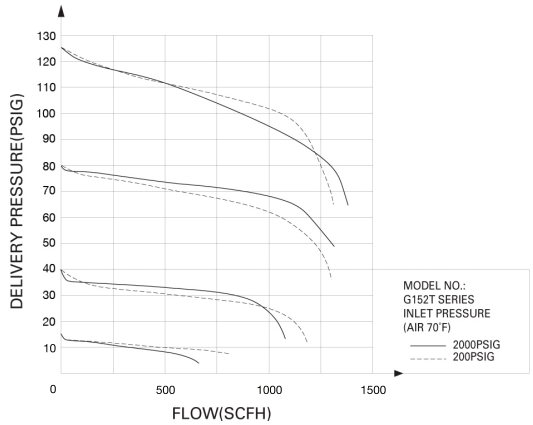


Ordering Information

EX: G152T- Series	D Inlet Pressure Range	G Outlet Pressure Ranges	K - Gauge	C540 - Inlet Connections	01 - Outlet Connections	NR Options
• G152T	D: 3000 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 C500: CGA500 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	D: Diaphragm Valve N: Needle Valve R: Relief Valve

HP152L SERIES

High Purity Medium Flow Line Regulator

HP152L-FHK-11-11

GENTEC® HP152L Series is a Single-Stage High Purity Brass Line Regulator designed for High Purity applications where occasional readjustment of the working pressure is acceptable.
Not recommended for corrosive gases.

Product Features

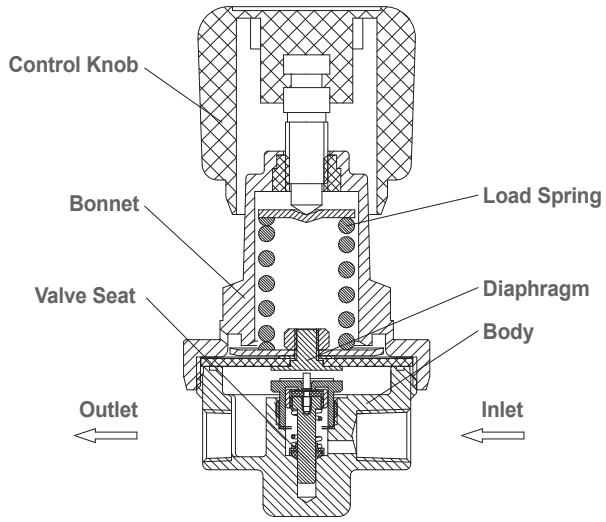
- 2” 316L Stainless Steel Diaphragm
- 2” Dual-Scale Pressure Gauges
- Optional outlet: Needle Valve or Diaphragm Valve
- Conforms to CGA E-4 standard for Gas Pressure Regulators

Materials

• **Body**	Nickel-Plated Forged Brass
• **Bonnet**	Nickel-Plated Forged Brass
• **Seat**	PU
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic

Applications

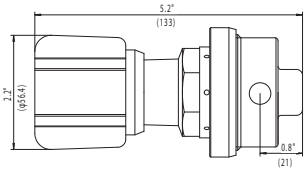
- Point of use pressure regulation



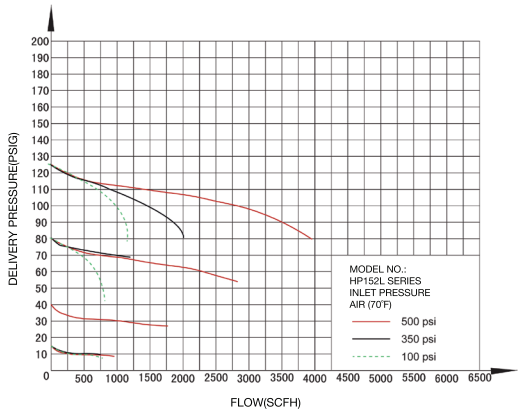
Specifications

- **Maximum inlet pressure:** 500 psig
- **Maximum outlet pressure:** 150 psig
- **Operating temperature range:** 0 to 140°F (-17 to 60°C)
- **Weight:** 3 lb 2 oz

Dimensions



Flow Data



Ordering Information

EX: HP152L- Series	F Inlet Pressure Range	H Outlet Pressure Ranges	K - Gauge	11 - Inlet Connections	11 Outlet Connections
• HP152L	F: 500 psig	H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available

HP152 SERIES

High Purity Medium Flow Regulator

HP152-DKK-C350-01-NR

GENTEC® HP152 Series is a Single-Stage High Purity Brass Regulator designed for High Purity applications where occasional readjustment of the working pressure is acceptable.

Not recommended for corrosive gases.

Product Features

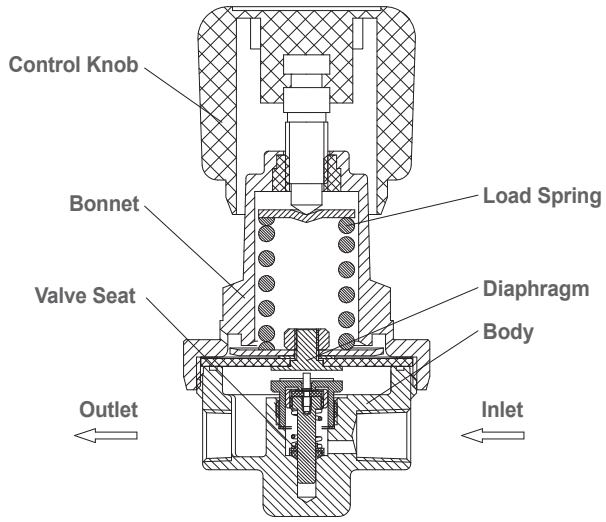
- 2" 316L Stainless Steel Diaphragm
- 2" Dual-Scale Pressure Gauges
- Optional outlet: Needle Valve or Diaphragm Valve
- Conforms to CGA E-4 standard for Gas Pressure Regulators

Materials

• **Body**	Nickel-Plated Forged Brass
• **Bonnet**	Nickel-Plated Forged Brass
• **Seat**	PU
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic

Applications

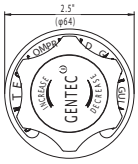
- Calibration of Pressures Gauges & Test Equipment
- Supply of carrier gases for Gas Chromatography

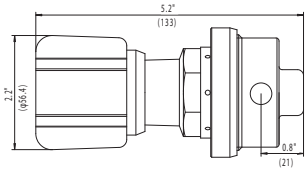


Specifications

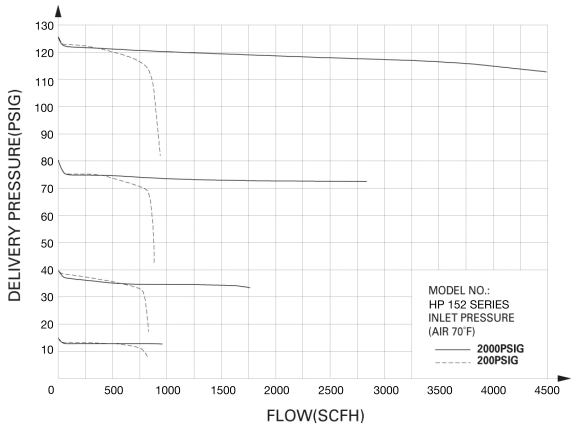
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Operating temperature range:** 0 to 140°F (-17 to 60°C)
- **Weight:** 3 lb 2 oz

Dimensions





Flow Data

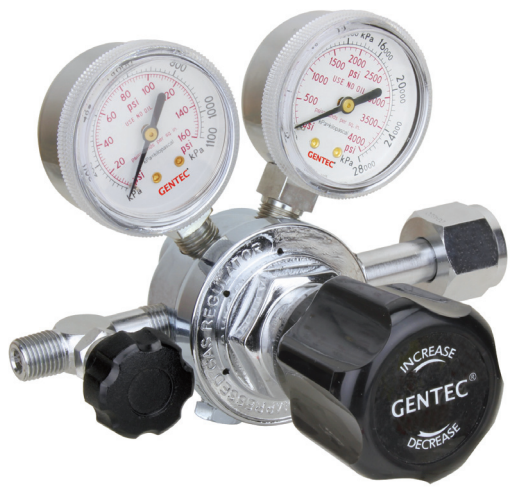


Ordering Information

EX: HP152- Series	D Inlet Pressure Range	K Outlet Pressure Ranges	K - Gauge	C350 - Inlet Connections	01 - Outlet Connections	NR Options
• HP152	D: 3000 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 12: 3/8" GENLOK 14B: 1/4" Hose Barb Other connections available	D: Diaphragm Valve N: Needle Valve R: Relief Valve
	F: 500 psig	H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	C510: CGA510 C300: CGA300 Other connections available	Same as above	D: Diaphragm Valve N: Needle Valve R: Relief Valve

HP152T SERIES

High Purity Medium Flow Regulator



HP152T-DIK-C540-01-NR

GENTEC® HP 152T Series is a Dual-Stage High Purity Brass Regulator designed for High Purity applications where a consistent outlet pressure and flow are desired.

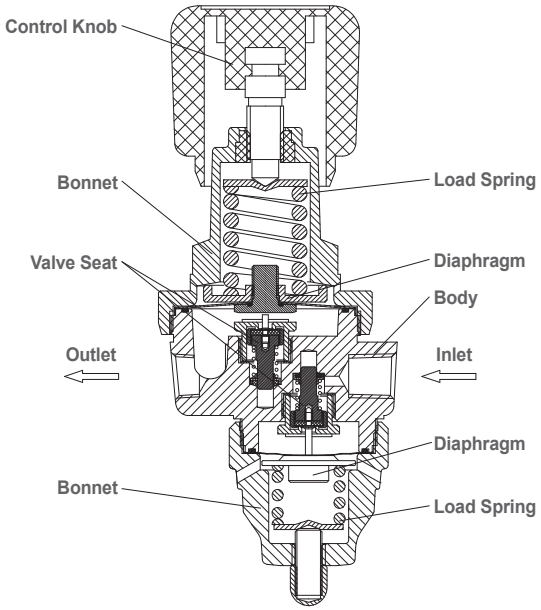
Not recommended for corrosive gases.

Product Features

- 2" 316L Stainless Steel Diaphragm
- 2" Dual-Scale Pressure Gauges
- Optional outlet: Needle Valve or Diaphragm Valve
- Conforms to CGA E-4 standard for Gas Pressure Regulators

Materials

• **Body**	Nickel-Plated Forged Brass
• **Bonnet**	Nickel-Plated Forged Brass
• **Seat**	PU
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



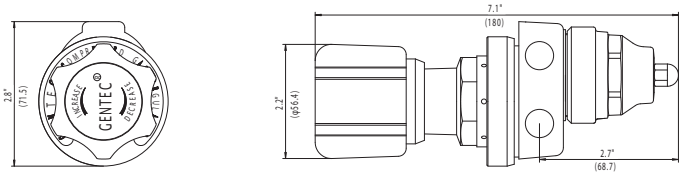
Applications

- Calibration of Pressures Gauges & Test Equipment
- Applications where constant delivery pressure required
- Supply of carrier gases for Gas Chromatography

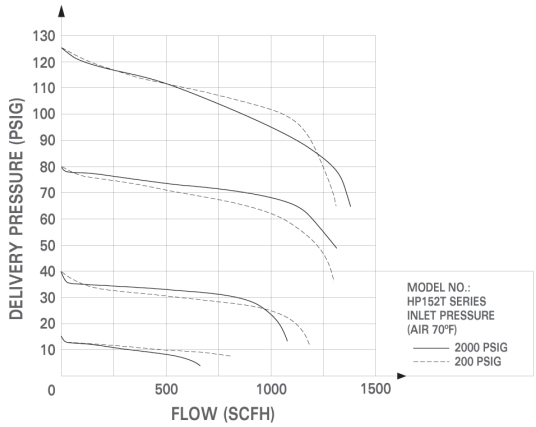
Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Operating temperature range:** 0 to 140°F (-17 to 60°C)
- **Weight:** 3 lb 2 oz

Dimensions



Flow Data



Ordering Information

EX: HP152T- Series	D Inlet Pressure Range	I Outlet Pressure Ranges	K - Gauge	C540 - Inlet Connections	01 - Outlet Connections	NR Options
• HP152T	D: 3000 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 12: 3/8" GENLOK 14B: 1/4" Hose Barb Other connections available	D: Diaphragm Valve N: Needle Valve R: Relief Valve

R12BGK-DIK-C590-01

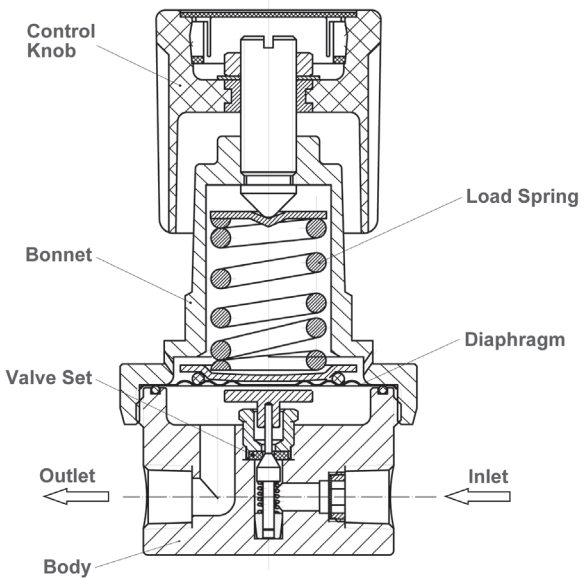
GENTEC® R12B Series Low Flow Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Seat**	PCTFE, PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



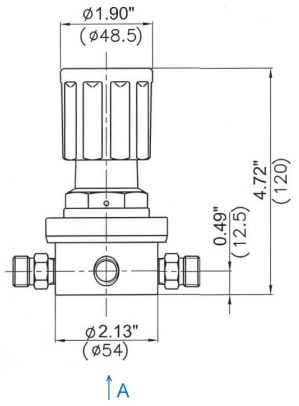
Applications

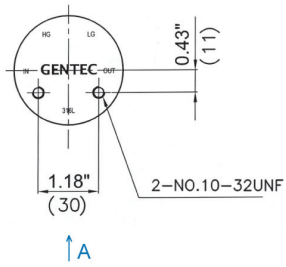
- Gas Chromatography
- Gas Manifold Systems
- Research Laboratories
- Process Analyzer
- Petrochemical Industry
- Semiconductor Industry

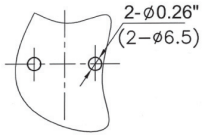
Specifications

- **Maximum inlet pressure:** 3000 psig (206 bar)
- **Maximum outlet pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -20˚F~150˚F (-29˚C~66˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum:** 0.15
- **Weight:** 3.3 lb (1.5 kg)

Dimensions

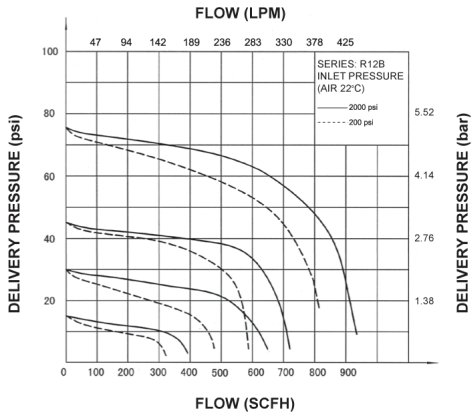


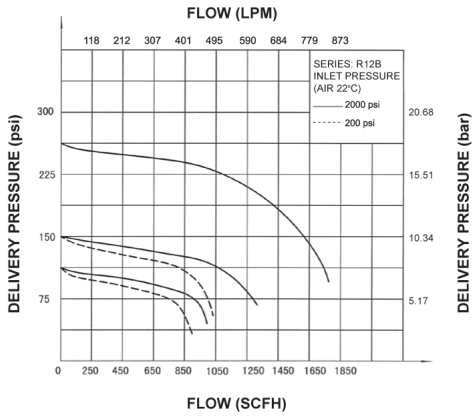




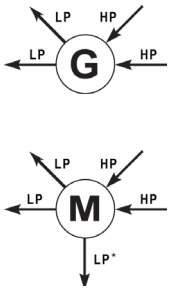
Rear Bracket Mount

Flow Data





Body Ports



Ordering Information

EX: R12B Series	G Body Ports	K - Seat	D Inlet Pressure Range	I Outlet Pressure Range	K - Gauge	C590 - Inlet Connections	01 - Outlet Connections	D Options
• R12B	G M	K: PCTFE T: PTFE	D: 3000 psig F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available*	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available*	Blank: None D: Diaphragm Valve N: Needle Valve R: Relief Valve

* For more connection options contact GENTEC.

R13BGT-DKP-C580-01

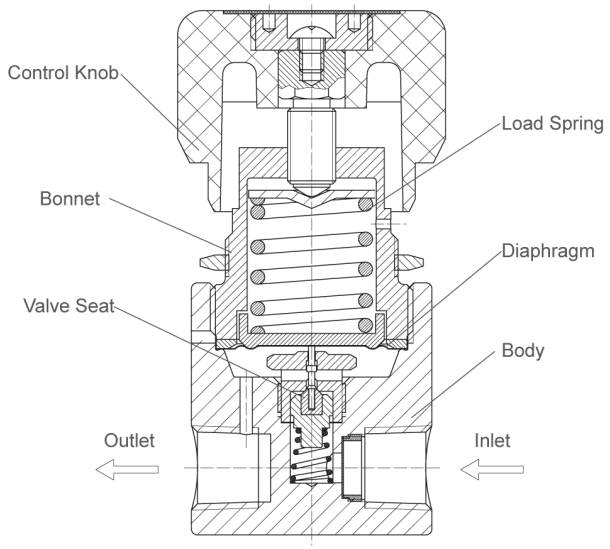
GENTEC® R13B Series Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator designed for applications where low flow is desired.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Seat**	PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



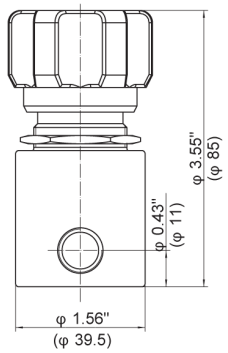
Applications

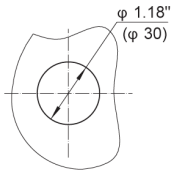
- Gas Chromatography
- Research Laboratories
- Process Analyzer
- Petrochemical Industry
- Semiconductor Industry
- Power Plant

Specifications

- **Maximum inlet pressure:** 3000 psig (206 bar)
- **Maximum outlet pressure:** 150 psig (10 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum:** 0.06
- **Weight:** 1.3 lb (0.6 kg)

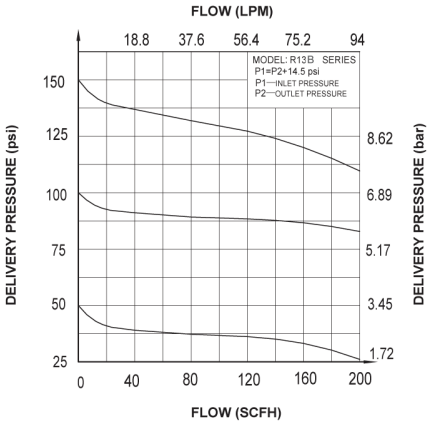
Dimensions



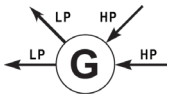


Rear Bracket Mount

Flow Data



Body Port



Ordering Information

EX: R13B Series	G Body Ports	T Seat	D Inlet Pressure Range	K Outlet Pressure Range	P - Gauge	C580 - Inlet Connections	01 - Outlet Connections	R Options
• R13B	G	T: PTFE	D: 3000 psig	H: 0-150 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M) C350: CGA350 C580: CGA580 C590: CGA590 C660: CGA660 Other connections available*	00: 1/4" NPT(F) 10: 1/8" GENLOK Other connections available*	R: Relief Valve

* For more connection options contact GENTEC.

R21B SERIES

High Purity Low Flow Line Regulator

R21BJT-FGK-11-11

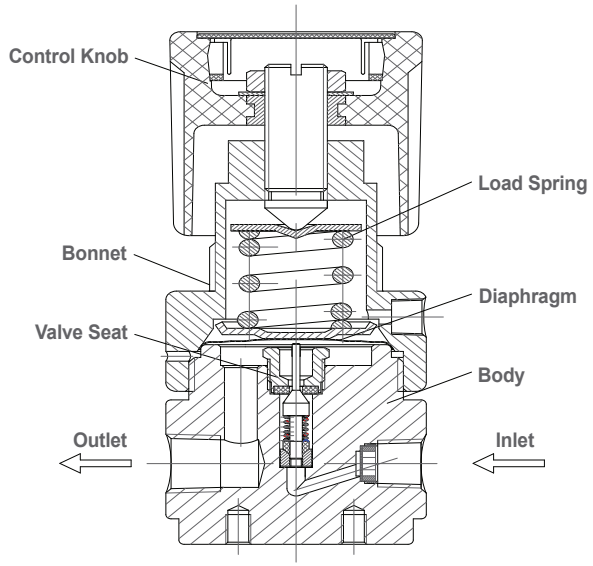
GENTEC® R21B Series Regulator is a Diaphragm-Sensed Single-Stage High Purity Line Regulator designed for applications where low flow is desired.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Seat**	PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



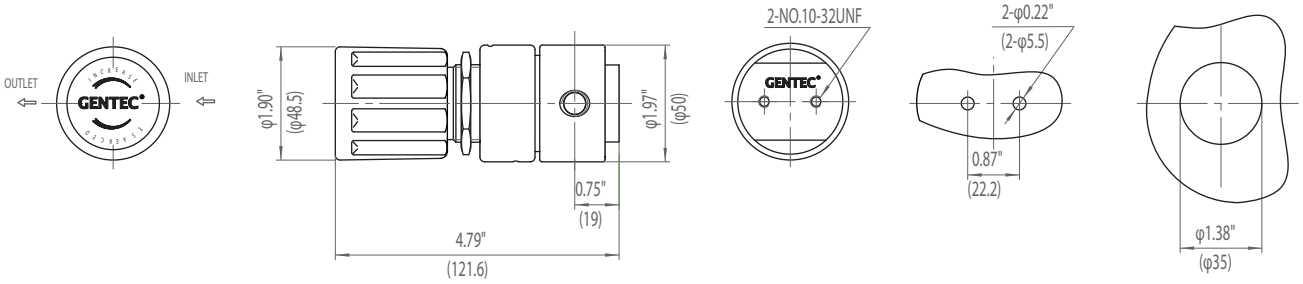
Applications

- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 500 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.14
- **Weight:** 2.2 lb

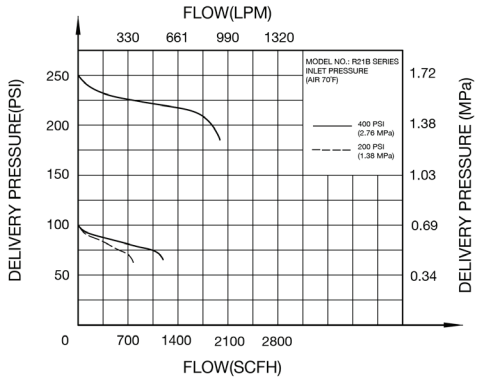
Dimensions

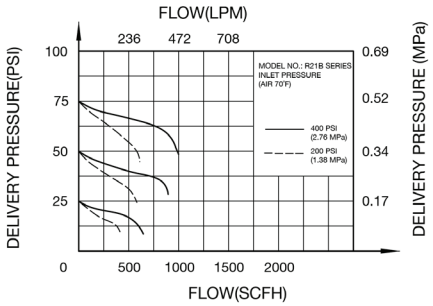


Rear Bracket Mount

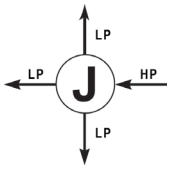
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Port



Ordering Information

EX:R21B	J	T -	F	G	K -	11 -	11 -	D
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R21B	J	T: PTFE	F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount

GENTEC® R21B Series Brass Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator designed for use with analytical applications using non-corrosive gases.

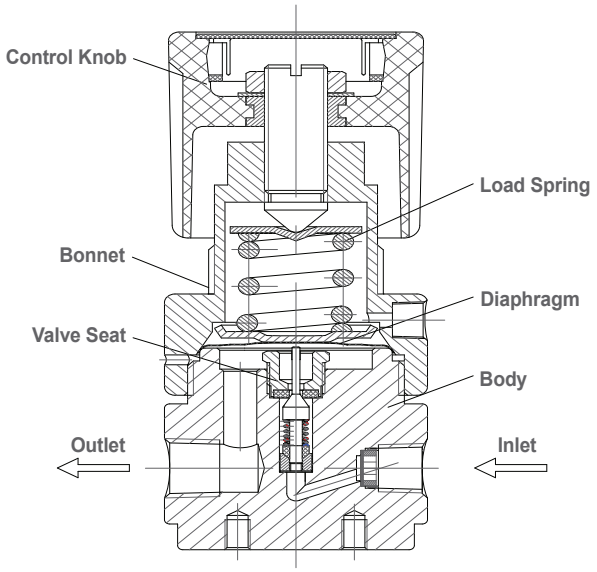
R21BMK-DIK-C590-11-D

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Bonnet**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



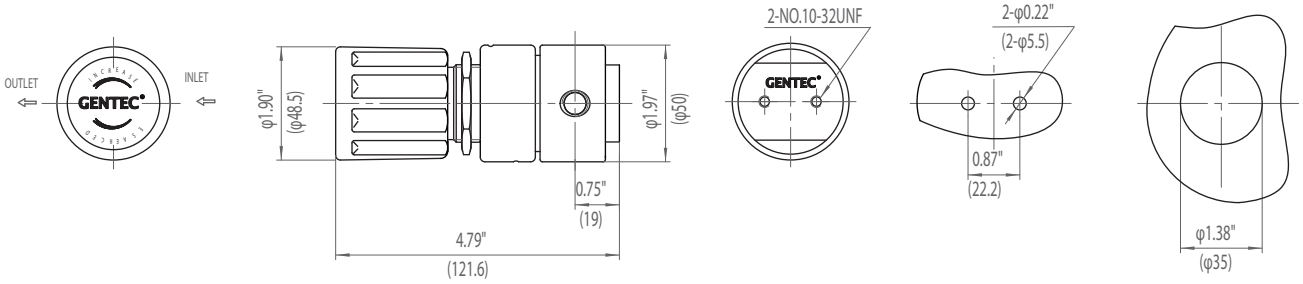
Applications

- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 500 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.14
- **Weight:** 2.2 lb

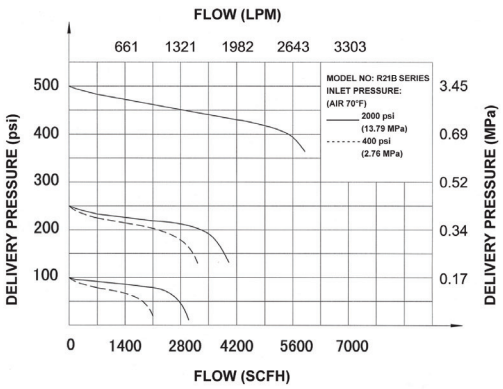
Dimensions

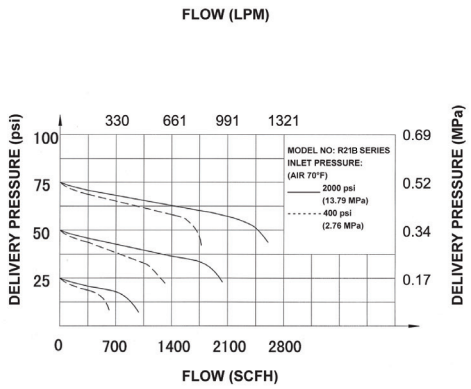


Rear Bracket Mount

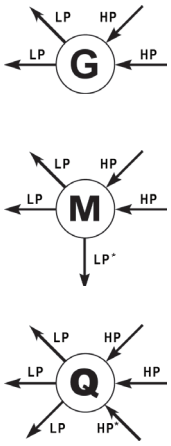
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX:R21B Series	M Body Ports	K - Seat	D Inlet Pressure Range	I Outlet Pressure Ranges	K - Gauge	C590 - Inlet Connections	11 - Outlet Connections	D Options
• R21B	G M Q	K: PCTFE	D: 3000 psig	F: 0-500 psig G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve R: Relief Valve

R22B SERIES

High Purity Medium Flow Regulator

R22BJK-FKK-13-13

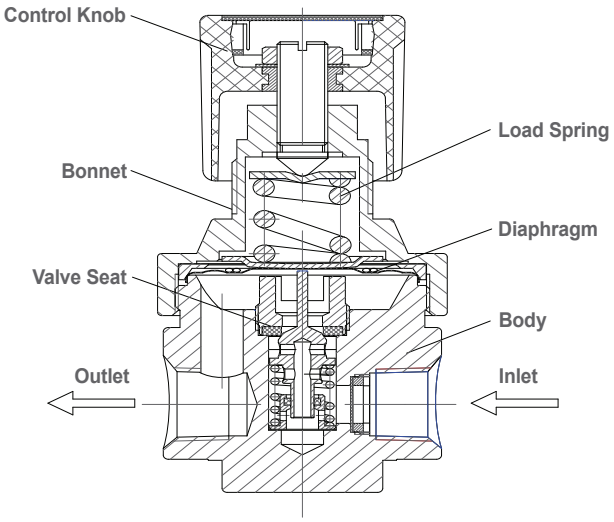
GENTEC® R22B Series Brass High Pressure Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator designed for applications where medium flow is desired.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/2" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Bonnet**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



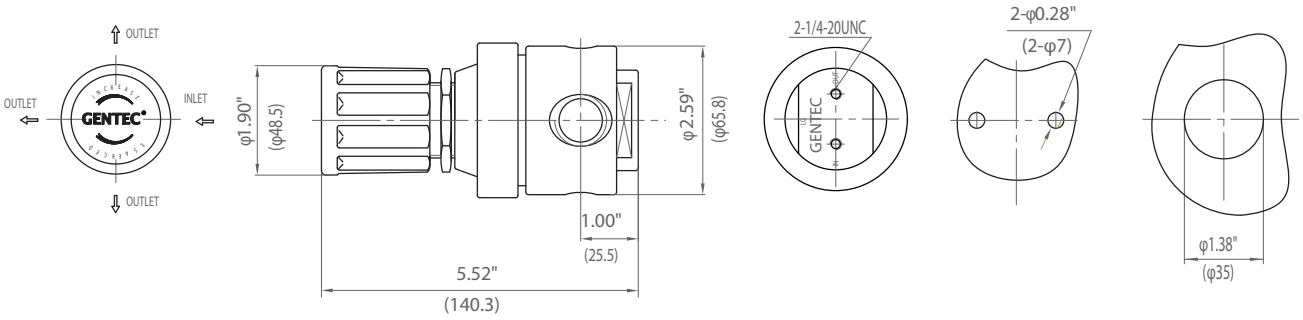
Applications

- Semiconductor Industry
- Gas Manifold Systems
- Research Laboratories
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 1.1
- **Weight:** 3.74 lb

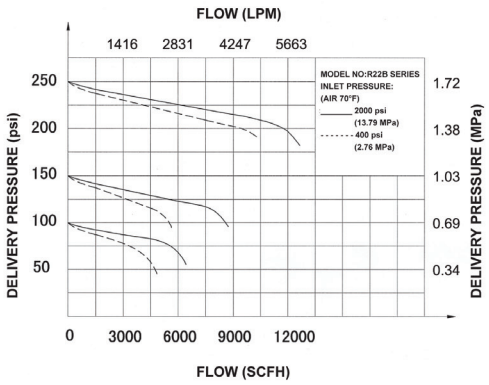
Dimensions

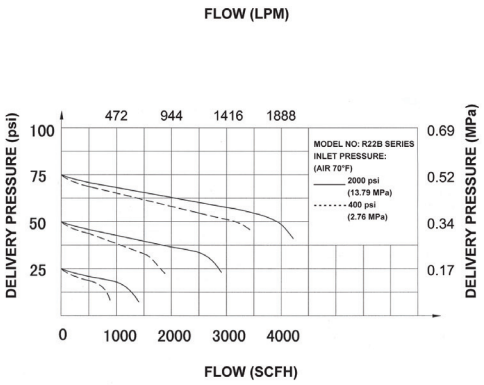


Rear Bracket Mount

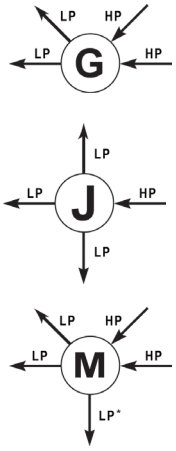
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX:R22B Series	J Body Ports	K - Seat	F Inlet Pressure Ranges	K Outlet Pressure Ranges	K - Gauge	13 - Inlet Connections	13 - Outlet Connections	N Options
• R22B	G J M	K: PCTFE	D: 3000 psig F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	04: 1/2" NPT(F) 05: 1/2" NPT(M) 13: 1/2" GENLOK CGA connections available	04: 1/2" NPT(F) 05: 1/2" NPT(M) 13: 1/2" GENLOK CGA connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount

R31BMK-DIK-C350-11-D

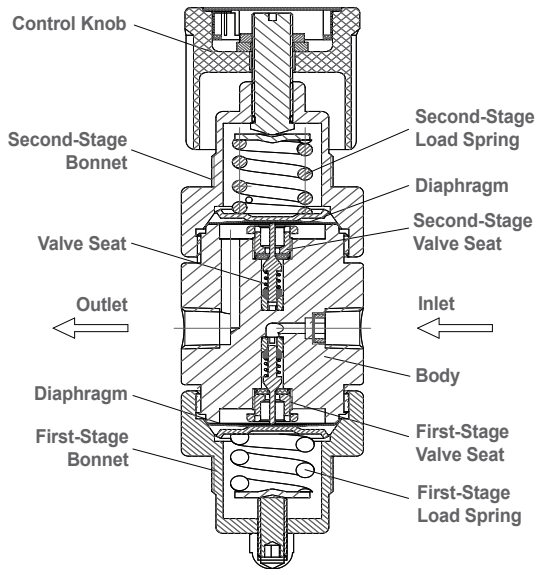
GENTEC® R31B Series Brass Regulator is a Diaphragm-Sensed Dual-Stage High Purity Regulator designed for analytical applications where a consistent outlet pressure and flow are desired.

Product Features

- Dual-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Bonnet**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Diaphragm**	316L
• **Adjusting Knob**	ABS Plastic



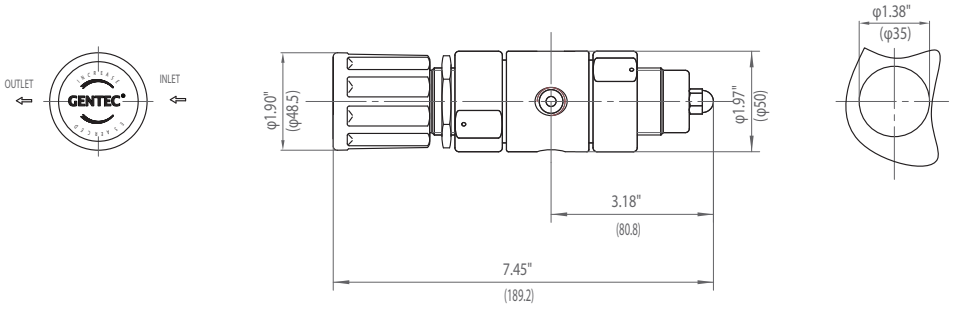
Applications

- Cylinders
- Research Laboratories
- Gas Chromatography
- Process Analyzers
- Petrochemical Industry
- Power Plant

Specifications

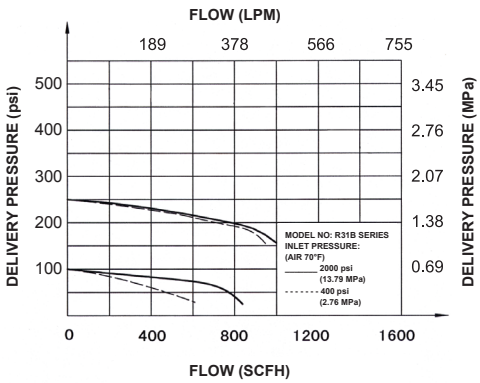
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.06
- **Weight:** 4.03 lb

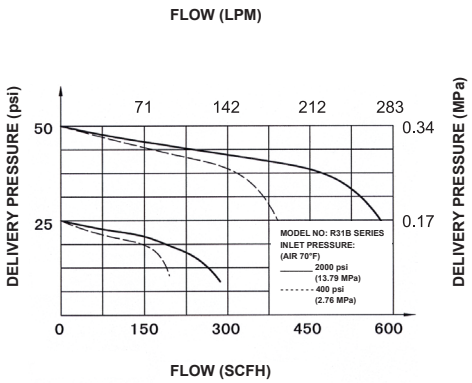
Dimensions



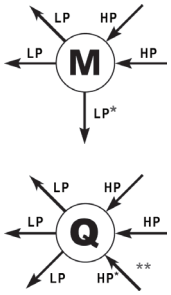
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



** For R31 Series, this high pressure "Q" port configuration is plugged. This port can be used for purging purpose only.

* For the "M" port configuration of R31 Series, this port is plugged and cannot be used for relief valve installation.

Ordering Information

EX:R31B	M	K -	D	I	K -	C350 -	11 -	D
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R31B	M Q	K: PCTFE	D: 3000 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 12: 3/8" GENLOK 14B: 1/4" Hose Barb Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount R: Relief Valve

GENTEC® R66B Series Regulator is a hand-adjustable, low pressure regulator designed to provide excellent accuracy.

Product Features

- Single-Stage Configuration
- Inlet & Outlet Port Size: 1" NPT(F)

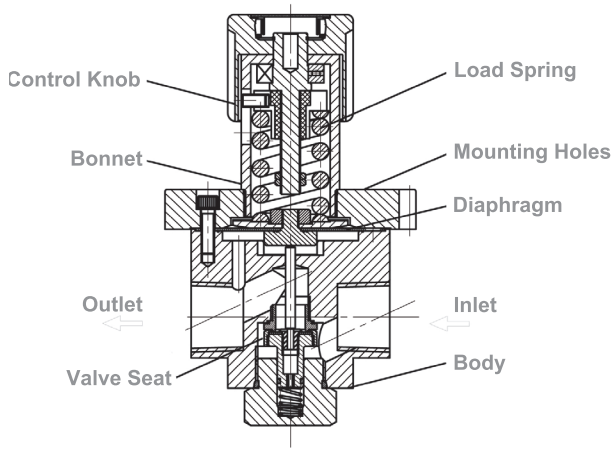
R66BJB-FKK-08-08

Materials

• **Body**	Brass
• **Seat**	Buna-N
• **Diaphragm**	Buna-N/Nylon Reinforced
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

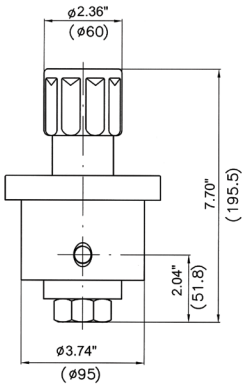
- Facility Supply Regulation
- Gas Control Box
- Bulk Gas Delivery System

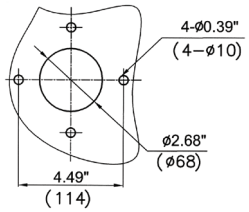


Specifications

- **Maximum inlet pressure:** 500 psig (35 bar)
- **Maximum outlet pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -10˚F~250˚F (-23˚C~ 121˚C)
- **Maximum Cv:** 5.2
- **Weight:** 13.2 lb (6 kg)

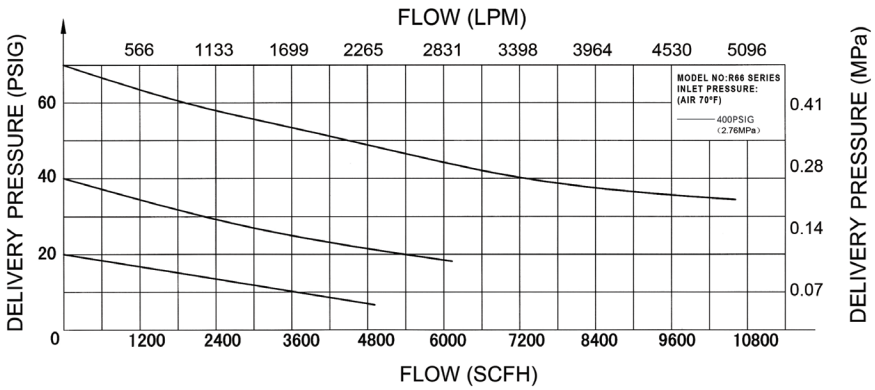
Dimensions



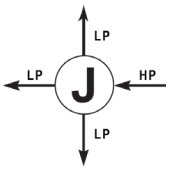


Front Panel Mount

Flow Data



Body Port



Ordering Information

EX:R66B	J	B -	F	K	K -	08 -	08
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections
• R66B	J	B: Buna-N	F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	K: psig/kPa P: psig/bar W: No Gauge	08: 1” NPT(F)	08: 1” NPT(F)

R72B SERIES

High Purity Back Pressure Regulator

R72BAK-FW-00-00-J

GENTEC® R72B Series Back Pressure Brass Regulator is a Piston-Sensed High Purity Back Regulator designed for analytical applications where constant back pressure is desired.

Product Features

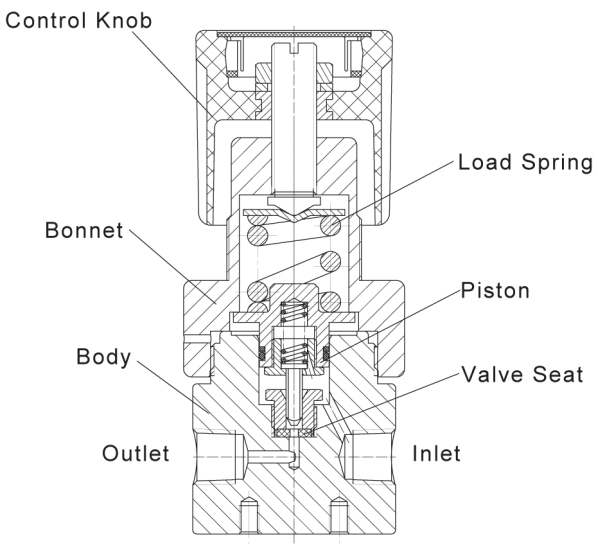
- Piston Type Configuration
- Inlet & Outlet Port Size: 1/4" NPT(F)

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

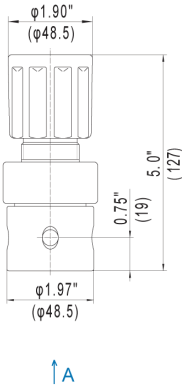
- Research Laboratories
- Gas Chromatography
- Process Analyzers
- Petrochemical Industry

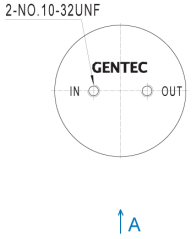


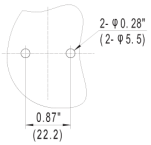
Specifications

- **Maximum inlet pressure:** 1500 psig (103 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Maximum Cv:** 0.14
- **Weight:** 2.65 lb (1.2 kg)

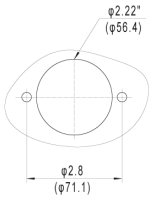
Dimensions





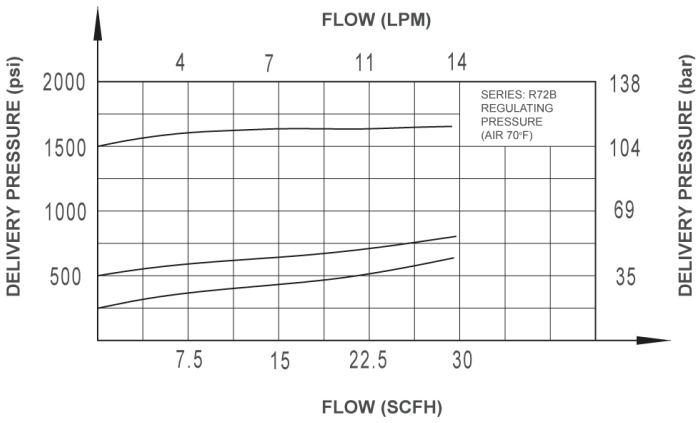


Rear Bracket Mount



Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Port

Ordering Information

EX:R72B Series	A Body Ports	K - Seat	F Inlet Pressure Ranges	W - Gauge	00 - Inlet Connections	00 - Outlet Connections	J Options
• R72B	A	K: PCTFE	E: 0-1500 psig F: 0-500 psig G: 0-250 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) Other connections available*	00: 1/4" NPT(F) Other connections available*	Blank: None J: Rack Mount

* For more connection options contact GENTEC.

R77B SERIES

Sensitive Back Pressure Regulator

R77BAK-KW-00-00

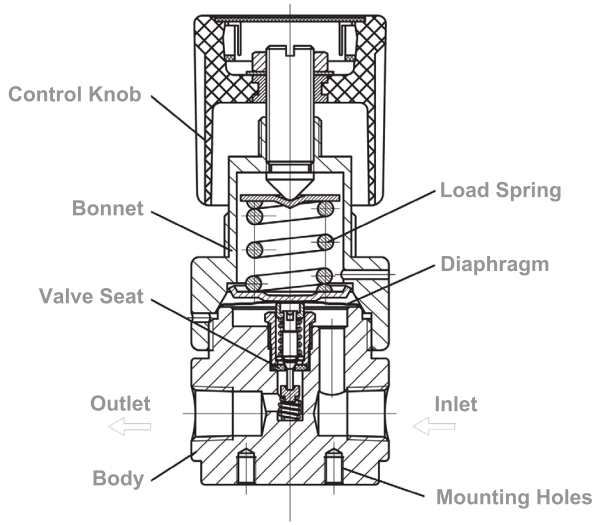
GENTEC® R77B Series Back Pressure Brass Regulator is a Diaphragm High Purity Regulator designed for analytical applications where constant back pressure is desired.

Product Features

- Diaphragm Type Configuration
- Inlet & Outlet Port Size: 1/4" NPT(F)

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



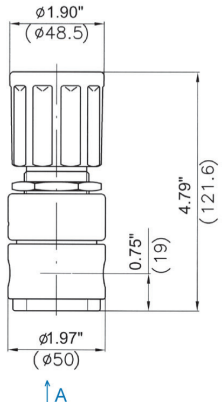
Applications

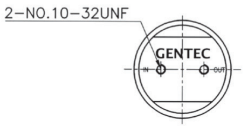
- Research Laboratories
- Gas Chromatography
- Process Analyzers
- Petrochemical Industry

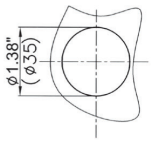
Specifications

- **Maximum back pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.08
- **Weight:** 2.0 lb (0.9 kg)

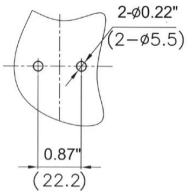
Dimensions





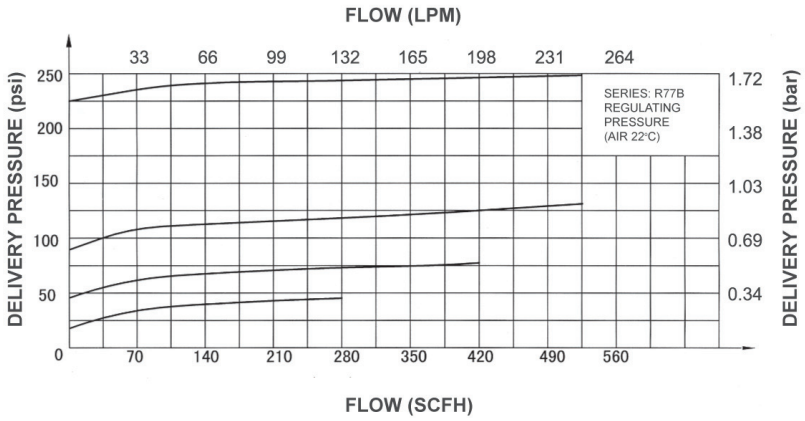


Rear Bracket Mount



Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Port

Ordering Information

EX:R77B	A	K -	K	W -	00 -	00 -	P
Series	Body Ports	Seat	Inlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R77B	A	K: PCTFE	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) Other connections available*	00: 1/4" NPT(F) Other connections available*	Blank: None P: Rack Mount

* For more connection options contact GENTEC.

R125LMK-DLK-C330-01

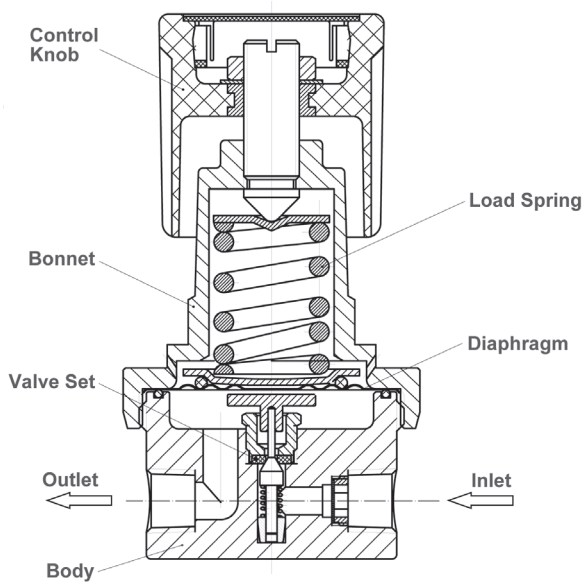
GENTEC® R12SL Series Stainless Steel Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Seat**	PCTFE, PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



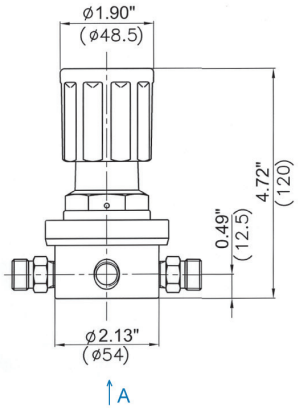
Applications

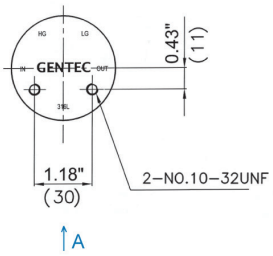
- Gas Chromatography
- Gas Manifold Systems
- Research Laboratories
- Process Analyzer
- Petrochemical Industry
- Semiconductor Industry

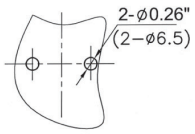
Specifications

- **Maximum inlet pressure:** 3000 psig (206 bar)
- **Maximum outlet pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -20˚F~150˚F (-29˚C~ 66˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.15
- **Weight:** 3.3 lb (1.5 kg)

Dimensions

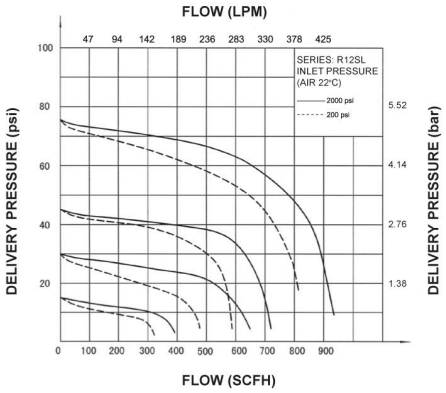


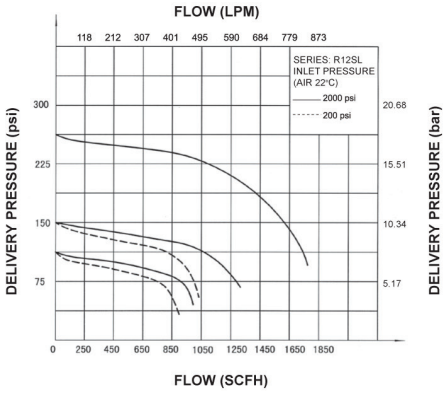




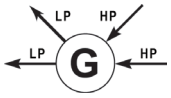
Rear Bracket Mount

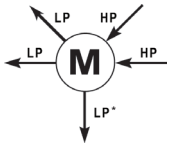
Flow Data





Body Ports





Ordering Information

EX:R12SL	M	K -	D	L	K -	00 -	00 -	R
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R12SL	G M	K: PCTFE T: PTFE	D: 3000 psig F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C320: CGA320 C326: CGA326 C330: CGA330 C346: CGA346 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C660: CGA660 Other connections available*	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 12: 3/8" GENLOK 14B: 1/4" Hose Barb Other connections available*	Blank: None D: Diaphragm Valve N: Needle Valve R: Relief Valve

* For more connection options contact GENTEC.

GENTEC® R13SL Series Stainless Steel Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator.

R13SLGT-DIP-C660-01

Product Features

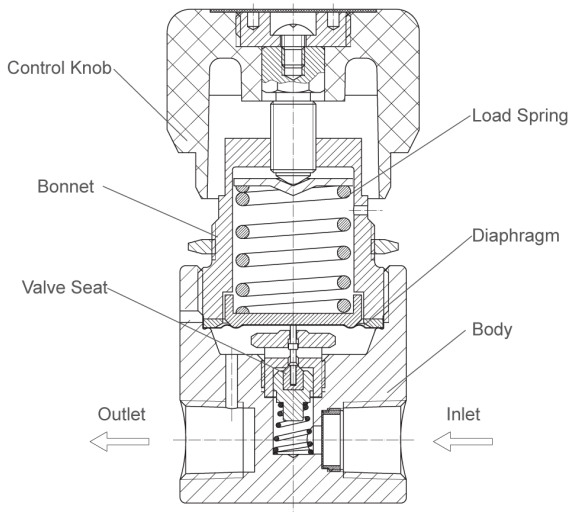
- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 1/4" NPT(F)
- 1.5" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Seat**	PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

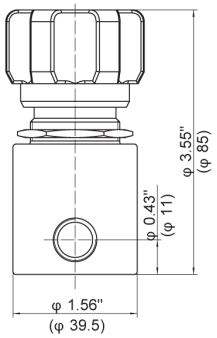
- Gas Chromatography
- Research Laboratories
- Process Analyzer
- Petrochemical Industry
- Semiconductor Industry
- Power Plant

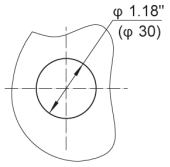


Specifications

- **Maximum inlet pressure:** 3000 psig (206 bar)
- **Maximum outlet pressure:** 150 psig (10 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.06
- **Weight:** 1.3 lb (0.6 kg)

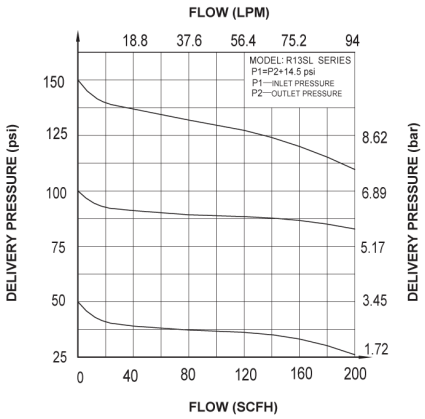
Dimensions



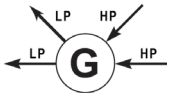


Rear Bracket Mount

Flow Data



Body Port



Ordering Information

EX:R13SL	G	T -	D	I	P -	C330 -	10 -	R
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R13SL	G	T: PTFE	D: 3000 psig	H: 0-150 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M) C330: CGA330 C350: CGA350 C580: CGA580 C590: CGA590 C660: CGA660 52: G5/8"-RH(F) Other connections available*	00: 1/4" NPT(F) 10: 1/8" GENLOK Other connections available*	R: Relief Valve

* For more connection options contact GENTEC.

R15SL SERIES

High Purity Medium Flow Line Regulator

R15SLBT-FIK-04-04

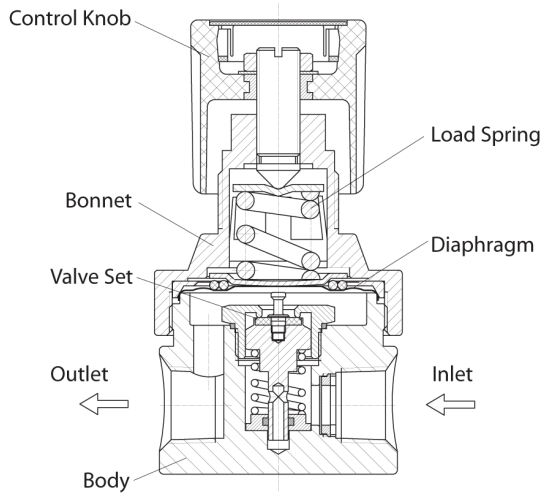
GENTEC® R15SL Series Stainless Steel Line Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 1/2" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Seat**	PTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



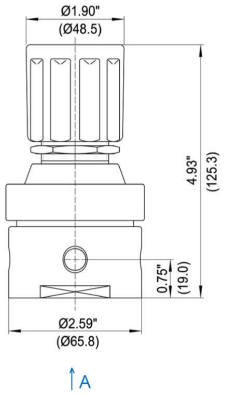
Applications

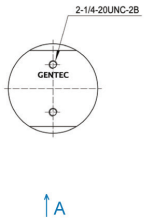
- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Purge System

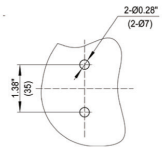
Specifications

- **Maximum inlet pressure:** 3000 psig (310 bar)
- **Maximum outlet pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.12
- **Weight:** 2.0 lb (0.9 kg)

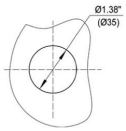
Dimensions





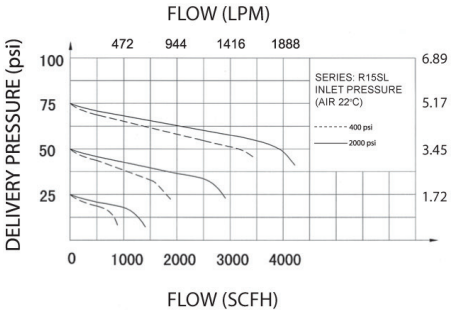


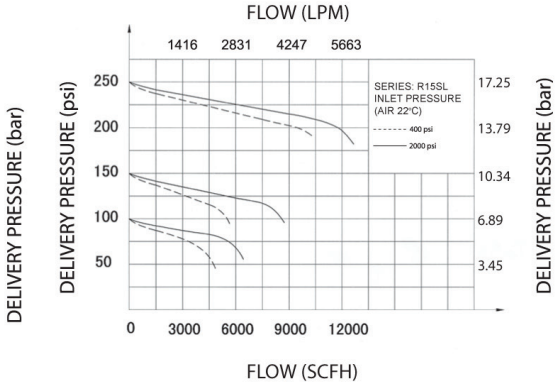
Rear Bracket Mount



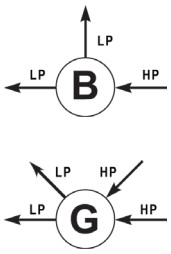
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX:R15SL	B	T -	F	I	K -	04 -	04 -	P
Series	Body Ports	Seat	Inlet Pressure Ranges	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R15SL	B G	T: PTFE	D: 3000 psig E: 1500 psig F: 500 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	K: psig/kPa P: psig/bar W: No Gauge	04: 1/2" NPT(F) Other connections available*	04: 1/2" NPT(F) Other connections available*	P: Panel Mount R: Relief Valve

* For more connection options contact GENTEC.

R21SL SERIES

High Purity Low Flow Line Regulator

GENTEC® R21SL Series Stainless Steel Line Regulator is a Diaphragm-Sensed Single-Stage High Purity Line Regulator.

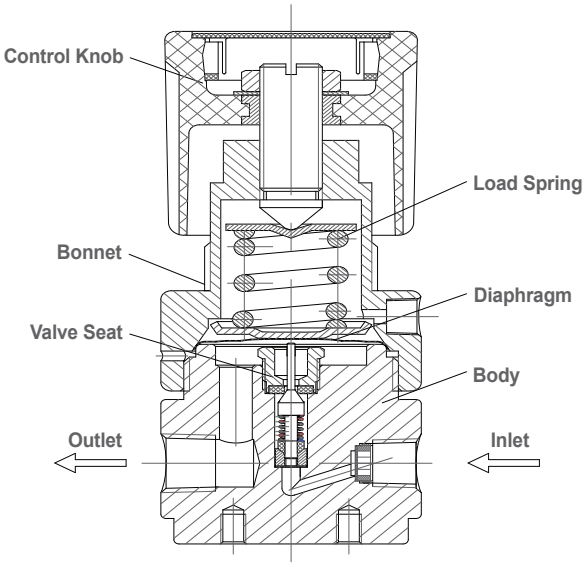
R21SLJT-DIK-11-11

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	PTFE
• **Seat**	316L Stainless Steel
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	316 Stainless Steel



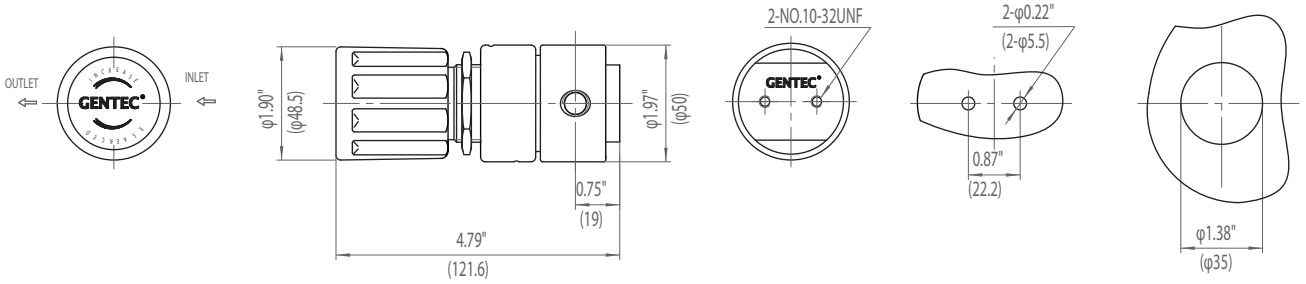
Applications

- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.14
- **Weight:** 2.2 lb

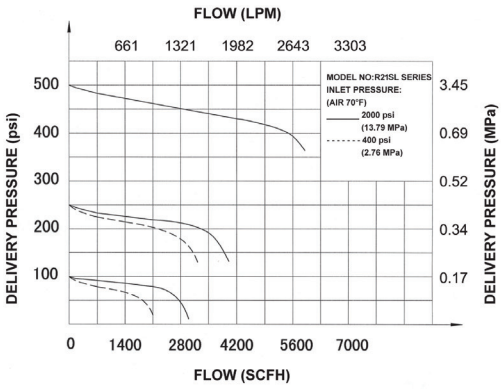
Dimensions

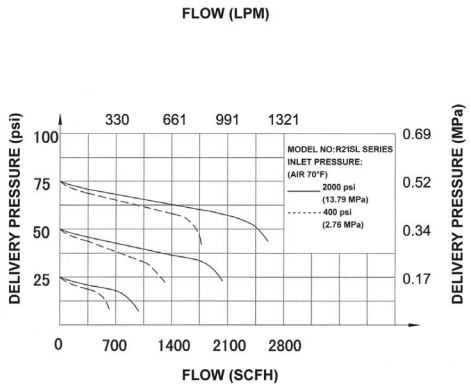


Rear Bracket Mount

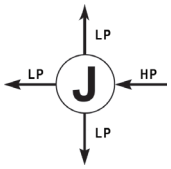
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Port



Ordering Information

EX:R21SL	J	T -	D	I	K -	11 -	11 -	N
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R21SL	J	K: PCTFE T: PTFE	D: 3000 psig F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount

GENTEC® R21SL Series Stainless Steel Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator.

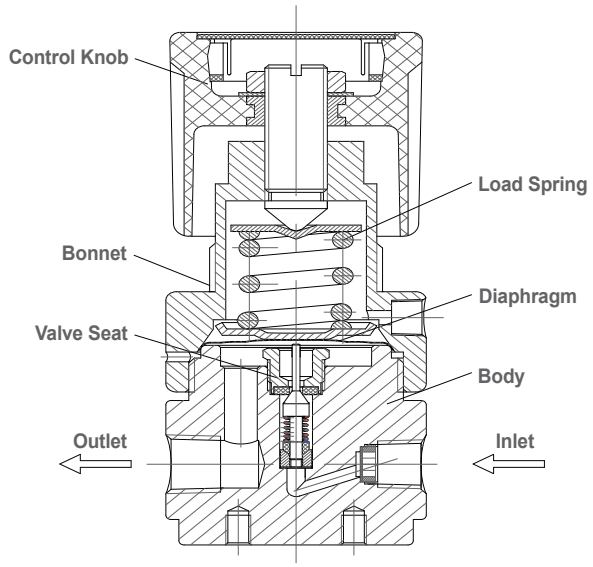
R21SLMK-DIK-C580-11-D

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316 Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



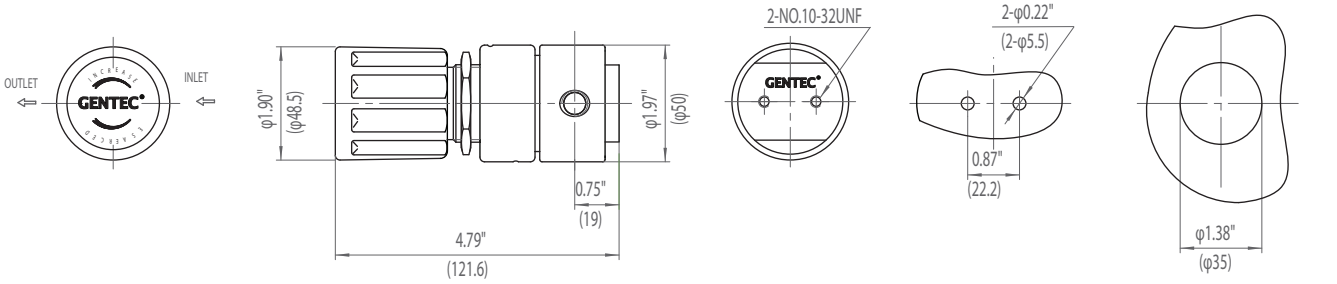
Applications

- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.14
- **Weight:** 2.2 lb

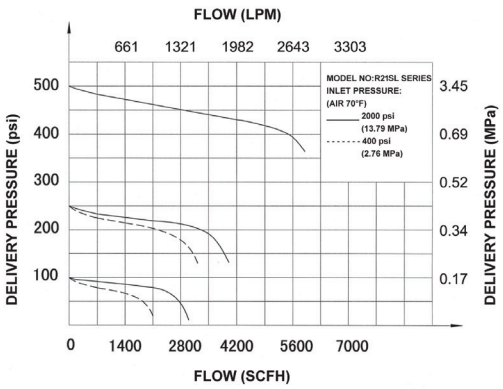
Dimensions

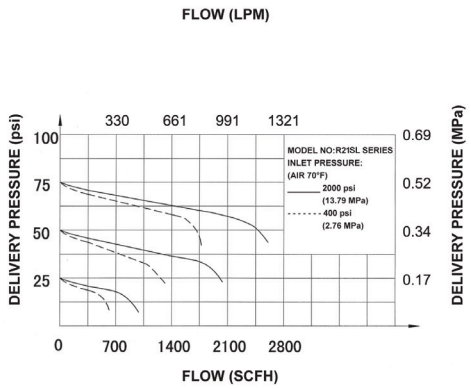


Rear Bracket Mount

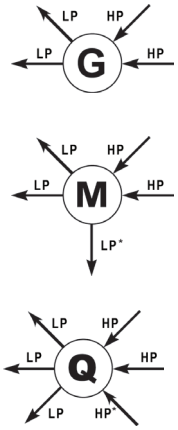
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX:R21SL Series	M Body Ports	K - Seat	D Inlet Pressure Range	I Outlet Pressure Ranges	K - Gauge	C580 - Inlet Connections	11 - Outlet Connections	D Options
• R21SL	G M Q	K: PCTFE	D: 3000 psig	F: 0-500 psig G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C346: CGA346 C320: CGA320 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C326: CGA326 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK Other connections available	D: Diaphragm Valve N: Needle Valve P: Panel Mount R: Relief Valve

R22SL SERIES

High Purity Medium Flow Regulator

R22SLJK-FIK-13-13

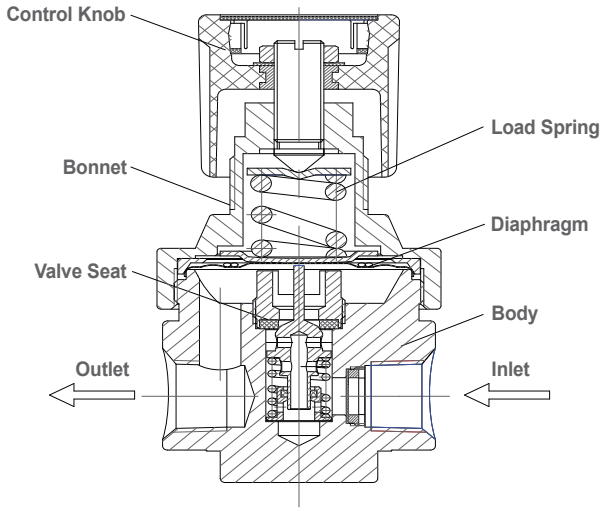
GENTEC® R22SL Series Stainless Steel High Pressure Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator designed for applications where medium flow is desired.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/2" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316 Stainless Steel
• **Bonnet**	316 Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



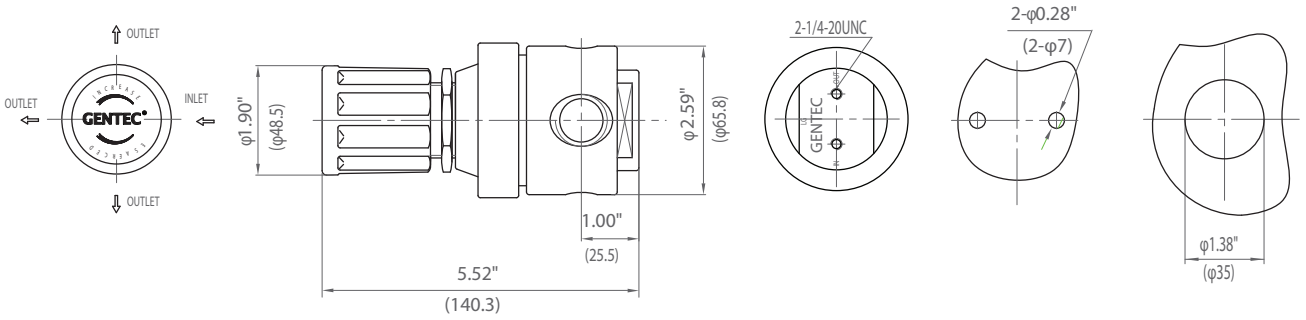
Applications

- Semiconductor Industry
- Gas Manifold Systems
- Research Laboratories
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 1.1
- **Weight:** 3.74 lb

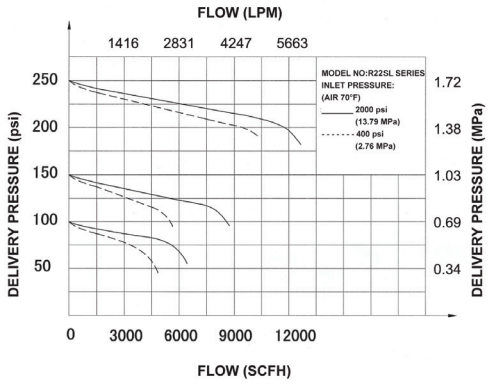
Dimensions

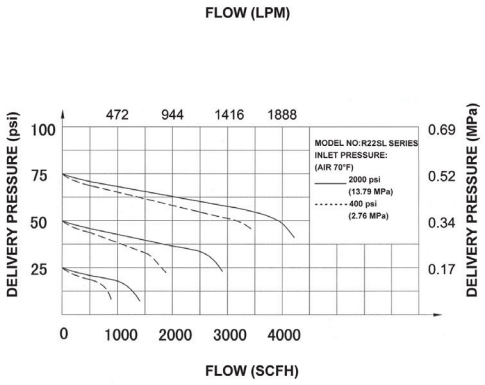


Rear Bracket Mount

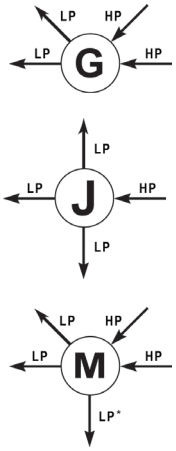
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX:R22SL	J	K -	F	I	K -	13 -	13 -	D
Series	Body Ports	Seat	Inlet Pressure Ranges	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R22SL	G J M	K: PCTFE	D: 3000 psig F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	04: 1/2" NPT(F) 05: 1/2" NPT(M) 13: 1/2" GENLOK CGA connections available	04: 1/2" NPT(F) 05: 1/2" NPT(M) 13: 1/2" GENLOK CGA connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount

R23SL SERIES

High Purity High Flow Line Regulator

R23SLMK-DHW-06-06-D

GENTEC® R23 Series Regulator is a Stainless Steel Diaphragm-Sensed Single-Stage "High Purity Style" Regulator, designed for applications where high flow is desired. Available in stainless steel.

Product Features

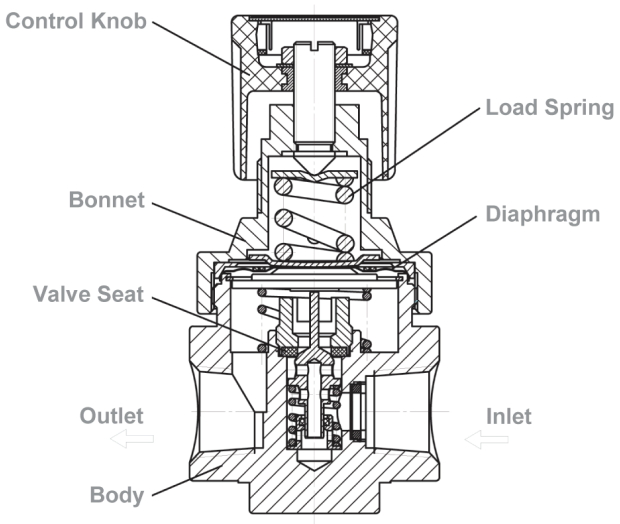
- Single-Stage Configuration
- Metal-to-Metal Seal
- Inlet & Outlet Port Size: 3/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	Nickel-Plated Brass Barstock
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

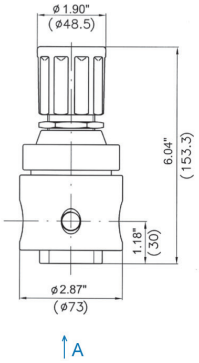
- Purging Systems
- Specialty Gas
- Pressure Control Facilities
- Gas Control Box

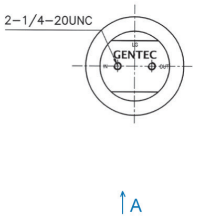


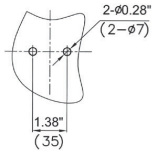
Specifications

- **Maximum inlet pressure:** 3000 psig (206 bar)
- **Maximum outlet pressure:** 150 psig (10 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 1.8
- **Weight:** 6.0 lb (2.7 kg)

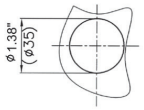
Dimensions





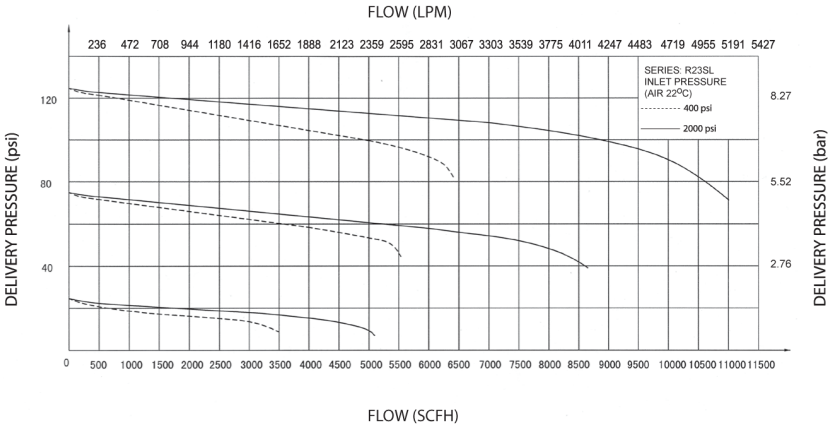


Rear Bracket Mount

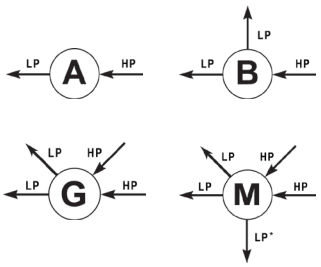


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: R23SL	M	K -	D	H	W -	06 -	06 -	H
Series	Body Ports	Seat	Inlet Pressure Ranges	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R23SL	A B G M	K: PCTFE	D: 3000 psig F: 500 psig	H: 0-150 psig L: 0-25 psig M: 0-15 psig	K: psig/kPa P: psig/bar W: No Gauge	06: 3/4" NPT(F) Other connections available*	06: 3/4" NPT(F) Other connections available*	P: Panel Mount H: Hastelloy® Diaphragm

* For more connection options contact GENTEC.

GENTEC® R31SL Series Stainless Steel Regulator is a Diaphragm-Sensed Dual-Stage High Purity Regulator designed for applications where a consistent outlet pressure and flow are desired.

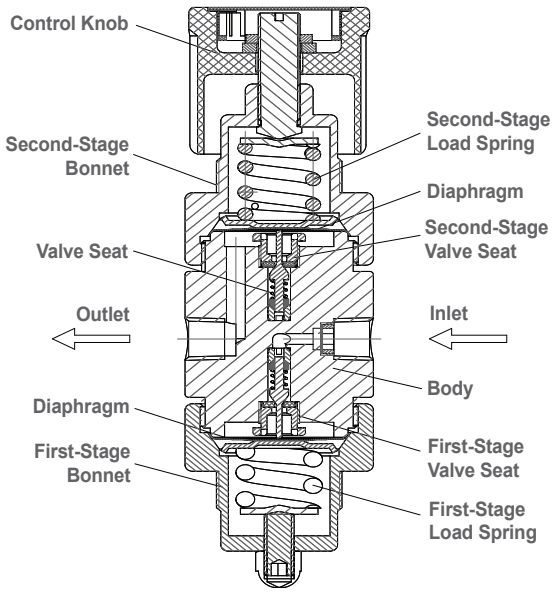
R31SLMK-DIK-C350-11-D

Product Features

- Dual-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316 Stainless Steel
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



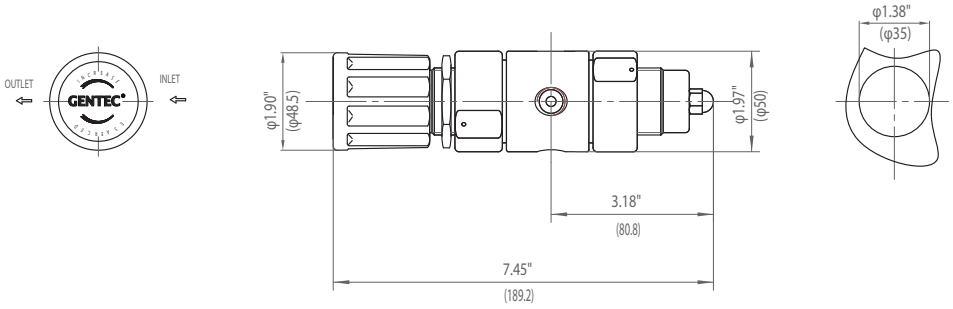
Applications

- Research Laboratories
- Gas Chromatography
- Process Analyzers
- Petrochemical Industry
- Power Plants

Specifications

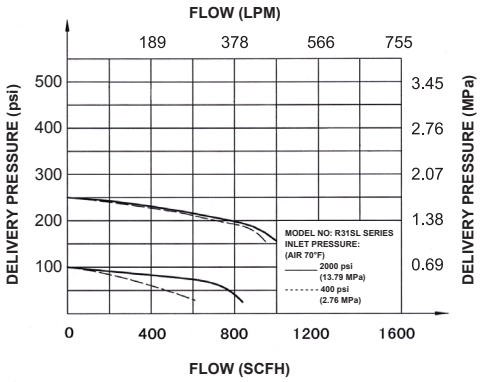
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.06
- **Weight:** 4.03 lb

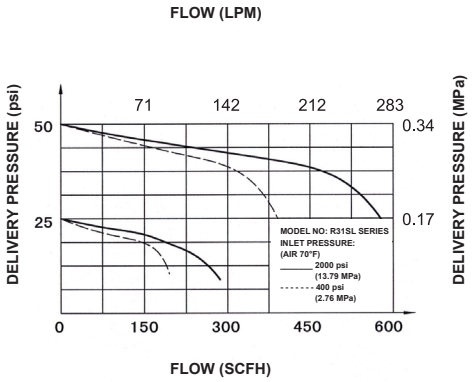
Dimensions



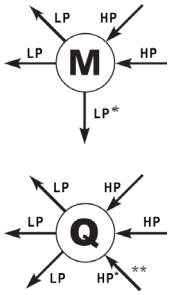
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



** For R31 Series, this high pressure "Q" port configuration is plugged. This port can be used for purging purpose only.

* For the "M" port configuration of R31 Series, this port is plugged and cannot be used for relief valve installation.

Ordering Information

EX: R31SL	M	K -	D	I	K -	C350 -	11 -	D
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R31SL	M Q	K: PCTFE	D: 3000 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig Q: 30" Hg Vac-30 psig S: 30" Hg Vac-100 psig T: 30" Hg Vac-200 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C330: CGA330 C350: CGA350 C580: CGA580 C660: CGA660 C590: CGA590 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount R: Relief Valve

R42SL SERIES

High Pressure High Flow Regulator

R42SLBK-BDK-04-04-V

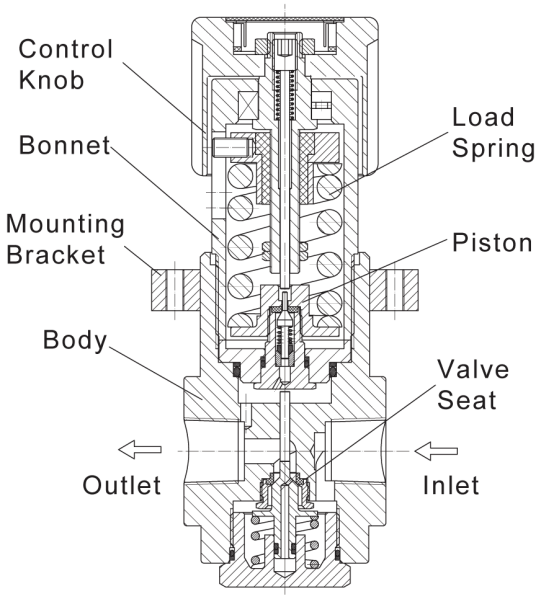
GENTEC® R42SL Series High Pressure Stainless Steel Regulator is a Piston-Sensed Single-Stage High Purity Regulator designed for applications where high pressure and high flow control are desired.

Product Features

- Piston-Sensed Configuration
- Inlet & Outlet Port Size: 1/2" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316 Stainless Steel
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Adjusting Knob**	Aluminium Alloy



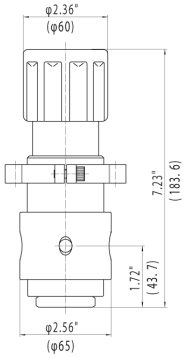
Applications

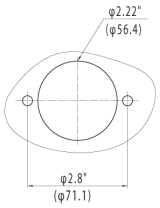
- Gas Chromatography
- Research Laboratories
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 6000 psig (412 bar)
- **Maximum outlet pressure:** 4500 psig (309 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 1.2
- **Weight:** 5.5 lb (2.5 kg)

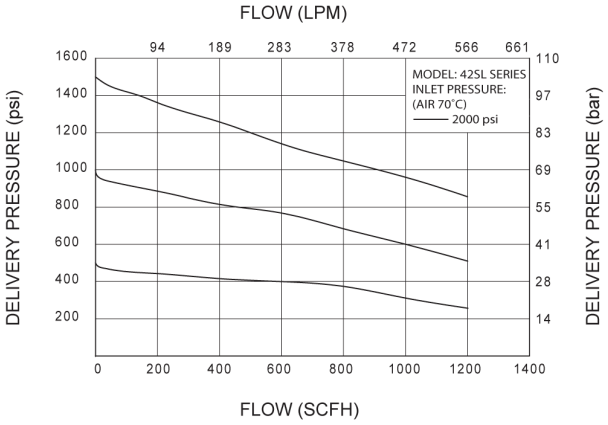
Dimensions



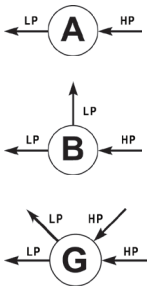


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: R42SL Series	B Body Ports	K - Seat	B Inlet Pressure Range	D Outlet Pressure Ranges	K - Gauge	04 - Inlet Connections	04 - Outlet Connections	V Options
• R42SL	A B G	K: PCTFE	B: 6000 psig	D: 0-3000 psig F: 0-500 psig	K: psig/kPa P: psig/bar W: No Gauge	04: 1/2" NPT(F) Other connections available*	04: 1/2" NPT(F) Other connections available*	Blank: None V: Self relieving (Venting)

* For more connection options contact GENTEC.

R43SL SERIES

High Pressure High Flow Regulator

R43SLBK-BDK-06-06-V

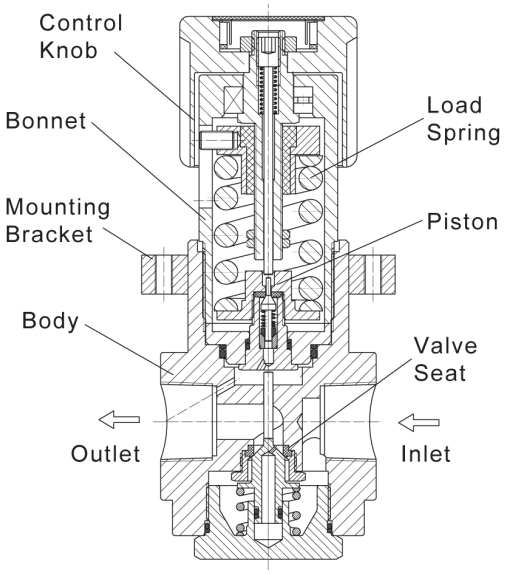
GENTEC® R43SL Series High Pressure Stainless Steel Regulator is a Piston-Sensed Single-Stage High Purity Regulator designed for applications where high pressure and high flow control are desired.

Product Features

- Piston-Sensed Configuration
- Inlet & Outlet Port Size: 3/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316 Stainless Steel
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Adjusting Knob**	Aluminium Alloy



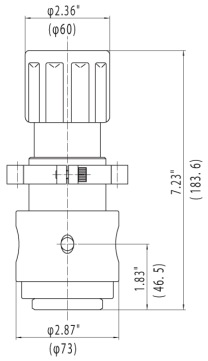
Applications

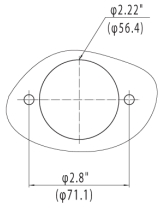
- Gas Chromatography
- Research Laboratories
- Petrochemical Industry
- Power Plants

Specifications

- **Maximum inlet pressure:** 6000 psig (412 bar)
- **Maximum outlet pressure:** 3000 psig (206 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 2.0
- **Weight:** 6.7 lb (3 kg)

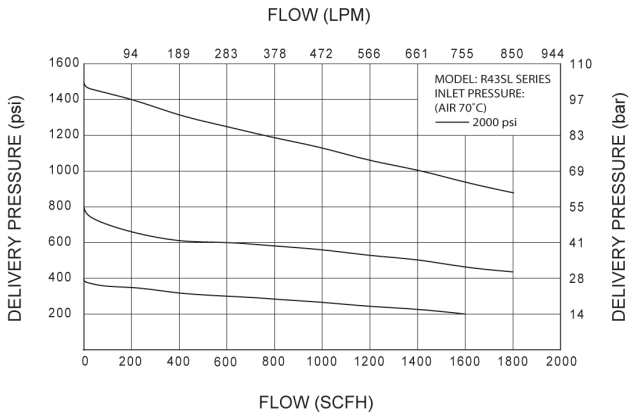
Dimensions



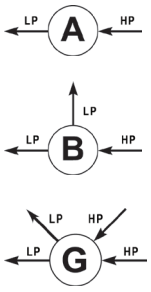


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: R43SL Series	B Body Ports	K - Seat	B Inlet Pressure Range	D Outlet Pressure Ranges	K - Gauge	06 - Inlet Connections	06 - Outlet Connections	V Options
• R43SL	A B G	K: PCTFE	B: 6000 psig	D: 0-3000 psig F: 0-500 psig	K: psig/kPa P: psig/bar W: No Gauge	06: 3/4" NPT(F) Other connections available*	06: 3/4" NPT(F) Other connections available*	Blank: None V: Self relieving (Venting)

* For more connection options contact GENTEC.

R44SL SERIES

High Purity / High Pressure Low Flow Regulator

R44SLMK-BDK-C590-11-D

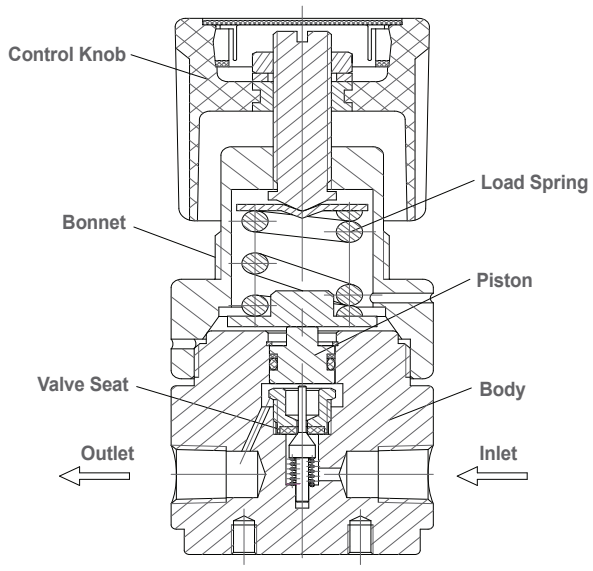
GENTEC® R44SL Series High Pressure Stainless Steel Regulator is a Piston-Sensed Single-Stage High Purity Regulator designed for applications where high pressure and low flow control are desired.

Product Features

- Piston-Sensed Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



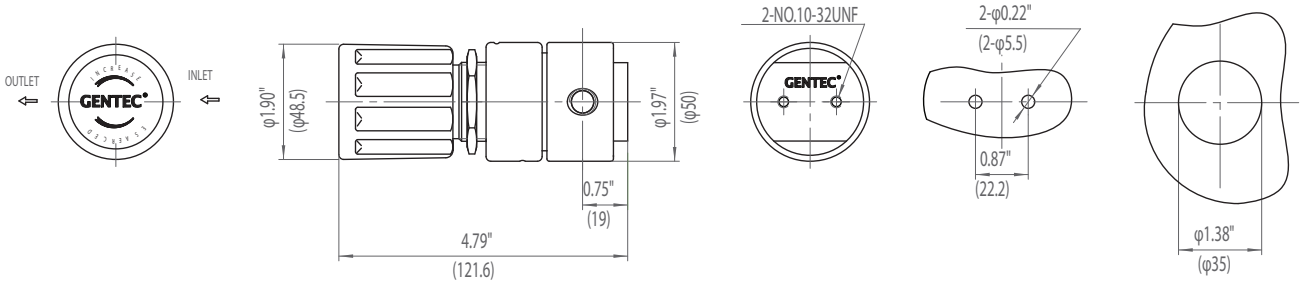
Applications

- Gas Chromatography
- Research Laboratories
- Petrochemical Industry
- Power Plants

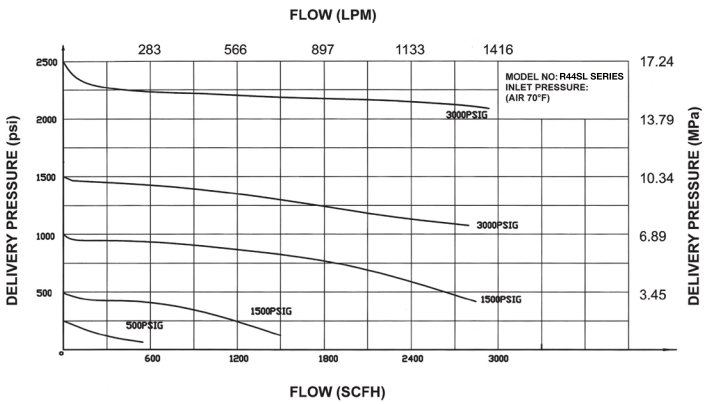
Specifications

- **Maximum inlet pressure:** 6000 psig
- **Maximum outlet pressure:** 3000 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.06
- **Weight:** 2.2 lb

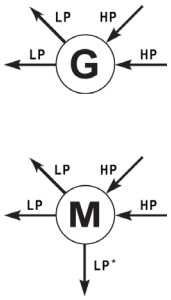
Dimensions



Flow Data



Body Ports



Ordering Information

EX: R44SL Series	M Body Ports	K - Seat	B Inlet Pressure Ranges	D Outlet Pressure Ranges	K - Gauge	C590 - Inlet Connections	11 - Outlet Connections	D Options
• R44SL	G M	K: PCTFE	B: 6000 psig D: 3000 psig	D: 0-3000 psig E: 0-1500 psig F: 0-500 psig G: 0-250 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C350: CGA350 C540: CGA540 C580: CGA580 C590: CGA590 C677: CGA677 C680: CGA680 C695: CGA695 Other connections available	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount Some valves not available depending on delivery pressures

R45SL SERIES

Ultra High Pressure Low Flow Regulator

R45SLGV-BEK-00-00

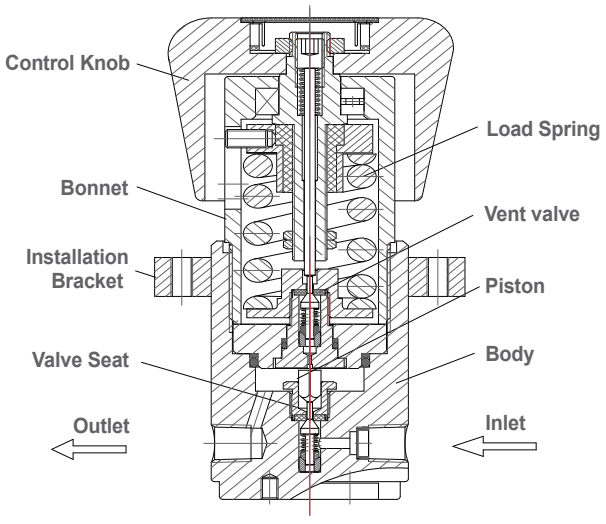
GENTEC® R45SL Series Ultra High Pressure Single-Stage Regulator is a Piston-Sensed Regulator applicable for ultra high pressure applications.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Seat**	VESPEL®
• **Piston**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic
• **O-ring**	Viton



Applications

- Semiconductor Industry
- Research Laboratories
- Process Analyzer
- Gas Chromatography
- Petrochemical Industry
- Power Plants

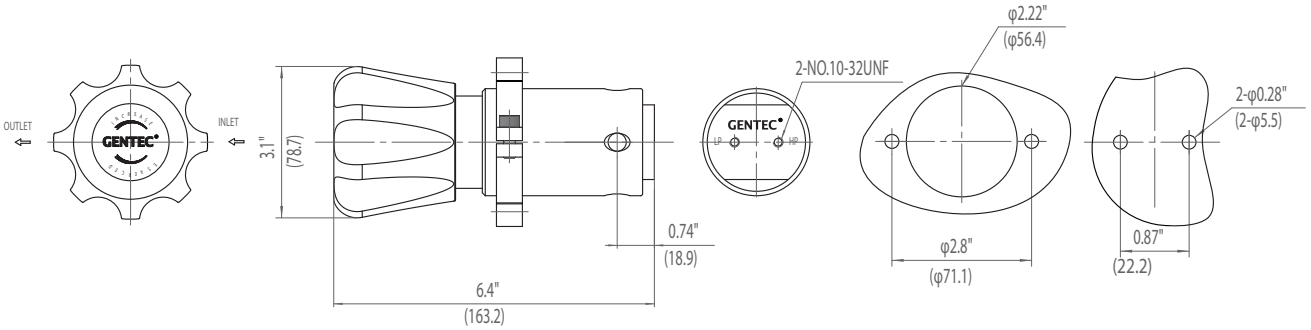
Specifications

- **Maximum inlet pressure:** 10000 psig
- **Maximum outlet pressure:** 6000 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.06
- **Weight:** 4.85 lb

R45SL SERIES

Ultra High Pressure Low Flow Regulator

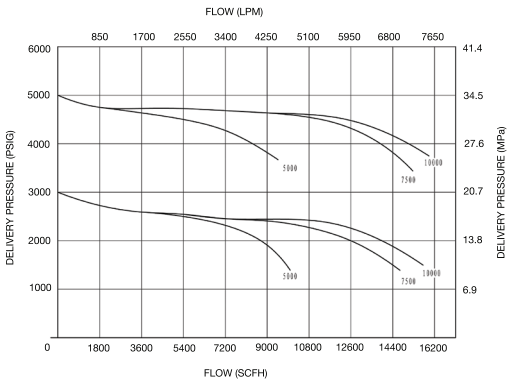
Dimensions

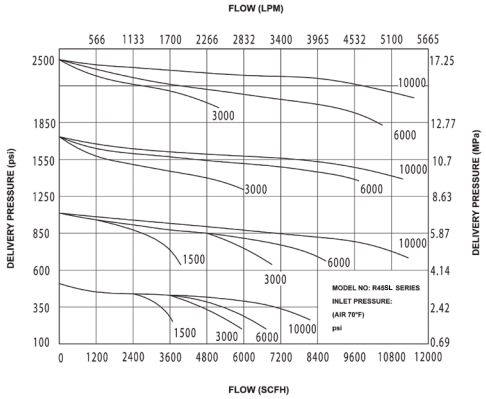


Rear Bracket Mount

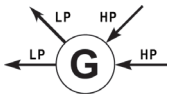
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Port



Ordering Information

EX: R45SL	G	V -	B	E	K -	00 -	00 -	N
Series	Body Ports	Seat	Inlet Pressure Ranges	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• R45SL	G	V: Vespel®	A: 10000 psig B: 6000 psig	B: 0-6000 psig C: 0-4500 psig D: 0-3000 psig E: 0-1500 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) C347: CGA347 C677: CGA677 C680: CGA680	00: 1/4" NPT(F) 01: 1/4" NPT(M) 10: 1/8" GENLOK 11: 1/4" GENLOK 14B: 1/4" Hose Barb Other connections available	Blank: None D: Diaphragm Valve N: Needle Valve P: Panel Mount Some valves not available depending on delivery pressures

R51SL SERIES

Corrosion Resistant Low Flow Regulator

R51SLGK-DIK-90-90

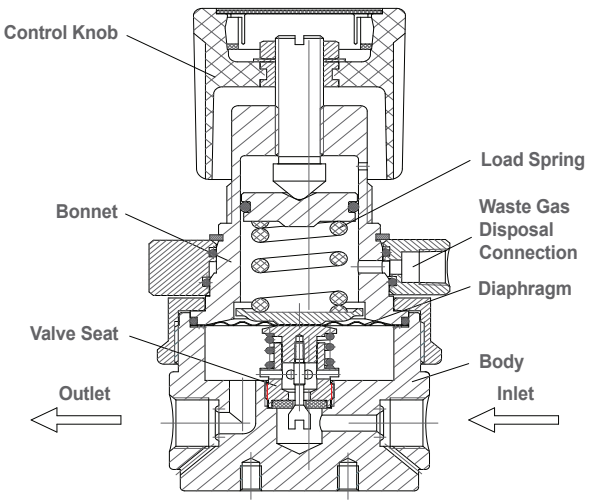
GENTEC® R51SL Series Corrosion-Resistant Single-Stage Regulator is Diaphragm-Sensed and especially designed for applications where corrosive and toxic gases are used.

Product Features

- Single-Stage Configuration
- Metal-to-Metal diaphragm to body seal & dual layer sealing ring
- Integrated waste gas disposal connection for additional safety
- Body Port Size: 1/4" FSR(F)

Materials

• **Body**	316L (EP) - Stainless Steel, Hastelloy®
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Valve Stem:**	C22 Hastelloy®
• **Diaphragm**	C22 Hastelloy®



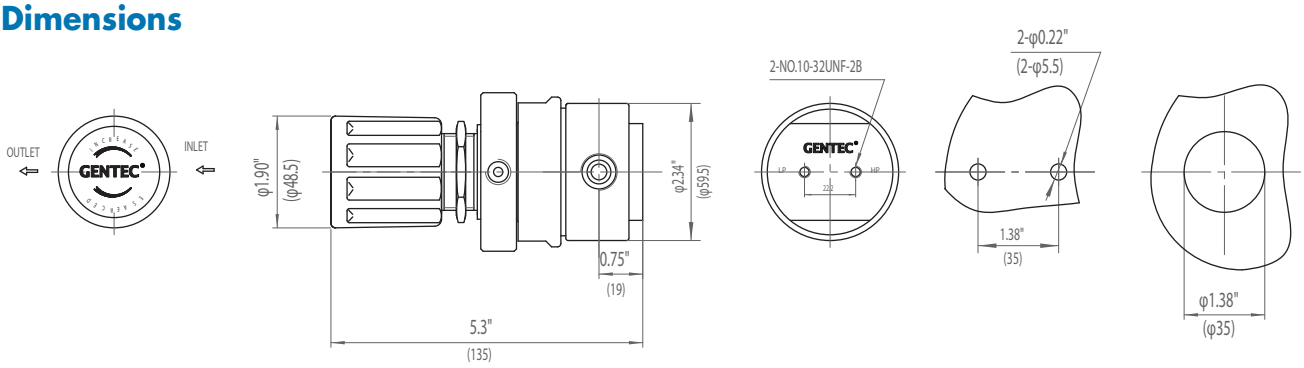
Applications

- Semiconductor Industry
- Solar Energy Industry
- Vacuum Plating Equipment
- Spec Gas Equipment

Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 500 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.16
- **Weight:** 3.42 lb

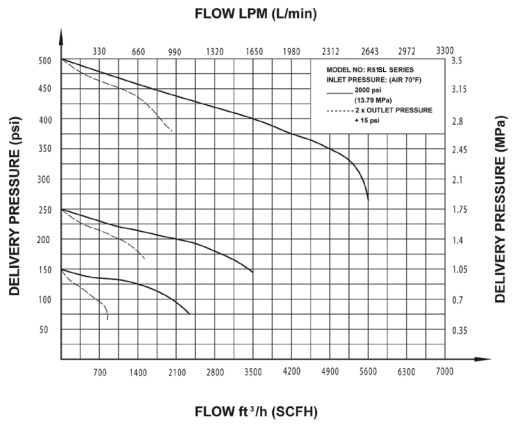
Dimensions



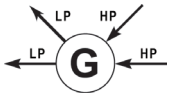
Rear Bracket Mount

Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Port



Ordering Information

EX:R51SL	G K -	K - D	D	I K -	K -	90 -	90
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections
• R51SL • R51H (Hastelloy®)	G	K: PCTFE	D: 3000 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	K: psig/kPa P: psig/bar W: No Gauge	90: Internal 1/4" FSR(F)	90: Internal 1/4" FSR(F)

R66SL SERIES

Ultra High Flow Regulator

R66SLJB-FGK-08-08

GENTEC® R66SL Series Regulator is a hand-adjustable, low pressure regulator designed to provide excellent accuracy.

Product Features

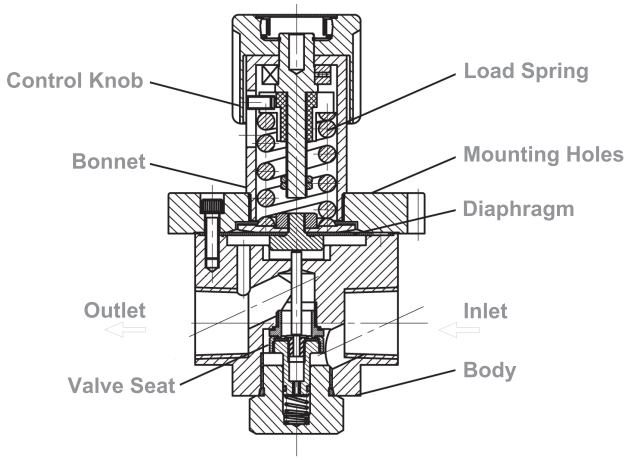
- Facility Supply Regulation
- Gas Control Box
- Bulk Gas Delivery System

Materials

• **Body**	316L Stainless Steel
• **Seat**	Buna-N
• **Diaphragm**	Buna-N/Nylon Reinforced
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

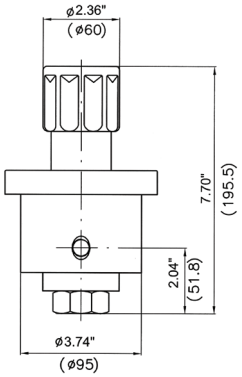
- Facility Supply Regulation
- Gas Control Box
- Bulk Gas Delivery System

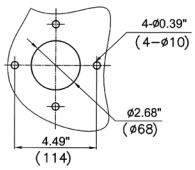


Specifications

- **Maximum inlet pressure:** 500 psig (35 bar)
- **Maximum outlet pressure:** 250 psig (17 bar)
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -10˚F~250˚F (-23˚C~ 121˚C)
- **Maximum Cv:** 5.2
- **Weight:** 13.2 lb (6 kg)

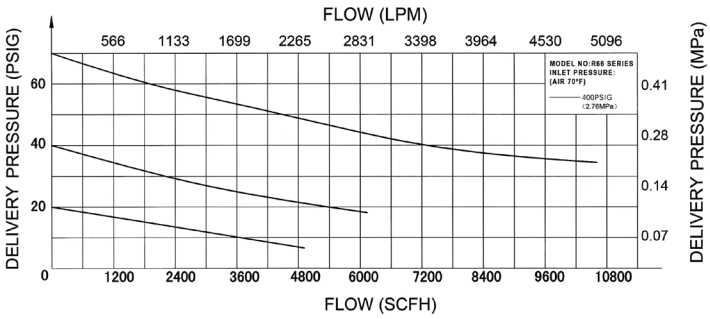
Dimensions



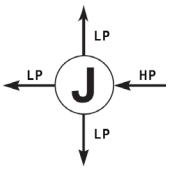


Front Panel Mount

Flow Data



Body Port



Ordering Information

EX:R66SL	J	B -	F	G	K -	08 -	08
Series	Body Ports	Seat	Inlet Pressure Range	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections
• R66SL	J	B: Buna-N	F: 500 psig	G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	K: psig/kPa P: psig/bar W: No Gauge	08: 1" NPT(F)	08: 1" NPT(F)

R72SL SERIES

High Purity Back Pressure Regulator

R72SLAK-EW-00-00

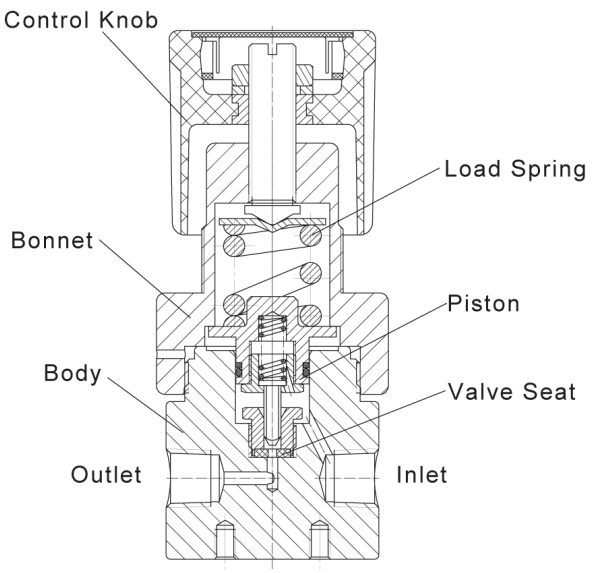
GENTEC® R72SL Back Pressure Regulator is a Piston-Sensed High Purity Back regulator designed for analytical applications where a constant back pressure is desired.

Product Features

- Piston-Type Configuration
- Inlet & Outlet Post Size: 1/4" NPT(F)

Materials

• **Body**	316L Stainless Steel
• **Seat**	PCTFE
• **Piston**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel



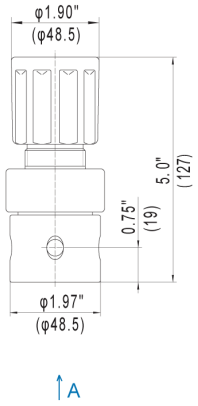
Applications

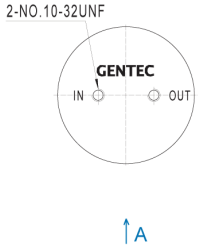
- Process Control
- Petrochemical Industry
- Gas Chromatography
- Research Laboratories

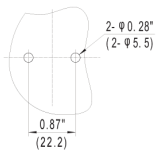
Specifications

- **Maximum back pressure:** 1500 psig (103 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.14
- **Weight:** 2.65 lb (1.2 kg)

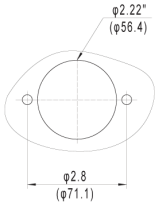
Dimensions





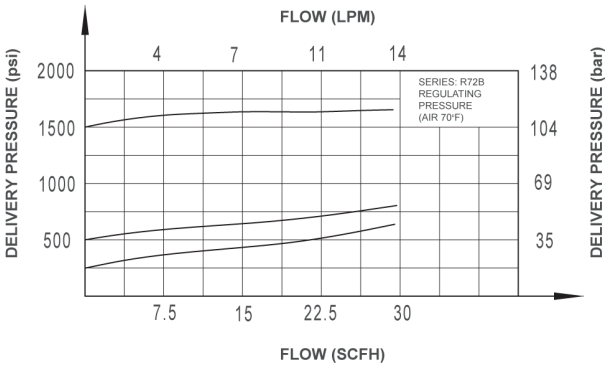


Rear Bracket Mount



Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Port

Ordering Information

EX: R72SL Series	A Body Ports	K - Seat	E Inlet Pressure Ranges	W - Gauge	00 - Inlet Connections	00 - Outlet Connections	J Options
• R72SL	A	K: PCTFE	E: 0-1500 psig F: 0-500 psig G: 0-250 psig	W: No Gauge	00: 1/4" NPT(F) Other connections available*	00: 1/4" NPT(F) Other connections available*	Blank: None J: Rack Mount

* For more connection options contact GENTEC.

R73SL SERIES

High Pressure Back Pressure Regulator

R73SLAE-BW-00-00

GENTEC® R73SL Back Pressure Regulator is a Piston-Sensed High Purity Regulator designed for analytical applications where a constant back pressure is desired.

Product Features

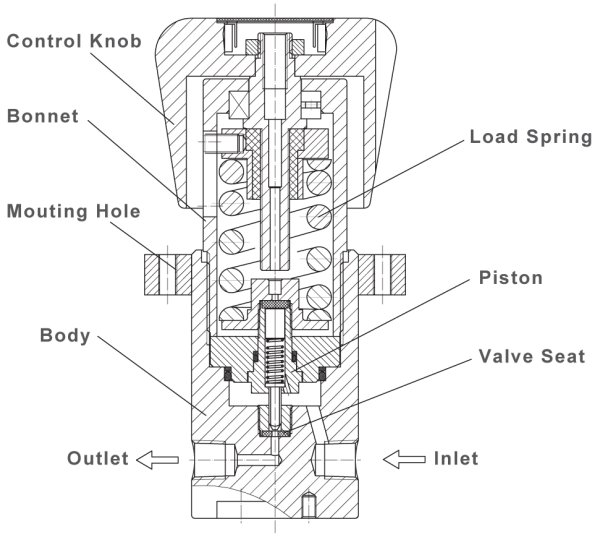
- Piston-Type Configuration
- Inlet & Outlet Post Size: 1/4" NPT(F)

Materials

• **Body**	316L Stainless Steel
• **Seat**	PEEK
• **Piston**	316L Stainless Steel
• **Stem**	316L Stainless Steel
• **Spring**	316L Stainless Steel

Applications

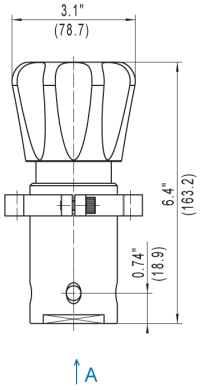
- Process Control
- Petrochemical Industry
- Gas Chromatography
- Research Laboratories

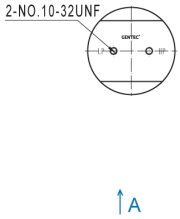


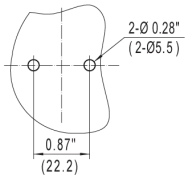
Specifications

- **Maximum back pressure:** 10000 psig (690 bar)
- **Safety test pressure:** 1.5 x Maximum pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Maximum Cv:** 0.1
- **Weight:** 4.85 lb (2.2 kg)

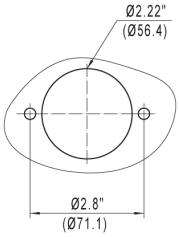
Dimensions





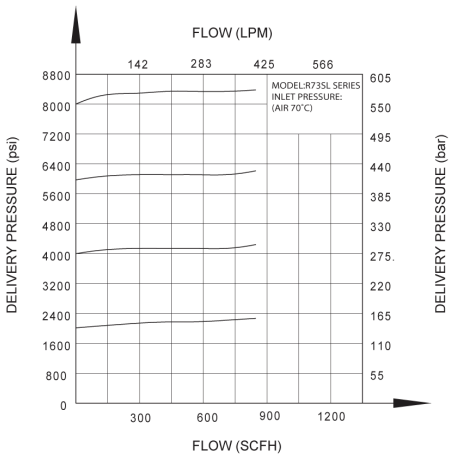


Rear Bracket Mount



Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Port

Ordering Information

EX:R73SL	A	E -	B	W -	00 -	00
Series	Body Ports	Seat	Inlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections
• R73SL	A	E: PEEK	A: 0-10000 psig B: 0-6000 psig C: 0-4500 psig D: 0-3000 psig	W: No Gauge	00: 1/4" NPT(F) Other connections available*	00: 1/4" NPT(F) Other connections available*

* For more connection options contact GENTEC.

R77SL SERIES

Back Pressure Low Flow Regulator

R77SLAK-GW-00-00

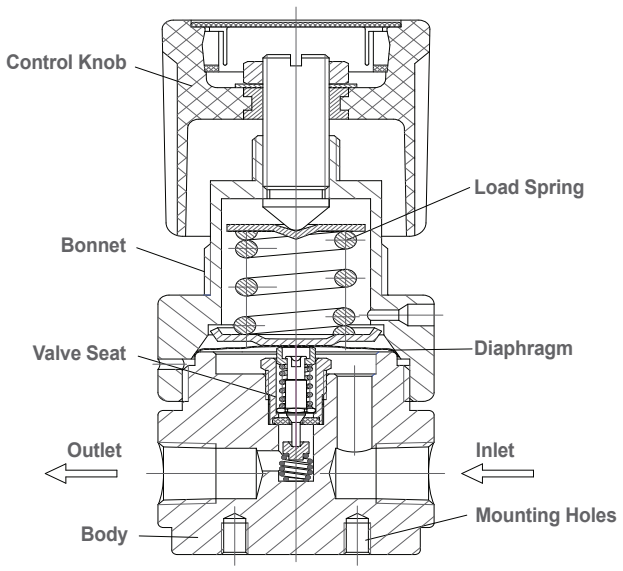
GENTEC® R77SL Series Back Pressure Regulator is a Diaphragm-Sensed Single-Stage High Purity Regulator designed for applications where a constant back pressure is desired.

Product Features

- Single-Stage Configuration
- Body Port Size: 1/4" NPT(F)
- 2" Pressure Gauge

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316L Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



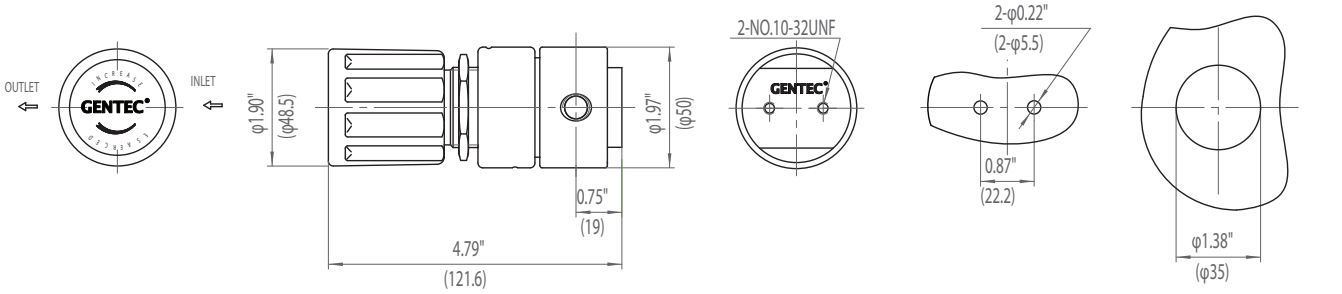
Applications

- Process Control
- Petrochemical Industry
- Gas Chromatography
- Research Laboratories

Specifications

- **Maximum inlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm.cc/sec He
- **Outboard leakage:** 2 x 10^{-8} atm.cc/sec He inlet pressure: 1500 psig
- **Maximum Cv:** 0.08
- **Weight:** 2.2 lb

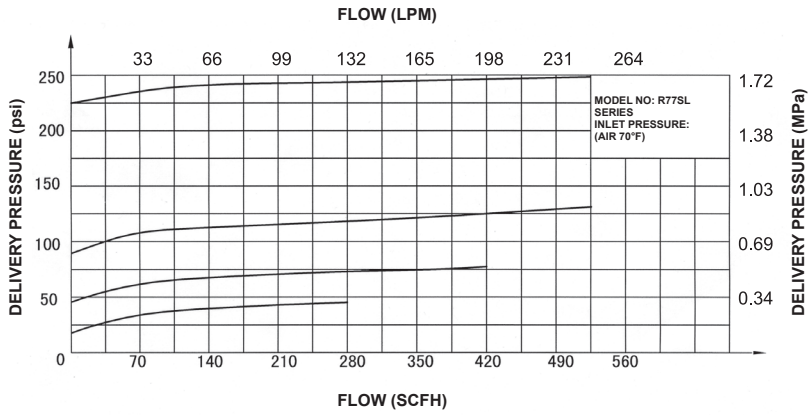
Dimensions



Rear Bracket Mount

Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



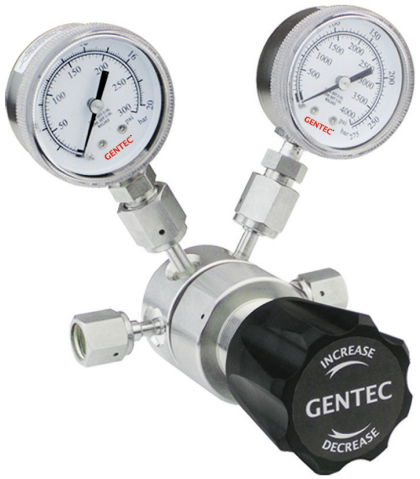
Body Port

Ordering Information

EX: R77SL Series	A Body Ports	K - Seat	G Outlet Pressure Ranges	W - Gauge	00 - Inlet Connections	00 - Outlet Connections	P Options
• R77SL	A	K: PCTFE	G: 0-250 psig I: 0-100 psig	K: psig/kPa P: psig/bar W: No Gauge	00: 1/4" NPT(F) 01: 1/4" NPT(M)	00: 1/4" NPT(F) 01: 1/4" NPT(M)	P: Panel Mount

U21SL SERIES

Ultra High Purity Low Flow Regulator

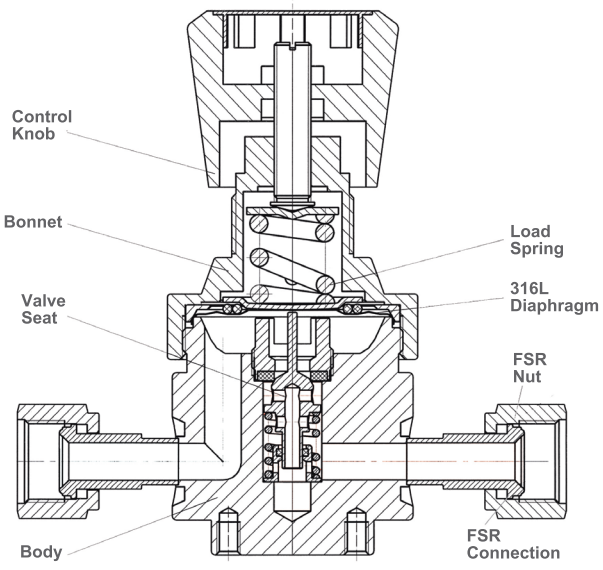


U21SLGK-DGP-91-91-P

GENTEC® U21SL Series Single-Stage Stainless Steel Regulator is a Hand Adjustable, Pressure Reducing Regulator designed for non-corrosive, corrosive, and toxic gas applications. Our metal-to-metal diaphragm to body seal is designed to minimize leakage and to provide excellent accuracy and longevity.

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316 Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- 2” Pressure Gauge
- Fully Internal Electropolished
- Cleaned, Assembled, and Packaged for High Purity Semiconductor Application
- 100% Helium-leak tested

Applications

- Semiconductor
- Solar
- Gas Panels
- OEM

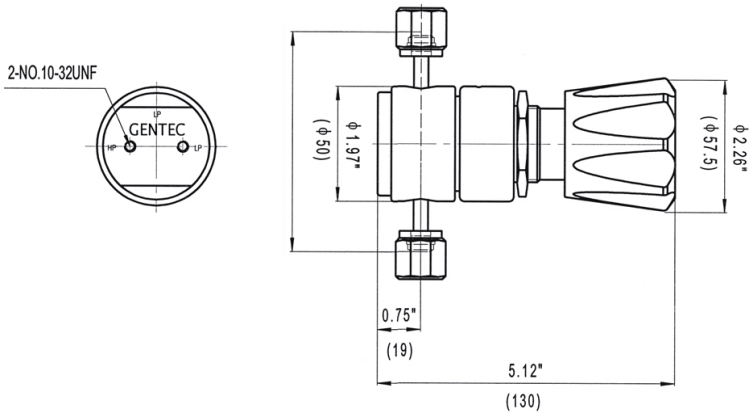
Specifications

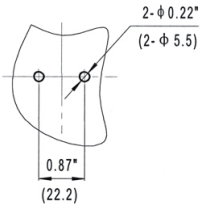
- **Maximum inlet pressure:** 500 psig for B Port, 3000 psig for A and G Port
- **Maximum outlet pressure:** 500 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm cc/sec He
- **Outboard leakage:** 2 x 10^{-9} atm cc/sec He
- **Leakage across seat:** 4 x 10^{-8} atm cc/sec He
- **Maximum Cv:** 0.14
- **Weight:** 3.8 lb

U21SL SERIES

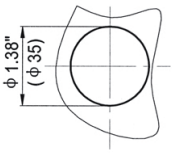
Ultra High Purity Low Flow Regulator

Dimensions



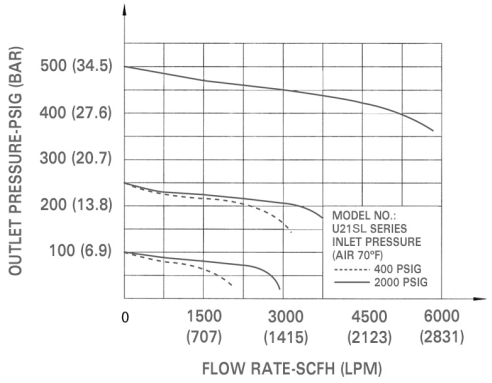


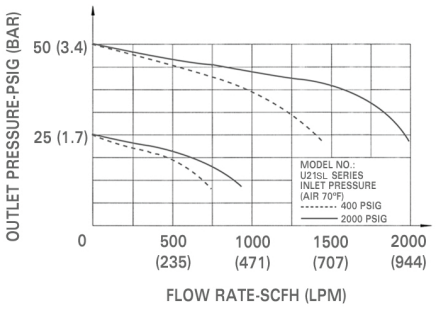
Rear Bracket Mount



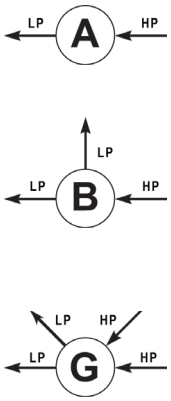
Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data





Body Ports



Ordering Information

EX: U21SL Series	G Ports	K - Seat	D Inlet Pressure Ranges	G Outlet Pressure Ranges	P - Gauge	91 - Inlet Connections	91 - Outlet Connections	P Options
• U21SL	A B G	K: PCTFE	D: 3000 psig F: 500 psig	F: 0-500 psig G: 0-250 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	P: psig/bar W: No Gauge	90: 1/4" internal female FSR 91: 1/4" swivel female FSR 92: 1/4" swivel male FSR 41: 1/4" weld stub	90: 1/4" internal female FSR 91: 1/4" swivel female FSR 92: 1/4" swivel male FSR 41: 1/4" weld stub	E: Ra 10 µin P: Panel Mounting H: Hastelloy® Diaphragm

U22SL SERIES

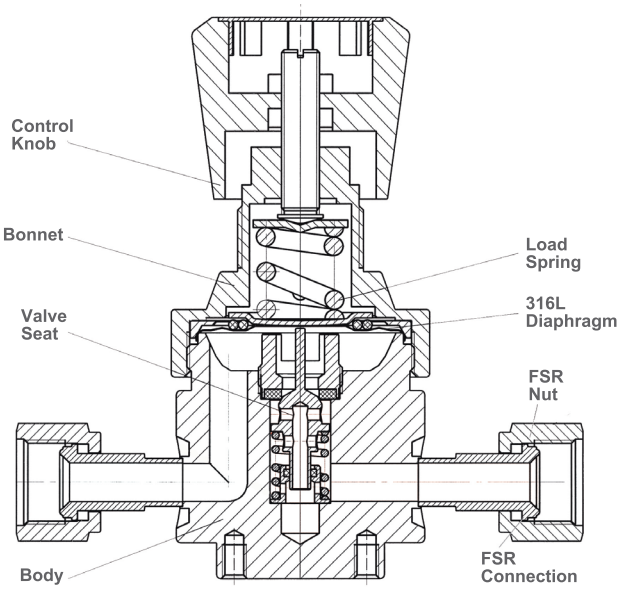
Ultra High Purity Medium Flow Regulator

U22SLGK-DGP-95-95-P

GENTEC® R22SL Series Stainless Steel Regulators is a Purge Gas, Pressure Reducing Regulators. It is designed for non-corrosive, corrosive, and toxic gas applications. Our metal-to-metal diaphragm to body seal is designed to minimize leakage and to provide excellent accuracy and longevity.

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316L Stainless Steel, Hastelloy®
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- 2” Pressure Gauge
- Fully Internal Electropolished
- Cleaned, Assembled, and Packaged for High Purity Semiconductor Application
- 100% Helium-leak tested

Applications

- Semiconductor
- Solar
- Gas Panels
- OEM

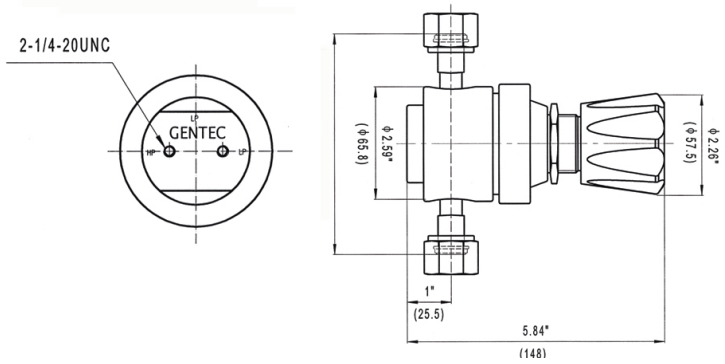
Specifications

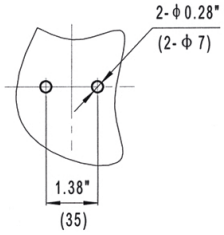
- **Maximum inlet pressure:** 500 psig for B Port, 3000 psig for A and G Port
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm cc/sec He
- **Outboard leakage:** 2 x 10^{-9} atm cc/sec He
- **Leakage across seat:** 4 x 10^{-8} atm cc/sec He
- **Maximum Cv:** 1.1
- **Weight:** 3.8 lb

U22SL SERIES

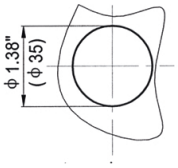
Ultra High Purity Medium Flow Regulator

Dimensions



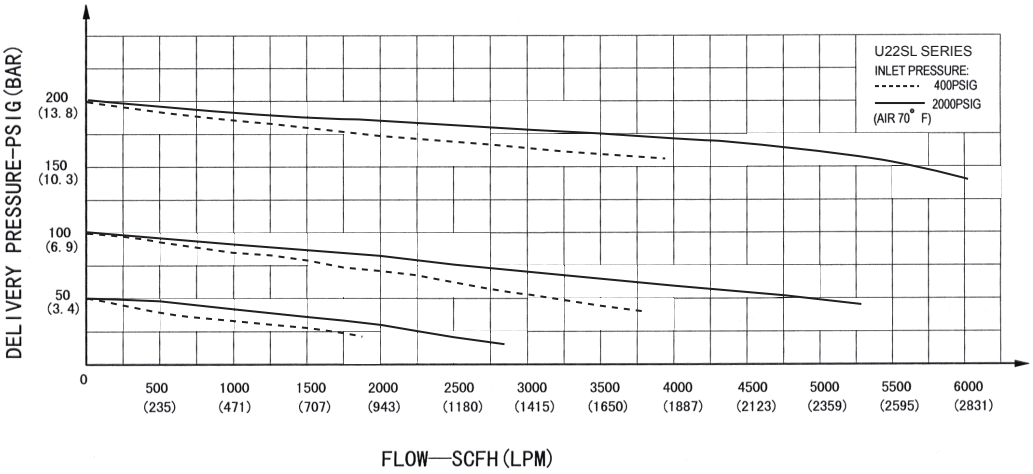


Rear Bracket Mount

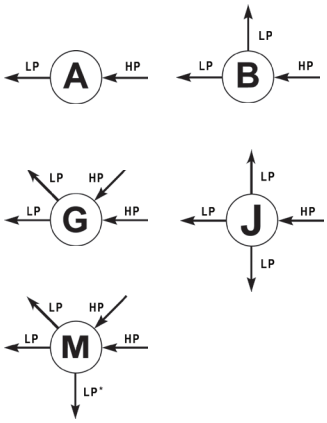


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: U22SL Series	G Ports	K - Seat	D Inlet Pressure Ranges	G Outlet Pressure Ranges	P - Gauge	95 - Inlet Connections	95 - Outlet Connections	P Options
• U22SL	A B G	K: PCTFE	D: 3000 psig F: 500 psig	G: 0-250 psig H: 0-150 psig I: 0-100 psig K: 0-50 psig L: 0-25 psig	P: psig/bar W: No Gauge	95: 1/2" FSR(F) 96: 1/2" FSR(M)	95: 1/2" FSR(F) 96: 1/2" FSR(M)	E: Ra 10 µin P: Panel Mounting H: Hastelloy® Diaphragm

U23SL SERIES

Ultra High Purity High Flow Regulator

U23SLGK-DHP-95-95

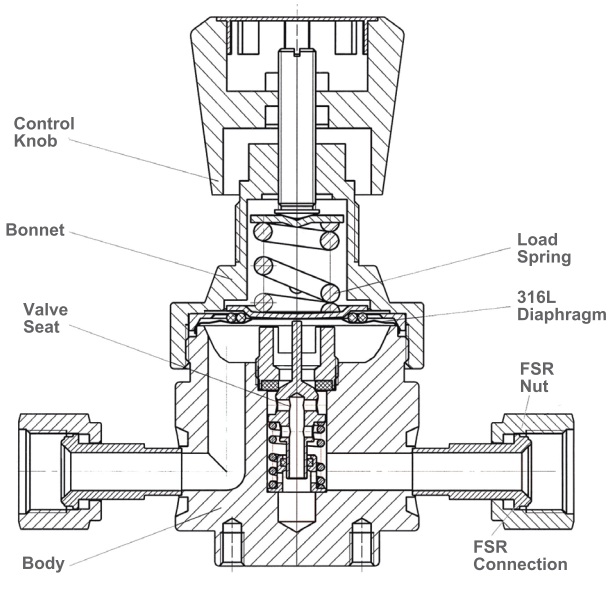
GENTEC® U23SL Series Stainless Steel Regulator is an ideal purge regulator for low pressure and high purity systems. It also works great with heavy duty gas flow applications. Our metal-to-metal diaphragm to body seal is designed to minimize leakage and to provide excellent accuracy and longevity.

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- 2" Pressure Gauge
- Fully Internal Electropolished
- Cleaned, Assembled, and Packaged for High Purity Semiconductor Application

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316 Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic



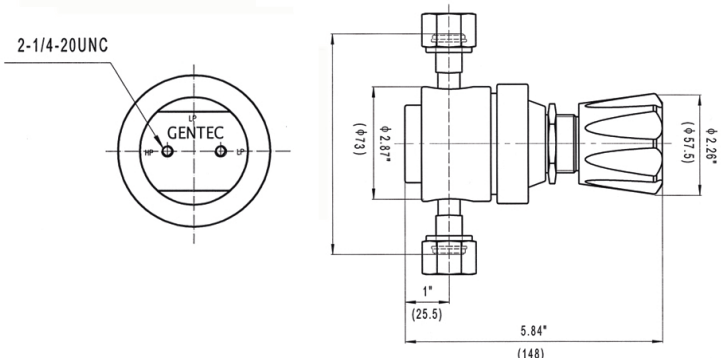
Applications

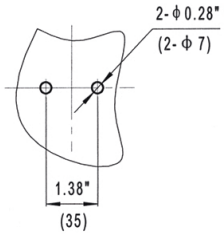
- Semiconductor
- Solar
- Gas Panels
- OEM

Specifications

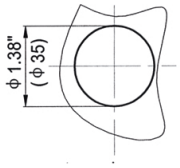
- **Maximum inlet pressure:** 500 psig for B Port, 3000 psig for A, G Ports
- **Maximum outlet pressure:** 250 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 2 x 10^{-8} atm cc/sec He
- **Outboard leakage:** 2 x 10^{-9} atm cc/sec He
- **Leakage across seat:** 4 x 10^{-8} atm cc/sec He
- **Maximum Cv:** 1.8
- **Weight:** 3.8 lb

Dimensions



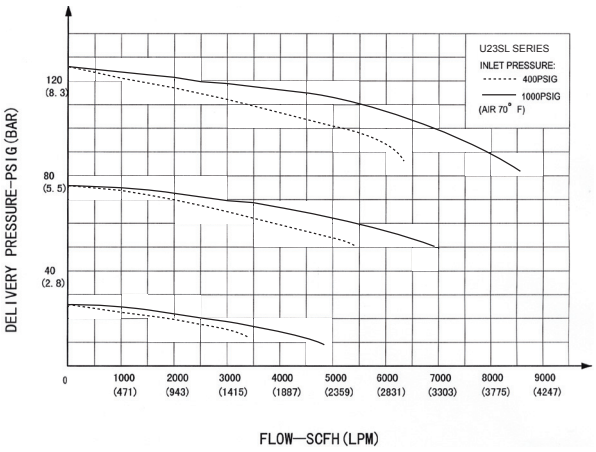


Rear Bracket Mount

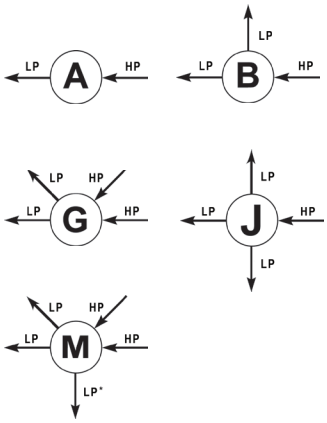


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: U23SL	G	K -	D	H	P -	95 -	95 -	P
Series	Ports	Seat	Inlet Pressure Ranges	Outlet Pressure Ranges	Gauge	Inlet Connections	Outlet Connections	Options
• U23SL	A B G	K: PCTFE	D: 3000 psig F: 500 psig	G: 0-250 psi H: 0-150 psi I: 0-100 psi K: 0-50 psi L: 0-25 psi	P: psig/bar W: No Gauge	95: 1/2" FSR(F) 96: 1/2" FSR(M)	95: 1/2" FSR(F) 96: 1/2" FSR(M)	E: Ra 10 µin P: Panel Mounting H: Hastelloy® Diaphragm

U53SL SERIES

Ultra High Purity Low Flow Regulator

GENTEC® U53SL Series Stainless Steel Regulator is a Threadless, High Purity Regulator with non-tied diaphragm design. Our metal-to-metal diaphragm to body seal is designed to minimize leakage and to provide excellent accuracy and longevity.

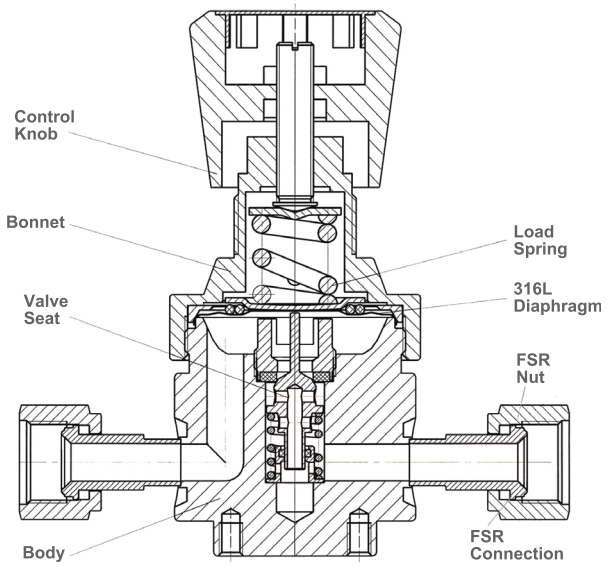
U53SLGK-GLP-91-91

Product Features

- Single-Stage Configuration
- Metal-to-Metal Seal
- 2" Pressure Gauge
- Fully Internal Electropolished
- Cleaned, Assembled, and Packaged for High Purity Semiconductor Application

Materials

• **Body**	316L Stainless Steel
• **Bonnet**	316 Stainless Steel
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Elgiloy



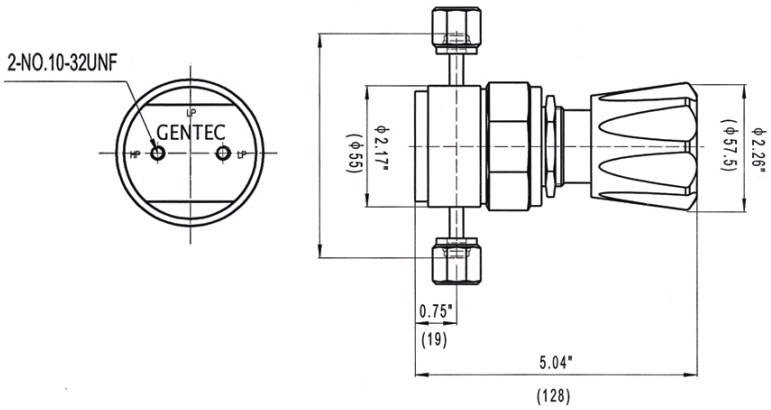
Applications

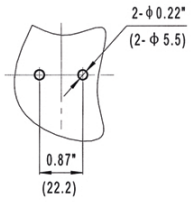
- Semiconductor
- Solar
- Gas Panels
- OEM

Specifications

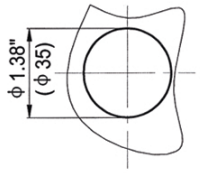
- **Maximum inlet pressure:** 300 psig
- **Maximum outlet pressure:** 30 psig
- **Safety test pressure:** 1.5 x Maximum inlet pressure
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Inboard leakage:** 0.5 x 10^{-9} atm cc/sec He
- **Outboard leakage:** 1 x 10^{-9} atm cc/sec He
- **Leakage across seat:** 4 x 10^{-8} atm cc/sec He
- **Maximum Cv:** 0.054
- **Weight:** 3.8 lb

Dimensions



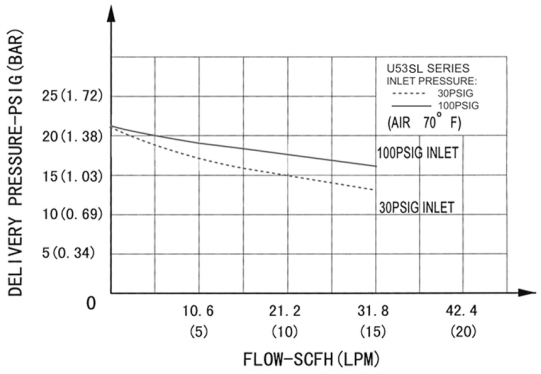


Rear Bracket Mount

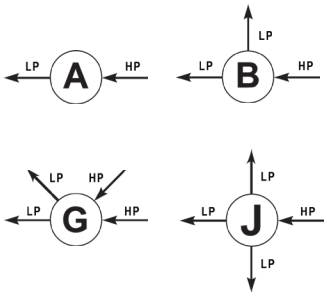


Front Panel Mount
Max. Thickness: 1/4" (7mm)

Flow Data



Body Ports



Ordering Information

EX: U53SL	G	K -	G	L	P -	91 -	91 -	P
Series	Ports	Seat	Inlet Pressure Range	Outlet Pressure Range	Gauge	Inlet Connections	Outlet Connections	Options
• U53SL	A B G	K: PCTFE	G: 300 psi	L: 0-30 psig	P: psig/bar W: No Gauge	90: 1/4" internal female FSR 91: 1/4" swivel female FSR 92: 1/4" swivel male FSR 41: 1/4" weld stub	90: 1/4" internal female FSR 91: 1/4" swivel female FSR 92: 1/4" swivel male FSR 41: 1/4" weld stub	P: Panel Mounting H: Hastelloy® Diaphragm

Manifolds

1. The PSB/PSSL Single Station Manifold - In some applications, specialty gas is used only to calibrate instrumentation. Calibration gases flowing for only a few minutes each day do not require an automatic changeover manifold. Single-station manifolds with brackets present an ideal solution for users that have infrequent gas bottle changes. It provides for a safe and cost-effective means to connect and change out cylinders thereby eliminating the need to disconnect the regulator from the cylinder.

2. The 110/220 Series Multiple-Station Manifold - A header manifold is generally a wise choice where cylinder changeouts are not that critical to the application.

Each cylinder connection point or station is fitted with a valve, which permits individual cylinders to be isolated for changeout. In order to preserve system purity, these valves are usually diaphragm-typed. They are designed to prevent oxygen, nitrogen, water vapor or other contaminants from intruding into the process.

Header manifolds can also be used in conjunction with changeover manifolds, providing a means to connect more than one cylinder to each bank of the changeover manifold.

3. The 150/160 Series Manual Manifold - Many users require a constant, uninterrupted supply of gas. Any pause in the gas supply results in lost or downtime for an entire laboratory. Manifolds that provide the capability to manually switch from a primary to a reserve bank without interrupting the gas supply can minimize or eliminate such costly downtime.

Selecting the correct manifold then depends on the application, since the additional features in the more sophisticated versions can justify their expense in critical applications.

4. The 210/220 Series Semi-Automatic Manifold - The simplest manifold is designed to changeover on a sensed drop-in pressure of one cylinder bank relative to the other.

This type of manifold is called a differential manifold. Differential manifolds require regular periodic monitoring and resetting. A line regulator should be installed downstream to eliminate pressure variations caused by differential-type manifolds.

5. The 250 Series Automatic Changeover - A change or drop in delivery pressure can adversely affect instrument performance in some instances. To avoid this problem, an Automatic Changeover manifold may be selected. Though not **Fully Automatic,** the operation of this type of manifold is also based on differential pressure. The delivery pressure is held virtually constant during cylinder bank changeover. Indicating Contact Gauges are installed onto the manifold to provide alarm capability when the cylinder gets to a lower pressure. The Automatic Manifold regulates pressure in two stages to keep delivery pressure stable, even during changeover.

Point of Use Gas Control Panels

Most modern laboratories have multiple instruments that use the same specialty gas but may require different delivery pressures, flowrates or purity levels. Unfortunately, even when a centralized gas distribution system is in place, these varying needs of the instruments are often accommodated by a maze of tubing, line regulators and other accessories that are scattered behind laboratory equipment. Such disorganization can result in a number of serious problems.

First, since regulators and tubing can be bunched together, it is easy to connect the wrong gas to the instrument, resulting in lost or degraded experiments or even damage to the instrument. Second, safety may be compromised since tubing, regulators and traps will not be adequately protected or marked. Third, operating and maintenance costs will increase as the difficulty of identifying and correcting the causes of problems.

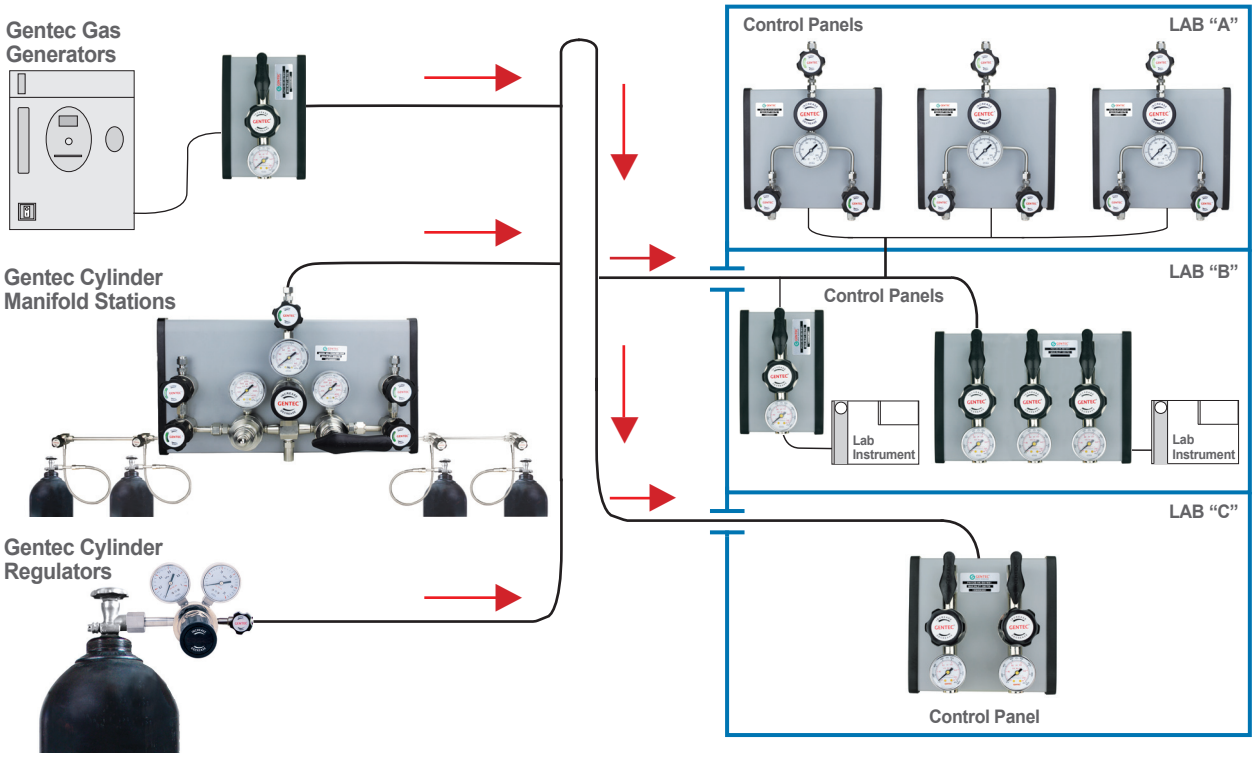
A more practical arrangement to eliminate or minimize these problems is to install point-of-use panels designed for dedicated gas service. A typical panel provides a means to control both delivery pressure and flowrate for a gas supplied to an instrument at the point of use. When required, traps can be included on panels as well. Where one instrument requires several gases, a panel can be designed to conveniently regulate the gases. The **4000/4200 Series** is an excellent solution.

Gas Delivery Systems

Three key areas of design will determine the quality of the gas performance in a laboratory operation.

1. **Source** of Supply = Dewars, Gas Cylinders, and Gas Generators
2. **Distribution** of Gas = Piping System
3. **Point of Use** Control of Delivery = Terminal Points

Gentec Gas Delivery systems are designed to provide safe, efficient and convenient gas control to the laboratory environment.



PSSL-WD-C320-01-CV-S

Note: Gas Regulator sold separately.

GENTEC® PSB/PSSL Series is designed to provide safe, fast and simple cylinder exchanges by eliminating the direct connection between the gas regulator and cylinder.

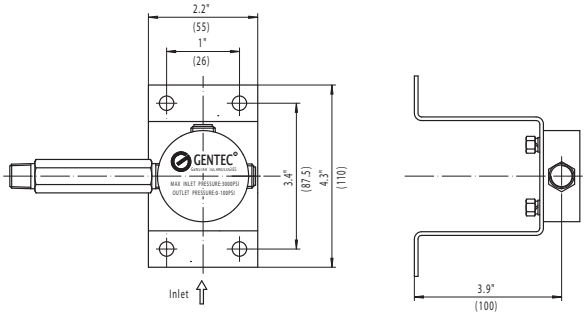
Product Features

- Bracket Mount fits both Single and Dual-Stage Regulators
- Multiport Station Blocks are available in 316L Stainless Steel
- 3 ft Pigtails with integral check valve option. 6 ft Pigtails available
- Maximum inlet pressure: 3000 psig

Applications

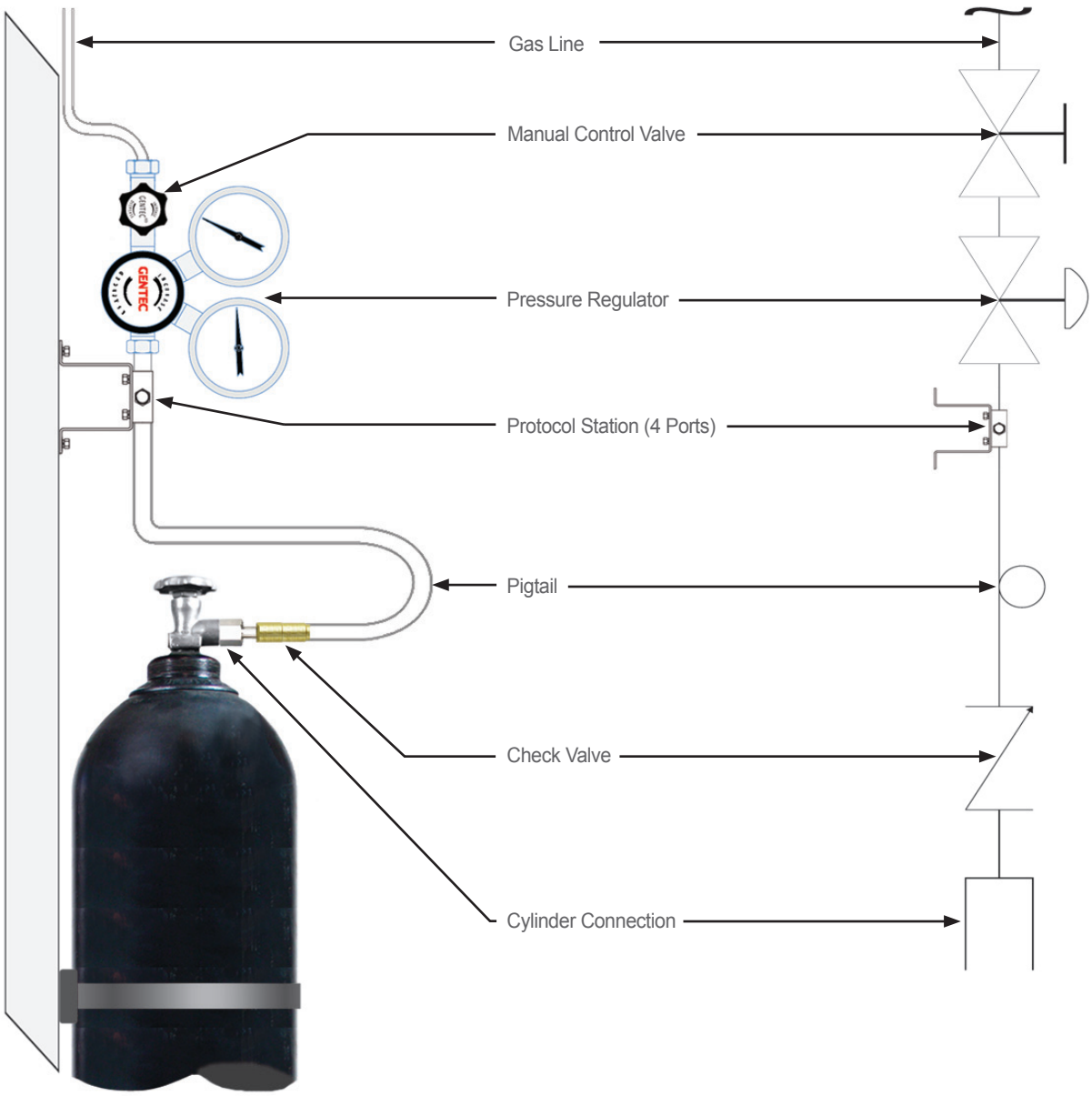
- Laboratories
- Supply of GC carrier gas/support gas
- Supply of calibration gases to on-line process analyzers, monitoring systems

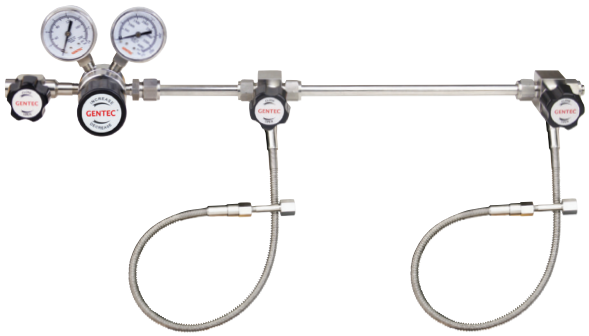
Panel Mount



EX:PSB Series	W Bracket Style	D - Inlet Pressure (max.)	C320 - Inlet Connection	01 - Outlet Connection (to regulator)	CV - Check Valve	S Pigtail Option
PSB: Brass PSSL: 316L	W: Wall-Mount	D: 3000 psi	Pigtail C320: CGA320 C330: CGA330 C350: CGA350 Other Connections are Available No Pigtail 00: 1/4" NPT(M)	01: 1/4" NPT(M) No Extension Bar 00: 1/4" NPT(F)	CV: Check Valve Leave blank for no check valve	S: 316L T: Teflon

The PSB/PSSL Series Regulator Protocol Station can be modified to your needs. The special four (4) port manifold block enables one to configure a delivery system in a variety of ways.





GENTEC® 110/120 Series offers a safe efficient method of connecting multiple cylinders to a common gas supply line to provide centralized distribution of gas for high purity delivery requirements.

SL110A-100D-2R-C580-S

R21 Regulator Materials

• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

R22 Regulator Materials

• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

Product Features

- 110 Series manifold system uses R21 regulator for low flow systems
- 120 Series manifold system uses R22 regulator for high flow systems
- Single line of cylinders, gas supply uninterrupted during cylinder change
- Piping is tested for pressure and leakage
- Wall mounts (optional)
- Diaphragm station valves (1 per cylinder station)
- 3 ft flex pigtail with integral check valve

Applications

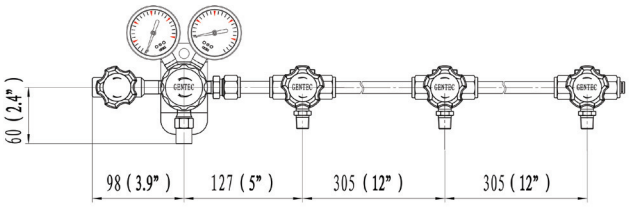
- Research Laboratories
- Manufacturing
- Pipeline

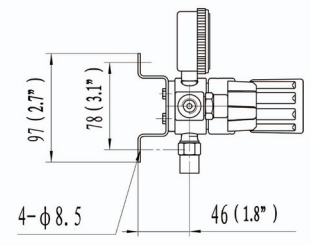
Specifications

- **Maximum inlet pressure:** 3000 psig
- **Working temperature:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Pipe:** 1/2" seamless stainless steel (BA grade)
- **Regulator leak rate:** 2 x 10^{-9} atm cc/sec He

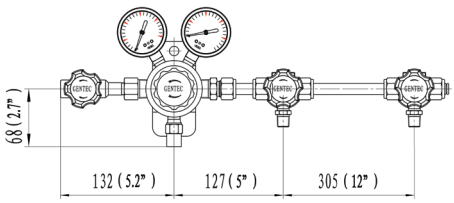
* Regulator chosen at time of order

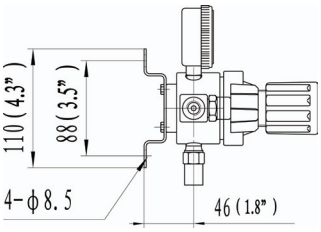
Dimensions





B110 / SL110 - R21 Regulator



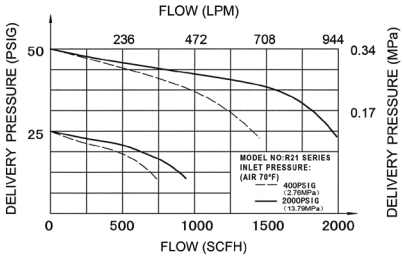


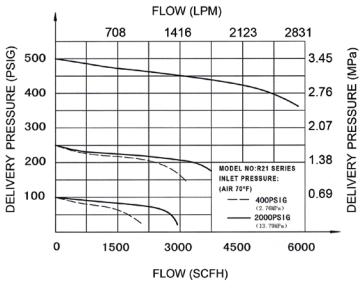
B120 / SL120 - R22 Regulator

Note: Mounting Bracket (GB-R1), additional charge

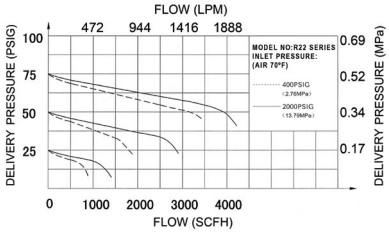
Flow Data

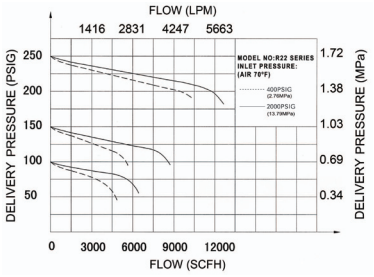
110 Series





120 Series





Ordering Information

EX: SL110	A -	50	D -	2	R -	C580 -	S -	1
	Layout	Max. Outlet Pressure	Outlet Connection	Stations	Stations	Inlet Connections	Pigtail	Options
• SL110 • SL120 • B110 • B120	A: 12" standard	50: 50 psig 100: 100 psig 250: 250 psig	D: Diaphragm Valve 1/4" NPT(F) Leave Blank for No Valve	1 2 3 4 5	L: Left Side R: Right Side	Pigtail C320: CGA320 C346: CGA346 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 Other Connections are Available No Pigtail 00: 1/4" NPT(M)	S: 316L T: Teflon	1: Alarm Box 2. Flashback Arrestors 3. Filter R: Relief Valve Leave blank for no option

SL150A-100D-2L-2R-580-S

GENTEC® 150/160 Series Manifold System is designed to supply High Purity Gas from one bank, then allow for manual switchover to the other bank after depletion of the bank. However, the switchover must be adjusted manually.

Product Features

- 150 Series manifold system uses R21 regulator for low flow systems
- 160 Series manifold system uses R22 regulator for high flow systems
- Dual line of cylinders avoid down time during cylinder change
- Diaphragm header valve on each side for cylinder changeover
- Piping is tested for pressure and leakage
- Wall mounts (optional)
- Diaphragm station valves (1 per cylinder station)
- 3 ft SS flex pigtail with integral check valve

R21 Regulator Materials

• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

Applications

- Research Laboratory
- Test Laboratory
- Manufacturing

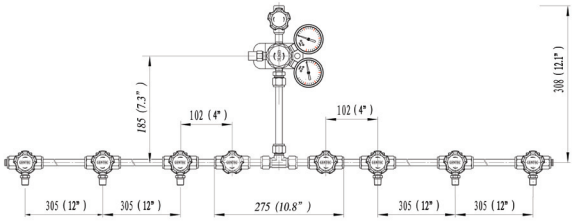
R22 Regulator Materials

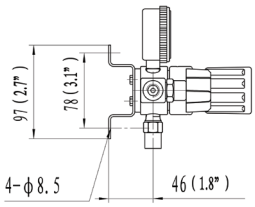
• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

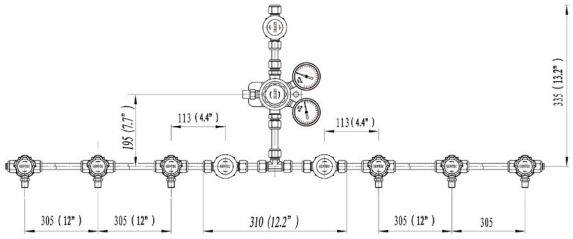
Specifications

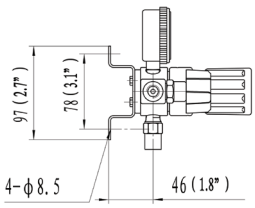
- **Maximum inlet pressure:** 3000 psig
- **Temperature range:** -40˚F~140˚F (-40˚C~ 60˚C)
- **Pipe:** 1/2” seamless stainless steel (BA grade)
- **Flow rate:** see flow chart
- **Regulators** leak rate: 2 x 10^{-9} scc/sec Helium

Dimensions





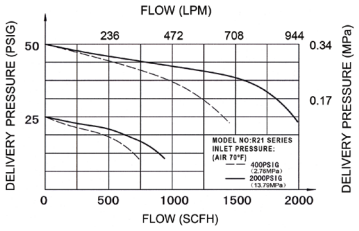


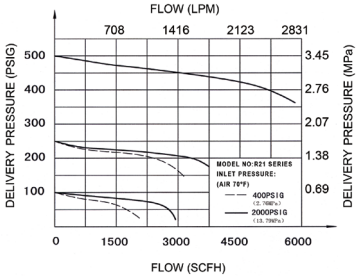


Note: Mounting Bracket (GB-R1), additional charge

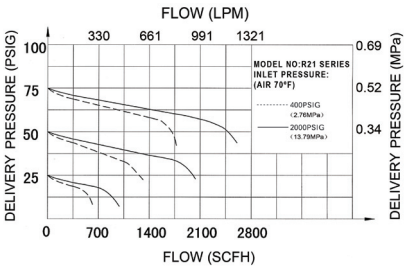
Flow Data

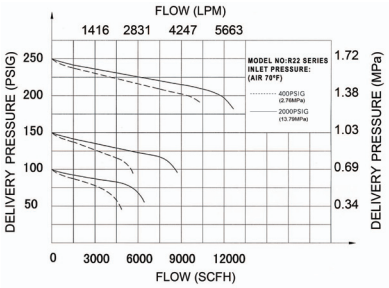
150 Series





160 Series





Ordering Information

BK150	A -	50	D -	3L -	3R -	C580 -	S -	14
Series	**Layout**	**Max. Outlet Pressure**	**Outlet Connections**	**Left Stations**	**Right Stations**	**Inlet Connections**	**Pigtail**	**Options**
• **B150** • **B160** • **SL150** • **SL160**	A: 12" Standard	50: 50 psig 100: 100 psig 250: 250 psig 500: 500 psig	D: Diaphragm Valve 1/4" NPT(F) Leave Blank for No Valve	1 2 3 4 5	1 2 3 4 5	Pigtail C330: CGA330 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C660-: CGA660 Other Connections are Available No Pigtail 00: 1/4" NPT(M)	S: 316L T: Teflon	1: Alarm 2: Flashback arrestors 3: Filter R: Relief Valve Leave blank for no options Can choose multiple options

210/220 SERIES

Semi-Automatic Switchover Manifold

SL210A-150-D-C580-S

Note: Pigtails shown without header manifold.

R21 Regulator Materials

• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

R22 Regulator Materials

• **Stage**	Single
• **Body**	316L Stainless Steel, Nickel-Plated Brass
• **Bonnet**	304, Nickel-Plated Brass
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Spring**	316

GENTEC® 210/220 Series Semi-Automatic Manifold is designed for a continuous supply of High Purity Gases. It consists of a primary bank and a reserve bank of cylinders. Because of the differential pressure between the primary and reserve banks, the changeover takes place automatically when the primary bank is depleted to provide a continuous supply of gas from the reserve bank. However, In order to activate the next switchover, the regulators on both banks need to be readjusted upon changing the cylinders using the arrow indicator. Stable pressure output is provided by the second pressure regulator on the main line.

Product Features

- 210 series manifold system uses R21 regulator for low flow systems
- 220 series manifold system uses R22 regulator for high flow systems
- Pressure adjustment handle on regulator
- 3 ft flex pigtail with integral check valve
- Rear bracket mount

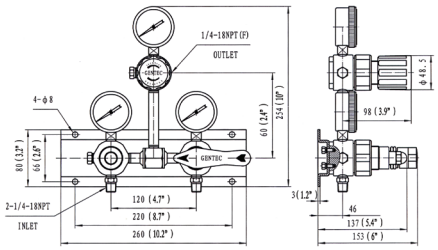
Applications

- Research Laboratories
- Gas and Liquid Chromatography
- Laser Gas Systems
- Purging System
- Zero & Calibration Gases
- Hydrocarbon Services

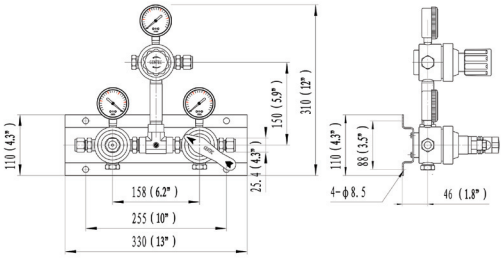
Specifications

- **Maximum inlet pressure:** 3000 psig
- **Working temperature:** -40˚F~140˚F (-40˚C~ 60˚C)
- **Manifold Pipe:** 1/2” seamless stainless steel (BA grade)
- **Flow Rate:** See chart
- **Inboard leakage:** 2 x 10^{-9} atm cc/sec He

Dimensions

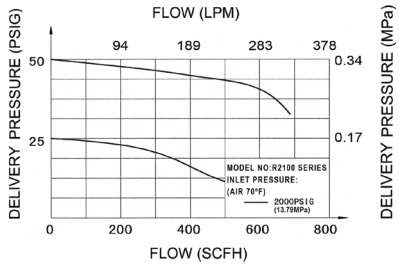


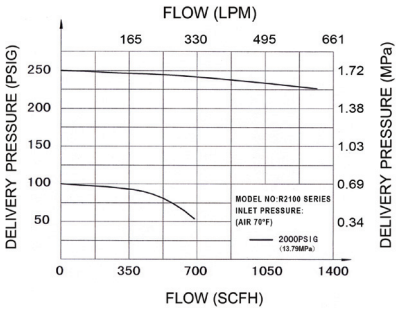
B210 / SL210

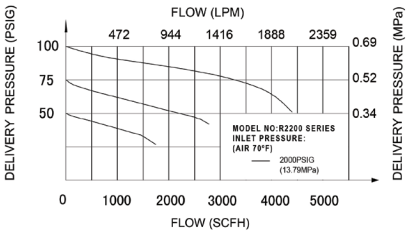


B220 / SL220

Flow Data







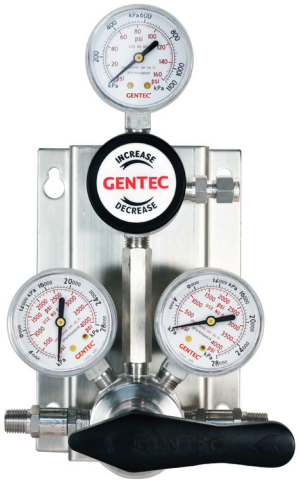
Ordering Information

EX:SL210	A -	150 -	D -			C580 -	S -	1
Series	**Layout**	**Max. Outlet Pressure**	**Outlet Connection**	**Left Stations**	**Right Stations**	**Inlet Connections**	**Pigtail**	**Options**
• B210 • B220 • SL210 • SL220	A: 12" standard (Header Only)	50: 50 psig 100: 100 psig 150: 150 psig	D: Diaphragm Valve 1/4" NPT(F) Leave Blank for No Valve	1* 2 3 4 5	1* 2 3 4 5	Pigtail C320: CGA320 C350: CGA350 C540: CGA540 C580: CGA580 C590: CGA590 C660: CGA660 Other Connections are Available No Pigtail 00: 1/4" NPT(M)	S: 316L T: Teflon	1: Alarm 2: Flashback arrestors 3: Filter R: Relief valve Leave blank for no options Can choose multiple options

*Header manifold

P2400 SERIES

Semi-Automatic Switchover Manifold



P2400SP-DHK

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Stainless Steel
• **Seat**	PU
• **Panel**	Stainless Steel
• **Panel inlet connections**	1/4" NPT
• **Panel outlet connections**	1/4" GENLOK

GENTEC® P2400 Series Specialty Gas Control Panel is a dual bank semi-automatic changeover system, providing a continuous supply without interrupting the system during cylinder(s) replacement. P2400 Series is designed with dual pressure reduction to provide steady outlet pressure and is applicable for purity gas usage in research laboratories, clean rooms and gas analyzing.

Product Features

- Switchover regulator with relief valve
- Regulator and pipe all through pressure and leakage test
- Easy-to-read 2" stainless steel pressure gauges

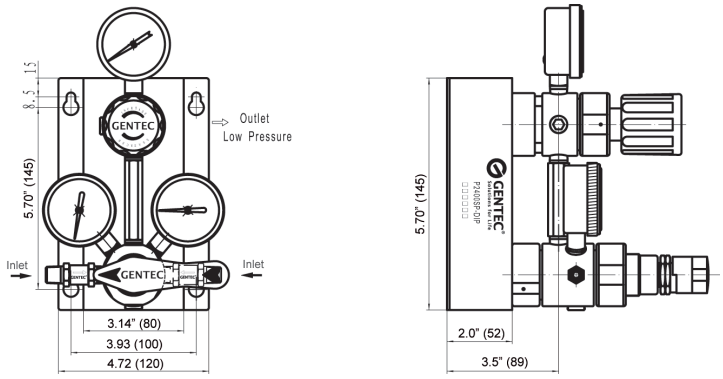
Applications

- Research Laboratories
- Gas and Liquid Chromatography
- Laser Gas Systems
- Purging System
- Zero & calibration gases
- Hydrocarbon Services

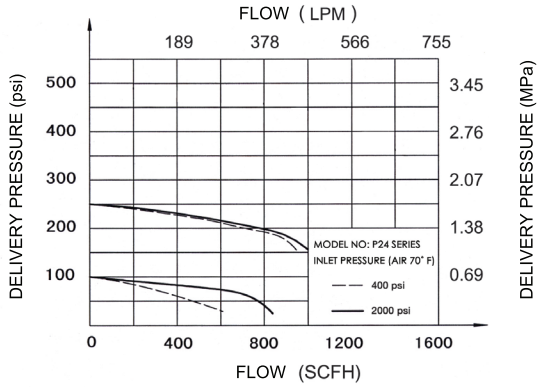
Specifications

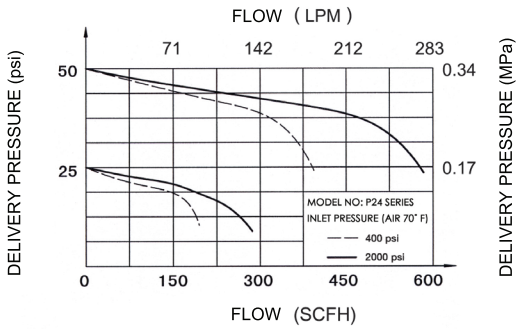
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 150 psig
- **Operating temperature range:** -40˚C to 74˚C or -40˚F to 165˚F
- **Leak rate:** $2x10^{-8}$ atm.cc/sec He
- **Cv:** 0.06

Dimensions



Flow Data





Ordering Information

EX:P2400	S	P -	D	H	K -	C
Series	**Body**	**Seat**	**Max. Inlet Pressure**	**Max. Outlet Pressure**	**Gauge**	**Options**
• P2400:	S: Stainless steel	P: PU	D: 3000 psig	L: 25 psig K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa P: psig / bar	C: Contact Gauge

PD3400 SERIES

Semi-Automatic Switchover Manifold

PD3416BK-DHK (with optional vent valves)

Note: Pigtails ordered separately. Please see page 121.

GENTEC® PD3400 Series Specialty Gas Control Panel is a Semi-Automatic Changeover System which provides for continuous gas supply without interrupting the system during cylinder changeout. When the primary bank is nearly depleted, a changeover will occur. The reserve bank will then begin to supply gas to the alternate cylinder. The inlet valve on each bank provides the user additional safety while replacing the cylinder(s) on the empty bank before the next changeover occurs. The HP vent valves may be used to purge the lines of any residual contamination. The line regulator executes a second stage pressure reduction, providing a consistent outlet pressure and flow. Available in both Brass and Stainless Steel.

Materials

• **Body**	Brass or Stainless Steel
• **Seat**	PCTFE
• **Panel**	Stainless Steel
• **Panel inlet connections**	1/4" MNPT
• **Panel outlet connections**	1/4" GENLOK

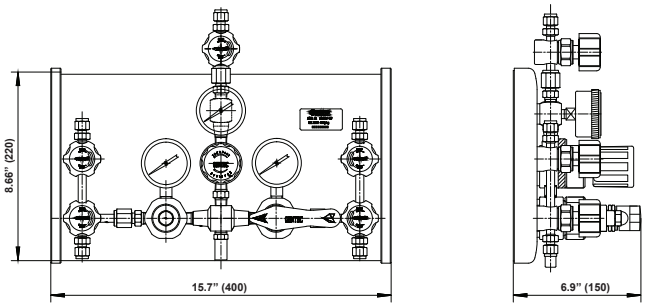
Product Features

- Panel Mounted
- Semi-Automatic Changeover
- Dual-stage pressure reduction minimizes pressure and flow fluctuation
- All components are mounted on a single panel for easy maintenance
- Diaphragm valve connections are orbital welded to minimize contamination and leakage. (Note: Stainless steel models only)

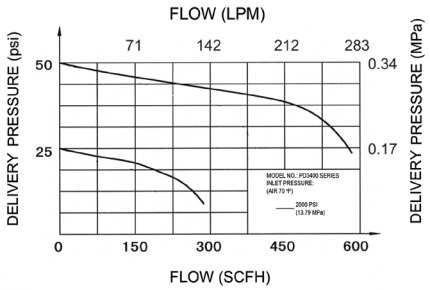
Specifications

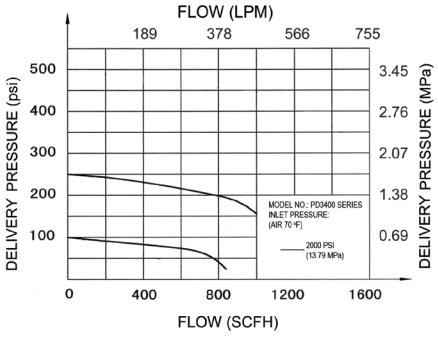
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 150 psig
- **Operating temperature range:** -40˚C to 74˚C or -40˚F to 165˚F
- **Leak rate:** $2x10^{-8}$ atm.cc/sec He
- **Cv:** 0.08

Dimensions



Flow Data





Ordering Information

EX: PD34 Series	1 Diaphragm Valve Configuration	6 Inlet Connection	S - Body	K - Seat	D - Max. Inlet Pressure	H Max. Outlet Pressure	K - Gauge	V Options
• PD34:	1: Inlet/outlet/vent 3. Inlet/outlet	6: 1/4" MNPT	B: Brass S: Stainless steel	K: PCTFE	D: 3000 psig	K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa P: psig / bar	Blank: Standard V: Waste gas disposal

SL250 SERIES

Automatic Switchover Manifold Systems

GENTEC® SL250 Series switchover system is designed with Gentec's R21SL Series pressure regulators to provide an uninterrupted supply of gas from two high pressure banks. The system automatically switches from the primary bank to the reserve bank without flow interruptions. An optional audible and visual alarm is available to power the indicator lights for the system.

SL250A-100-2L-2R-C350-S

Product Features

- Weather proof enclosure
- R21SL Series Regulator
- Metal-to-Metal diaphragm of regulator
- Switch knob with arrow indicator
- Built-in relief valve
- 3 ft flex pigtail with integral check valve
- Optional Audible and Visual Alarm
- Wall mounts

Applications

- Biotech
- Research Laboratories
- Gas Chromatography

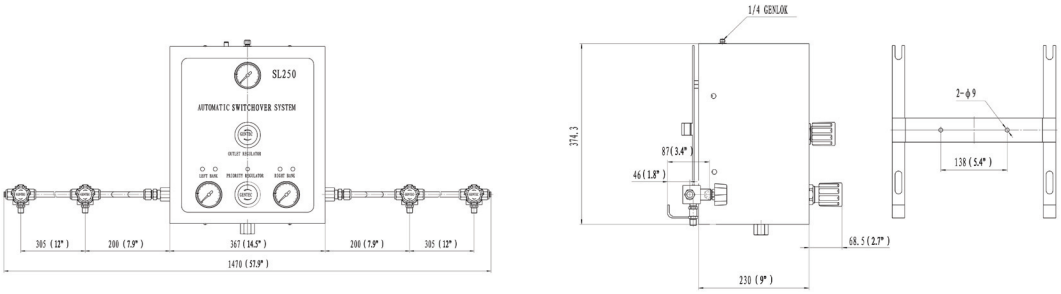
Regular Materials

• **Body, filter**	316L
• **Diaphragm**	316L
• **Bonnet**	304
• **Seat**	PCTFE

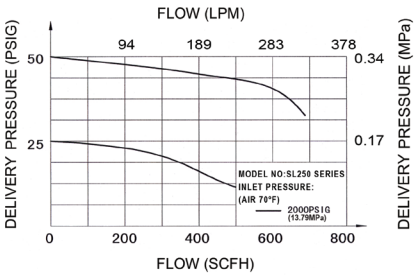
Specifications

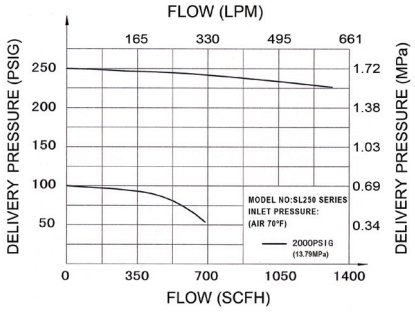
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 250 psig
- **Working temperature:** -40˚F~140˚F (-40˚C~ 60˚C)
- **Pipe:** 1/2" seamless stainless steel (BA grade)
- **Inboard leakage:** 2 x 10^{-9} atm cc/sec Helium

Dimensions



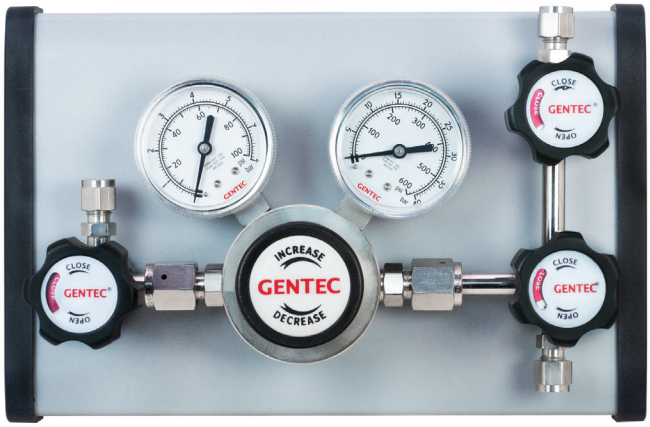
Flow Data





Ordering Information

EX:SL250	A -	100 -		2L -	2R -	C350 -	S -	3
	Layout	Max. Outlet Pressure	Outlet Connection	Left Stations	Right Stations	Inlet Connections	Pigtail	Options
• SL250	A: 12" standard	50: 50 psig 100: 100 psig 250: 250 psig	D: Diaphragm Valve No Options: Blank	1 2 3 4 5 Blank for Box Only	1 2 3 4 5 Blank for Box Only	C320: CGA320 C350: CGA350 C540: CGA540 C580: CGA580 C590: CGA590 For other connections, please contact Gentec	S: 316L T: Teflon	1: Alarm 3: Flashback arrestors 4: Filter No options: Blank Can choose multiple options



GENTEC® P3200 Series Manual Single-Bank Manifold is designed to provide accurate control of a variety of gases used in research laboratories, laser gas systems, process analyzers, etc. Vent valves can be integrated for purging to ensure maximum purity of gas and minimize contaminants. A check valve located in between the inlet pressure gauge and regulator at both sides ensures additional safety for the user(s). Available in both stainless steel and brass.

P3216SK-DHK

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Brass or Stainless Steel
• **Seat**	PCTFE
• **Panel**	Stainless Steel
• **Panel inlet connections**	1/4" MNPT
• **Panel outlet connections**	1/4" GENLOK

Product Features

- Single-bank gas supply
- 2" stainless steel pressure gauges
- All parts are mounted on a single panel for easy installation
- Inlet valve(s) for changing cylinder(s) are included. Outlet and Vent valves are optional
- Diaphragm valves include an easy to read status window (open/close)
- Integrated relief valve to ensure additional safety
- Diaphragm valve connections are orbital welded to minimize contamination and leakage. (Note: Stainless steel models only)

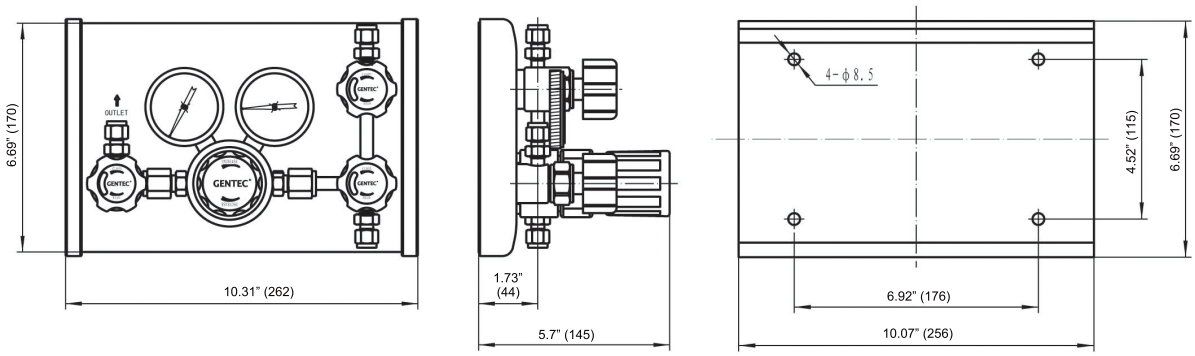
Applications

- Research Laboratories
- Gas and Liquid Chromatography
- Laser Gas Systems
- Purging System
- Zero & calibration gases
- Hydrocarbon Services

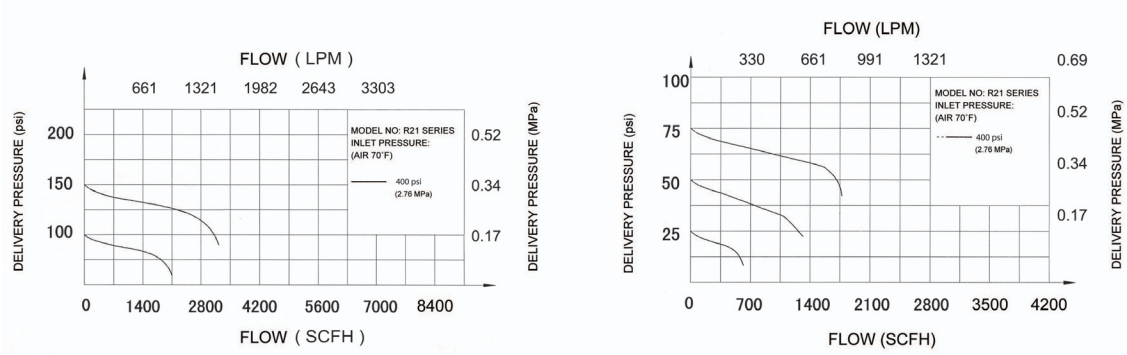
Specifications

- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 150 psig
- **Operating temperature range:** -40˚C to 74˚C or -40˚F to 165˚F
- **Leak rate:** $2x10^{-8}$ atm.cc/sec He
- **Cv:** 0.14

Dimensions



Flow Data



Ordering Information

EX:P32	1	6	S	K -	D	H	K -	V
	Diaphragm Valve Configuration	Inlet Connection	Body	Seat	Max. Inlet Pressure	Max. Outlet Pressure	Gauge	Options
• P32:	1: Inlet/outlet/vent 3. Inlet/outlet	6: 1/4" MNPT	B: Brass S: Stainless steel	K: PCTFE	D: 3000 psig	L: 25 psig K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa P: psig / bar	Blank: Standard V: Waste gas disposal

GENTEC® P3300 Series Manual Dual-Bank Manifold is designed to provide accurate control of a variety of gases used in research laboratories, laser gas systems, process analyzers, etc. Vent valves can be integrated for purging to ensure maximum purity of gas and minimize contaminants. A check valve located in between the inlet pressure gauge and regulator at both sides ensures additional safety for the user(s). Available in both stainless steel and brass.

P3316SK-DHK

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Brass or Stainless Steel
• **Seat**	PCTFE
• **Panel**	Stainless Steel
• **Panel inlet connections**	1/4" MNPT
• **Panel outlet connections**	1/4" GENLOK

Product Features

- Dual-bank gas supply
- 2" stainless steel pressure gauges
- All parts are mounted on a single panel for easy installation
- Inlet valve(s) for changing cylinder(s) are included. Outlet and vent valves are optional
- Diaphragm valves include an easy to read status window (open/close)
- Integrated relief valve to ensure additional safety
- Diaphragm valve connections are orbital welded to minimize contamination and leakage. (Note: Stainless steel models only)

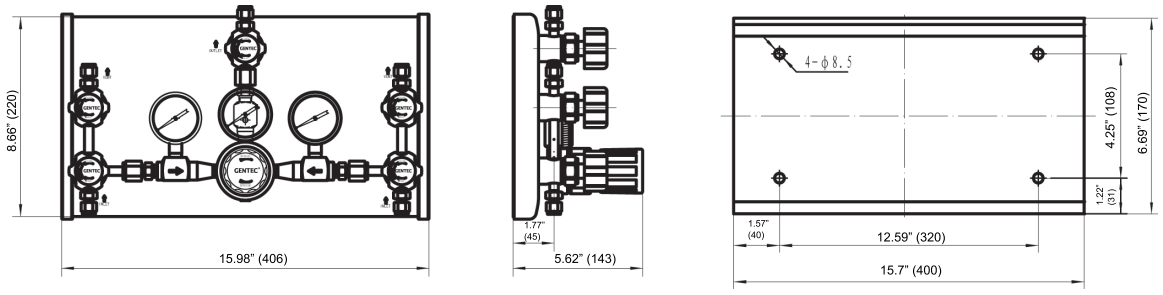
Applications

- Research Laboratories
- Gas and Liquid chromatography
- Laser gas systems
- Purging system
- Zero & calibration gases
- Hydrocarbon services

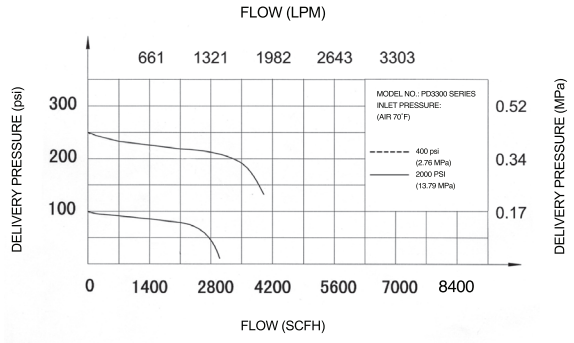
Specifications

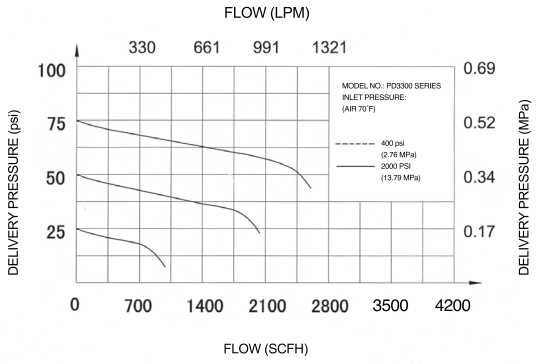
- **Maximum inlet pressure:** 3000 psig
- **Maximum outlet pressure:** 150 psig
- **Operating temperature range:** -40˚C to 74˚C or -40˚F to 165˚F
- **Leak rate:** $2x10^{-8}$ atm.cc/sec He
- **Cv:** 0.14

Dimensions



Flow Data





Ordering Information

EX:P33	1	6	S	K -	D	H	K -	V
	Diaphragm Valve Configuration	Inlet Connection	Body	Seat	Max. Inlet Pressure	Max. Outlet Pressure	Gauge	Options
• P33:	1: Inlet/outlet/vent 3. Inlet/outlet	6: 1/4" MNPT	B: Brass S: Stainless steel	K: PCTFE	D: 3000 psig	L: 25 psig K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa P: psig / bar	Blank: Standard V: Waste gas disposal

P6210S SERIES

Gas Panel -1 Valve

P6210S-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Relief Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P6210 Series Panel offers a regulator, an on/off process valve, and a pipe away relief valve. The panel is designed for inert gases where purging is not required.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valve
- One Valve (1V) Panel
- Built-in relief valve
- All components mounted on an 11” H x 11” W Steel Panel
- Options: Excess Flow Valve (EFV), Emergency Shut Off Valve (ESO), Excess Flow Switch (EFS)

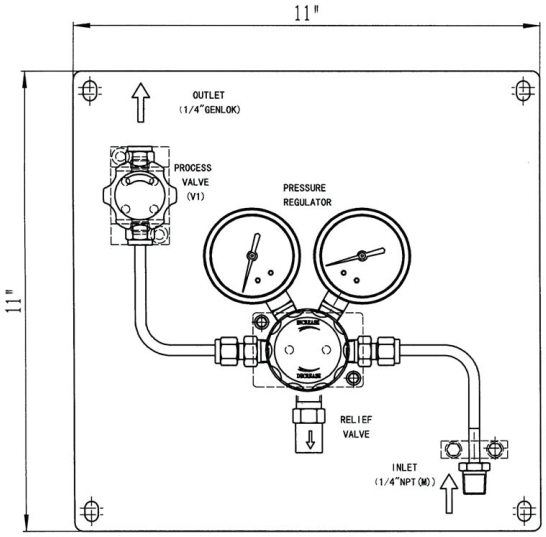
Applications

- Research Laboratories
- Manufacturing
- Power Plants

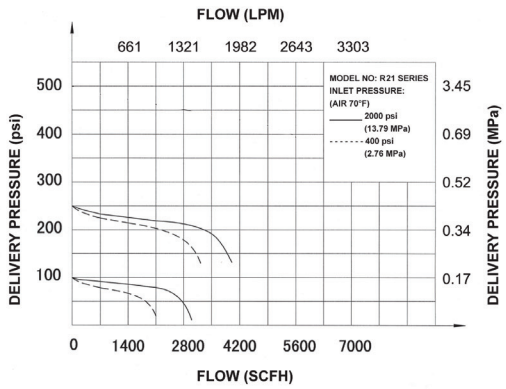
Specifications

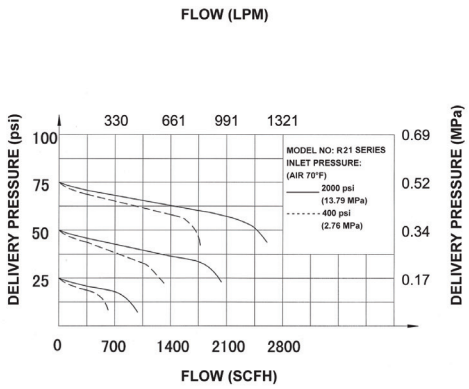
- **Inlet connection:** 1/4” NPT(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK)
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

Dimensions



Flow Data





Ordering Information

EX:P6210S-	D	I	P -	C580 -	S -	11 -	ESO
Series	Inlet Pressure	Delivery Pressure	Gauge Unit	Inlet Connections	Pigtail	Outlet Connection	Options
• P6210S	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C346: CGA346 C540: CGA540 C580: CGA580 C590: CGA590 No Pigtail 00: 1/4" NPT(M)	S: 316L T: Teflon	11: 1/4" GENLOK	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

P621TS SERIES

Gas Panel-1 Valve with T Purge

P621TS-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Relief Valve**	Stainless Steel with Viton O-Rings
• **Check Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P621T Series Panel offers a regulator, on/off process valve, and tee-purge. The panel is designed for inert gases where purging may be required. The tee-purge provides the ability to purge the panel with an inert gas before and after the cylinder exchange.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valves
- One (1V) Panel + Tee Purge
- Inlet Tee Purge designed to maintain purity in a system during cylinder change-out
- All components mounted on an 11” H x 11” W Steel Panel
- Options: EFV, ESO, EFS

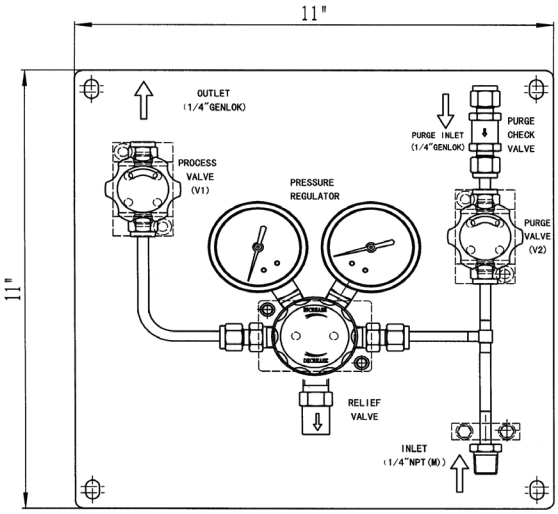
Applications

- Research Laboratories
- Manufacturing
- Power Plants

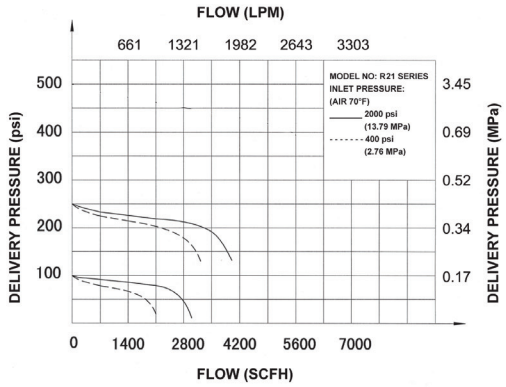
Specifications

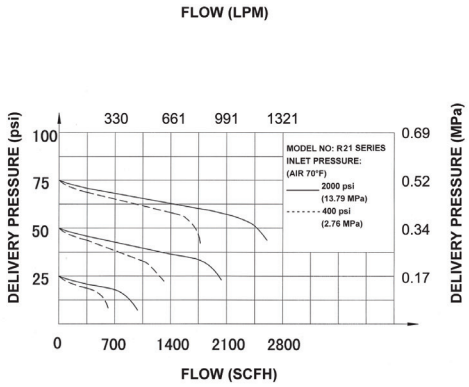
- **Inlet connection:** 1/4” NPT(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK)
- **Purge Inlet:** 1/4” OD Compression Fitting, SS (GENLOK)
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

Dimensions



Flow Data





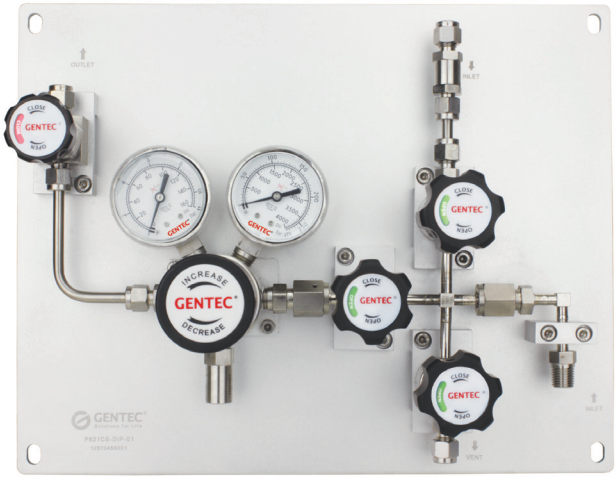
Ordering Information

EX: P621TS-	D	I	P -	C580 -	S -	11 -	ESO
Series	Inlet Pressure	Delivery Pressure	Gauge Unit	Inlet Connections	Pigtail	Purge/Outlet Connection	Options
• P621TS	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C346: CGA346 C540: CGA540 C580: CGA580 C590: CGA590 No Pigtail 00: 1/4" NPT(M)	S: 316L T: Teflon	11: 1/4" GENLOK	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

P621CS SERIES

Gas Panel-2 Valve with Cross Purge



P621CS-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Check Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P621C Series Panel offers a regulator, on/off process valve, a pipe away relief valve and cross purge. The panel is designed for semi- corrosive gases where purging is required. The cross purge provides deep purge of the panel from cylinder to the outlet.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valves
- Two-Valve (2V) Panel + Cross Purge
- Inlet Cross Purge designed to maintain purity in a system during cylinder change-out
- All components mounted on an 11” H x 14” W Steel Panel
- Options: EFV, ESO, EFS

Applications

- Research Laboratories
- Semiconductor
- Aerospace

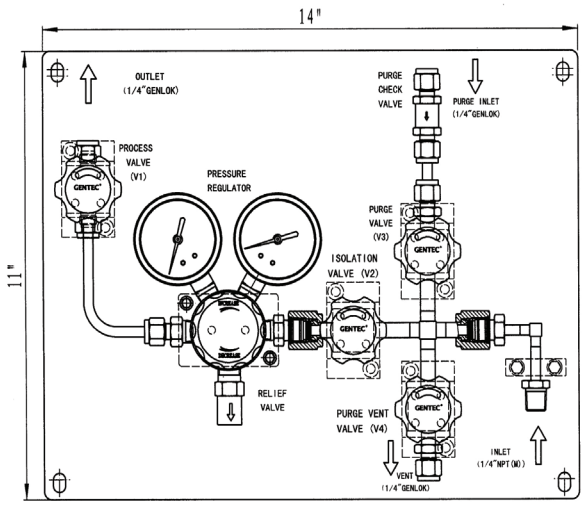
Specifications

- **Inlet connection:** 1/4” NPT(M); Option 1/4” VCR(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Purge Inlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Vent outlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

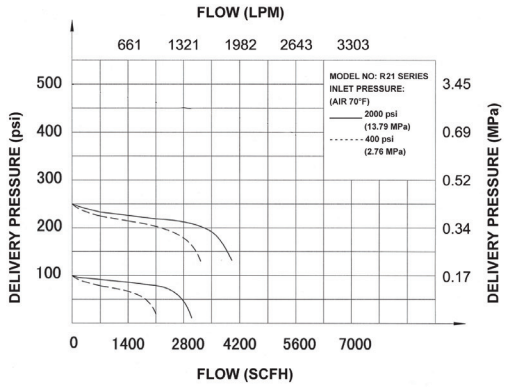
P621CS SERIES

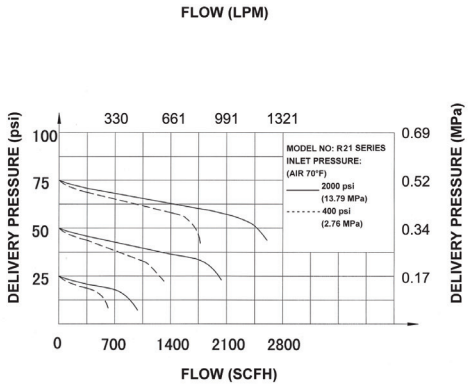
Gas Panel-2 Valve with Cross Purge

Dimensions



Flow Data





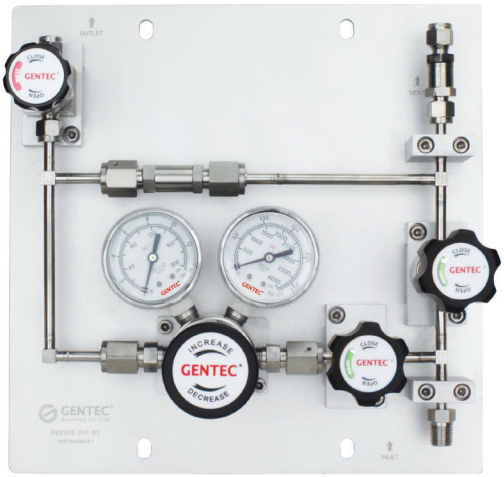
Ordering Information

EX:P621CS-	D	I	P -	C580 -	S -	11 -	ESO
Series	Inlet Pressure	Delivery Pressure	Gauge Unit	Inlet Connection	Pigtail	Purge/Outlet/Vent Connection	Options
• P621CS	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 No Pigtail 00: 1/4" NPT(M) 92: 1/4" VCR(M)	S: 316L T: Teflon	11: 1/4" GENLOK 92: 1/4" VCR(M)	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

P6230S SERIES

Gas Panel-3 Valve



P6230S-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Relief Valve**	Stainless Steel with Viton O-Rings
• **Check Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P6230 Series Panel offers a regulator, on/off process valve and a high pressure vent valve which provides purging contaminant caused by cylinder changes. The panel is designed for non-toxic, non-corrosive gases that require additional purging. The vent line is protected from back flow by a check valve downstream of the vent.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valves
- One (3V) Panel
- All components mounted on an 11” H x 11” W Steel Panel
- Options: EFV, ESO, EFS

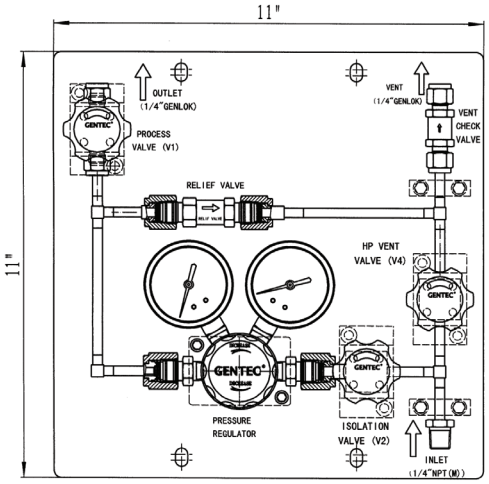
Applications

- Research Laboratories
- Semiconductor
- Aerospace

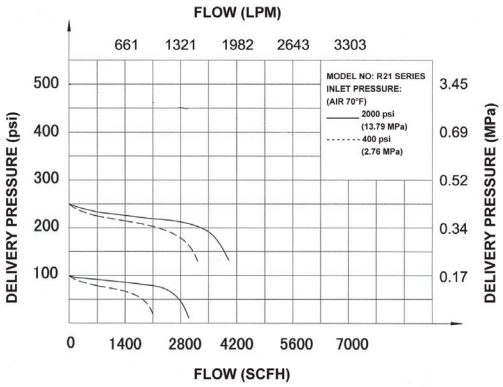
Specifications

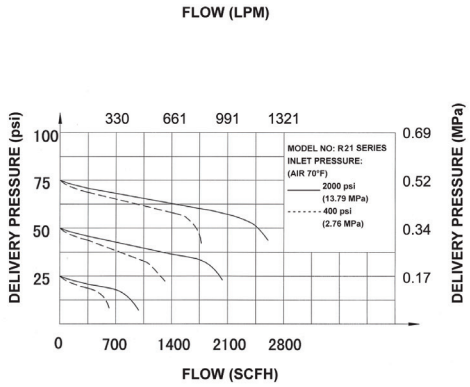
- **Inlet connection:** 1/4” NPT(M); Option 1/4” VCR(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Vent outlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

Dimensions



Flow Data





Ordering Information

EX:P6230S-	D	I	P -	C580 -	S -	11 -	ESO
Series	Inlet Pressure	Delivery Pressure	Gauge Unit	Inlet Connections	Pigtail	Outlet/Vent Connection	Options
• P6230S	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 No Pigtail 00: 1/4" NPT(M) 92: 1/4" VCR(M)	S: 316L T: Teflon	11: 1/4" GENLOK 92: 1/4" VCR(M)	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

P6250S SERIES

Gas Panel-5 Valve

P6250S-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Relief Valve**	Stainless Steel with Viton O-Rings
• **Check Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P6250 Series Panel offers a regulator, on/off process valve, and low pressure and high pressure vent valves. The panel is designed for toxic, semi-corrosive and flammable gases that require additional purging. This 5V panel is the 3V panel with a low pressure vent valve, which provides extra safety during the purging process. The vent line is protected from back flow by a check valve downstream of the vent.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valves
- One (5V) Panel
- All components mounted on an 11” H x 14” W Steel Panel
- Options: EFV, ESO, EFS

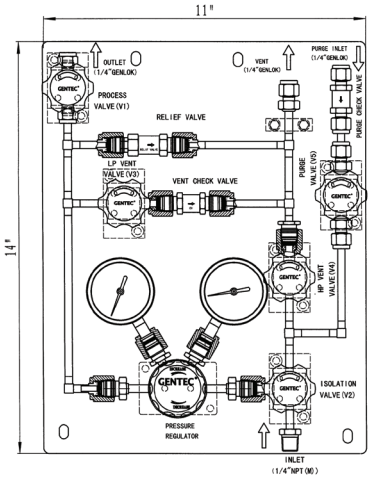
Applications

- Research Laboratories
- Aerospace
- Semiconductor
- Laboratories

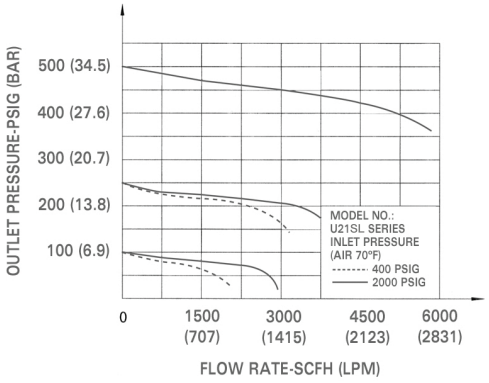
Specifications

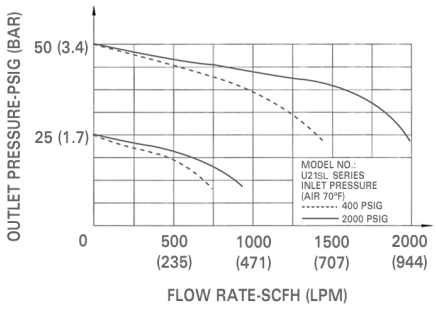
- **Inlet connection:** 1/4” NPT(M); Option 1/4” VCR(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Purge Inlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Vent outlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

Dimensions



Flow Data





Ordering Information

EX: P6250S- Series	D Inlet Pressure	I Delivery Pressure	P - Gauge Unit	C580 - Inlet Connections	S - Pigtail	11 - Purge/Outlet/Vent Connection	ESO Options
• P6250S	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C330: CGA330 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C660: CGA660 No Pigtail 00: 1/4" NPT(M) 92: 1/4" VCR(M)	S: 316L T: Teflon	11: 1/4" GENLOK 92: 1/4" VCR(M)	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

P625VS SERIES

Gas Panel-5 Valve with Venturi

P625VS-DIP

Materials

• **Valves**	Stainless Steel with PCTFE Seat, Diaphragm Type
• **Relief Valve**	Stainless Steel with Viton O-Rings
• **Check Valve**	Stainless Steel with Viton O-Rings
• **Regulator**	Stainless Steel with PCTFE Seat, Single Stage
• **Gauges**	Stainless Steel
• **Tubing & Fittings**	Stainless Steel
• **Flex or Rigid Hose**	Stainless Steel
• **Back Plate**	Aluminum Alloy

GENTEC® P625VS Series Panel offers a regulator, on/off process valve, and low pressure and high pressure vent valves. The panel is designed for toxic, semi-corrosive and flammable gases that require additional purging. This 5V panel is the 3V panel with a low pressure vent valve which provides extra safety during the purging process. The vent line is protected from back flow by a check valve downstream of the vent. The Venturi provides high flow vacuum evacuation during purging process.

Product Features

- Material of construction: Stainless Steel
- Regulator: Stainless Steel with PCTFE Seat, Single Stage
- Full-Turn Diaphragm Valves
- One (5V) Panel + Venturi
- All components mounted on an 14” H x 11” W Steel Panel
- Options: EFV, ESO, EFS

Applications

- Research Laboratories
- Semiconductor
- Laboratories

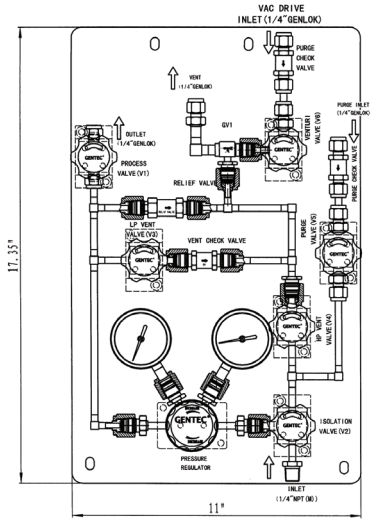
Specifications

- **Inlet connection:** 1/4” NPT(M); Option 1/4” VCR(M)
- **Purge Inlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Outlet connection:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Vent outlet:** 1/4” OD Compression Fitting, SS (GENLOK); Option 1/4” VCR(M)
- **Venturi Inlet:** 1/4” OD Compression Fitting
- **Inlet:** 3000 psig maximum
- **Outlet:** 250 psig maximum
- **Operating Temp:** -40˚F to 165˚F
- **Leak Rate:** $2x10^{-8}$ atm cc/sec He
- **Cv:** 0.14
- **Options:** ESO, EFV, EFS

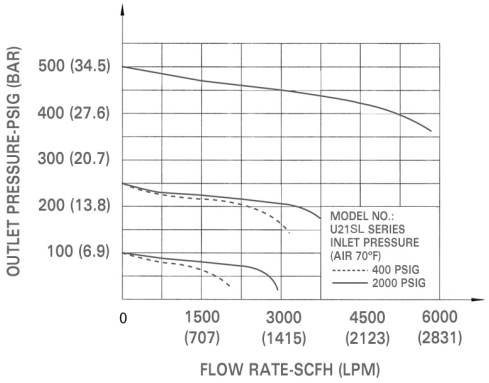
P625VS SERIES

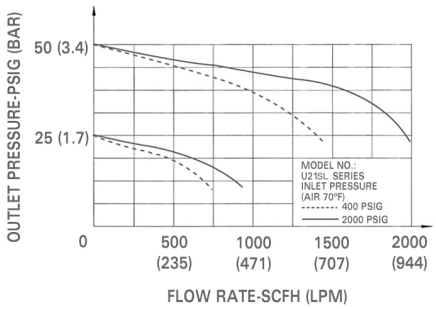
Gas Panel-5 Valve with Venturi

Dimensions



Flow Data





Ordering Information

EX: P625VS- Series	D Inlet Pressure	I Delivery Pressure	P - Gauge Unit	C580 - Inlet Connections	S - Pigtail	11 - Purge/Outlet/Vent Connection	ESO Options
• P625VS	D: 3000 psig	L: 25 psig I: 100 psig G: 250 psig	K: psig / kPa P: psig / bar	Pigtail C320: CGA320 C326: CGA326 C330: CGA330 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C590: CGA590 C660: CGA660 No Pigtail 00: 1/4" NPT(M) 92: 1/4" VCR(M)	S: 316L T: Teflon	11: 1/4" GENLOK 92: 1/4" VCR(M)	Blank: None EFV* ESO** EFS***

*Excess Flow Valve (EFV), **Emergency Shut-off Valve (ESO), ***Excess Flow Switch (EFS)

GC SERIES

Gas Safety Cabinets

GC-7100 GC-7200

GC-7300

GENTEC® Gas Safety Cabinets are designed for safety and ease of access to hazardous gases. The Gas Safety Cabinets meet or exceed Semiconductor S2-93 and International Fire Code (IFC) guidelines.

Features

- Door and window latch and close automatically
- 1/4" wire reinforced safety glass
- All welded construction 11 Gauge steel
- Louvers at bottom of door
- Flush mounted stainless steel paddle latch
- Adjustable brackets for precise pigtail alignment
- Exhaust vent located on top of cabinet is 6" diameter x 3" high
- Removable white back panels mount to inside rear cabinet
- Cylinder brackets accommodate 7" to 9" diameter cylinders
- 165˚F sprinkler head on top of cabinet with bees wax coating
- Epoxy painted exterior texture with smooth interior finish

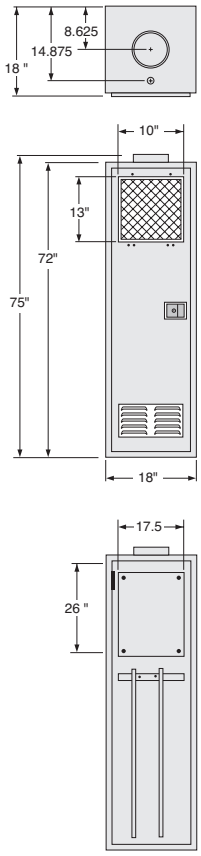
Specifications

Part Number	Cabinet	Height	Depth	Width	Exhaust Diameter*	Ship Weight
GC-7100	1 Cylinder	75"	18"	18"	6"	275 lbs
GC-7200	2 Cylinder	75"	18"	24"	6"	325 lbs
GC-7300	3 Cylinder	75"	18"	36"	6"	450 lbs

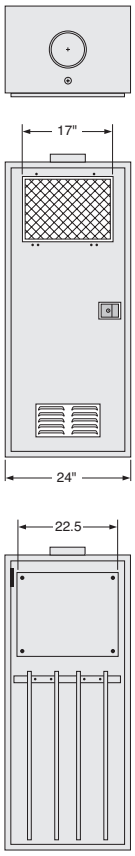
*Please call Gentec® for custom exhaust sizes. Install and exhaust connection by others.

Dimensions

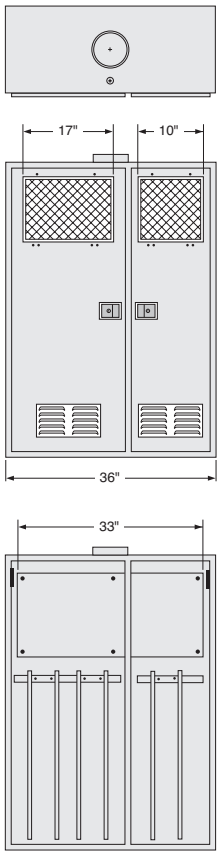
7100
1-cylinder



7200
2-cylinder



7300
3-cylinder



Options

- Adjustable shelves
- Dome roof configurations
- Keyed door latch
- Air intake filter
- Custom colors
- Rubber floor mat

P4200 SERIES

Point-of-Use Gas Control Panel

P4231SL-IK-D12D12

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Stainless Steel
• **Bonnet**	316L
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic

GENTEC® P4200 Series Point-of-Use Gas Control Panel is designed for accurate control of gases in downstream applications. Control panels come in configurations ranging from one outlet point to multiple outlet points.

Product Features

- Designed for "Research Grade" terminal gas control
- Terminal gas regulation provides end-users with consistent pressure and flow
- Easy-to-read 2" stainless steel pressure gauges
- Single panel configuration for easy installation
- Valves are available in three types: ball valves, diaphragm valves, and needle valves

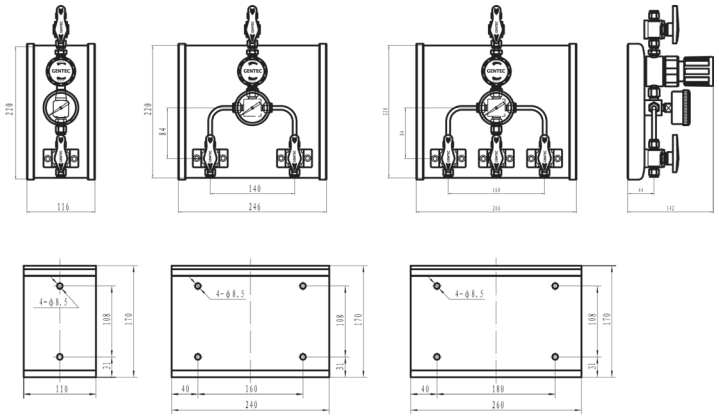
Applications

- Research Laboratories
- Test Laboratories
- Gas Chromatography

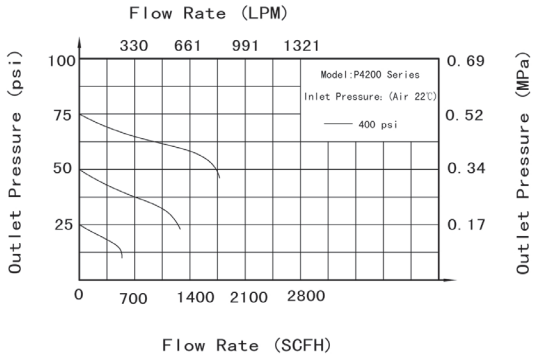
Specifications

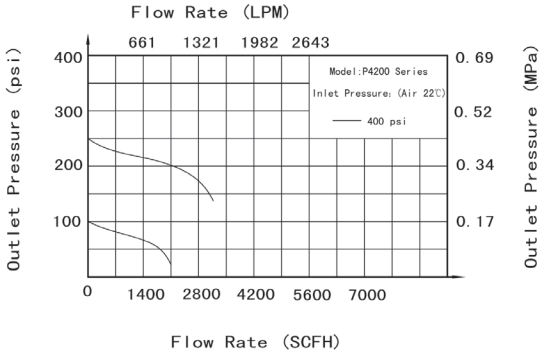
- **Maximum outlet pressure:** 100 psig
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Leakage across seat :** 2 x 10^{-8} sccs He
- **Cv:** 0.14

Dimensions



Flow Data





Ordering Information

EX: P42	3	1 -	SL -	I	K -	D	12	D	12
Series	Inlet / Outlet Connection	No. of Terminals	Material	Max. Pressure	Gauge	Inlet Valves	Inlet Connection Type	Outlet Valves	Outlet Connection Type
• P42	1: One inlet / one outlet 2: One inlet / two outlets 3: One inlet / three outlets	1: One	SL: Stainless steel	L: 25 psig K: 50 psig I: 100 psig	K: psig / kPa P: psig / bar	B: Ball D: Diaphragm N: Needle	11: 1/8" GENLOK 12: 1/4" GENLOK 31: 1/8" NPT(F) 32: 1/4" NPT(F) More connections available upon request	B: Ball D: Diaphragm N: Needle	11: 1/8" GENLOK 12: 1/4" GENLOK 31: 1/8" NPT(F) 32: 1/4" NPT(F) More connections available upon request

P4400 SERIES

Point-Of-Use Gas Control Panel

P4412B-HK-B81W81

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Chrome-plated brass
• **Bonnet**	316L
• **Seat**	PCTFE
• **Diaphragm**	316L Stainless Steel
• **Adjusting Knob**	ABS Plastic

GENTEC® P4400 Series Point-Of-Use Gas Control Panel is designed for accurate control of gases in low flow applications. Regulator, pressure gauge, and ball valve have been forged as one piece to minimize the possibility of leaks. This series of control panels comes in one or multiple terminals to meet a wide range of requirements and applications. Please see ordering information for more options.

Product Features

- Designed for downstream control
- Easy-to-read 2" stainless steel pressure gauges
- Single body minimizes point of leaks and contamination
- Adjustable outlet pressure
- Single panel configuration for easy installation

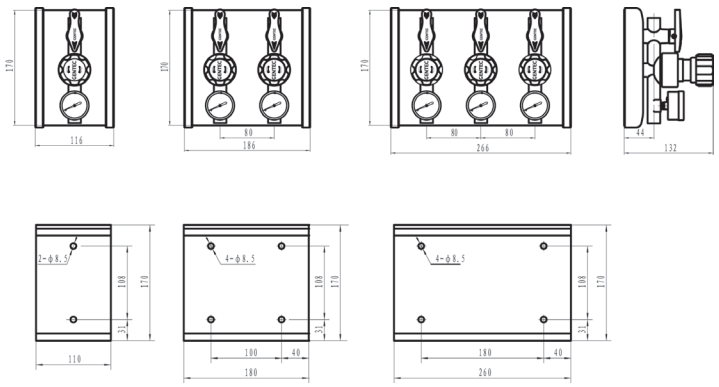
Applications

- Research Laboratories
- Test Laboratories
- Gas Chromatography

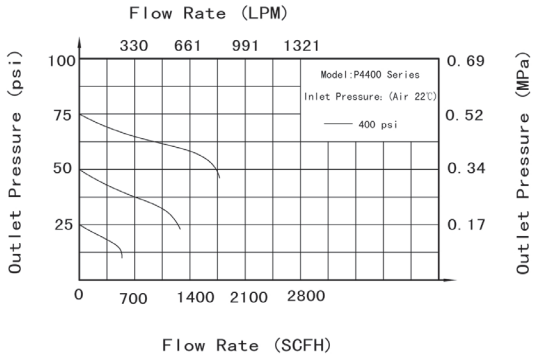
Specifications

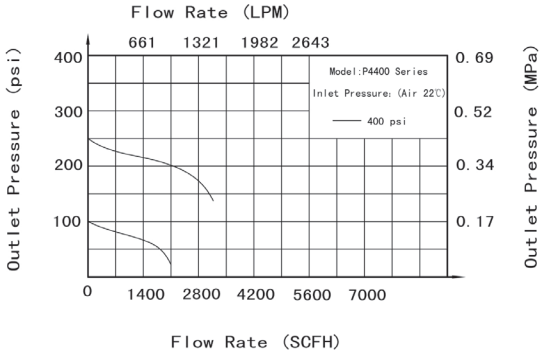
- **Maximum outlet pressure:** 50/100/150 psig
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Leakage across seat :** 2 x 10^{-8} sccs He
- **Cv:** 0.14

Dimensions



Flow Data





Ordering Information

EX: P44	1	2	B -	H	K -	B	81	W	81
Series	**Inlet / Outlet Connection**	**No. of Terminals**	**Material**	**Max. Pressure**	**Gauge**	**Inlet Valves**	**Inlet Connection Type**	**Outlet Valves**	**Outlet Connection Type**
• P44	1: One inlet / one outlet	1: One 2: Two 3: Three	B: Chrome-plated brass	K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa	B: Ball W: None	31: 1/8" NPT(F) 32: 1/4" NPT(F) More connections available upon request	W: None	31: 1/8" NPT(F) 32: 1/4" NPT(F) More connections available upon request

HYDROGEN GENERATOR

G200, G400, G600

G200

The G Series Hydrogen Generators are designed to offer a pure source of hydrogen for your GC Application, for Flame Ionization Detection (FID) or Carrier Gas.

Product Features

Safety - Forced air ventilation and self-checks for internal leaks prevent hazardous situations. Automatic shut-down on pressure build-up

High Purity - Hydrogen suitable for FID and most carrier gas applications

Reliable - Advanced ion exchange membrane technology for a long and trouble-free generator life

Mobile - Flexibility to position generator where required

Simple Installation - Generator designed with touch screen display

Savings

- Eliminate H_2 gas cylinders
- Eliminate cylinder rental fees
- Eliminate the use of flammable gas from a cylinder

Specifications

Part Number	G200	G300	G600
Flow Rate*	200 cc/min	400 cc/min	600 cc/min
Technologies Employed	Proton Exchange Membrane (PEM) solid electrolyte, maintenance and caustic-free		
Output Pressure	2 to 8 barg / 30 to 116 psig		
Purity	99.9999% (H_2O < 5 ppmv, O_2 < 1 ppmv)		
Water Supply	Deionized, ASTM Type II, > 1 MegOhm-cm (< 1 micro Siemen/cm)		
Electrical Supply	115 / 230VAC ± 10%, 50/60 Hz		
Ingres Protection Supply	IP 20		
Environmental Moisture	80%, no condensation		
Maximum Altitude	200 m / 6560 ft above sea level		
Dimensions	14.5" (H) x 20.5" (W) x 9" (D) / 36.8 cm (H) x 52 cm (W) x 5 cm (D)		
Weight	67 lbs / 30 kg		
Applications	Gas Chromatography, detector feed FID, NPD, FPD, TCD, HWD or supply carrier gas		

* Measured at standard conditions

NITROGEN GENERATOR

N341M

N341M

The N341M Nitrogen Generator is proven solution for customers requiring nitrogen for their LCMS application. Extensive testing of the generator by Mass Spec manufacturers throughout the development process guarantees the best nitrogen solution for your LCMS.

Product Features

Independent - No external compressor required

Intelligent - High Duty and service indication

Quiet - Insulated compressor compartment for minimum disruption

Mobile - The generator is supplied with caster wheels for easy mobility

Economical - More cost effective than any other gas supply method

Convenient - Gas on demand, no health hazards, no need to worry about running out of gas

Specifications

Part Number	N341M
Flow Rate	up to 34 SLPM
Purity	up to 99.9%
Technologies Employed	Membrane
Output Pressure	7 barg / 100 psig
Suspended Liquids	None
Phthalates	Constructed with phthalate free material
Air Compressor	Yes
Electrical Supply	230 VAC ± 10%, 50/60 Hz
Ingres Protection Rating	IP20
Operating Temperature	40˚F to 104˚F / 5˚C to 40˚C
Ambient Humidity	≤ 70%, non-condensing
Maximum Altitude	2000 m / 6560 ft above sea level
Dimensions	34” (H) x 20” (W) x 24” (D) / 86.4 cm (H) x 61 cm (W) x 61 cm (D)
Weight	200 lbs / 91 kg
Applications	LC-MS E, sample preparation

NITROGEN GENERATOR

N34M, N60M, N120M

N34M

The N34M Series Nitrogen Generator is designed specifically for use as flame gas for GC Applications, which require zero air for operation.

Product Features

Durable - Few moving parts with minimum maintenance requirements

Single Source Solution - One generator can cater to the requirements of multiple applications

Economical - More cost effective than any other gas supply method

Convenient - Gas on demand, no health hazards, no need to worry about running out of gas

Specifications

Part Number	N34M	N60M	N120M
Flow Rate	34 SLPM	60 SLPM	120 SLPM
Purity	up to 99.9%		
Technologies Employed	Membrane		
Output Pressure	7 barg / 100 psig		
Suspended Liquids	None		
Phthalates	Constructed with phthalate free material		
Index Protection Rating	IP 20		
Air Input Characteristics	Particulate ≤ 0.1 mg/m^3 (≤ 0.1 µm) Oil vapors ≤ 0.01 mg / m^3 Moisture ≤ 3˚C dew point (ISO8573-12010, class 4) Minimum pressure 7.5 barg / 110 psig Maximum pressure 10 barg / 145 psig		
Air Compressor	No		
Operating Temperature	40˚F to 104˚F / 5˚C to 40˚C		
Ambient Humidity	≤ 70%, non-condensing		
Maximum Altitude	2000 m / 6560 ft above sea level		
Dimensions	36" (H) x 12" (W) x 7 1/2" (D) / 91.4 cm (H) x 30.5 cm (W) x 19.1 cm (D)		
Weight	43 lbs / 19.5 kg	46 lbs / 20.9 kg	57 lbs / 25.9 kg
Applications	LC-MS E, sample preparation		

ZERO AIR GENERATOR

Air A5 - Air A20

AIR A5

The Air A5 Zero Air Generator is proven solution for customers requiring nitrogen for their LCMS application. Extensive testing of the generator by mass spec manufacturers throughout the development process guarantees the best nitrogen solution for your LCMS.

Product Features

Mobile - Flexibility to position generator where required, even under standard lab bench, the generator is supplied with caster wheels for easy mobility

Economical - More cost effective than any other gas supply method

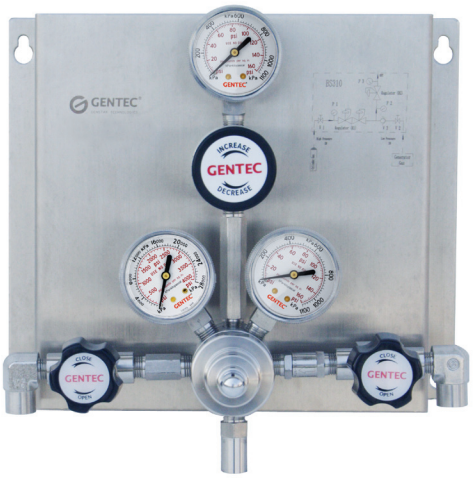
Convenient - Gas on demand, no health hazards, no need to worry about running out of gas

Specifications

Part Number	A5	A20
Flow Rate	5 SLPM	20 SLPM
Technologies Employed	Catalytic Reactor	
Input/Output Pressure	0 to 10 barg / 0 to 145 psig	
Purity: Total Hydrocarbons Residual with Catalyser	< 1 ppm	
Air Input and Output Characteristics	Particle ≤ 0.1 mg/m^3 (≤ 0.01 µm) Oil Vapors ≤ 0.01 mg/m^3 Moisture ≤ 3˚C dew point in pressure	
Air Compressor	No	
Electrical Supply	230 VAC ± 10% 50/60 Hz	
Ingres Protection Rating	IP 20	
Operating Temperature	40˚F to 104˚F / 5˚C to 40˚C	
Environmental Moisture	≤ 80%, no condensation	
Maximum Altitude	2000 m / 6560 ft above sea level	
Dimensions	13.8" (H) x 7.9" (W) x 6.3" (D) / 35 cm (H) x 20 cm (W) x 16 cm (D)	
Weight	13.2 lbs / 6 kg	
Applications	For GC FID, THC, NOX, BTX and SOX	

BS3100 SERIES

Back-up Control Panel



BS3110SL-45-DKK-00

Note: Pigtails ordered separately. Please see page 121.

Materials

• **Body**	Brass or Stainless Steel
• **Regulator inlet/outlet port**	1/4" NPT(F)
• **Cylinder inlet connection**	CGA
• **Inlet valve body**	Stainless Steel
•**Check valve body**	Stainless Steel

GENTEC® BS3100 Series Generator Back-up Control Panel, a hybrid control system, has the gas generator as the primary source of gas supply and the cylinder as the reserve. The automatic changeover provides a continuous gas supply without interrupting the system during generator maintenance. When the pressure of the generator drops below a preset value, the cylinder will begin to supply gas to the system. The line regulator executes a second stage pressure reduction, providing a consistent outlet pressure and flow. This series is available in both stainless steel and brass.

Product Features

- Hybrid dual-bank gas supply and automatic changeover
- Dual-stage pressure reduction to minimize pressure and flow fluctuation
- Inlet valves allow the user to isolate either source of gas supply for maintenance
- The integrated check valve ensures system safety

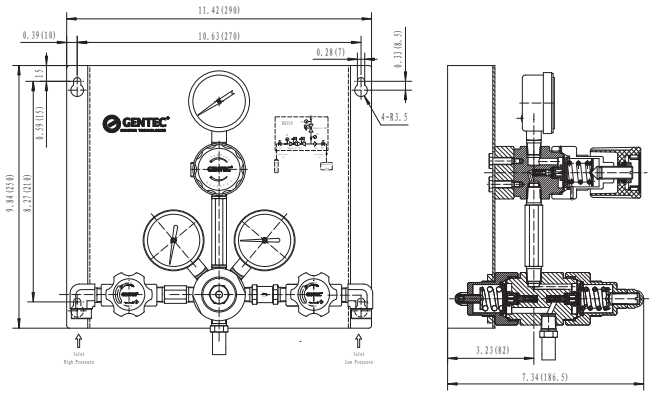
Applications

- Gas Chromatography
- Test Laboratories

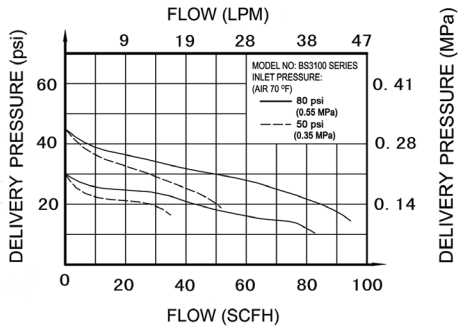
Specifications

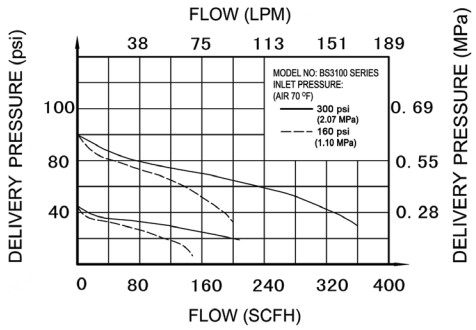
- **Maximum generator side inlet pressure:** 380 psig
- **Maximum cylinder side inlet pressure:** 3000 psig
- **Outlet pressure range:** 0-45 psig
- **Maximum flow:** 60 SLPM
- **Temperature range:** -40˚F~165˚F (-40˚C~ 74˚C)
- **Leakage across seat :** 2 x 10^{-8} atm.cc/sec He
- **Changeover pressure:** as selected by customer(s)

Dimensions



Flow Data





Ordering Information

EX: BS31	1	0	SL -	45 -	D	K	K -	00
Series	Primary Supply Max. Pressure	Inlet / Outlet Connection	Material	Max. Outlet Pressure	Backup Cylinders Pressure	Preset Pressure	Gauge	Backup Cylinder Inlet Connection
• BS31	1: 85 psig 2: 180 psig 3: 380 psig	0: No vent valves 1: Vent valves	SL: Stainless Steel B: Brass	45: 45 psig	D: 3000 psig F: 500 psig	K: 50 psig I: 100 psig H: 150 psig	K: psig / kPa P: psig / bar	00: 1/4" NPT(F) C350: CGA350 C590: CGA590 More connections available upon request

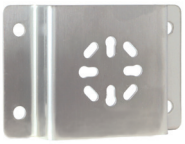
Wall-Mount & Cylinder Brackets

SS-GMB-7G

CB-1C CB-1

Note: Use with Header Manifolds.

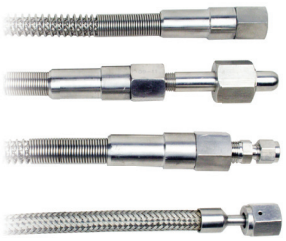
GMB-R1

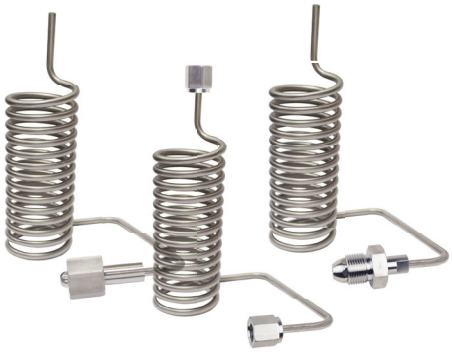


GMB-R6

Model Number	
CB-1	Wall Bracket, Strap
CB-1C	Wall Bracket, Strap and Chain
SS-GMB-7G	Wall Mount Bracket: 1/2”
SS-GMB-7H	Wall Mount Bracket: 3/8”
SS-GMB-7I	Wall Mount Bracket: 1/4”
GMB-R1	R21, R22 Bracket
GMB-R6	R11, R12, R14, R15, R21, R22, R44 Bracket

Pigtails





- Designed for use between cylinder and piping system
- Max. Pressure: GFPT and GFPS Series, 3000 psi; GRPS Series, 4500 psi
- Temp. Range: GFPS and GRPS Series, -325°F to 850°F (-200°C to 454°C); GFPT, -65°F to 450°F (-53°C to 230°C)
- Oxygen Service: Meets CGA G4.1 Specifications for cleanliness

GRPS - Series	C330 - Inlet Connections	CV - Options	00 - Outlet Connections
GRPS: Stainless Steel Rigid Pigtail	00: 1/4” NPT(F) C330: CGA330 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C660: CGA660	Blank: None CV: with Check Valve* FA: with Flashback Arrestor	00: 1/4” NPT(F) VF: 1/4” Female FSR OD: 1/4” Tube

GFPT Series	24 - Length	C330 - Inlet Connections	CV - Options	00 Outlet Connections
GFPT: Stainless Steel Flexible Pigtail with Teflon Insert GFPS: Stainless Steel Flexible Pigtail with Stainless Steel Insert	24: 24” 36: 36”	00: 1/4” NPT(F) C330: CGA330 C350: CGA350 C510: CGA510 C540: CGA540 C580: CGA580 C660: CGA660	Blank: None CV: with Check Valve FA: with Flashback Arrestor	00: 1/4” NPT(F)

* Check valve available with threaded pigtail assembly only.

Gas Pressure Alarm

- Connect to a Pressure Switch or Contact Gauge
- LED display 1, 2, and 4 gases
- Audible alarm
- Visual alarm
- Mute button
- Connection cords for alarm
- Voltage: 110VAC or 220VAC (optional)

SGPA-1-110
Monitors One (1) Gas

SGPA-2-110
Monitors Two (2) Gases

SGPA-4-110
Monitors Four (4) Gases

Header Bars

- Modular design for easy installation and future expansion
- Outlet connections are available in both GENLOK tube fitting and FSR fittings
- Maximum inlet pressure of 3000 psi
- 100% tested to ensure there are no leaks

Materials

• **Pipe**	OD 1/2", 316L seamless stainless steel tubing (BA grade)
• **Connector**	316
• **Diaphragm valve**	316L diaphragm, PCTFE seat, 316L body

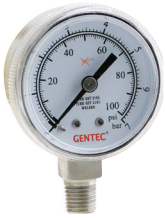
GSML-212D-FNT4-TF8-12

GSMR-212D-FNT4-TF8-12

Ordering Information

GSM Series	R Configuration	2 Stations	12 Station Spacing	D - Station Valve Configuration	FNT4 - Inlet Connection	TF8 - Outlet Connection	12 Spacer
GSM: Stainless Steel	R: Right L: Left	2/3/5	12:12" Custom made, please specify	W: None D: Diaphragm valve	FNT4*: 1/4" NPT(F) NT4: 1/4" NPT(M) VM4: 1/4" FSR(M)	FNT4: 1/4" NPT(F) NT8: 1/2" NPT(M) TF8: 1/2" GENLOK VSF8: 1/2" FSR(M)	6: 6" spacer 12: 12" spacer

Gauges



G20SL
Low Mount (LM)

GR20SL
Back Mount (BM)

- Designed for use with regulator
- Easy control of outlet flow

Specs. / Series	Wetted	Casing	Connection
G20P (LM)	Brass	Chrome-Plated Brass	1/4" NPT
G20SL (LM)	316L	316L	1/4" NPT
GR20SL (BM)	316L	316L	1/4" NPT

2", PSI/kPa Dual Scale, Lower Mount

Model Number		Maximum Scale PSI/kPa	Entry
Chrome Plated Brass	Stainless Steel		
G20PV-30-P/K	G20SLV-30-P/K	-30in.Hg/30/200	LM
G20PV-60-P/K	G20SLV-60-P/K	-30in.Hg/60/400	LM
G20PV-100-P/K	G20SLV-100-P/K	-30in.Hg/100/700	LM
G20PV-150-P/K	G20SLV-150-P/K	-30in.Hg/100/1000	LM
G20PV-200-P/K	G20SLV-200-P/K	-30in.Hg/200/1400	LM
G20PV-300-P/K	G20SLV-300-P/K	-30in.Hg/300/2000	LM
G20P-30-P/K	G20SL-30-P/K	30/200	LM
G20P-60-P/K	G20SL-60-P/K	60/400	LM
G20P-100-P/K	G20SL-100-P/K	100/700	LM
G20P-160-P/K	G20SL-160-P/K	160/1100	LM
G20P-200-P/K	G20SL-200-P/K	200/1400	LM
G20P-300-P/K	G20SL-300-P/K	300/2000	LM
G20P-600-P/K	G20SL-600-P/K	600/4000	LM
G20P-1000-P/K	G20SL-1000-P/K	1000/7000	LM
G20P-1500-P/K	G20SL-1500-P/K	1500/10000	LM
G20P-2000-P/K	G20SL-2000-P/K	2000/14000	LM
G20P-3000-P/K	G20SL-3000-P/K	3000/20000	LM
G20P-4000-P/K	G20SL-4000-P/K	4000/28000	LM
G20P-6000-P/K	G20SL-6000-P/K	6000/40000	LM

2", PSI/bar Dual Scale, Lower Mount

Model Number		Maximum Scale PSI/bar	Entry
Chrome Plated Brass	Stainless Steel		
G20PV-30-P/B	G20SLV-30-P/B	-30in.Hg/30/2	LM
G20PV-60-P/B	G20SLV-60-P/B	-30in.Hg/60/4	LM
G20PV-100-P/B	G20SLV-100-P/B	-30in.Hg/100/7	LM
G20PV-150-P/B	G20SLV-150-P/B	-30in.Hg/150/10	LM
G20PV-200-P/B	G20SLV-200-P/B	-30in.Hg/200/14	LM
G20PV-300-P/B	G20SLV-300-P/B	-30in.Hg/300/20	LM
G20P-30-P/B	G20SL-30-P/B	30/200	LM
G20P-60-P/B	G20SL-60-P/B	60/400	LM
G20P-100-P/B	G20SL-100-P/B	100/7	LM
G20P-160-P/B	G20SL-160-P/B	160/11	LM
G20P-200-P/B	G20SL-200-P/B	200/14	LM
G20P-300-P/B	G20SL-300-P/B	300/20	LM
G20P-600-P/B	G20SL-600-P/B	600/40	LM
G20P-1000-P/B	G20SL-1000-P/B	1000/70	LM
G20P-1500-P/B	G20SL-1500-P/B	1500/100	LM
G20P-2000-P/B	G20SL-2000-P/B	2000/140	LM
G20P-3000-P/B	G20SL-3000-P/B	3000/200	LM
G20P-4000-P/B	G20SL-4000-P/B	4000/280	LM
G20P-6000-P/B	G20SL-6000-P/B	6000/400	LM

2", PSI/bar Dual Scale, Back Mount

Model Number	Maximum Scale PSI/bar	Entry
Stainless Steel		
GR20SLV-30-P/B	-30in.Hg/30/2	BM
GR20SLV-60-P/B	-30in.Hg/60/4	BM
GR20SLV-100-P/B	-30in.Hg/100/7	BM
GR20SLV-150-P/B	-30in.Hg/150/10	BM
GR20SLV-200-P/B	-30in.Hg/200/14	BM
GR20SLV-300-P/B	-30in.Hg/300/20	BM
GR20SL-30-P/B	30/200	BM
GR20SL-60-P/B	60/400	BM
GR20SL-100-P/B	100/7	BM
GR20SL-160-P/B	160/11	BM
GR20SL-200-P/B	200/14	BM
GR20SL-300-P/B	300/20	BM
GR20SL-600-P/B	600/40	BM
GR20SL-1000-P/B	1000/70	BM
GR20SL-1500-P/B	1500/100	BM
GR20SL-2000-P/B	2000/140	BM
GR20SL-3000-P/B	3000/200	BM
GR20SL-4000-P/B	4000/280	BM
GR20SL-6000-P/B	6000/400	BM

Electronic Contact Gauges

GA20SL
Lower Mount (LM)

GRA20SL
Back Mount (BM)

GE20SL
Lower Mount (LM)

GRE20SL
Back Mount (BM)

- Normally open, switch gauge
- Switch closes on decreasing pressure (NC) / opens on increasing pressure
- Adjustable between 5 and 80% of the scale range
- Maximum power: 10 watts DC, 12 VA AC
- Maximum switch voltage: 28 V AC/DC
- Wetted area and casing: 316L
- Temperature: -40°F~158°F
- Connection: 1/4" NPT
- Accuracy: 3-2-3 (2%)
- Potential-free relay

2", Stainless Steel Contact Gauge, PSI/kPa Dual Scale

Model Number				Maximum Scale PSI/kPa
Twist Cap		Fixed Cap		
Lower Mount	Back Mount	Lower Mount	Back Mount	
GA20SL-100-P/K	GRA20SL-100-P/K	GE20SL-100-P/K	GRE20SL-100-P/K	100/700
GA20SL-200-P/K	GRA20SL-200-P/K	GE20SL-200-P/K	GRE20SL-200-P/K	200/1400
GA20SL-300-P/K	GRA20SL-300-P/K	GE20SL-300-P/K	GRE20SL-300-P/K	300/2000
GA20SL-400-P/K	GRA20SL-400-P/K	GE20SL-400-P/K	GRE20SL-400-P/K	400/2800
GA20SL-600-P/K	GRA20SL-600-P/K	GE20SL-600-P/K	GRE20SL-600-P/K	600/4000
GA20SL-1500-P/K	GRA20SL-1500-P/K	GE20SL-1500-P/K	GRE20SL-1500-P/K	1500/10000
GA20SL-3000-P/K	GRA20SL-3000-P/K	GE20SL-3000-P/K	GRE20SL-3000-P/K	3000/20000
GA20SL-4000-P/K	GRA20SL-4000-P/K	GE20SL-4000-P/K	GRE20SL-4000-P/K	4000/28000

Note: Please consult factory on VCR/FSR gauges or Psi/bar and PSI/kPa dual scale ranges not listed.

Needle Valves

• Designed for use with regulator • Easy control of outlet flow

207CP

SS-NV12-NT4-TF4

Series	Material	Max Working Pressure	Inlet / Outlet Connection
207C	Brass	500 psig	1/4" NPT(M) x 1/4" NPT(M)
207CP	Nickel-Plated Brass	500 psig	1/4" NPT(M) x 1/4" NPT(M)
SS-NV12-NT4	316	5000 psig	1/4" NPT(M) x 1/4" NPT(M)
SS-NV12-NT4-TF4	316	5000 psig	1/4" NPT(M) x 1/4" GENLOK

Relief Valves

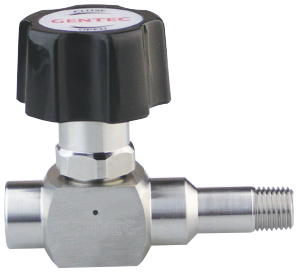
• Designed for use with regulator • Relief pressure adjustable

SS-RV11-100

Series	Material	Pressure Range	Inlet / Outlet Connection
RV11	B: Nickel-Plated Brass	20: 10-20 psig	1/4" NPT(M) x 1/4" NPT(F)
	SS: 316	100: 20-100 psig	1/4" NPT(M) x 1/4" NPT(F)
		250: 100-250 psig	1/4" NPT(M) x 1/4" NPT(F)
		500: 250-500 psig	1/4" NPT(M) x 1/4" NPT(F)
		750: 500-750 psig	1/4" NPT(M) x 1/4" NPT(F)

Diaphragm Valves

• Designed for regulator outlet port



SL-DV92-NT4-FNT4

Series	Material	Cv	Max Working Pressure	Inlet / Outlet Connection
SL-DV92-NT4-FNT4	316	0.17	3500 psig	1/4" NPT(M) x 1/4" NPT(F)
BP-DV92-NT4-FNT4	Nickel-Plated Brass	0.17	3500 psig	1/4" NPT(M) x 1/4" NPT(F)

Please see "Valves" catalog for additional products

Check Valves

Please contact GENTEC® for additional sizes or cracking pressure available

Model	Inlet Connection	Outlet Connection
SS-CV11-TF2-VI-1	1/8" GENLOK	1/8" GENLOK
SS-CV11-NT2-VI-1	1/8" NPT(M)	1/8" NPT(M)
SS-CV11-FNT2-VI-1	1/8" NPT(F)	1/8" NPT(F)
SS-CV11-TF4-VI-1	1/4" GENLOK	1/4" GENLOK
SS-CV11-NT4-TF4-VI-1	1/4" NPT(M)	1/4" GENLOK
SS-CV11-NT4-VI-1	1/4" NPT(M)	1/4" NPT(M)
SS-CV12-FNT4-VI-1	1/4" NPT(F)	1/4" NPT(F)
SS-CV12-FNT4-NT4-VI-3	1/4" NPT(F)	1/4" NPT(M)

Material: 316L | **Pressure Rating:** 3000 psig | **Cracking Pressure:** 1 psig or 3 psig | Viton® O-rings standard

Filters

INLINE FILTER

T-TYPE FILTER

Please see "F Series Filters" catalog for additional products

Type	Model	Inlet Connection	Outlet Connection
Inline Type	SS-F4-FNT2	1/8" NPT(F)	1/8" NPT(F)
	SS-F4-TF4	1/4" GENLOK	1/4" GENLOK
	SS-F4-NT4	1/4" NPT(M)	1/4" NPT(M)
T-Type	SS-F4T-FNT2	1/8" NPT(F)	1/8" NPT(F)
	SS-F4T-TF4	1/4" GENLOK	1/4" GENLOK
	SS-F4T-NT4	1/4" NPT(M)	1/4" NPT(M)

Material: 316 | **Max. Working Pressure:** 3000 psi for inline type, 6000 psi for T-type | **Washer:** 316L | **Nominal Pore Size:** 0.5-2 microns

Flashback Arrestors

FA33SP

FA34P

- Designed for use with low pressure manifold piping
- Preventing flashbacks from low to high pressure piping

Model No.	Material	Gas Service	Working Pressure	Delivery Flow	Inlet Connection	Outlet Connection
FA33SP	Stainless Steel	Flammable	50 psi	1250 SCFH	1/4"NPT(F)	1/4"NPT(F)
FA34P	Brass	Flammable	50 psi	1050 SCFH	1/4"NPT(F)	1/4"NPT(F)

Purge Tools

- Purge assembly is highly recommended for toxic, corrosive, or flammable gases.
- Purge assembly enables user to purge system of contamination.

SL-P101

- Straight purge connection
- For connection to regulator high pressure inlet
- For regulator and downstream device
- Purge gases delivered from regulator downstream
- Suitable for circular purging

SL-P102

- "T"-design purge connection
- For connection between regulator and cylinder
- Purge of whole gas system
- Purge gases delivered from regulator downstream
- Suitable for circular purging

SL-P103

- Cross design purge connection
- For connection between regulator and cylinder
- Purge of whole gas system, diaphragm valve controls purging for cylinder valve
- Purge gases relieved from purged port of regulator's downstream

Series	Inlet Connections	Outlet Connections
SL-P101 SL-P102 SL-P103	00: 1/4" NPT(F) 01: 1/4" NPT(M) C330: CGA330 C350: CGA350 C580: CGA580 C590: CGA590 C660: CGA660 Other connections are available	00: 1/4" NPT(F) 01: 1/4" NPT(M)

Vacuum Generator

- 316L stainless steel construction
- Cleaned, welded assembled, tested and packaged in Class 10 clean room
- Internal surface finish 0.4 um
- 660 mmHg (100 Torr) vacuum generated with a minimum source nitrogen pressure of 75 psig
- Helium-leak tested
- Used in gas delivery systems to assist in purging piping systems

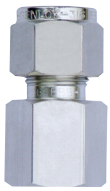
EX: SL -	VG22 -	VM4 -	VM8 -	VSM4
Material	Serial No.	N2 Inlet	Vent Connection	Vacuum Connections
SL: 316L	VG22	VM4	VM8	VM4
				VSM4
				VSF4

Connections
VM4: 1/4" face seal male
VM8: 1/2" face seal male
VSM4: 1/4" face seal swivel male
VSF4: 1/4" face seal swivel female

Tube Fittings

SS-MC-TF4-NT4

SS-UE-TF4



SS-FC-TF4-FNT4

R952-5503

Please see "Tube Fittings" catalog for additional products

Series	Material	Inlet/Outlet Connection
R195-51P	Nickel-Plated Brass	1/4" NPT(M) x 1/4" NPT(M), Connection
R952-5503	316 Stainless Steel	1/4" NPT(M) x 1/4" NPT(M), Connection
SS-MC-TF4-NT4	316 Stainless Steel	1/4" NPT(M) x 1/4" GENLOK, Connection
SS-MC-TF6-NT4	316 Stainless Steel	3/8" NPT(M) x 1/4" GENLOK, Connection
SS-MC-TF8-NT4	316 Stainless Steel	1/2" NPT(M) x 1/4" GENLOK, Connection
SS-MC-TF8-NT8	316 Stainless Steel	1/2" NPT(M) x 1/2" GENLOK, Connection
SS-MC-TF12-NT12	316 Stainless Steel	1/2" NPT(M) x 3/4" GENLOK, Connection
SS-FC-TF2-FNT4	316 Stainless Steel	1/4" NPT(F) x 1/8" GENLOK, Connection
SS-FC-TF4-FNT4	316 Stainless Steel	1/4" NPT(F) x 1/4" GENLOK, Connection
SS-FC-TF6-FNT4	316 Stainless Steel	1/4" NPT(F) x 3/8" GENLOK, Connection
SS-FC-TF8-FNT4	316 Stainless Steel	1/4" NPT(F) x 1/2" GENLOK, Connection
R155-64JP	Nickel-Plated Brass	1/2" NPT(M) x 3/8" NPT(F), Straight
R155-64KP	Nickel-Plated Brass	1/2" NPT(M) x 3/8" NPT(M), Straight
R155-64EP	Nickel-Plated Brass	1/2" NPT(M) x 1/2" NPT(M), Straight
R982-5502	316 Stainless Steel	1/2" NPT(M) x 3/8" NPT(F), Straight
R982-5507	316 Stainless Steel	1/2" NPT(M) x 3/8" NPT(M), Straight
R982-5506	316 Stainless Steel	1/2" NPT(M) x 1/2" NPT(M), Straight
SS-UE-TF4	316 Stainless Steel	1/4" GENLOK x 1/4" GENLOK, Elbow
SS-UE-TF8	316 Stainless Steel	1/2" GENLOK x 1/2" GENLOK, Elbow

Cylinder Connection Table

- Nuts and nipples are designed for regulator inlet connections.

BS341	Model No.	Material	Nut	Nipple	Washer
NO. 3	SS-BS341-3 BP-BS341-3A	Stainless Steel Brass / Chrome-Plated	G5/8-14 (Right Hand)	3-1/2"" Length (1/4" NPT)	-
NO. 4	SS-BS341-4 BP-BS341-4	Stainless Steel Brass / Chrome-Plated	G5/8-14 (Left Hand)	3" Length (1/4" NPT)	-
DIN477	**Model No.**	**Material**	**Nut**	**Nipple**	**Washer**
NO. 5	SS-DIN477-5 BP-DIN477-5	Stainless Steel Brass / Chrome-Plated	1"-11 (Left Hand)	2-1/2" Length (1/4" NPT)	Nylon
NO. 6	SS-DIN477-6 BP-DIN477-6	Stainless Steel Brass / Chrome-Plated	W21.8-14 (Right Hand)	2.35" Length (1/4" NPT)	Nylon
NO. 8	SS-DIN477-8 BP-DIN477-8	Stainless Steel Brass / Chrome-Plated	1"-11 (Right Hand)	2.35" Length (1/4" NPT)	PTFE
CGA	**Model No.**	**Material**	**Nut**	**Nipple**	**Washer**
330	SS-CGA330 BP-CGA330	Stainless Steel Brass / Chrome-Plated	0.830-14NGO (Left Hand)	2" Length (1/4" NPT)	Nylon
350	SS-CGA350 BP-CGA350	Stainless Steel Brass / Chrome-Plated	0.830-14NGO (Left Hand)	2-1/2" Length (1/4" NPT)	-
580	SS-CGA580 BP-CGA580	Stainless Steel Brass / Chrome-Plated	0.960-14NGO (Right Hand)	3" Length (1/4" NPT)	-
590	SS-CGA590 BP-CGA590	Stainless Steel Brass / Chrome-Plated	0.960-14NGO (Left Hand)	3" Length (1/4" NPT)	Nylon
660	SS-CGA660 BP-CGA660	Stainless Steel Brass / Chrome-Plated	1.035-14NGO (Right Hand)	2" Length (1/4" NPT)	Nylon

*** Note: Please see "Cylinder Connections" catalog for additional products.**

Pure Gases	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
ACETYLENE				
• Atomic absorption 99.6%		G152		510
AIR				
• Dry	HP152L	G152	G152T	
• Hydrocarbon Free	R21B/HP152L	R21B/HP152	R31B/HP152T	590
• Zero	HP152L	HP152	HP152T	
AMMONIA				
• Anhydrous		R21SL	R31SL	705
ARGON				
• Research 99.9995%				
• U.H.P. 99.999%	R21B	R21B	R31B	
• Prepurified 99.998%	R21B/HP152L	R21B/HP152	R31B/HP152T	580
• Zero 99.998%	HP152L	HP152	HP152T	
• High Purity 99.995%	HP152L	G152	G152T	
BORON TRIFLUORIDE				
• Minimum Purity 99.5%		R21SL	R31SL	330
1.3 BUTADIENE				
• Instrument 99.5%		G152	G152T	510
• C.P. 99.0%		G152	G152T	
N-BUTANE				
• Research 99.9%		R21B	R31B	510
• C.P. 99.0%		G152	G152T	
CARBON DIOXIDE				
• Research 99.998%	R21B	R21B	R31B	
• Instrument (Coleman) 99.99%	HP152L	HP152	HP152T	320
• C.P. 99.8%	HP152L	G152	G152T	
CARBON MONOXIDE				
• Ultra High Purity 99.9%				
• C.P. 99.0%		HP152	HP152T	350
• Commercial 98.0%		G152	G152T	
CHLORINE				
• High Purity 99.5%		R21SL	R31SL	660
DEUTERIUM				
• C.P. 99.5%		R21B	R31B	350
DIMETHYL ETHER				
• Purity 99.5%		R21B	R31B	510
ETHANE				
• Research 99.98%		R21B	R31B	
• C.P. 99.0%		G152	G152T	350
• Technical 98.55%		G152	G152T	
ETHYLENE				
• Research 99.98%		R21B	R31B	
• C.P. 99.5%		HP152	HP152T	350
• Technical		G152	G152T	
HELIUM				
• Research 99.9995%		R21SL	R31SL	
• Ultra High 99.999%		R21B	R31B	580
• Zero 99.995%		R21B	R31B	
• High Purity 99.995%		R21B	R31B	

Pure Gases	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
HYDROGEN				
• Research 99.9999%				
• Ultra High 99.999%		R21SL	R31SL	
• Zero 99.99%		R21B	R31B	350
• Prepurified 99.99%		R21B	R31B	
• Extra Dry 99.95%		HP152	HP152T	
HYDROGEN CHLORIDE				
• Chemical 99.0%		R21SL/R51SL	R31SL/R51SL	330
KRYPTON				
• Research 99.995%		R21SL	R31SL	580
METHANE				
• Research 99.99%		R21SL	R31SL	
• U.H.P. 99.97%		R21B	R31B	
• C.P. 99.0%		HP152	HP152T	350
• Technical 98.0%		G152	G152T	
• Commercial 93.0%		G152	G152T	
NEON				
• Research 99.999%		R21SL	R31SL	
• U.H.P. 99.996%		R21SL	R31SL	580
• Purified 99.89%		R21SL	R31SL	
NITROGEN				
• Research 99.9995%				
• Ultra High 99.999%	R21SL	R21SL	R31SL	
• Prepurified 99.998%	R21B	R21B	R31B	
• Zero 99.998%	R21B	R21B	R31B	580
• High Purity 99.99%	R21B	R21B	R31B	
• Oxygen Free 99.99%	R21B	R21B	R31B	
• Extra Dry 99.7%	HP152	G152	G152T	
NITROUS OXIDE				
• U.H.P. 99.99%		R21B	R31B	326
• Atomic Absorption 99.0%		G152	G152T	
OXYGEN				
• Research 99.995%		R21SL	R31SL	
• U.H.P. 99.99%		R21B	R31B	540
• Zero 99.6%		R21B	R31B	
• Extra Dry 99.6%		R21B	R31B	
PROPANE				
• Research 99.99%		R21B	R31B	
• Instrument 99.5%		R21B	R31B	510
• C.P. 99.0%		G152	G152T	
• Natural 96.0%		G152	G152T	
PROPYLENE				
• Research		R21B	R31B	510
• C.P. 99.0%		G152	G152T	
SULFUR HEXAFLUORIDE				
• Instrument 99.99%		R21B	R31B	590
• C.P. 99.8%		G152	G152T	
XENON				
• Research 99.995%		R21SL	R31SL	580

Mixed Gases	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
AMMONIA				
• in Helium		R21SL	R31SL	
• in Air		R21SL	R31SL	705
• in Nitrogen		R21SL	R31SL	
ARGON				
• in Helium		R21B	R31B	580
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	580
BUTANE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	580
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	590
CARBON DIOXIDE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	580
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	580
• in Oxygen		R21B	R31B	296
CARBON MONOXIDE				
• in Air		R21B	R31B	590
• in Argon		R21B	R31B	350
• in Helium		R21B	R31B	350
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
CHLORINE				
• in Helium		R21SL	R31SL	660
• in Nitrogen		R21SL	R31SL	
ETHANE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
ETHYLENE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
HELIUM				
• in Argon		R21B	R31B	580
• in Nitrogen		R21B	R31B	580
HEXANE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
HYDROGEN				
• in Argon		R21B	R31B	350
• in Air		R21B	R31B	590
• in Nitrogen		R21B	R31B	350

Mixed Gases	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
HYDROGEN CHLORIDE				
• in Nitrogen		R21SL	R31SL	330
HYDROGEN SULFIDE				
• in Air		R21SL	R31SL	660/330
• in Helium		R21SL	R31SL	330
• in Nitrogen		R21SL	R31SL	330
ISOBUTANE				
• in Air		R21B	R31B	590
• in Helium		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
METHANE				
• in Air		R21B	R31B	590
• in Argon		R21B	R31B	350
• in Helium		R21B	R31B	350
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
NITRIC OXIDE				
• in Argon		R21SL	R31SL	660
• in Nitrogen		R21SL	R31SL	
NITROGEN				
• in Argon		R21B	R31B	580
• in Helium		R21B	R31B	580
• in Oxygen		R21B	R31B	296
NITROGEN DIOXIDE				
• in Air		R21SL	R31SL	660
• in Nitrogen		R21SL	R31SL	
OXYGEN				
• in Argon		R21B	R31B	
• in Helium		R21B	R31B	580/590
• in Nitrogen		R21B	R31B	
PROPANE				
• in Air		R21B	R31B	590
• in Hydrogen		R21B	R31B	350
• in Nitrogen		R21B	R31B	350
PROPYLENE				
• in Air		R21B	R31B	590
• in Nitrogen		R21B	R31B	350
SULFUR DIOXIDE				
• in Air		R21SL	R31SL	
• in Argon		R21SL	R31SL	660
• in Helium		R21SL	R31SL	
• in Nitrogen		R21SL	R31SL	

Instrument Mixtures	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
CHROMATOGRAPH CARRIER GAS 8.5% Hydrogen 91.5% Helium		R21B	R31B	350
ELECTRON CAPTURE MIXTURE P-5 Gas Mixture 5% Methane in Argon		R21B	R31B	350
FLAME IONIZATION FUEL MIXTURES 40% Hydrogen 60% Nitrogen		R21B	R31B	350
FURNACE ATMOSPHERE MIXTURES 40% Carbon Dioxide 60% Carbon Monoxide		R21B	R31B	350
NUCLEAR COUNTER MIXTURE 0.95% ISO Butane 99.05% Helium		HP152	HP152T	350
LEAK DETECTION MIXTURE 1-10% Helium in Nitrogen		R21B	R31B	580

Nuclear Counter Mixture	Line Regulator	Cylinder Regulators		
	Single Stage	Single Stage	Dual Stage	CGA Inlet
P-10 GAS MIXTURE 10% Methane 90% Argon		R21B	R31B	350
PROPORTIONAL COUNTING MIXTURE 4% ISO Butane 96% Helium		R21B/HP152	R31B	350
1.5% ISO Butane 98.5% Helium		R21B	R31B	350

MATERIAL COMPATIBILITY

A GENTEC® Product Material Compatibility

	Material											
Gas	Aluminum	Brass	Copper	Monel	Stainless Steel	Carbon Steel	Neoprene	PCTFE (Kel-F)	Viton	Polyethylene	PVC	PTFE (Teflon)
Ammonia	•	○	○	•	•	○	•	•	○	○	•	•
Argon	•	•	•	•	•	•	•	•	•	•	•	•
CO_2	•	•	•	•	•	•	•	•	•	•	•	•
Chlorine	○	○	○	•	•	•	○	•	•	•	○	•
Diborane	•	•	•	•	•	•	○	•	•	○	○	•
Helium	•	•	•	•	•	•	•	•	•	•	•	•
Hydrogen	•	•	•	•	•	•	•	•	•	•	•	•
HCl	○	○	○	•	•	○	•	•	•	•	•	•
H_2S	•	○	○	•	•	○	○	•	•	•	•	•
Methane	•	•	•	•	•	•	•	•	•	•	•	•
Nitrogen	•	•	•	•	•	•	•	•	•	•	•	•
N_2O	•	•	•	•	•	•	•	•	•	•	•	•
Oxygen	•	•	•	•	•	•	•	•	•	○	○	•
Phosphine	•	○	○	•	•	•	○	•	•	•	•	•
Silane	•	•	•	•	•	•	•	•	•	•	•	•
SO_2	•	•	•	•	•	•	○	•	○	•	•	•
F_6S	•	•	•	•	•	•	•	•	•	•	•	•
Arsine	○	•	○	•	•	•	•	•	•	•	•	•
Boron Trichloride	○	○	•	•	•	•	○	•	•	○	•	•
Boron Trifluoride	•	○	•	•	•	•	○	•	○	○	•	•
Dichloriosilane	○	○	○	•	•	•	○	•	○	○	○	•
Silicon Tetrachloride	○	○	○	•	•	•	○	•	○	○	○	•
Acetylene	•	•	○	•	•	•	•	•	•	•	○	•
Air	•	•	•	•	•	•	•	•	•	•	•	•
Butane	•	•	•	•	•	•	•	•	•	○	•	•
Carbon Monoxide	•	•	•	•	•	•	○	•	•	•	•	•
Cyclopropane	•	•	•	•	•	•	•	•	•	•	•	•
Ethane	•	•	•	•	•	•	•	•	•	•	•	•
Ethylene	•	•	•	•	•	•	•	•	•	•	○	•
Ethylene Oxide	•	•	•	•	•	•	○	•	○	○	○	•
Isobutane	•	•	•	•	•	•	•	•	•	○	•	•
Krypton	•	•	•	•	•	•	•	•	•	•	•	•
Methyl Chloride	○	○	•	•	•	•	•	•	•	•	○	•
Neon	•	•	•	•	•	•	•	•	•	•	•	•
NO	•	○	○	○	•	•	○	•	•	•	•	•
Propane	•	•	•	•	•	•	•	•	•	•	•	•
Xenon	•	•	•	•	•	•	•	•	•	•	•	•

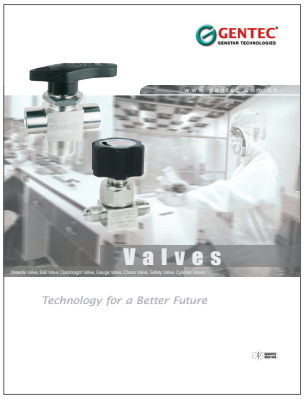
• Recommended ○ Not Recommended • Recommended only for dry-grades of gas

ALLOCATION TABLE

Cylinder Connections Allocation Table

Gas	BSP	DIN	CGA	UHP CGA	JIS
Acetylene	BS341 nr. 2	==	510	==	==
Air	BS341 nr. 3	==	346	==	==
Ammonia	BS341 nr. 10	DIN6	705	720	22-R
Argon	BS341 nr. 3	DIN6	580	718	22-4 or 23-R
Arsine	==	==	350	632	22-L
Boron Trichloride	==	DIN8	660	634	==
Boron Trifluoride	==	DIN8	330	642	22-L
Butane	BS341 nr. 4	==	510	==	==
Carbon Dioxide	BS341 nr. 8	DIN6	320	716	==
Carbon Monoxide	BS341 nr. 4	DIN5	350	724	22-L
Cyclopropane	BS341 nr. 4	==	510	==	==
Diborane	==	==	350	632	22-L
Dichloriosilane	==	DIN5	678	636	==
Diethylzinc	==	==	510	726	==
Ethane	==	==	350	==	==
Ethyl Chloride	==	==	510	==	==
Ethylene	==	==	350	==	==
Ethylene Oxide	==	==	510	==	==
Germane	==	==	350 or 660	632	==
R11 (R116) / Halocarbon 11 (116)	==	==	660	716	==
R12 (R13, R23, R115) / Halocarbon 12 (13, 23, 115)	==	DIN6	660	716	==
R14 (Halocarbon 14)	==	DIN6	320 or 580	716	==
Helium	BS341 nr. 3	DIN6	580	718	22-R or 23-L
Hydrogen	BS341 nr. 2	DIN1	350	724	22-L
Hydrogen Chloride	==	DIN8	330	634	26-R
Hydrogen Fluoride	==	==	660 or 670	638	26-R
Hydrogen Sulfide	==	DIN5	330	722	==
Iso-Butane	==	==	510	==	==
Krypton	==	DIN6	580	718	22-R or 23-R
Methane	BS341 nr. 2	==	350	==	==
Methyl Chloride	==	==	660	==	==
Natural Gas	==	==	350	==	==
Neon	==	DIN6	580	718	22-R or 23-R
Nitric Oxide	==	==	660	==	==
Nitrogen	BS341 nr. 3	DIN10	580	718	22-R or 23-R
Nitrogen Trifleoride	==	DIN8	330 or 670	640	==
Nitrous Oxide	BS341 nr. 13	DIN9	326	712	==
Oxygen	BS341 nr. 3	DIN1	540	714	22-R or 23-R
Phosphine	==	==	350	632	==
Propane	BS341 nr. 4	==	510	==	==
Silane	==	==	350	632	==
Silicon Tetrachloride	==	==	330	636	==
Silicon Tetrafluoride	==	==	330	642	22-L
Sulfur Hexafluoride	==	DIN6	590	716	26-R
Tungsten Hexafluoride	==	DIN8	670	638	
Xenon	==	DIN6	580	718	22-R

*Chart is for reference only

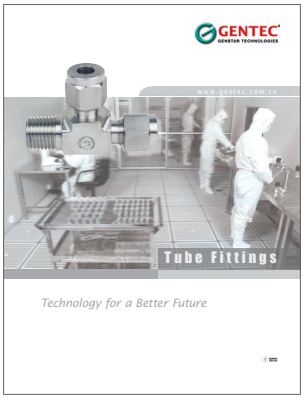


Valves

- Needle Valves
- Ball Valves
- Diaphragm Valves
- Cylinder Valves
- Gauge Valves
- Check Valves

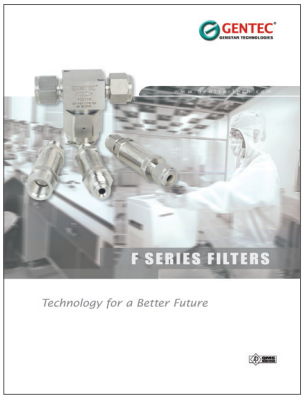
Gas Control Systems Overview

- Manifold Systems
- Control Panels
- HP/UHP Regulators
- Pressure Gauges
- Valves & Fittings



Tube Fittings

- Male Connectors
- Male Elbows
- Male Adapters
- Female Connectors
- Female Elbows
- Unions
- Reducing unions



F Series Filters

- Inline Filter
- T-type Filter

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