



General Purpose Single Stage Regulator

SG - Series

DESCRIPTION

The SG regulators are specifically designed as an economical instrument for use in non-critical applications involving inert and non-corrosive gas applications. The SG regulator should not be used in applications where inboard diffusion of atmospheric impurities water and oxygen or the out gassing of hydrocarbon based impurities will negatively impact the work being performed.

FEATURES

- Minimal internal volume: .320 cubic inches.
- Seat area protected by a 30 micron filter.
- Five delivery pressures available.
- Large Viton diaphragm for sensitive pressure control.
- Body is pre-tapped and has milled flats for back panel mounting.
- All exterior surfaces chrome plated.



APPLICATIONS

The SG series regulators are ideally suited for use with inert, flammable, and hydrocarbon gases used in non-critical gas applications. They are suited for closely monitored applications and with their large viton diaphragm provide good sensitivity for pressure control.

SPECIFICATIONS

Max. Inlet Pressure: 3,000 psig
 Operating Temperature Range: -20°F to 120°F
 Internal Volume: .320 cubic inches
 Leakage: Bubble Tight
 Flow Coefficient (C_v): 0.04
 Shipping Weight: 3.1 lbs.

MATERIALS OF CONSTRUCTION

Body: Brass Barstock, Chrome Plated
 Bonnet: Zinc, Chrome Plated
 Diaphragm: Teflon coated Viton
 Viton for 450 psig models
 Seat: Kel-F
 Seals:
 Filters: 30 micron Sintered Bronze
 Gauges: 2" Chrome Plated Brass

Model Selection Guide

Example: SG450R0346 = model SG with up to 450 psig delivery pressure, relief valve and CGA 346 inlet connection.

Specify:	Maximum Delivery Pressure		Relief Valve	Outlet Port	CGA Inlet Connection
SG	[***]		[*]	[*]	[***]
	Delivery Pressure Range 015 = 0-15 psig 045 = 0-45 psig 080 = 0-80 psig 180 = 0-180 psig 450 = 0-450 psig	Delivery Pressure Gauge 30" Hg - 0-30 or 0-30 Red Line 0 - 60 0-200 0-200 0-600	0 - Plugged R - Pipe away relief valve	0 - None (1/4" NPT female) V - Packed Valve	000 - None (1/4" NPT female) 280 - Medical Breathing Mixtures 300 - Acetylene 320 - Carbon Dioxide 326 - Nitrous Oxide 346 - Zero Air, Compressed Air 350 - Hydrogen* 510 - Acetylene 540 - Oxygen 580 - Helium, Nitrogen, Argon 590 - Zero Air

* CGA 350 available only with relief valve



High Purity Single Stage Brass Barstock Regulator SHSS - Series

DESCRIPTION

The SHSS regulators are designed and constructed for both high purity, low volume use and general purpose applications where a slight pressure rise is acceptable due to the decrease in cylinder pressure. This regulator provides outstanding performance, but are rugged and versatile enough for the laboratory or plant applications.

FEATURES

- Minimal internal volume: .320 cubic inches.
- Seat area protected by a 30 micron filter.
- Five delivery pressure ranges available.
- Stainless steel diaphragm eliminates contamination from diffusion or out gassing.
- Body is pre-tapped and has milled flats for back panel mounting.
- Designed to pass an helium leak-rate test of 1×10^{-8} SCC/SEC.



APPLICATIONS

The SHSS series regulators are ideally suited for use with small cylinders of Research Purity or High Purity gases up to 5.0 purity. The small internal volume and high purity design result in more efficient use of expensive materials because it takes less gas to fill the internal cavity. They are useful for less critical pressure reduction applications, where the precise control of pressure or flow is not required.

MATERIALS OF CONSTRUCTION

- Body: Brass Barstock, Chrome Plated
- Bonnet: Zinc, Chrome Plated
- Diaphragm: 316 Stainless Steel
- Seat: PCTFE
- Seals: EPDM
- Filters: 30 micron sintered porous bronze
- Gauges: 2" Chrome Plated Brass

SPECIFICATIONS

- Max. Inlet Pressure: 3,000 psig
- Operating Temperature Range: -20°F to 120°F
- Internal Volume: 0.32 in
- Leakage: Bubble Tight
- Flow Coefficient (C_v): 0.015
- Shipping Weight: 3.1 lbs (without outlet valve)

OPTION SPECIFICATIONS

- Optional Relief Valve: Brass body, EPDM seat
- Optional Diaphragm Valve: Chrome Plate Brass Body
Kel-f Seat, Eigiloy
Diaphragm and Viton
seals

Model Selection Guide

Example: SHSS450R0346 = model SHSS with up to 450 psig delivery pressure, relief valve and CGA 346 inlet connection.

Specify:	Maximum Delivery Pressure		Relief Valve	Outlet Port	CGA Inlet Connection
SHSS	[***]		[*]	[*]	[***]
	Delivery Pressure Range 015 = 0-15 psig 045 = 0-45 psig 080 = 0-80 psig 150 = 0-150 psig 450 = 0-450 psig	Delivery Pressure Gauge 30" Hg - 0-30 or 0-30 Red Line 0 - 60 0-200 0-200 0-600	0 - Plugged R - Pipe away relief valve	0 - None (1/4" NPT female) V - Diaphragm Valve	000 - None (1/4" NPT female) 280 - Medical Breathing Mixtures 300 - Acetylene 320 - Carbon Dioxide 326 - Nitrous Oxide 346 - Zero Air, Compressed Air 350 - Hydrogen* 510 - Acetylene 540 - Oxygen 580 - Helium, Nitrogen, Argon 590 - Zero Air

* CGA 350 available only with relief valve



High Purity Stainless Steel Single Stage Regulator HSS1 - Series

DESCRIPTION

The HSS1 regulators are designed and constructed for both high purity and general purpose applications where a slight pressure rise is acceptable due to the decrease in cylinder pressure. This regulator provides outstanding performance, but are rugged and versatile enough for laboratory or plant applications.

FEATURES

- Minimal internal volume:
- Seat area protected by a 10 micron filter.
- Five delivery pressure ranges available.
- Stainless steel diaphragm eliminates contamination from diffusion or out gassing.
- Body is pre-tapped and has milled flats for back panel mounting.
- 1×10^{-9} cc/sec. inboard helium leak rate



APPLICATIONS

The HSS1 series regulators are ideally suited for use with cylinders of research purity, high purity, ultra high purity and corrosive gases up to 6.0 purity. The small internal volume and high purity design result in more efficient use of expensive materials because it takes less gas to fill the internal cavity. They are useful for less critical pressure reduction applications, where the precise control of pressure or flow is not required.

MATERIALS OF CONSTRUCTION

- Body: 316L Stainless Steel Barstock
- Bonnet: Chrome Plated Brass Barstock
- Diaphragm: 316L Stainless Steel
- Seat: PTFE Teflon
- Seals: PTFE Teflon
- Filters: 10 micron sintered stainless steel
- Gauges: 2" Stainless Steel

SPECIFICATIONS

- Max. Inlet Pressure: 3,000 psig
- Operating Temperature Range: -20°F to 120°F
- Internal Volume:
- Leakage:
- Flow Coefficient (C_v): 0.08
- Shipping Weight: 2.92 lbs

OPTION SPECIFICATIONS

- Optional Diaphragm Valve: Stainless Steel Body
Kel-f Seat, Eigioly
Diaphragm and Viton
seals

Warning: A purge assembly is strongly suggested when using the above regulator with any corrosive gas.

Model Selection Guide

Example: HSS1250V320 = model HSS1 with up to 125 psig delivery pressure, with diaphragm outlet valve and CGA320 connection

Specify:	Maximum Delivery Pressure		Outlet Port	CGA Inlet Connection
HSS1	[***]		[*]	[***]
	Delivery Pressure Range 015 = 0-15 psig 050 = 0-50 psig 125 = 0-125 psig 250 = 0-250 psig 500 = 0-500 psig	Delivery Pressure Gauge 30" Hg - 30 psig 30" Hg - 100 psig 30" Hg - 200 psig 0 - 400 psig 0 - 1000 psig	0 = No Valve (1/4" NPT female) V = Diaphragm Valve	000 = None (1/4" NPT female) 240 = Ammonia 320 = Carbon Dioxide 326 = Nitrous Oxide 330 = Corrosive Gases 346 = Zero Air, Compressed Air 350 = Hydrogen 540 = Oxygen 580 = Argon, Helium, Nitrogen 590 = Zero Air 660 = Refrigerant Gases 705 = Ammonia