

SPECIFICATIONS



OPERATING PARAMETERS

Pressure rating per criteria of CGA E-4; ASME B31; ASME BPVC

Maximum Inlet Pressure

Cv = 4500 psig / 310 bar

Maximum Outlet Pressure

15, 25, 50, 125, 250 psig
103, 172, 345, 862, 1724 kPa
1.0, 1.7, 3.4, 8.6, 17.2 bar

Design Proof Pressure

150% maximum rated

Leak Rate

Internal: Bubble-tight
External: Designed to meet $< 2 \times 10^{-8}$ atm cc/sec He

Operating Temperature

PCTFE seat: -40°F to 140°F / -40°C to 60°C

Flow Capacity

Cv = 0.06

Decaying Inlet Characteristic for Stainless Steel Diaphragm

-0.09 psig / -100 psig
-6 mbar / -6.9 bar

MEDIA CONTACT MATERIALS

Body

316L Stainless Steel, Nickel-Plated Brass

Seat

PCTFE

Diaphragm

316L Stainless Steel

Filter

- 10 micron nominal sintered Bronze
- 10 micron nominal sintered 316 Stainless Steel

Seal

Teflon®

Remaining Parts

Brass, 300 Series Stainless Steel

OTHERS

Connections

Inlet and outlet: 1/4" NPTF
Accessories: 1/4" NPTF

Weight

4.0 lbs / 1.8 kg

Cleaning

CGA 4.1 and ASTM G93



The SG2 Series is a compact, lightweight, high purity two-stage cylinder regulator for specialty, flammable and industrial gases.

Sensitive, extra long-life metal diaphragm ensures gas purity and integrity. User-friendly model number enables the specifier to select optional gauges, relief and shutoff valves, and cylinder connections as part of the regulator assembly.

APPLICATIONS

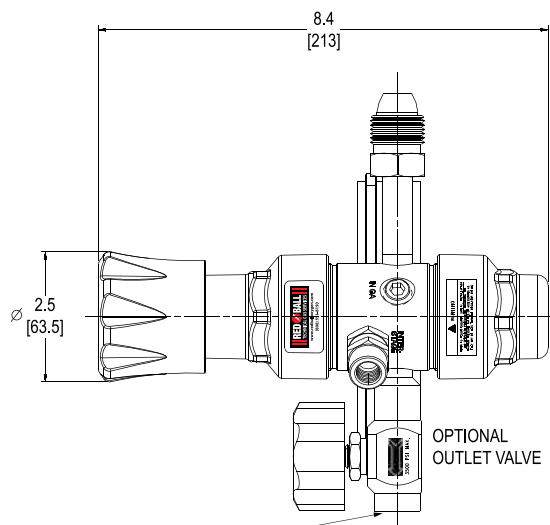
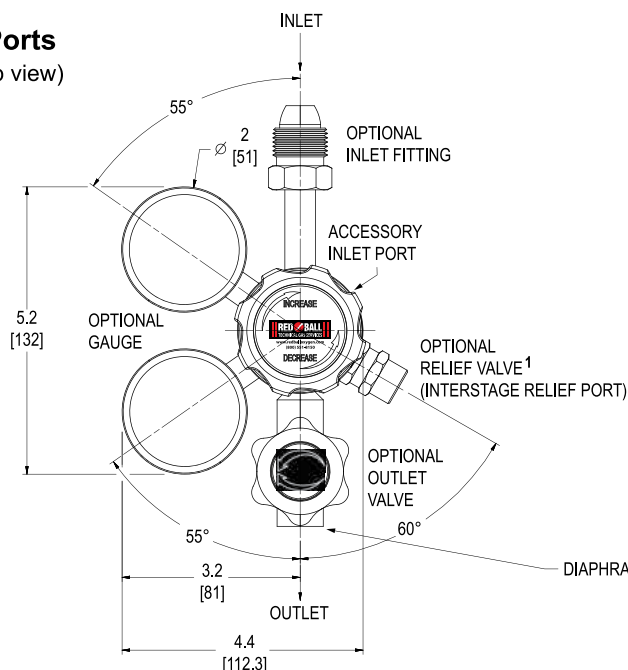
- Laboratory and Point-of-Use Gas Systems in medical, pharmaceutical, food and beverage and other high purity applications
- Process analyzer gases, metal fabrication and specialty and industrial gas cylinders

FEATURES AND BENEFITS

- Cartridge valve design
- Incorporated 10 micron filter
- Filter protects the regulator seat and makes service simple

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6 Ports
(Top view)



*All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets*

SG2 SERIES REGULATOR PART NUMBER SELECTOR

Base Model

Example for selecting a part number:

SG1		6	3	1		0	0
BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGES		DIAPHRAGM MATERIAL	SEAL MATERIAL	PORTS (TOP VIEW)	FLOW C _v
SG2	P - Nickel -Plated Brass 6 - 316L Stainless Steel	1 - 15 psig • 103 kPa • 1.0 bar 2 - 25 psig • 172 kPa • 1.7 bar 3 - 50 psig • 345 kPa • 3.4 bar 4 - 125 psig • 862 kPa • 8.6 bar 5 - 250 psig • 1724 kPa • 17.2 bar		1 - 316L Stainless Steel	Teflon®		1 - 0.06

ACCESSORIES

Extension to Base Model
Part Number
SG2XXXXXX

04		A	P	A	-002
CYLINDER CONNECTIONS		GAUGES ²	RELIEF VALVE ¹	OUTLET VALVE	
00 – None	03 – CGA 540	0 – None	A – None	0 – None	
01 – CGA 296	04 – CGA 580	P – Plug(s)	P – Plug	A – Diaphragm valve	
02 – CGA 350	05 – CGA 590	A – psi / kPa	1 – Teflon® Pipe-away		
C1 – CGA 510	C2 – CGA 660				

GAUGE PRESSURE RANGES ²

OUTLET PRESSURE RANGE	OUTLET GAUGE PRESSURE RANGE	INLET PRESSURE RANGE
SG2X1XXXX – 15 psig / 103 kPa / 1.0 bar	0-30 psig / 200 kPa / 2 bar	ALL
SG2X2XXXX – 25 psig / 172 kPa / 1.7 bar	0-30 psig / 200 kPa / 2 bar	INLET GAUGE PRESSURE RANGE
SG2X3XXXX – 50 psig / 345 kPa / 3.4 bar	0-60 psig / 400 kPa / 4 bar	6000 psig / 41,000 kPa / 400 bar
SG2X4XXXX – 125 psig / 862 kPa / 8.6 bar	0-160 psig / 1100 kPa / 11 bar	
SG2X5XXXX – 250 psig / 1724 kPa / 17.2 bar	0-300 psig / 2000 kPa / 20 bar	

The relief valve is not intended to be a "Pressure Relief Device" as defined by ASME Boiler & Pressure Vessel Code - Section VIII, nor is it intended to be a "Safety Accessory" or "Pressure Limiting Device" as defined by the Pressure Equipment Directive (97/23/EC). The relief valve is intended to indicate a potential problem with the regulator and prevent further damage to the regulator. The relief valve is not intended to protect the downstream process equipment.