

## 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

#### Weight

4.0 lbs / 1.8 kg

### OTHERS

#### Connections

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

#### 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

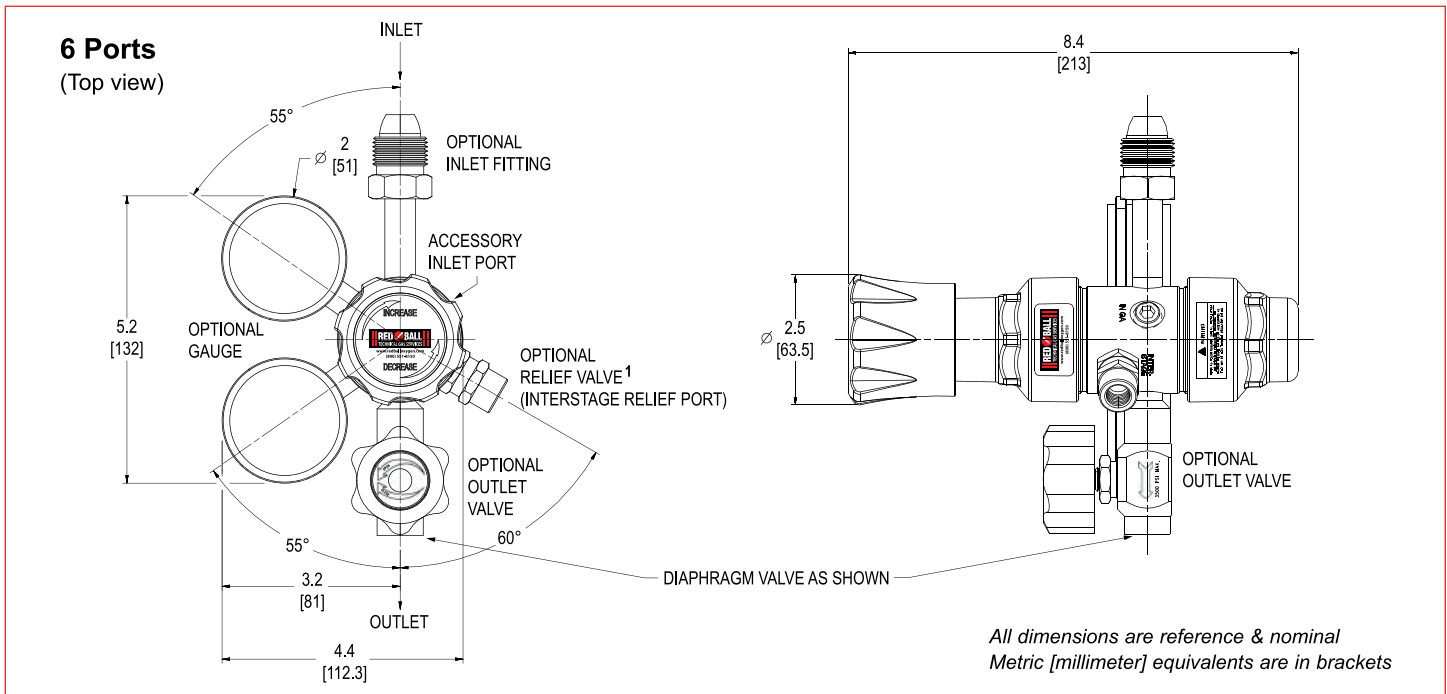
### FEATURES AND BENEFITS

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

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# SG2 SERIES

## PRESSURE REDUCING REGULATORS



## 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 <sub>v</sub> |
| SG2          | <b>P</b> - Nickel -Plated Brass<br><br><b>6</b> - 316L Stainless Steel | <b>1</b> - 15 psig • 103 kPa • 1.0 bar<br><b>2</b> - 25 psig • 172 kPa • 1.7 bar<br><b>3</b> - 50 psig • 345 kPa • 3.4 bar<br><b>4</b> - 125 psig • 862 kPa • 8.6 bar<br><b>5</b> - 250 psig • 1724 kPa • 17.2 bar | <b>1</b> - 316L Stainless Steel | Teflon®       | <b>0</b> - 6 Port<br> | <b>1</b> - 0.06     |

### ACCESSORIES

Extension to Base Model  
Part Number  
SG2XXXXXX

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

### GAUGE PRESSURE RANGES<sup>2</sup>

#### OUTLET PRESSURE RANGE

**SG2X1XXXX** - 15 psig / 103 kPa / 1.0 bar  
**SG2X2XXXX** - 25 psig / 172 kPa / 1.7 bar  
**SG2X3XXXX** - 50 psig / 345 kPa / 3.4 bar  
**SG2X4XXXX** - 125 psig / 862 kPa / 8.6 bar  
**SG2X5XXXX** - 250 psig / 1724 kPa / 17.2 bar

#### OUTLET GAUGE PRESSURE RANGE

**0**-30 psig / 200 kPa / 2 bar  
**0**-30 psig / 200 kPa / 2 bar  
**0**-60 psig / 400 kPa / 4 bar  
**0**-160 psig / 1100 kPa / 11 bar  
**0**-300 psig / 2000 kPa / 20 bar

#### INLET PRESSURE RANGE

ALL

#### INLET GAUGE PRESSURE RANGE

6000 psig / 41,000 kPa / 400 bar

<sup>1</sup>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.