

# Series 4500 Pressure Reducing Regulator

## Two Stage, Diaphragm Type

### Typical Applications:

- Cylinder bottle applications
- Gas and liquid chromatography
- High purity carrier gases
- Zero, span and calibration gases
- Lecture bottle applications
- Research and development labs
- Low flow purge systems
- Industrial controls

The **Model 4500** shown is nickel plated brass with inlet / outlet gauges, 1/8 FNPT gauge ports, 1/4 FNPT inlet & outlet ports, outlet shut off valve, interstage relief valve, 1/8 FNPT captured bonnet ports and 1\_7/16-20 panel mounting threads.



### The Premier 4500 Series Pressure Reducing Regulators offer:

#### Features:

- Very competitive pricing
- Compact size (1.6 in. diameter x 5.5 in. high)
- Machined bar stock body eliminates porosity found in castings
- Reduced particle contamination with 40 micron stainless steel valve cartridge filter
- Stable set pressures as bottle pressure is reduced
- Interstage relief valve
- Stainless diaphragm option minimizes inboard diffusion of air into regulator

#### Specifications:

- ♦ **Maximum control pressure:**
  - 1-25 PSIG
  - 1-50 PSIG
  - 5-100 PSIG
- ♦ **Maximum inlet pressure:** 3500 PSIG
- ♦ **Flow Capacity:** Cv 0.08

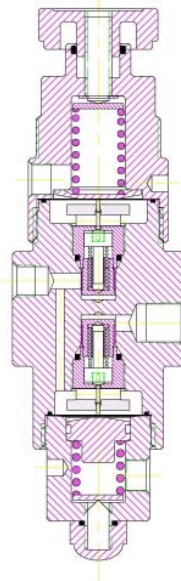
#### Materials of Construction:

- ♦ **Body & Bonnet:**
  - SAE 360 Brass
  - SAE 360 Brass, Electroless Nickel Plated
  - 316L Stainless
  - 6061-T6 Aluminum, Clear Anodized
  - Monel®
- ♦ **Diaphragms:**
  - Neoprene
  - 316 Stainless Steel
- ♦ **Stainless Diaphragm Seal:** Teflon®
- ♦ **Main Valve Seal:** Teflon®
- ♦ **Valve Seat:** Teflon®
- ♦ **First Stage Relief Valve Seal:** Teflon®

#### Porting:

- ♦ **Inlet Porting:**
  - 1/8" FNPT
  - 1/4" FNPT
  - #4 SAE J1926
  - #6 SAE J1926
  - C-10 (5/8-18 UNF)
  - All CGA Connections Available:
    - CGA 165, 180, 320, 350, 510, 540, 580, etc.

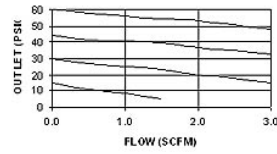
#### Cross Sectional View



**Flow Chart**  
Regulator Discharge Characteristic Curves  
(1500 PSIG Inlet Pressure)

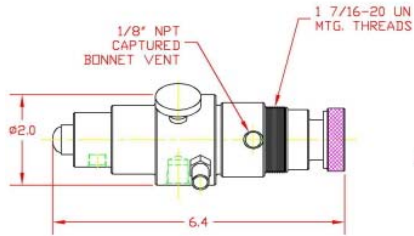
◆ **Outlet Porting:**

- 1/8" FNPT
- 1/4" FNPT
- #4 SAE J1926
- #6 SAE J1926
- 9/16-18 Male "B" Thread Hose Connection

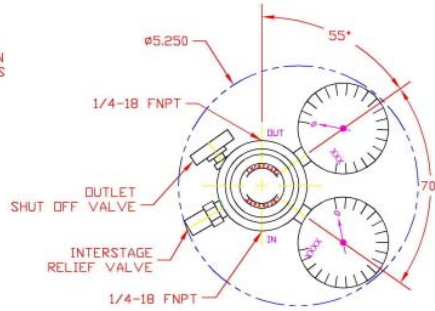


**Options:**

- Anodized Colors for Aluminum Bodies & Bonnets
- Captured Bonnet Vent
- Gauges
- Panel Mount Bonnet & Nut
- Outlet Shut Off Valve
- Private Label



**Installation Dimensions**



Monel® is a registered trademark of the Special Metals Corporation  
Teflon® & Viton® are registered trademarks of E.I. du Pont de Nemours and Company

The **Model 4500 Pressure Reducing Regulator's** design is remarkably flexible. Contact **Premier Industries** for a custom **Model 4500 Regulator** to meet your exact needs.