

# REGULATOR

## SERIES HSG-LB165 STAINLESS STEEL HIGH PURITY LECTURE BOTTLE REGULATOR - CORROSIVE SERVICES

### Description

The stainless steel, single stage high purity lecture bottle regulators, Series HSG-LB165, are designed for high purity, corrosive, toxic gas application where slight variance in delivery pressure is acceptable as tank pressure decays. The materials of construction will not contaminate the gas stream, and the regulators are highly resistant to inboard diffusion of atmospheric contaminants. A stainless steel needle valve is installed in the outlet.



HSG-LB165

### Standard Specification

Maximum inlet pressure	: 3000 psig
Outlet ranges	
Model HSG-LB165/15	: 2 - 15 psig
Model HSG-LB165/40	: 4 - 40 psig
Outlet port	: 1/4" NPT (M)
Temperature range	: -17°C to +60°C
Flow coefficient	: $C_v = 0.135$
Helium leak rate	: $10^{-9}$ scc/sec
Outlet pressure rise	: < 0.92 psig / 100 psig inlet decay

### Material Of Construction

Body	: 316L stainless steel
Spring housing cap	: Nickel-plated brass
Diaphragm	: 316L stainless steel
Nozzle	: 316L stainless steel
Seat	: PCTEF™
Seals	: Teflon and PCTEF™
Filter	: 10 Micron sintered stainless steel
Poppet	: 316L stainless steel
Seat return spring	: 316L stainless steel
Pressure adjusting spring	: Music wire
Adjusting knob	: Acrylonitrile butadiene styrene
Gauges	: 316L stainless steel

### Key Features

- Compact and lightweight
- Able to withstand internal vacuums generated during purging operation
- 1-1/2" stainless steel diaphragm
- 2" stainless steel dual scale gauges
- Cartridge type seat assembly
- Stainless steel body with 4 ports
- Stainless steel needle outlet valve
- Unique diaphragm to reduce potential leak paths

### Typical Applications

- Regulation of corrosive and toxic gases
- Lecture bottles and A001 size cylinders
- University laboratories
- Chemical research
- Pharmaceutical manufacturing
- Semiconductor
- Emission analysis