

REGULATOR

SERIES HSG-SGS500 STAINLESS STEEL SINGLE STAGE HIGH PURITY REGULATOR - CORROSIVE SERVICE

Description

The stainless steel, diaphragm type, high purity single stage regulators, Series HSG-SGS500, are designed for ultra high purity, corrosive, reactive or toxic gas applications where slight variance in delivery pressure is acceptable as cylinder pressure decreases. The materials of construction will not off-gas and contaminate the gas stream. The design is highly resistant to inboard diffusion of atmospheric contaminants.



HSG-SGS500

Standard Specification

Maximum inlet pressure	: 3000 psig
Outlet ranges	
Model HSG-SGS500/40	: 2 - 40 psig
Model HSG-SGS500/80	: 4 - 80 psig
Model HSG-SGS500/125	: 5 - 125 psig
Outlet port	: 1/4" NPT (F)
Temperature range	: -40°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
Weight	: 1.64 kg

Material Of Construction

Body	: 316 stainless steel
Spring housing cap	: Chrome-plated brass
Diaphragm	: 316 stainless steel
Nozzle	: 316 stainless steel
Seat	: PCTFE
Seals	: Teflon
Poppet	: 316 stainless steel
Inboard Filter	: 10 micron sintered stainless steel
Seat return spring	: 316 Stainless steel
Pressure adjusting spring	: Heat-treated spring steel
Adjusting Knob	: Acrylonitrile Butadiene Styrene

Key Features

- Flow straightening technology
- Minimal purge volumes for maximum safety
- Able to withstand internal vacuums generated during purging operation
- Metal-to-metal diaphragm seal
- 1.6" stainless steel diaphragm for minimal footprint
- 2" dual scale gauges
- 2" stainless steel bar stock body with 6 ports (3 high / 3 low) for maximum installation flexibility
- Body is drilled and tapped for rear bracket mounting
- Housing cap is threaded for easy panel mounting

Typical Applications

- Semiconductor process gases
- Research sampling systems
- Regulation of corrosive gases
- Laser gas systems
- Process analyzers
- CEM and EPA Protocol Standards
- Emission Monitoring

REGULATOR

SERIES HSG-SGS510 STAINLESS STEEL SINGLE STAGE HIGH PURITY REGULATOR - CORROSIVE SERVICE

Description

The stainless steel, diaphragm type, high purity single stage regulators, Series HSG-SGS510, are designed for ultra high purity, corrosive, reactive or toxic gas applications where slight variance in delivery pressure is acceptable as cylinder pressure decreases. The materials of construction will not off-gas and contaminate the gas stream. The design is highly resistant to inboard diffusion of atmospheric contaminants. The HSG-SGS510 features all welded vacuum couple ring (VCR®) high performance face seal couplings.



HSG-SGS510

Standard Specification

Maximum inlet pressure	: 3000 psig
Outlet ranges	
Model HSG-SGS510/40	: 2 - 40 psig
Model HSG-SGS510/80	: 4 - 80 psig
Model HSG-SGS510/125	: 5 - 125 psig
Outlet port	: 1/4" NPT (F)
Temperature range	: -40 °C to +60°C
Flow Coefficient	: $C_v = 0.083$
Helium leak rate	: 1×10^{-9} scc/sec
Outlet pressure rise	: <0.53 psig / 100 psig inlet decay
Weight	: 1.64 kg

Material Of Construction

Body	: 316 Stainless steel
Spring housing cap	: Chrome-plated brass
Diaphragm	: 316 stainless steel
Nozzle	: Brass bar stock
Seat	: PCTFE
Seals	: Teflon
Poppet	: Stainless steel
Inboard Filter	: 10 micron sintered stainless steel
Seat return spring	: 316 Stainless steel
Pressure adjusting spring	: Heat-treated spring steel
Adjusting Knob	: Acrylonitrile Butadiene Styrene

Key Features

- Minimal purge volumes for maximum safety
- VCR® all welded high performance face seal coupling
- Able to withstand internal vacuums generated during purging operation
- 1.6" (4.1cm) 316L stainless steel diaphragm for minimal footprint in complex gas systems with metal-to-metal seal
- 2" dual scale gauges
- New control knob allow precise setting for maximum delivery and locking is easily attained by pressing in the cap
- Body is drilled and tapped for rear bracket mounting
- Housing cap is threaded for easy panel mounting

Typical Applications

- Semiconductor process gases
- Research sampling systems
- Regulation of corrosive gases
- Epitaxial Reactors
- Diffusion Furnaces
- High-Purity Gas Handling