



Model 9460 and 9470 Series

ULTRA-LINE® Dual-Stage Ultra High-Purity Stainless Steel Regulator with Tied Diaphragms



Description

Ultra high-purity stainless steel regulators for use with semiconductor applications.

Applications

- All semiconductor industry applications requiring precise pressure control.

Design Features/Components

- Available in two choices of materials: 316L stainless steel with 316 stainless steel internals (Model 9460 Series), or 316L stainless steel with Hastelloy C-22 internals (Model 9470 Series).
- Dual tied seat design ensures regulator closure under extreme conditions
- 2" inlet and delivery pressure gauges
- Autogeneous butt-welded connections
- The seats are the only non-metallic components in the process stream
- Standard 10 Ra surface finish
- Sealed and ventable bonnets
- Helium leak tested to 1×10^{-9} scc/sec
- Assembled, tested and packaged in a Class 100 clean area

Materials of Construction

	<u>Model 9460 Series</u>	<u>Model 9470 Series</u>
Gauges:	316L stainless steel	316L stainless steel
Body:	316L stainless steel	316L stainless steel
Bonnets:	Nickel plated brass	Nickel plated brass
Diaphragms:	316 stainless steel	Hastelloy C-22
Seats:	Kel-F 81	Kel-F 81
Linkages:	316 stainless steel	Hastelloy C-22
Springs:	316 stainless steel	Hastelloy C-22
Seals:	Metal to metal	Metal to metal

Specifications

Maximum Inlet Pressure:	3000 psig (20,700)
Maximum Flow Rate:	5 SCFM (150 SLPM)
(At 3000 psig Inlet, N ₂)	
Flow Capacity (Cv):	0.05
Operating Temperature:	-40°F to 160°F (-40°C to 71°C)
Porting:	1/4" VCR compatible
Shipping Weight:	5 lbs

Ordering Information

All of the Model 9460 and 9470 Series are shipped double bagged under purified Argon. All gauges used are 100% Helium leak tested and have female 1/4" VCR compatible connections.

Model Number	Delivery Pressure Range	Delivery Pressure Gauge	Inlet Pressure Gauge
316L Stainless Steel Regulators			
9463-4-V4FM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9463-4-V4MM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9467-4-V4FM	0-100 psig	30" vac-0-200 psig	0-3000 psig
9467-4-V4MM	0-100 psig	30" vac-0-200 psig	0-3000 psig
316L Stainless Steel Regulators with Hastelloy C-22 Internal Parts			
9473-4-V4FM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9473-4-V4MM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9477-4-V4FM	0-100 psig	30" vac-0-200 psig	0-3000 psig
9477-4-V4MM	0-100 psig	30" vac-0-200 psig	0-3000 psig

Inlet/Outlet:

F = Female M = Male