



## Model 9300 and 9310 Series ULTRA-LINE® Single-Stage Ultra High-Purity Stainless Steel Regulator



### Description

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

### Applications

- All semiconductor industry gas applications, such as dispensing of forming gases, blanketing procedures, or etching operations.

### Design Features/Components

- Available in two choices of materials: 316L stainless steel with 316 stainless steel internals (Model 9300 Series), or 316L stainless steel with Hastelloy C-22 internals (Model 9310 Series).
- 2" inlet and delivery pressure gauges
- Autogeneous butt-welded connections
- Only one non-metallic seal in the process stream
- Standard 10 Ra surface finish
- Sealed and ventable bonnet
- Helium leak tested to  $1 \times 10^{-9}$  scc/sec
- Assembled, tested and packaged in a class 100 clean area
- Body screw thread tapped for back mounting

### Materials of Construction

	<u>Model 9300 Series</u>	<u>Model 9310 Series</u>
Gauges:	316L stainless steel	316L stainless steel
Body:	316L stainless steel	316L stainless steel
Bonnet:	Nickel plated brass	Nickel plated brass
Diaphragm:	316 stainless steel	Hastelloy C-22
Seat:	Kel-F 81	Kel-F 81
Linkage:	316 stainless steel	Hastelloy C-22
Spring:	316 stainless steel	Hastelloy C-22
Seals:	Metal to metal	Metal to metal

### Specifications

Maximum Inlet Pressure:	3000 psig (20,700) kPa
Maximum Flow Rate:	11 SCFM (320 SLPM)
(At 3000 psig Inlet, N <sub>2</sub> )	
Flow Capacity (Cv):	0.09
Operating Temperature:	-40°F to 160°F (-40°C to 71°C)
Porting:	1/4" VCR compatible
Porting Configuration:	2 High, 2 Low
Shipping Weight:	5 lbs

### Ordering Information

All of the Model 9300 and 9310 Series are shipped double bagged under purified Argon. All gauges used are 100% Helium leak tested and have 1/4" VCR connections.

Model Number	Delivery Pressure Range	Delivery Pressure Gauge	Inlet Pressure Gauge
<b>316L Stainless Steel Regulators</b>			
9303-4-V4FM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9303-4-V4MM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9307-4-V4FM	0-100 psig	30" vac-0-200 psig	0-3000 psig
9307-4-V4MM	0-100 psig	30" vac-0-200 psig	0-3000 psig
<b>316L Stainless Steel Regulators with Hastelloy C-22 Internal Parts</b>			
9313-4-V4FM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9313-4-V4MM	0-30 psig	30" vac-0-60 psig	0-3000 psig
9317-4-V4FM	0-100 psig	30" vac-0-200 psig	0-3000 psig
9317-4-V4MM	0-100 psig	30" vac-0-200 psig	0-3000 psig

Inlet/Outlet:

F = Female M = Male