

## U31 SERIES ULTRA HIGH PURITY REGULATOR

U31 Series dual-stage regulators are hand adjustable, pressure reducing regulators for applications ranging from non-corrosive, corrosive, and toxic gases. Our metal-to-metal diaphragm to body seal is designed to minimize leakage and to provide excellent accuracy and longevity.



» U31SLBK-DHP-91-91



» U31SLAK-DHW-92-92

### Features

- 316L or 316L VAR stainless steel body
- Metal to metal diaphragm to body seal
- Easy front panel and rear bracket mounting
- Gauge ports are standard with 1/4" face seal male. Internal 1/4" face seal female is also available
- Fully internal electropolished
- Cleaned, assembled, and packaged for high-purity semi-conductor applications
- High-cycle life
- 100% Helium-leak tested

### Materials

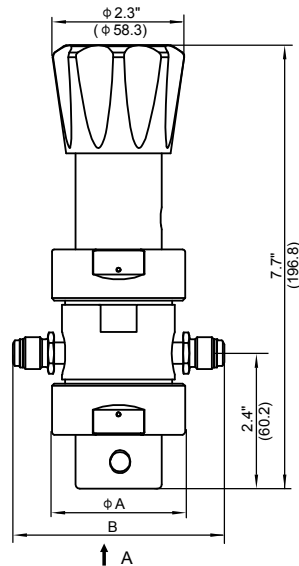
- Body: 316L, 316L VAR
- Seat: PCTFE\*, Vespel®
- Diaphragm: HC22

### Specifications

- Max. Inlet Pressure: 3000psi (206 bar), 4500psi (310bar)
- Max. Outlet Pressure: 0~25psi (1.7 bar), 0~50psi (3 bar), 0~75psi (5.2 bar), 0~100psi (7bar), 0~150psi (10bar), 0~250psi (17 bar)
- Temperature: -40°F ~ 165°F(-40°C ~ 74°C)
- Cv: 0.05
- Inboard leakage:  $1 \times 10^{-9}$  atm/sec He
- Across seat leakage:  $4 \times 10^{-8}$  atm/sec He
- Proof pressure: 150% of maximum rated pressure
- Burst pressure: 400% of maximum rated pressure
- Surface Finish: 15 uin
- Internal Volume: 15.1cc

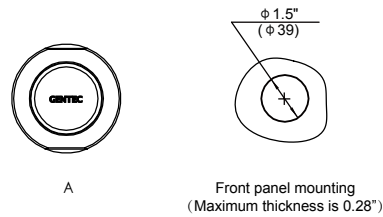
\*: Standard material

Dimensions

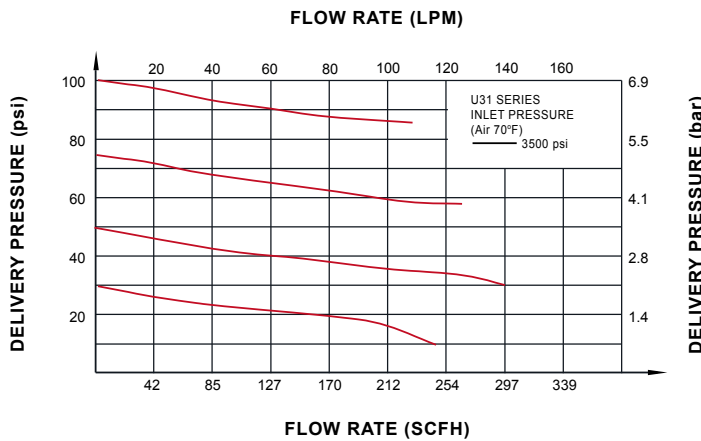


Dimension: in.(mm)

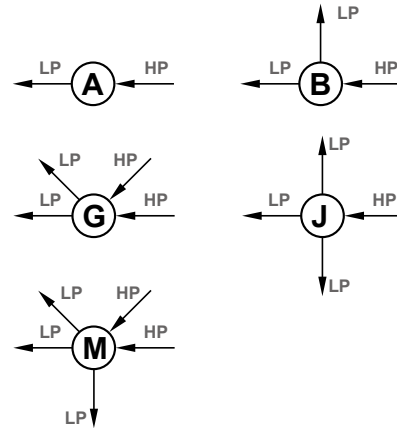
Connection Type	Dimension in.(mm)	
	A	B
91 1/4" swivel female FSR	2.25" (57.2)	3.7" (94)
92 1/4" swivel male FSR		3.7" (94)
95 1/2" swivel female FSR		4.7" (119.4)
96 1/2" swivel male FSR		4.7" (119.4)
41 1/4" weld stub		2.96" (75.2)
42 3/8" weld stub		2.96" (75.2)



Flow Data



Regulator Port Configurations



Ordering Information

EX: U31	SL	B	K	- D	I	P -	91 - 91	- P
Series	Body	Ports	Seat	Inlet Pressure	Outlet Pressure	Pressure Gauge	Inlet / Outlet Connection	Options
U31	SL: 316L SLV:316L VAR	A B G J M	K: PCTFE V: Vespel®	C: 4500 psi D: 3000 psi	G: 0 ~ 250 psi H: 0 ~ 150 psi I: 0 ~ 100 psi J: 0 ~ 75 psi K: 0 ~ 50 psi L: 0 ~ 25 psi	W: Without Gauge P: psi / bar Gauge K: psi / kPa Gauge	91, 92, 95, 96 41, 42 .....	None: Ra 15 µin P: Panel Mounting H: HC22 Nozzle and stem

