

U12 SERIES TIED-DIAPHRAGM ULTRA HIGH PURITY REGULATOR

U12 series single stage Tied-Diaphragm ultra high purity regulator is developed for the semiconductor industry, it is manufactured in accordance with SEMI requirement and assembled, tested and packaged in a class 100 clean room.



U12SLBK-DHP-VSM4-E

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
- 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



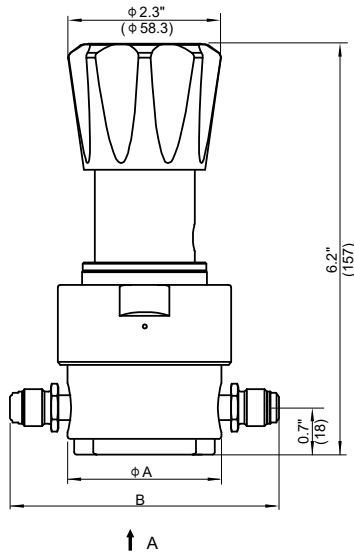
U12SLAK-DHW-VSF4-E

Specifications

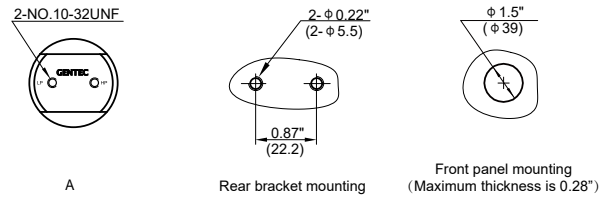
- Max. Inlet Pressure: 500psi (35 bar), 3000psi (206 bar)
- Max. Outlet Pressure: 0~25psi (1.7 bar), 0~50psi (3 bar), 0~75psi (5.2 bar), 0~100psi (7bar), 0~150psi (10bar)
- 30" Hg Vac~30psi, 30" Hg Vac~60psi, 30" Hg Vac~100psi
- Temperature: -40°F ~ 165°F(-40°C ~ 74°C)
- Cv: 0.45
- Inboard leakage: 1×10^{-9} atm/sec He
- Across seat leakage: 4×10^{-8} atm/sec He
- Proof pressure: 150% of maximum rated pressure
- Burst pressure: 400% of maximum rated pressure
- Surface Finish: 10 uin
- Internal Volume: 17.4 cc

*: Standard material

Dimensions

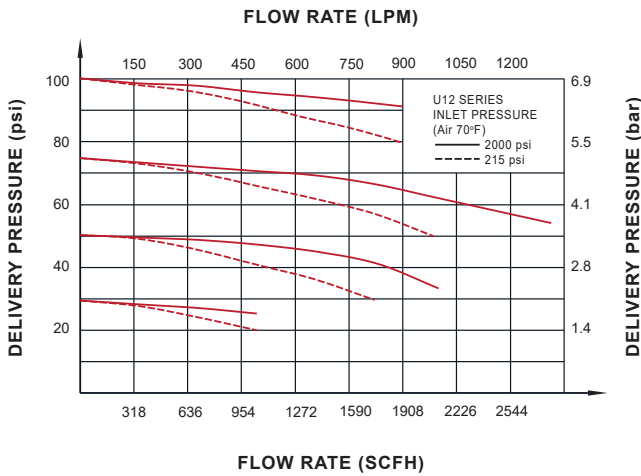


Connection Type	Dimension in.(mm)		
	A	B	
VSF4	1/4" swivel female FSR	2" (50.8)	3.7" (94)
VSM4	1/4" swivel male FSR	2" (50.8)	4" (101.6)
VSF8	1/2" swivel female FSR	2.5" (63.5)	5.22" (132.6)
VSM8	1/2" swivel male FSR		5.22" (132.6)
TW6	3/8" weld stub	2.5" (63.5)	4" (101.6)
TW8	1/2" weld stub		4.34" (110.2)

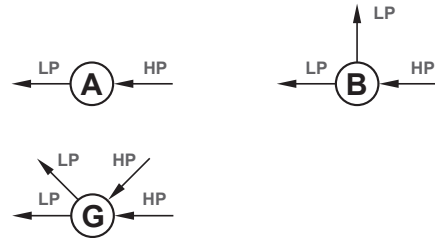


Dimension: in.(mm)

Flow Data



Regulator Port Configurations



Material Configuration				
	U12SL	U12SLV	U12SLV***-SH	U12SLV***-H
Body	316L	316L VAR	316L VAR	316L VAR
Diaphragm	HC-22	HC-22	HC-22	HC-22
Stem	316L	316L	HC-22	HC-22
Nozzle	316L	316L	316L	HC-22
Seat	PCTFE	PCTFE	PCTFE	PCTFE
Surface Finish	10µin	10µin	10µin	10µin

Ordering Information

EX: U12	SL	B	K	- D	I	P	- VSF4	- E	- H	- P
Series	Body	Ports	Seat	Inlet Pressure	Outlet Pressure	Pressure Gauge	Inlet / Outlet Connection	Surface Finish	Corrosion Resistance	Options
U12	SL: 316L SLV:316L VAR	A B G	K: PCTFE V: Vespel®	D: 3000 psi F: 500 psi	H: 0 ~ 150 psi I: 0 ~ 100 psi J: 0 ~ 75 psi K: 0 ~ 50 psi L: 0 ~ 25 psi Q: 30" Hg Vac~30 psi R: 30" Hg Vac~60 psi S: 30" Hg Vac~100 psi	W: Without Gauge P: psi / bar Gauge K: psi / kPa Gauge	VSF4, VSM4 VSF8, VSM8 TW6, TW8	E: Ra 10 µin	None: 316L nozzle and stem SH: HC22 stem and 316L nozzle H: HC22 stem and nozzle	None: Rear Bracket Mounting P: Panel Mounting

