

U21 SERIES

Ultra High Purity Regulator

Solutions for Life

U21 Series single-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.



» U21SLGK-DIP-91-91

Surface Finish

- Standard Ra: 20 μm
- Optional Ra (EP): 10 μm

Internal Volume

- 4.6 cc

*: Standard Material

Features

- 316L 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 semiconductor applications
- High-cycle life
- 100% Helium-leak tested

Materials

- Body: 316L stainless steel
- Seat: PCTFE*, Vespel®
- Diaphragm: 316L stainless steel
- Poppet: 304 stainless steel
- Remaining part: 316 stainless steel

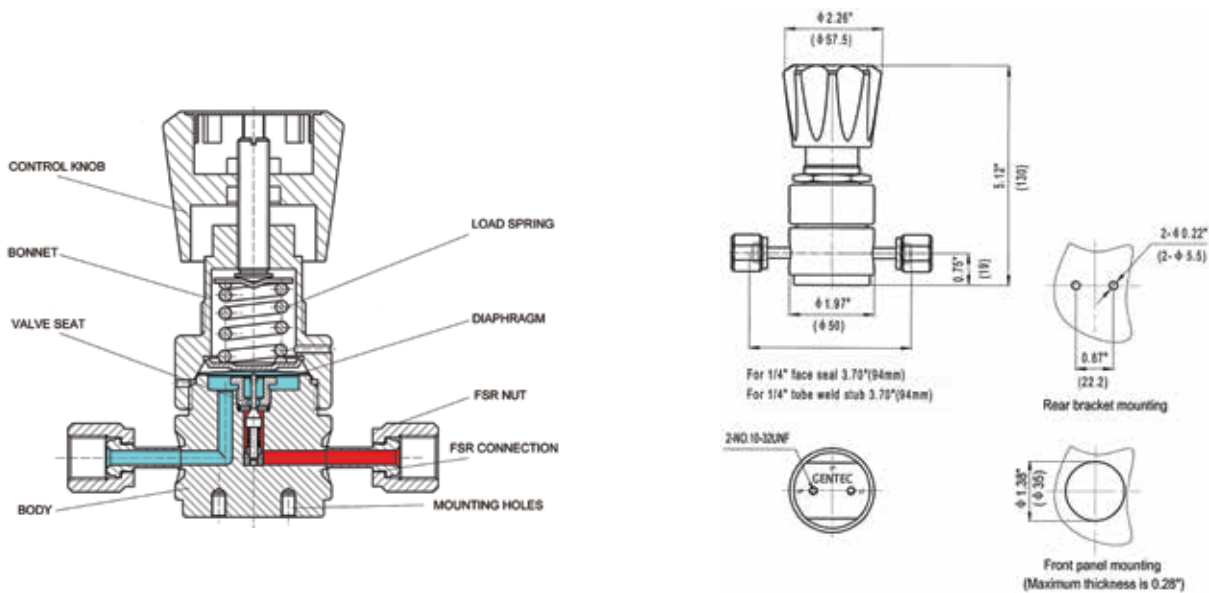
Functional Performance

- Flow capacity: Cv=0.14
- Maximum leak Rate:
 - Inboard leakage: 2×10^{-9} atm cc/sec He
 - Across seat leakage: 4×10^{-8} atm cc/sec He
- Proof pressure: 150% of maximum rated pressure
- Burst pressure: 400% of maximum rated pressure

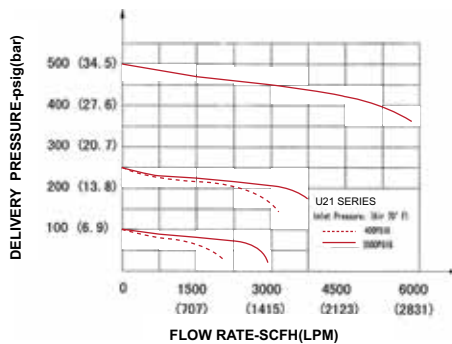
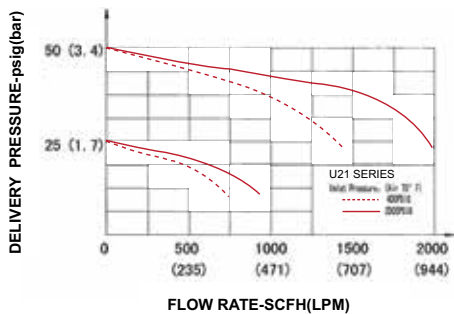
Operating Conditions

- Maximum inlet pressure: 500 psi (35 bar),
3000 psi (206 bar)
- Outlet pressure: 0 ~ 25 psi (1.7 bar), 0 ~ 50 psi (3 bar),
0 ~ 100 psi (7 bar), 0 ~ 250 psi (17 bar),
0 ~ 500 psi (35 bar)
- Temperature: -40°F ~ 165°F (-40°C ~ 74°C)

Dimensions



Flow Data



Ordering Information

EX: U21	SL	B	K	- D	F	P -	91 - 92	- P
Series	Body	Ports	Seat	Inlet Pressure	Outlet Pressure	Gauge*	Inlet / Outlet Connection	Options
U21	SL: 316L	A B G J M	K: PCTFE V: Vespel®	D: 3000 psi F: 500 psi	F: 0~500 psi G: 0~250 psi I: 0~100 psi K: 0~50 psi L: 0~25 psi	W: Without Gauge P: psi / bar Gauge	90: 1/4" internal female FSR 91: 1/4" swivel female FSR 92: 1/4" swivel male FSR 41: 1/4" weld stub	E: Ra 10 µin P: Panel Mounting H: Hastelloy® Diaphragm

*: Gauges' connection: 1/4"FSR , other connection type please conect GENTEC.