

Single Stage Pressure Regulator

VSR-210UB Series

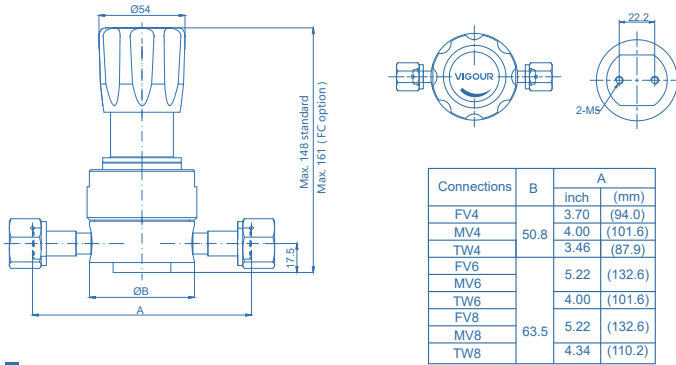
VIGOUR

Product Feature

- Single-stage pressure regulator
- 10µin. Ra surface finish (25µin. Ra optional)
- Minimized internal volume for short purge times
- All materials used meet ASTM A479 / A484 / A276 standards
- Internal connectors for pressure gauges
- Force compensation has wider flow capacity
- High control accuracy
- Metal-to-metal seal to atmosphere
- Simple outlet pressure limitation by hand-wheel
- 100% helium-leak-tested
- Tied-diaphragm design



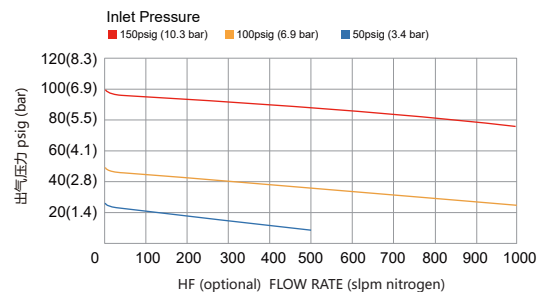
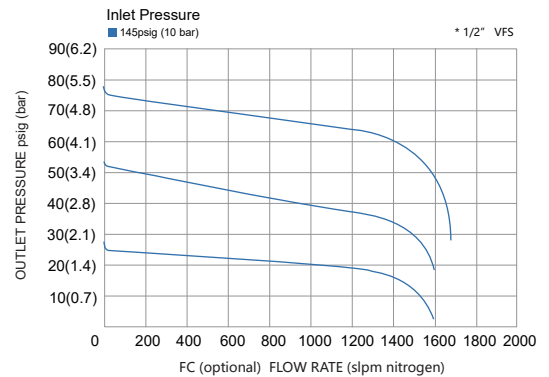
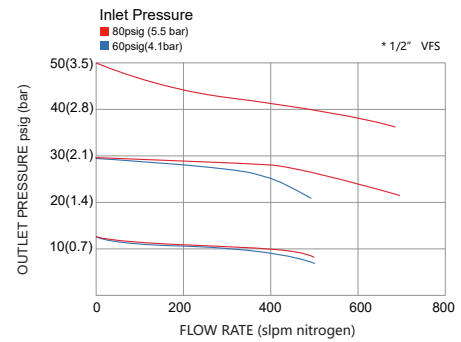
Dimensions (mm)



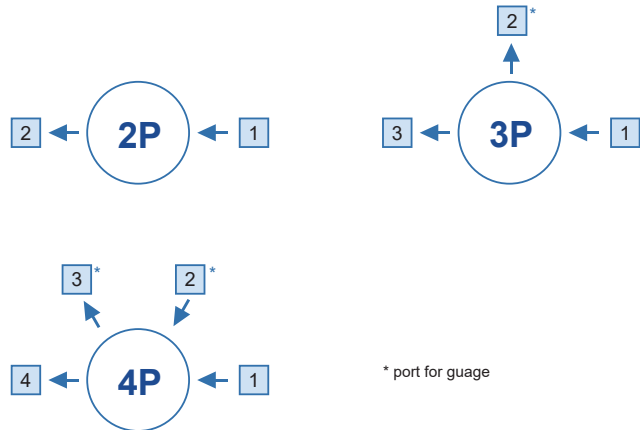
Technical Data

Type:	single-stage
Inlet pressure P ₁ :	Max. 3000 psig (200bar)
Outlet pressure P ₂ :	Vac to 30/60/100/150/250 psig (2/4/7/10/17bar)
Proof pressure:	2550 psig (175bar)
Burst pressure:	8000 psig (550bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat:	PCTFE (Vespal® optional)
Diaphragm:	Hastelloy® C276
Inlets and Outlets:	1/4" / 3/8" or 1/2" VFS fitting or tube weld
Bonnet port:	1/8" NPT(F) (on panel mount option, bonnet port is not threaded)
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar·l/s He
(via seat)	1x10 ⁻⁸ mbar·l/s He
Flow capacity:	Cv=0.65, Cv=1.1 (HF option)
Supply pressure effect:	3.5 psig rise in delivery pressure per 100 psig source pressure drop
	4.2 psig rise in delivery pressure per 100 psig source pressure drop (FC option)
Weight:	approx. 2.0kg (depending on connections or options)

Flowchart



Ordering Information



Inlet/Outlet Connection

FV4: 1/4" VFS female
MV4: 1/4" VFS male
FV6: 3/8" VFS female
MV6: 3/8" VFS male

FV8: 1/2" VFS female
MV8: 1/2" VFS male
FV12: 3/4" VFS female
MV12: 3/4" VFS male

IFV4: 1/4" (gauge female threaded connection machined on the body)
TW4: 1/4" tube weld
TW6: 3/8" tube weld

TW8: 1/2" tube weld
TW12: 3/4" tube weld
P: gauge (1/4" VFS fitting)
IP: gauge (IFV4 fitting)

* Other connection standard, consult factory

Port Selection

VSR - 210UBPS - 117 - V4 - 4P - 1 - 2 - 3 - 4 - R25-HF-FC-VS-P

Installation

None: bottom mount
P: panel mount

* Panel hole Φ 37mm

Materials

S: 316L
SHP: 316L body
Hastelloy® C22 poppet

*All options diaphragm material is Hastelloy® C276

Inlet Pressure

20: 300 psig
117: 1700 psig (standard)
200: 3000 psig*

* Not available with outlet pressure:
V2 / V4 / 2 / 4

Port Config

2P: 2 ports
3P: 3 ports
4P: 4 ports

Outlet Pressure

V2: Vac to 30 psig*
V4: Vac to 60 psig*
V7: Vac to 100 psig*
V10: Vac to 150 psig*
2: to 30 psig
4: to 60 psig
7: to 100 psig
10: to 150 psig
P17: Preset to 250 psig*

* 250 psig outlet pressure preset at
800 psig (55 bar) inlet pressure.

* With the V option, the negative pressure
can not be adjusted, only the pressure
gauge shows the negative pressure.

Process Specification

None: VS001B
P: VS001A

* For details, please refer to the appendix.

Valve seat Option

None: PCTFE
VS: VespeI®

Option

FC: Force compensation

* Force compensation feature inlet
pressure Max. 300 psig
* FC option is available with
connection size 1/2 or 3/4 inch
* Not available with outlet pressure:
V2 / V4 / 2 / 4
* connection size 3/4 inch
pressure Max. 2400 psig

Cv Option

None: Cv=0.65
HF: Cv=1.1

Surface Finish

None: 10 μ m. Ra
R25: 25 μ m. Ra

Ordering Example

VSR - 210UBS - 117 - V4 - 2P - MV4 - MV4

1 - 2

