

Single Stage Pressure Regulators

VSR-410UB Series

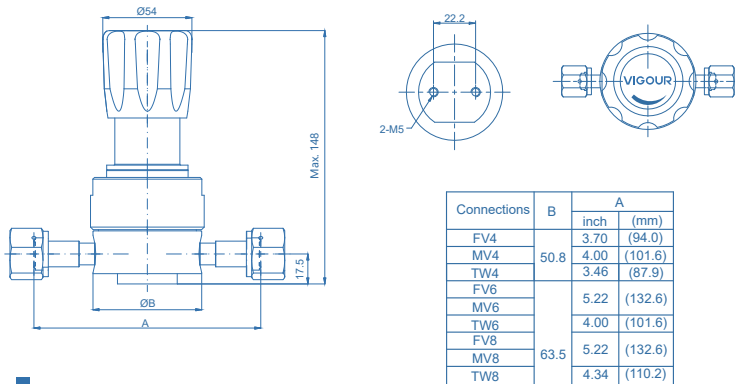
VIGOUR

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
- The product is fabricated in compliance with the VS001B process specification
- Internal connectors for pressure gauges
- High control accuracy
- Metal-to-metal seal to atmosphere
- Simple outlet pressure limitation by hand-wheel
- 100% helium-leak-tested
- Tied-diaphragm design
- Sub-atmospheric pressure delivery optional



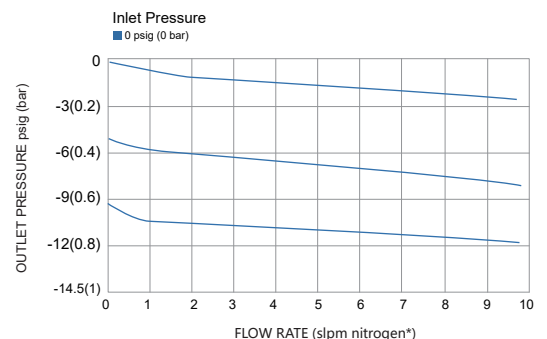
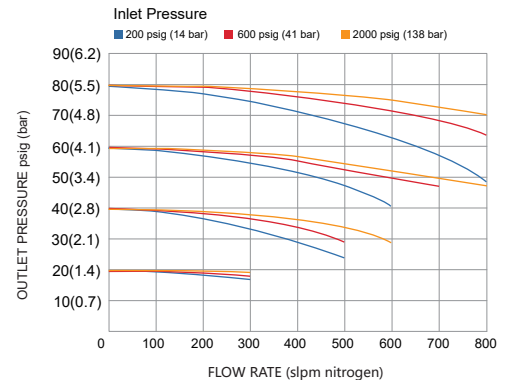
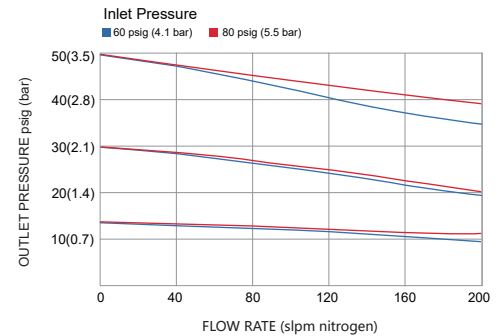
Dimensions (mm)



Technical Data

Type:	single-stage
Inlet pressure P ₁ :	Max. 3000 psig (200bar)
Outlet pressure P ₂ :	Vac to 30/60/100/150 psig (2/4/7/10bar)
Prosf pressure:	4000 psig (275bar)
Burst pressure:	8000 psig (550bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat:	PCTFE (Vespel® 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=0.45
Supply pressure effect:	1.6 psig rise in delivery pressure per 100 psig source pressure drop
Weight:	approx. 2.1kg (depending on connections or options)

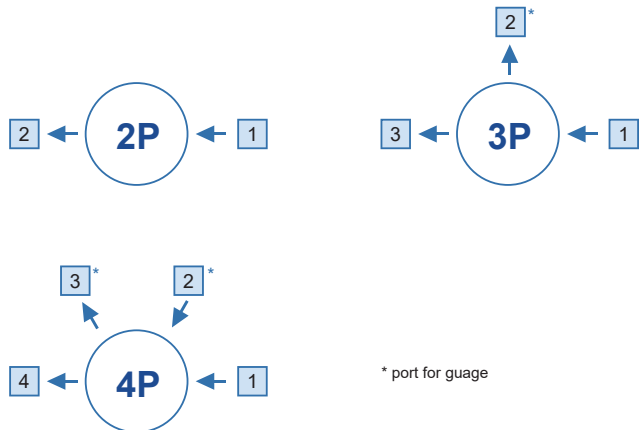
Flowchart



* The volumetric flow rate under normal conditions (0°C, 1 atm) when N₂ gas is flowing.



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

IFV4: 1/4" (gauge female threaded connection
machined on the body)

TW4: 1/4" tube weld

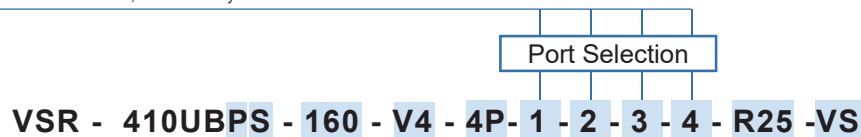
TW6: 3/8" tube weld

TW8: 1/2" tube weld

P: gauge (1/4" VFS fitting)

IP: gauge (IFV4 fitting)

* Other connection standard, consult factory



Installation

None: bottom mount

P: panel mount

* Panel hole $\Phi 40\text{mm}$

Materials

S: 316L body

Hasterloy® C22 poppet

*All options diaphragm material is Hastelloy® C276

Inlet Pressure

20: 300 psig

160: 2300 psig (standard)

200: 3000 psig*

* Not available with outlet pressure:
VC2 / V2 / V4 / 2 / 4

Port Config

2P: 2 ports

3P: 3 ports

4P: 4 ports

Outlet Pressure

VC2: -12.5~30 psig*

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

* VC2 optional feature inlet pressure
Max. 300 psig.

* With the exception of the VC2 option,
the V option cannot adjust the negative
pressure and can only be presented by
the pressure gauge

Valve seat Option

None: PCTFE

VS: Vespel®

Surface Finish

None: 10 $\mu\text{in. Ra}$

R25: 25 $\mu\text{in. Ra}$

Ordering Example

VSR - 410UBS - 160 - V4 - 2P - MV4 - MV4
1 - 2

