

Single Stage Pressure Regulators

VSR-50UC Series

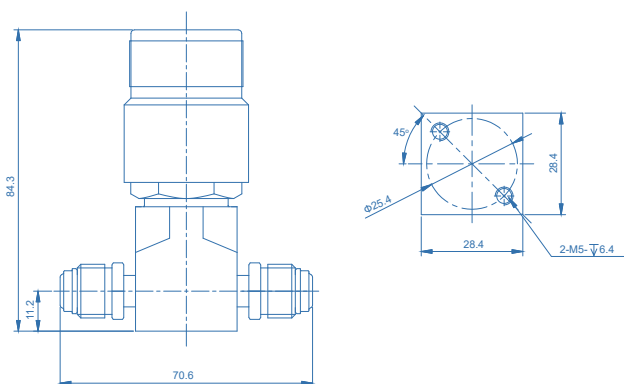
VIGOUR

Product Feature

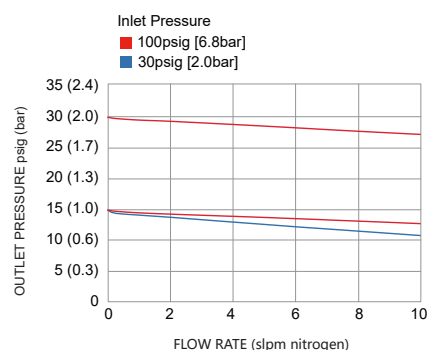
- Single-stage pressure regulator
- 15µin. Ra max, 10µin Ra average surface finish
(10µin. Ra max, 7µin. Ra max. 5µin. Ra max optional)
- Minimized internal volume for short purge times
- All materials used meet ASTM A479 / A484 / A276 standards
- The product is fabricated in compliance with the VS001A process specification
- Internal connectors for pressure gauges
- Flow capacity: to 15 slpm (standard), to 30 slpm (optional)
- 100% helium-leak-tested



Dimensions (mm)



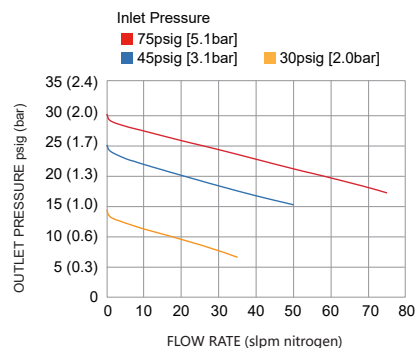
Flowchart



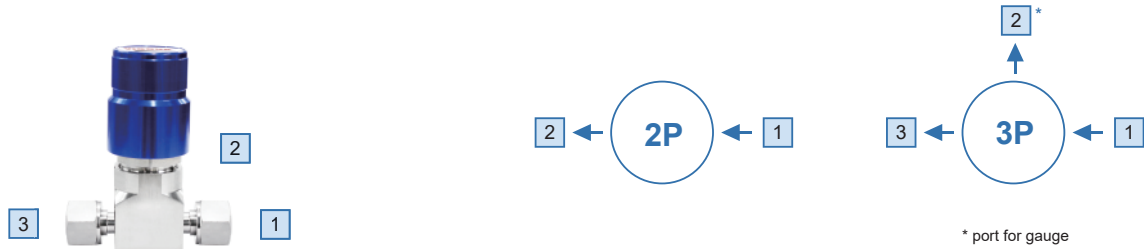
Technical Data

Type:	single-stage
Inlet pressure P ₁ :	150 psig (10bar)
Outlet pressure P ₂ :	Vac to 10/30/60/100 psig (0.7/2/4/7bar)
Surface finish:	15µin. Ra max, 10µin Ra average surface finish (10µin. Ra max, 7µin. Ra max. 5µin. Ra max optional)

Materials	
Body:	see ordering info
Valve seat:	PCTFE (Vespel® optional)
Diaphragm:	Hastelloy® C276
Inlets and Outlets:	1/4" VFS fitting and tube weld
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=0.06 (Cv=0.1 optional)
Supply pressure effect:	0.2 psig rise in delivery pressure per 20 psig source pressure drop @Cv=0.06 0.4 psig rise in delivery pressure per 20 psig source pressure drop @Cv=0.1
Weight:	approx. 0.5kg (depending on connections or options)



Ordering Information



Inlet/outlet Connection

FV4: 1/4" VFS female
MV4: 1/4" VFS male

TW4: 1/4" tube weld
P: gauge (1/4" VFS fitting)

* Other connection standard, consult factory

Port Selection

VSR - 50UCPS - 10 - 7 - 3P - 1 - 2 - 3 - R5-HF-VS

Installation

None: bottom mount
P: panel mount *

* Panel hole $\Phi 36\text{mm}$

Materials

S: 316L secondary remelt
SHP: 316L body and nozzle
Hastelloy® C22 poppet

*All options diaphragm material is Hastelloy® C276

Inlet Pressure

10: 150 psig

Outlet Pressure

V0.7: Vac to 10 psig*
V2: Vac to 30 psig*
V4: Vac to 60 psig*
V7: Vac to 100 psig*
0.7: to 10 psig *
2: to 30 psig
4: to 60 psig
7: to 100 psig

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

Valve seat Option

None: PCTFE
VS: Vespe®

Cv Option

None: Cv=0.06
HF: Cv=0.1

Surface Finish

None: 15 $\mu\text{in. Ra max}$
R10: 10 $\mu\text{in. Ra max}$
R7: 7 $\mu\text{in. Ra max}$
R5: 5 $\mu\text{in. Ra max}$

Port Config

2P: 2 ports
3P: 3 ports

Ordering Example

VSR - 50UCS - 10 - 7 - FV4 - P - FV4

1 - 2 - 3

