

PART NUMBER						
Example :	SI 240U	2P	I	/	K	7b A/B : V/M
	1	2	3		4	5 6 & 7

1 - Valve Serie & Surface Finish
SI 240 U Ra 0,15µm Ep. (6 Ra)
SI 240 V Ra 0,25µm Ep. (10 Ra)
SI 240 S Ra 0,4µm nonEP(15Ra)

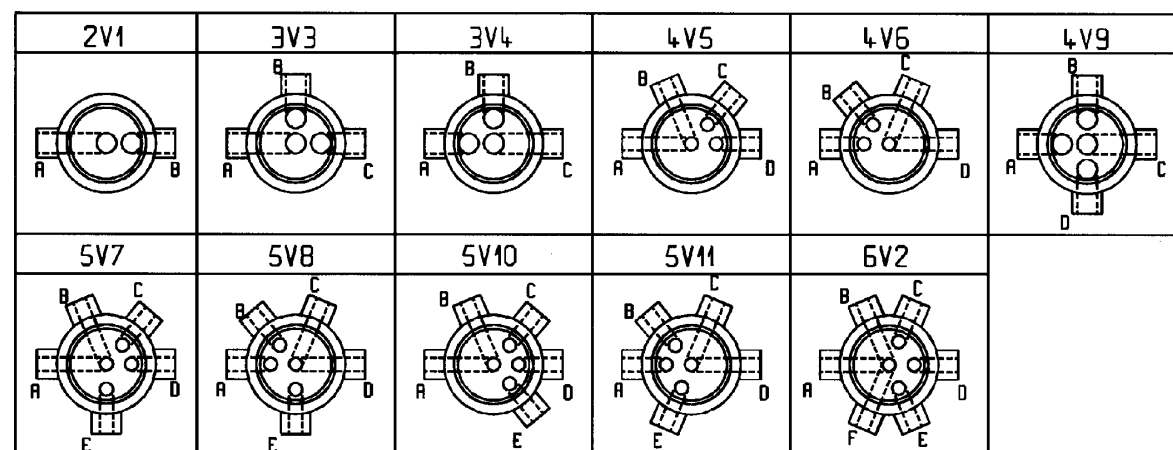
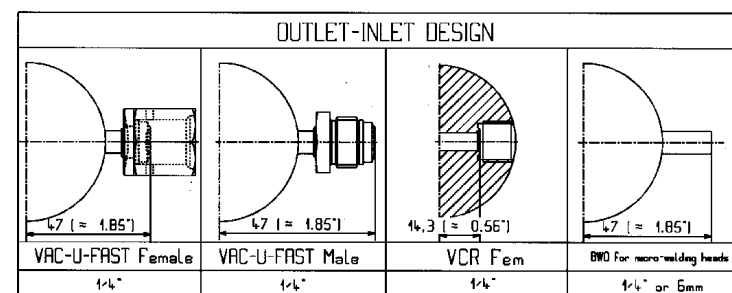
3 - Body Material (others on request)
A AISI 316L AOD/VAR
I AISI 316L
H Hastelloy® (on request)

5 - Outlet regulated Pressure
2b 2 bar - 30 PSI
4b 4 bar - 60 PSI
7b 7bar - 100 PSI
Note : Inlet Pressure Up to 240 bar (3500 PSI)

2 - Ports Configurations
2P 2 ports
3P 3 ports
4P 4 ports
5P 5 ports

4 - Seat Material
K PCTFE (Kel-F®)
V PI (VespeI®)
P PVDF

6 - End Connections
V-F VAC-U-FAST® 1/4" - Female (face seal)*
V-M VAC-U-FAST® 1/4" - Male (face seal)*
V-IN VAC-U-FAST® 1/4" - Internal (face seal)*



* All VAC-U-FAST® Face Seals are VCR® compatible. VCR® is a registered trade mark of CAJON CO., HASTELLOY® is a registered trade mark of HAYNES Corp., Kel-F® is a registered trade mark of 3M company, VespeI® is a registered trade mark of DUPONT



SELFA

Valves & Fittings

A total component solution, from source to process

SI 240

SPRINGLESS TIED DIAPHRAGM PRESSURE REGULATOR FOR UHP APPLICATIONS

SI 240



FEATURE a unique proven design

Si 240

TECHNICAL DATA

Si 240

The SI 240 Regulator was created in response to the industry's need for a High Pressure, Springless Tied Diaphragm Regulator for specialty source gas service, i.e. gas cabinets. The design and materials of construction, plus some unique features make it an ideal choice for gas source applications with the reactive and hazardous gases the Semiconductor and Allied Industries use.

- Unique features include a special leak test port that enables the diaphragm seal to be outboard leak tested <10⁻¹⁰ sccs range at high pressure.
- Precise control of the gas discharge with minimum deviation caused by the supply pressure effect.

- Counter balance springs outside the gas stream to ensure the unit functions correctly with downstream vacuum and upstream high pressure
- A unique spherical ball pressure pad to give ultra smooth delivery pressure adjustment.

The regulator is designed with minimum face to face dimensions, to meet the requirements of all gas system manufacturers. (See our SI 260 range of regulators designed for high flow rates of HCl and N₂O etc.)

Ergonomic Design

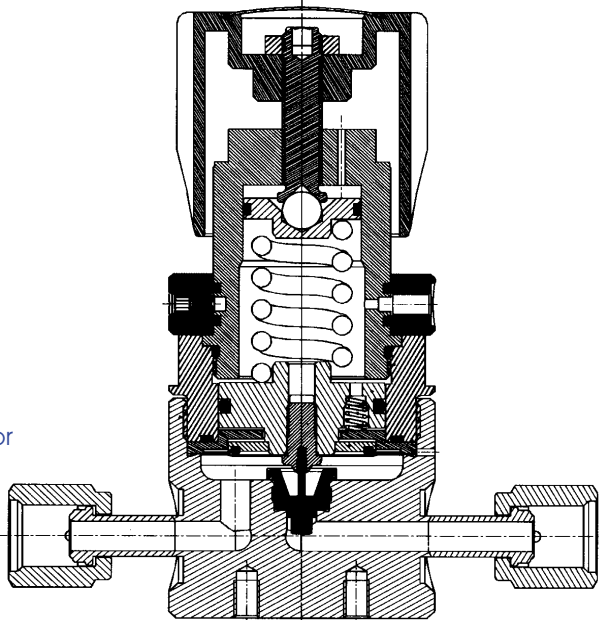
Spherical ball for ultra smooth control

Metal to metal seal to Atmosphere

Sealed bonnet for extra protection

Minimal wetted surfaces for optimal purging

Gas specific solutions (Body and Seat Materials)



Controlled (PC) electropolishing for better corrosion resistance

Assembling and packaging in a class 10 cleanroom

No spring in the wetted area for zero particle emission

2,3,4 or 5 ports options available

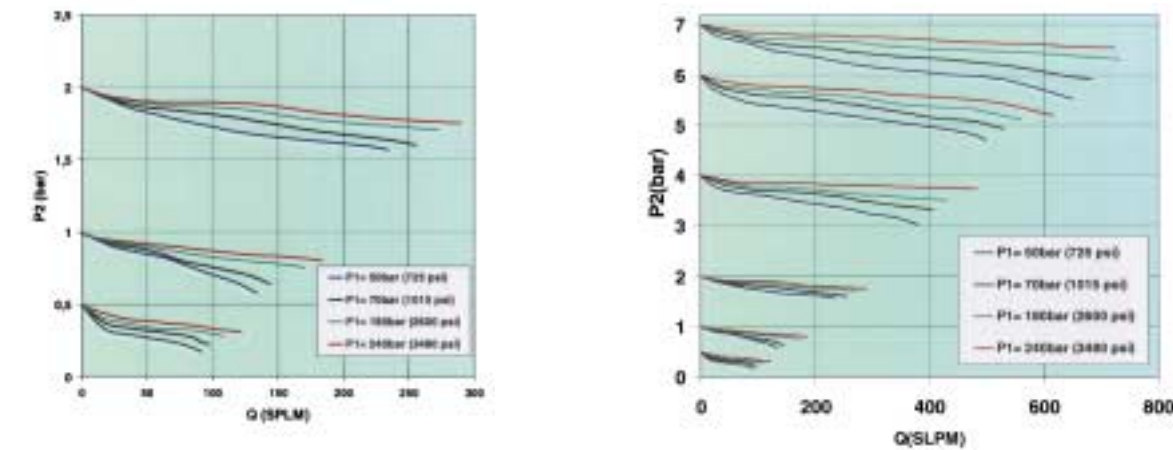
diaphragm counter balance springs

Excellent response at high and low pressures (droop, hysteresis, creep)

Manufactured to the **THREE STAR PROCESS** ®

TECHNICAL DATA	
Fluid Media	Standard, High and Ultra High Purity, corrosive and non-corrosive gases
Inlet pressure	240 bar (3500 PSI)
Outlet pressure	2 - 4 - 7 bar (30 - 60 - 100 PSI)
Temperature range	-20°C to + 80°C (-2F to 176F)
Nominal Flow	150 sl/pm (N ₂)
Flow Coefficient (C _v)	C _v = 0,09
Certified max. Helium inboard leak rate	< 10 ⁻¹⁰ sccs
Certified max. Helium outboard leak rate (at max. pressure)	< 10 ⁻¹¹ sccs
Certified max. Helium across the seat leak rate (at max. pressure)	< 10 ⁻¹⁰ sccs
Number of ports	2, 3, 4 or 5

FLOW CURVES



CONSTRUCTION MATERIALS

DIMENSIONS

	Parts	Materials
Wetted parts	Body	AISI 316L, AOD/VAR, Hastelloy®
	Diaphragm	Hastelloy®
	Seat	PCTFE (Kel-F)
	Poppet	AISI 316L, AOD/VAR, Hastelloy®
Non-wetted parts	Bonnet	Nickel Plated Brass
	Handle	Extruded Plastic
	Others	Stainless Steel or others

SURFACE FINISH		
U: < Ra 0,15µm Ep. (6 Ra)	V: < Ra 0,25µm Ep. (10 Ra)	S: < Ra 0,4µm nonEP(15 Ra)

