



SELFA

TEESING
SUBMICRON TECHNOLOGIES

Valves & Fittings

A total component solution, from source to process

SI 15
HIGH FLOW DIAPHRAGM
PRESSURE REGULATOR
FOR HP & UHP APPLICATIONS



SI 15

SI

FEATURE a unique proven design

SI 15

The **SI 15 Regulator** was created in response to the industry's needs for **High Flow Applications** (typically 1/2") for specialty source gas service, i.e. gas cabinets.

- The balanced valve minimizes the effect of inlet pressure fluctuations on outlet pressure and reduces the efforts on the seat to increase life time of the regulator
- Precise control of the gas discharge with minimum deviation caused by the supply pressure effect.
- Excellent performance characteristics
- A unique spherical ball pressure pad to give ultra smooth delivery pressure adjustment
- Delivery pressure of 8 bar (120 psi)

Individual Serial number, for full traceability

Assembling, testing & Packaging in cleanroom Cl. 10

Ergonomic Design

Controlled (PC) electropolishing for better corrosion resistance

Spherical ball for ultra smooth control

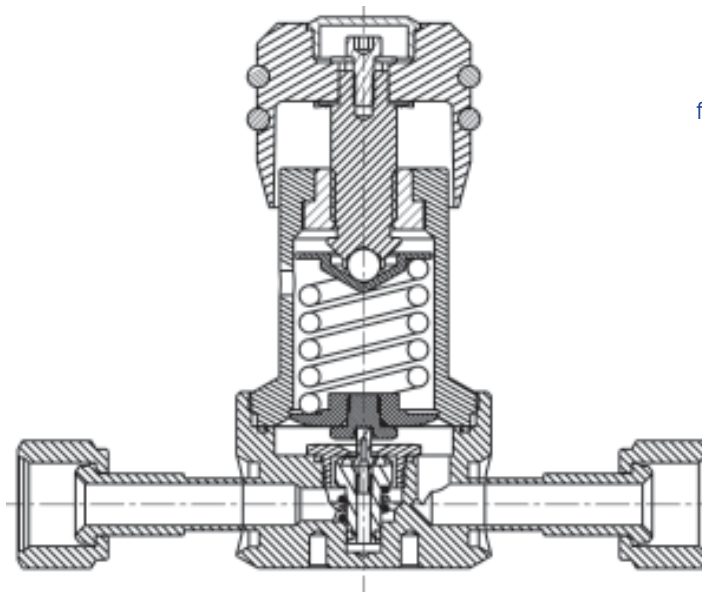
2,3,4 or 6 ports options available

Sealed bonnet for extra protection

Seat design for high flow uses

Minimal wetted surfaces for optimal purging

Excellent response (droop, hysteresis, creep)



Manufactured to the **THREE STAR PROCESS®**

CONSTRUCTION MATERIALS

	Parts	Materials
Wetted parts	Body	AISI 316L, VAR, Hastelloy®
	Diaphragm	AISI 304
	Seat	NBR
	Poppet	AISI 316L, VAR, Hastelloy®
Non-wetted parts	Bonnet	Nickel Plated Brass
	Handle	Extruded Plastic
	Others	Stainless Steel or others

SURFACE FINISH

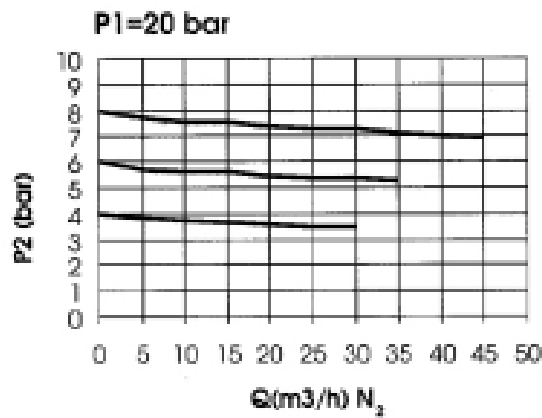
U: < Ra 0,15µm Ep. (6µin Ra) V: < Ra 0,25µm Ep. (10µin Ra) S: < Ra 0,4µm nonEP(15µin Ra)

TECHNICAL DATA

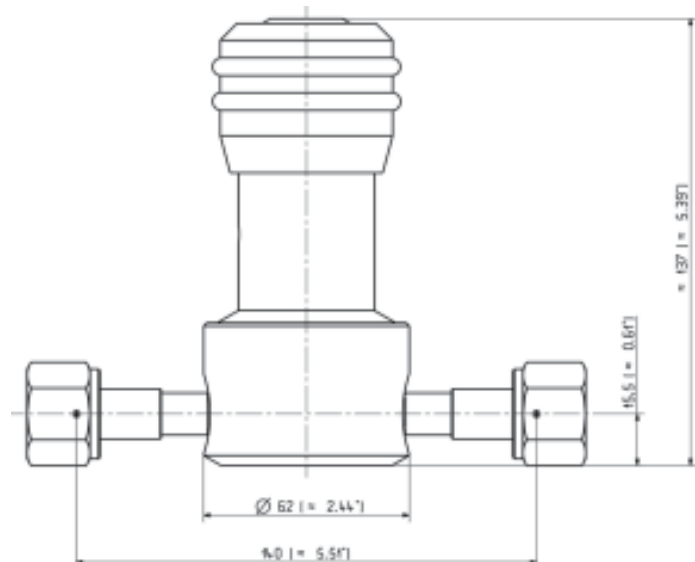
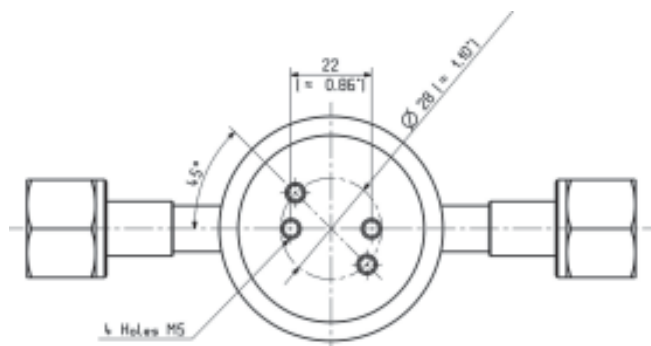
SI 15

TECHNICAL DATA	
Fluid Media	Standard, High and Ultra High Purity, corrosive and non-corrosive gases
Inlet pressure	25 bar (360 PSI)
Outlet pressure	8 bar (120 PSI)
Temperature range	-20°C to + 60°C (-2F to 140F)
Nominal Flow	840 slpm (N ₂)
Certified max. Helium inboard leak rate	< 1.10 ⁻⁸ mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)	< 1.10 ⁻⁸ mbar.l/sec
Certified max. Helium across the seat leak rate (at max. pressure)	< 1.10 ⁻⁸ mbar.l/sec
Number of ports	2, 3, 4, 5 or 6

FLOW CURVES



DIMENSIONS



HOW TO ORDER

SI 15

PART NUMBER							
Example :	SI 15U	2V1	A	/	K	8b	A/B : V-M
	1	2	3		4	5	6

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

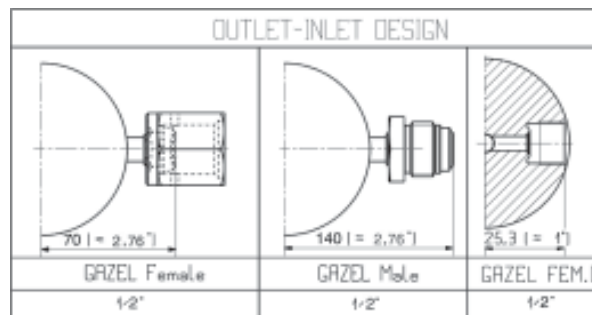
2 - Ports Configurations	
2V1	2 ports in line
See below for other ports configurations	

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

4 - Seat Material	
N	NBR

5 - Outlet Regulated Pressure	
8b	8 bar - 120 psi
Note: Inlet Pressure = upto 25 bar (360 psi)	

6 - End Connections	
V-F	GAZEL® 1/2" - Female (face seal)*
V-M	GAZEL® 1/2" - Male (face seal)*
V-FI	GAZEL® 1/2" - Internal (face seal)*



Configurations					
2V1	3V3	3V4	4V5	4V6	4V9
5V7	5V8	5V10	5V11	6V2	

*All GAZEL® Face Seals are VCR® compatible. VCR® is a registered trade mark of CAJON CO., HASTELLOY® is a registered trade mark of CABOT Corp., Kel-F® is a registered trade mark of 3M company. Vespel® is a registered trade mark of DUPONT, ELGILOY® is a registered trade mark of ELGILOY Company.