



# 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

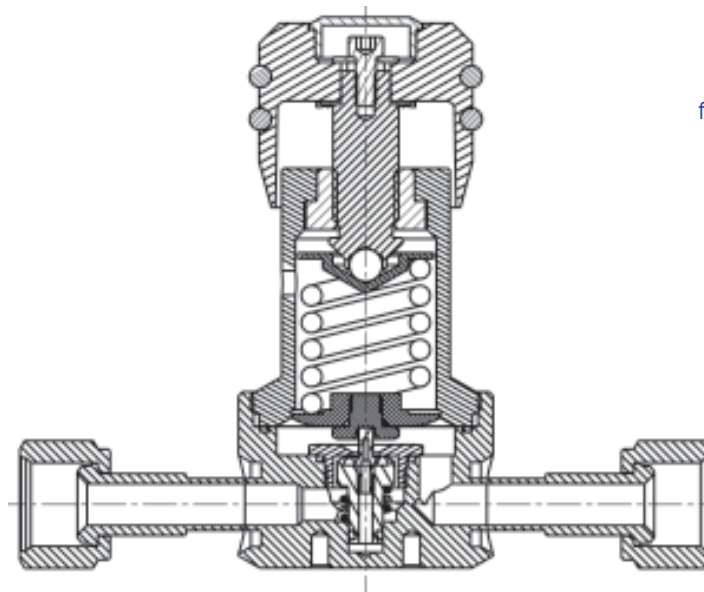
Assembling, testing & Packaging  
in cleanroom Cl. 10

Ergonomic Design

Spherical ball for ultra  
smooth control

Sealed bonnet for  
extra protection

Minimal wetted  
surfaces for  
optimal purging



Controlled (PC)  
electropolishing  
for better corrosion resistance

2,3,4 or 6 ports options  
available

Seat design for high flow uses

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

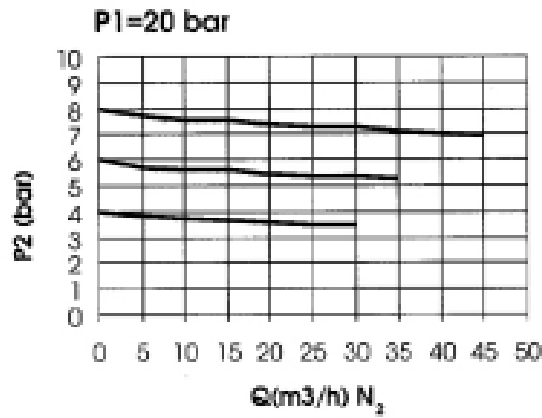
U: < Ra 0,15µm Ep. (6µin Ra)    V: < Ra 0,25µm Ep. (10µin Ra)    S: < Ra 0,4µm nonEP(15µin Ra)

**TECHNICAL DATA**

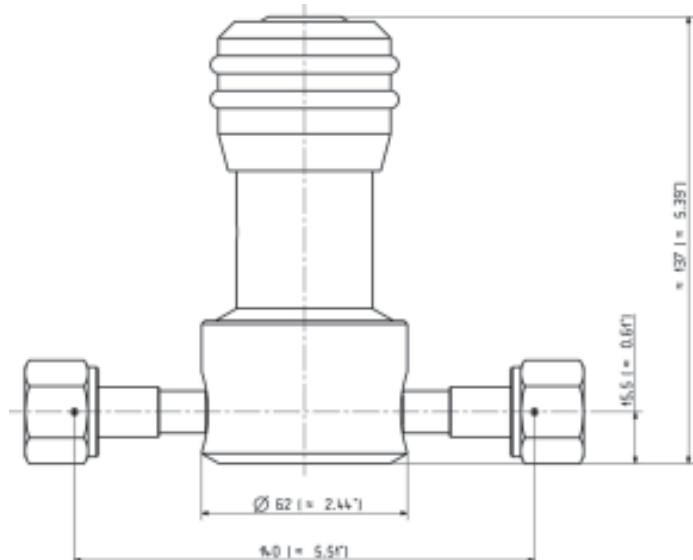
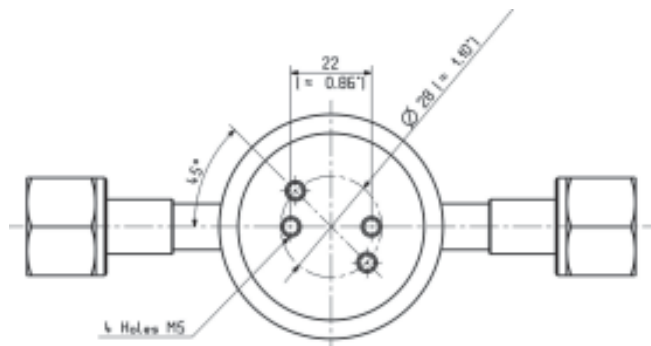
**SI 15**

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 <sub>2</sub> )
Certified max. Helium inboard leak rate	< 1.10 <sup>-8</sup> mbar.l/sec
Certified max. Helium outboard leak rate (at max. pressure)	< 1.10 <sup>-8</sup> mbar.l/sec
Certified max. Helium across the seat leak rate (at max. pressure)	< 1.10 <sup>-8</sup> 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)

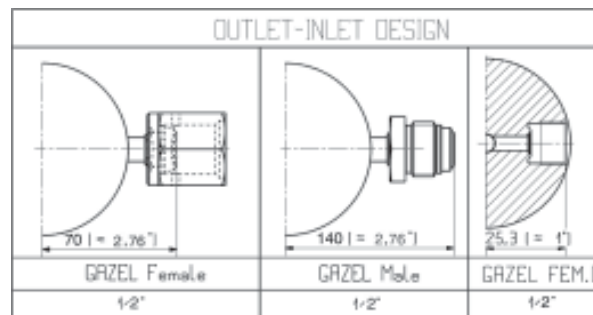
2 - Ports Configurations	
2V1	2 ports in line
See below for other ports configurations	

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.