

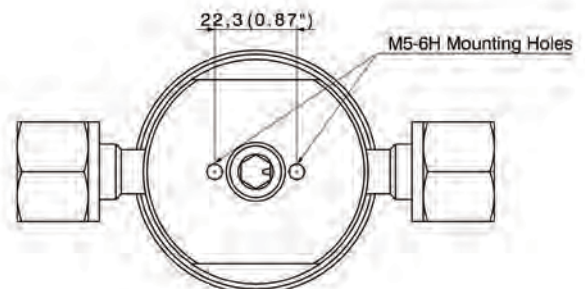
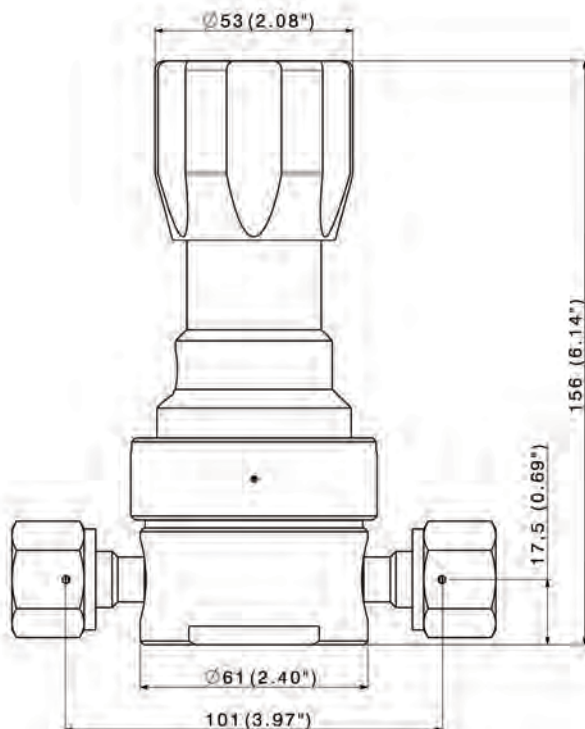
# SI 220 | DIAPHRAGM PRESSURE REGULATOR / MEDIUM FLOW & HIGH FLOW

## KEY FEATURES

- Individual Serial number, for full traceability
- 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
- Assembling, testing & Packaging in cleanroom: Class ISO 4
- Controlled (PC) electropolishing for better corrosion resistance
- No spring in the wetted area for zero particle emission
- Multi-port options available
- Excellent response at high and low pressures (droop, hysteresis, creep)



## DIMENSIONS



## SPECIFICATIONS

<b>Fluid media</b>	Standard, high or ultra high purity corrosive and noncorrosive gases	<b>Flow capacity (Cv)</b>	0.2	<b>Certified max. Helium across the seat leak rate (at max. pressure)</b>	$\leq 1 \times 10^{-7}$ mbar.l/s
<b>Max. inlet pressure</b>	240 bar (3481 psig)	<b>Number of ports</b>	2, 3 or 4	<b>Certified max. Helium inboard leak rate (at max. pressure)</b>	$\leq 1 \times 10^{-9}$ mbar.l/s
<b>Outlet pressure</b>	3/8/10/15/25/50 bar (44/116/145/218/363/725 psig)	<b>Burst pressure*</b>	300% of operating pressure	<b>Supply pressure effect I*</b>	1.35 bar / 100 bar
<b>Temperature range</b>	-20°C to +65°C (-4°F to +149°F)	<b>Proof pressure*</b>	150% of operating pressure		
		<b>Certified max. Helium outboard leak rate</b>	$\leq 1 \times 10^{-9}$ mbar.l/s		

\* According to CGA-E4

## CONSTRUCTION MATERIAL

	Parts	Material
<b>Wetted parts</b>	Body	SS 316L, VAR
	Seat	PCTFE
	Diaphragm	Hastelloy®
	Poppet	SS 316L
	Joint	Nickel
<b>Non-wetted parts</b>	Bonnet	Brass
	Handwheel	Aluminium
	Others	Stainless Steel and Alloys

## SURFACE FINISH

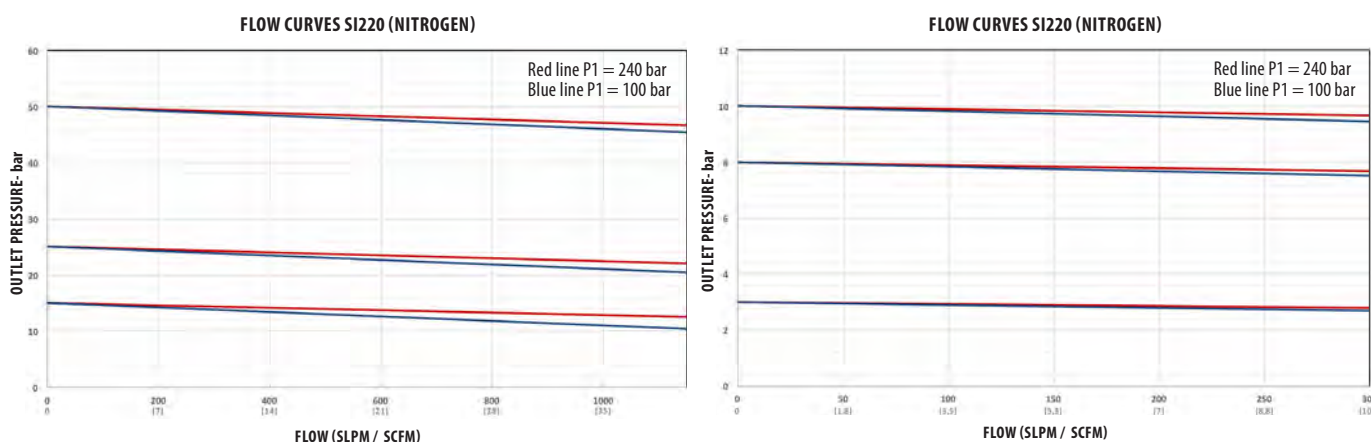
S	V	U
Ra 0.4 µm (15 µin)	Ra 0.25 µm EP (10 µin)	Ra 0.18 µm EP (7 µin)

RATED FLOW CAPACITY (Q<sub>R</sub>\*) /  
OUTLET PRESSURE (P2)

P2 (bar)	Q <sub>R</sub> * (SLPM)
3	280
8	580
10	680

\* According to CGA-E4

## FLOW CURVES



## PRODUCT CONFIGURATOR

SI	220	Surface Finish	Porting Configuration	Body Material	Seat Material	Outlet Regulated Pressure	End Connection	Options
		S	2V1	I	K	10b	A/B: V <sup>3/8</sup> F	PG
		Ra 0.4 µm (15 µin Ra)	see page 37	SS 316L	I PCTFE (Kel-F®)	3 bar (44 psig)	3b Metal face seal 1/4" - Female	V <sup>1/4</sup> F Pressure gauge 2"*
		Ra 0.25 µm EP (10 µin)		*On demand		8 bar (116 psig)	8b Metal face seal 3/8" - Female	V <sup>3/8</sup> F *Please refer to page 37
		Ra 0.13 µm EP (5 µin)*				10 bar (145 psig)	10b Metal face seal 1/4" - Male	V <sup>1/4</sup> M
		*On demand				15 bar (218 psig)	15b Metal face seal 3/8" - Male	V <sup>3/8</sup> M
						25 bar (363 psig)	25b Metal face seal 1/4" - Internal Female	V <sup>1/4</sup> FI
						50 bar (725 psig)	50b	



Special configuration on demand