

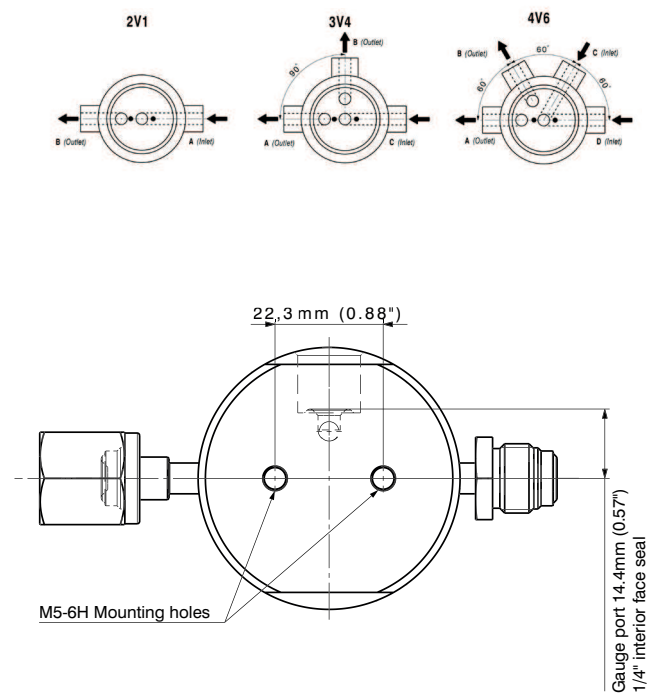
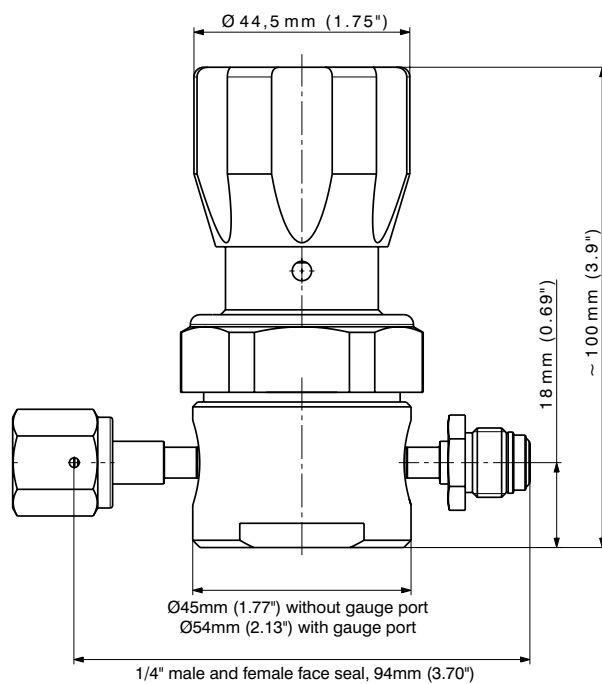
# SIR 100 | DIAPHRAGM PRESSURE REGULATOR / LOW FLOW

## KEY FEATURES

- 100% Helium Leak Test performed
- Hastelloy® diaphragm
- Assembling, testing & packaging in cleanroom: Class ISO 4
- Individual serial number for full traceability
- Electropolished surface roughness per SEMI F19 UHP Grade
- Low internal volume
- 316L VAR® stainless steel double melt per SEMI F20 option available
- Excellent performance at low source pressure
- Fluid specific seat material as standard options
- Additional multi-port options



## DIMENSIONS



Dimensions are for reference only and are subject to change without notice

## SPECIFICATIONS

<b>Max. inlet pressure</b>	50 bar (725 psig) (PVDF: 10 bar / 145 psig)	<b>Burst pressure*</b>	300% of operating pressure	<b>Certified max. Helium outboard leak rate</b>	$\leq 1 \times 10^{-9}$ mbar.l/s
<b>Outlet pressure</b>	2/4/7/10 bar (29/58/102/145 psig)	<b>Proof pressure*</b>	150% of operating pressure	<b>Certified max. Helium across the seat leak rate (at max. pressure)</b>	$\leq 1 \times 10^{-7}$ mbar.l/s
<b>Temperature range</b>	-20°C to +65°C (-4°F to +149°F)	<b>Supply pressure effect I*</b>	1.35 bar / 100 bar	<b>Certified max. Helium inboard leak rate (at max. pressure)</b>	$\leq 1 \times 10^{-9}$ mbar.l/s
<b>Flow capacity (Cv)</b>	0.2				

\* According to CGA-E4

## CONSTRUCTION MATERIAL

	Parts	Material
<b>Wetted parts</b>	Body	SS 316L, VAR
	Seat	PCTFE, PVDF, VESPEL®
	Diaphragm	Hastelloy®
	Poppet	SS 316L
	Spring	SS 316L
<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 0.13 µm EP (5 µin)

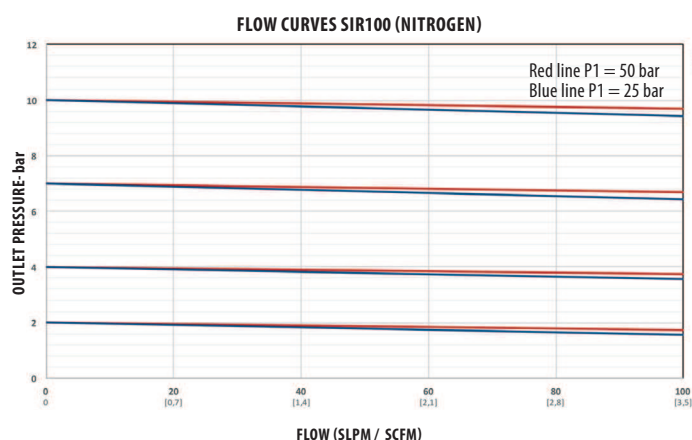
RATED FLOW CAPACITY (Q<sub>R</sub>\*) / OUTLET PRESSURE (P2)

P2 (bar)	Q <sub>R</sub> *(SLPM)
2	80
4	200
7	350
10	500

\* According to CGA-E4

All specifications subject to change without notice

## FLOW CURVES



## PRODUCT CONFIGURATOR

	Surface Finish	Porting Configuration	Body Material	Seat Material	Outlet Regulated Pressure	End Connection	Options
<b>SIR</b>	<b>100</b>	<b>U</b>	<b>2V1</b>	<b>A</b>	<b>K</b>	<b>7b</b>	<b>PG</b>
	Ra 0.4 µm (15 µin Ra)	<b>S</b> 2 ports	<b>2V1</b> SS 316L	<b>I</b> PCTFE (Kel-F®)	<b>2b</b> 2 bar (29 psig)	<b>2b</b> Metal face seal 1/4" - Female	<b>V1/4F</b> Pressure gauge 2"*
	Ra 0.25 µm EP (10 µin)	<b>V</b> 3 ports	<b>3V4</b> VAR*	<b>A</b> PI (Vespel®)	<b>4b</b> 4 bar (58 psig)	<b>4b</b> Metal face seal 1/4" - Male	<b>V1/4M</b> *Please refer to page 31
	Ra 0.13 µm EP (5 µin)*	<b>U</b> 4 ports	<b>4V6</b> *On demand	PVDF	<b>7b</b> 7 bar (102 psig)	<b>7b</b> Metal face seal 1/4" - Internal Female	<b>V1/4FI</b>
					<b>10b</b> 10 bar (145 psig)		

\*On demand

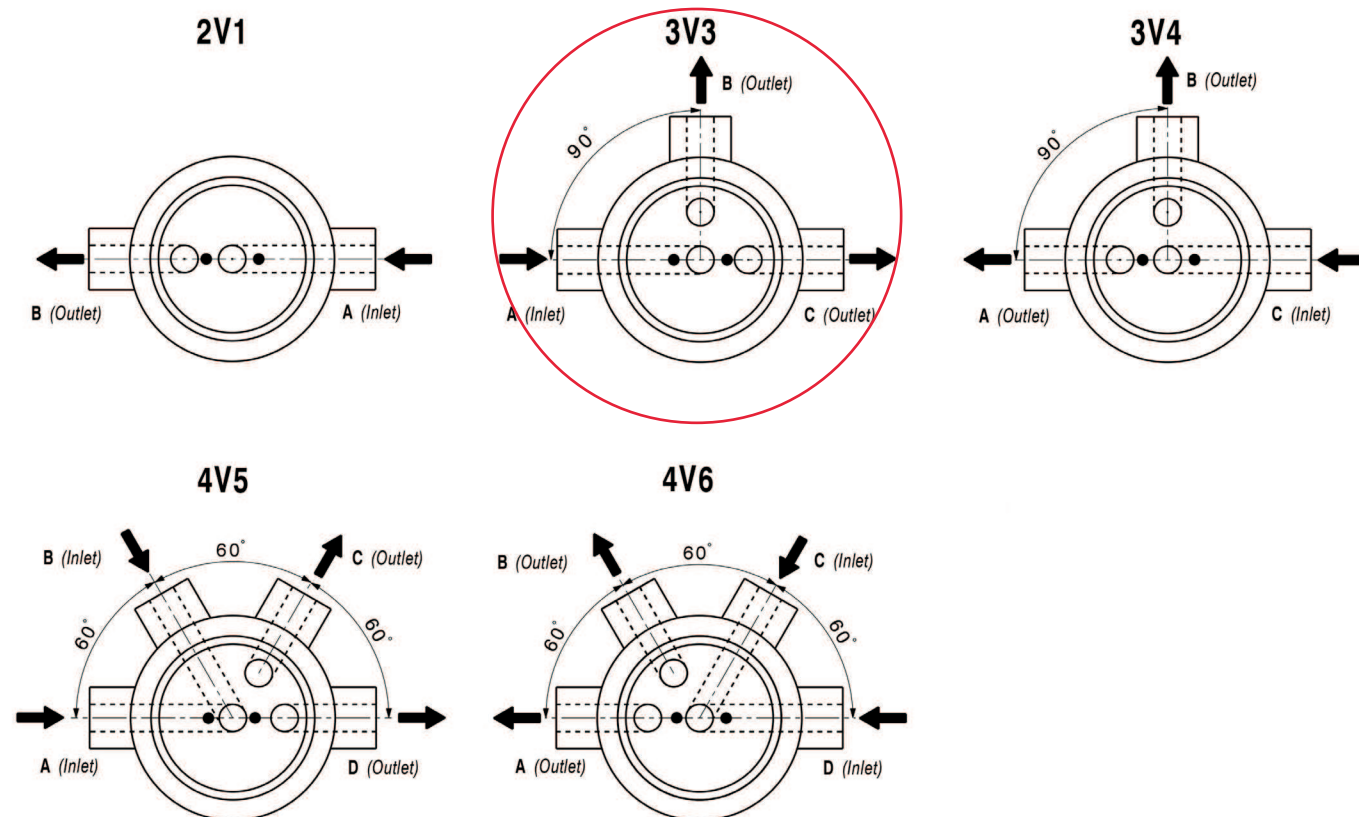


Special configuration on demand

## REGULATORS

### TOP VIEW

Standard configurations:



● ➔ Bottom Threaded holes

Other configurations: on demand

## PRESSURE GAUGES (BAR / PSI)

