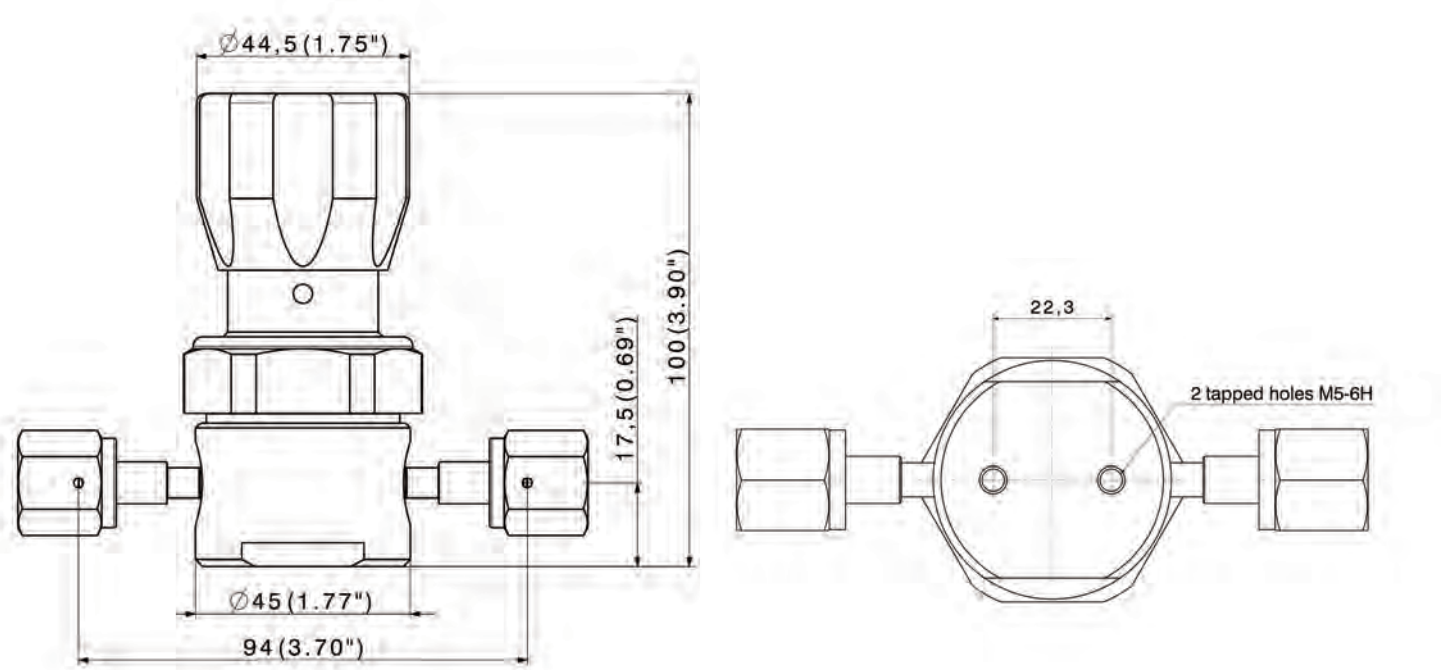
SIR 100 | DIAPHRAGM PRESSURE REGULATOR / LOW FLOW

KEY FEATURES

- Individual Serial number, for full traceability
- Spherical ball for ultra smooth control
- Metal to metal seal to atmosphere
- Minimal wetted surfaces for optimal purging
- Gas specific solutions
- Assembling, testing & Packaging in cleanroom: Class ISO 4
- Controlled (PC) electropolishing for better corrosion resistance
- Multi-port options available
- Excellent response at low pressures (droop, hysteresis, creep)

DIMENSIONS



SPECIFICATIONS

Fluid media	Standard, high or ultra high purity corrosive and noncorrosive gases
Max. inlet pressure	50 bar (725 psig) (PVDF: 10 bar / 145 psig)
Outlet pressure	2/4/7/10 bar (29/58/102/145 psig)
Temperature range	-20°C to +65°C (-4°F to +149°F)

Flow capacity (Cv)	0.2
Number of ports	2, 3 or 4
Burst pressure*	300% of operating pressure
Proof pressure*	150% of operating pressure
Certified max. Helium outboard leak rate	≤ 1 x 10^{-9} mbar.l/s

Certified max. Helium across the seat leak rate (at max. pressure)	≤ 1 x 10^{-7} mbar.l/s
Certified max. Helium inboard leak rate (at max. pressure)	≤ 1 x 10^{-9} mbar.l/s
Supply pressure effect I*	1.35 bar / 100 bar

* According to CGA-E4

CONSTRUCTION MATERIAL

	Parts	Material
Wetted parts	Body	SS 316L, VAR
	Seat	PCTFE, PVDF, VESPEL®
	Diaphragm	Hastelloy®
	Poppet	SS 316L
	Spring	SS 316L
Non-wetted parts	Bonnet	Brass
	Handwheel	Aluminium
	Others	Stainless Steel and Alloys

SURFACE FINISH

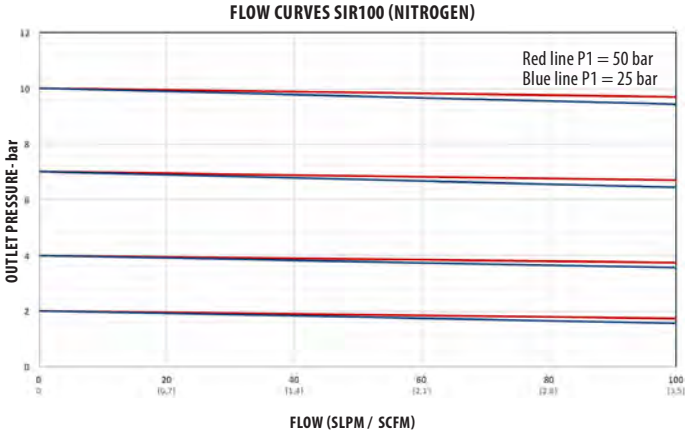
S	V	U
Ra 0.4 µm (15 µin)	Ra 0.25 µm EP (10 µin)	Ra 0.18 µm EP (7 µin)

RATED FLOW CAPACITY (Q_R*) / OUTLET PRESSURE (P2)

P2 (bar)	Q_R*(SLPM)
2	80
4	200
7	350
10	500

* According to CGA-E4

FLOW CURVES



PRODUCT CONFIGURATOR

		Surface Finish		Porting Configuration	Body Material		Seat Material		Outlet Regulated Pressure		End Connection		Options	
SIR	100	U		2V1	A		K		7b		A/B: V¼M		PG	
		Ra 0.4 µm (15 µin Ra)	S	See page 37	SS 316L	I	PCTFE (Kel-F®)	K	2 bar (29 psig)	2b	Metal face seal ¼" - Female	V¼F	Pressure gauge 2"*	PG
		Ra 0.25 µm EP (10 µin)	V		VAR*	A	PI (Vespel®)	V	4 bar (58 psig)	4b	Metal face seal ¼" - Male	V¼M	*Please refer to page 37	
		Ra 0.13 µm EP (5 µin)*	U		*On demand		PVDF	P	7 bar (102 psig)	7b	Metal face seal ¼" - Internal	V¼FI		
		*On demand							10 bar (145 psig)	10b				

Special configuration on demand