

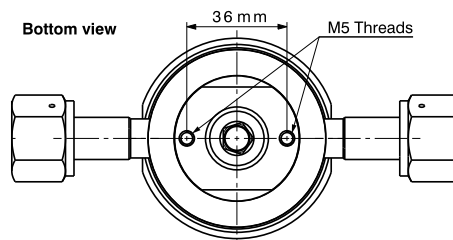
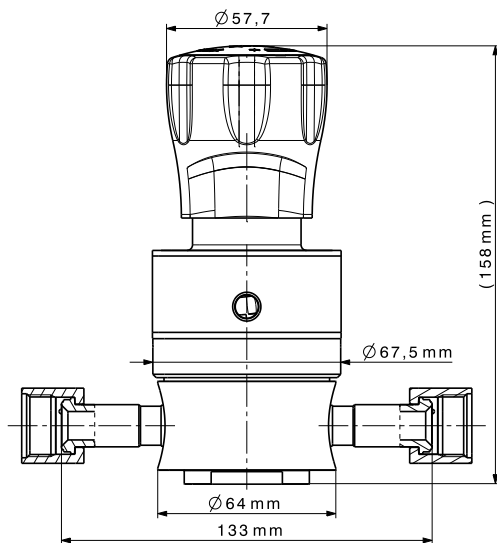


RX4000

SINGLE-STAGE DIAPHRAGM PRESSURE REGULATOR FOR HP & UHP APPLICATIONS

- Unique threadless design in all versions for a higher purity level
- Spring less design for tied diaphragm version
- Sub-atmospheric option available
- Optimized supply pressure effect and excellent flow stability
- Life duration according to CGA E4
- Vacuum to 240 bar (3500 psi) inlet
- Assembling, testing & packaging in cleanroom: Class ISO 4
- Individual serial number for full traceability
- Electropolished surface per SEMI F19 UHP Grade
- 316L VAR® stainless steel double melt per SEMI F20 option available

RX4000 | THE FIRST OF ITS KIND THREADLESS AND SPRINGLESS PRESSURE REGULATOR FOR THE HIGHEST LEVEL OF PURITY



SPECIFICATIONS

Max. inlet pressure

RX4400-RX4300: 240 bar (3500 psig) leak rate
 RX4100: 160 bar (2320 psig)
 RX4000-RX42000: 117 bar (2000 psig) / HF: 50 bar (730 psig)

Outlet pressure

100 mbara/ 2/4/7/10 bar (29/58/102/150 psig)

Temperature range

-20°C to +65°C (-4°F to +149°F)

Flow capacity (Cv)

RX4400-RX4300: Standard: 0.15 / HF: 0.2
 RX4100: Standard: 0.45
 RX4000-RX4200: Standard: 0.9 / HF: 1.1

Poppet type

RX4000-RX4400 : Free poppet
 RX4100-RX4200-RX4300: Tied diaphragm

Burst pressure*

300% of operating pressure

Proof pressure*

150% of operating pressure

Supply pressure effect I*

RX4400-RX4300: Standard: 0.25 / HF: 0.5
 RX4100: Standard: 1.4
 RX4000-RX4200: Standard: 3 / HF: 4

Certified max. Helium outboard leak rate

$\leq 1 \times 10^{-9}$ mbar.l/s

Certified max. Helium across the seat leak rate (at max. pressure)

$\leq 1 \times 10^{-8}$ mbar.l/s

Certified max. Helium inboard leak rate (at max. pressure)

$\leq 1 \times 10^{-9}$ mbar.l/s

CONSTRUCTION MATERIAL

	Parts	Material
Wetted parts	Body	SS 316L, VAR
	Seat	PCTFE (PVDF, VESPEL® optional)
	Diaphragm	SS 316L (Hastelloy optional)
	Poppet	SS 316L (Hastelloy optional)
	Spring	SS 316L (Hastelloy optional)
	Spring Holder	SS 316L
	Non-wetted parts	Bonnet
Handwheel		PA 6.6
Others		Stainless Steel and Brass

SURFACE FINISH

S	Ra 0.4 μm (15 μin)
V	Ra 0.25 μm EP (10 μin)
U	Ra 0.13 μm EP (5 μin)

	Regulator type	Max. Delivery Pressure	Body Material	Surface Finish	Porting Configuration	Inlet / Outlet Connections	Options	Version						
RX	40	02	-	V	2W1	4M4M	-	HF						
	Free poppet	40 2 bar (29 psig)	02 SS 316L	-	Ra 0.4 µm (15 µin)	S	2 ports	2W1	Metal face seal 1/4" - Female	4F	Vespel Seat	V	Standard (Cv 0.9)	-
	Tied diaphragm	42 4 bar (58 psig)	04 VAR*	V	Ra 0.25 µm EP (10 µin)	V	3 ports	3W4	Metal face seal 1/4" - Male	4M	PVDF Seat	P	High Flow (Cv 1.1)	HF
		7 bar (102 psig)	07		Ra 0.13 µm EP (5 µin)*	U	4 ports	4W6	Metal face seal 1/2" - Female	8F	Hastelloy Trim**	H		
		10 bar (145 psig)	10						Metal face seal 1/2" - Male	8M	Gauge(s)*	PG		
									Metal face seal 3/4" - Female	12F	PTCFE	-		
									Metal face seal 3/4" - Male	12M				

	Regulator type	Max. Delivery Pressure	Body Material	Surface Finish	Porting Configuration	Inlet / Outlet Connections	Options	Version						
RX	41	01	-	V	2W1	4M4M	-	-						
	Tied and sub atmospheric delivery pressure (min 100 mbara)	41 100 mbara (10 psig)	01 SS 316L	-	Ra 0.4 µm (15 µin)	S	2 ports	2W1	Metal face seal 1/4" - Female	4F	Vespel Seat	V	Standard (Cv 0.45)	-
		2 bar (29 psig)	02 VAR*	V	Ra 0.25 µm EP (10 µin)	V	3 ports	3W4	Metal face seal 1/4" - Male	4M	PVDF Seat	P	VAC (Cv 0.45)	VAC
		4 bar (58 psig)	04		Ra 0.13 µm EP (5 µin)*	U	4 ports	4W6	Metal face seal 1/2" - Female	8F	Hastelloy Trim**	H		
		7 bar (102 psig)	07						Metal face seal 1/2" - Male	8M	Gauge(s)*	PG		
		10 bar (145 psig)	10								PTCFE	-		

	Regulator type	Max. Delivery Pressure	Body Material	Surface Finish	Porting Configuration	Inlet / Outlet Connections	Options	Version						
RX	44	02	-	V	2W1	4M4M	-	-						
	Free poppet	44 2 bar (29 psig)	02 SS 316L	-	Ra 0.4 µm (15 µin)	S	2 ports	2W1	Metal face seal 1/4" - Female	4F	Vespel Seat	V	Standard (Cv 0.15)	-
	Tied diaphragm	43 4 bar (58 psig)	04 VAR*	V	Ra 0.25 µm EP (10 µin)	V	3 ports	3W4	Metal face seal 1/4" - Male	4M	PVDF Seat	P	High Flow (Cv 0,2)	HF
		7 bar (102 psig)	07		Ra 0.13 µm EP (5 µin)*	U	4 ports	4W6	Metal face seal 1/2" - Female	8F	Hastelloy Trim**	H		
		10 bar (145 psig)	10						Metal face seal 1/2" - Male	8M	Gauge(s)*	PG		
											PTCFE	-		