

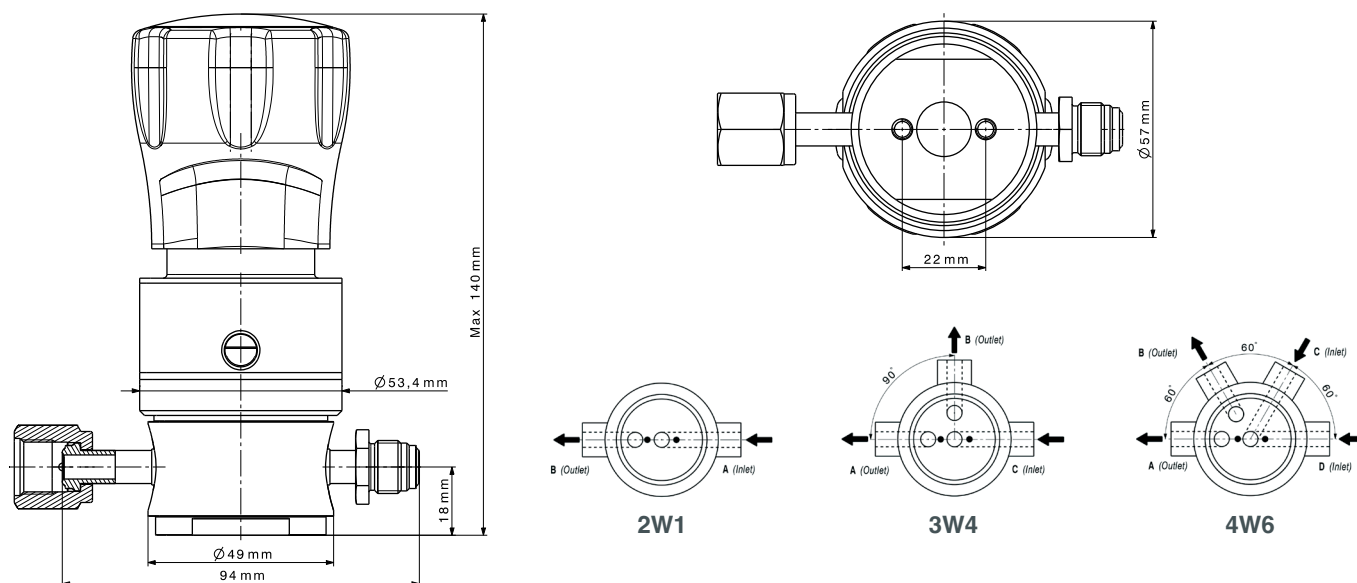


# RX3000

## 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

# RX3000 | THE FIRST OF ITS KIND THREADLESS AND SPRINGLESS PRESSURE REGULATOR FOR THE HIGHEST LEVEL OF PURITY



## SPECIFICATIONS

### Max. inlet pressure

240 bar (3500 psig)  
21 bar for sub atmospheric

### Outlet pressure

0.7/ 2/4/7/10/21 bar  
(10/30/60/100/150/300 psig)

### Temperature range

-20°C to +65°C  
(-4°F to +149°F)

### Flow capacity (Cv)

Standard: 0.09  
High Flow: 0.15

### Poppet type

Free poppet: RX 3000  
Tied diaphragm: RX3200

### Burst pressure\*

300% of operating pressure

### Proof pressure\*

150% of operating pressure

### Supply pressure effect I\*

Standard: 0.25 bar / 100 bar  
HF: 0.5 bar / 100 bar

### Certified max. Helium outboard leak rate

≤ 1 x 10<sup>-9</sup> mbar.l/s

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

≤ 1 x 10<sup>-8</sup> mbar.l/s

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

≤ 1 x 10<sup>-9</sup> mbar.l/s

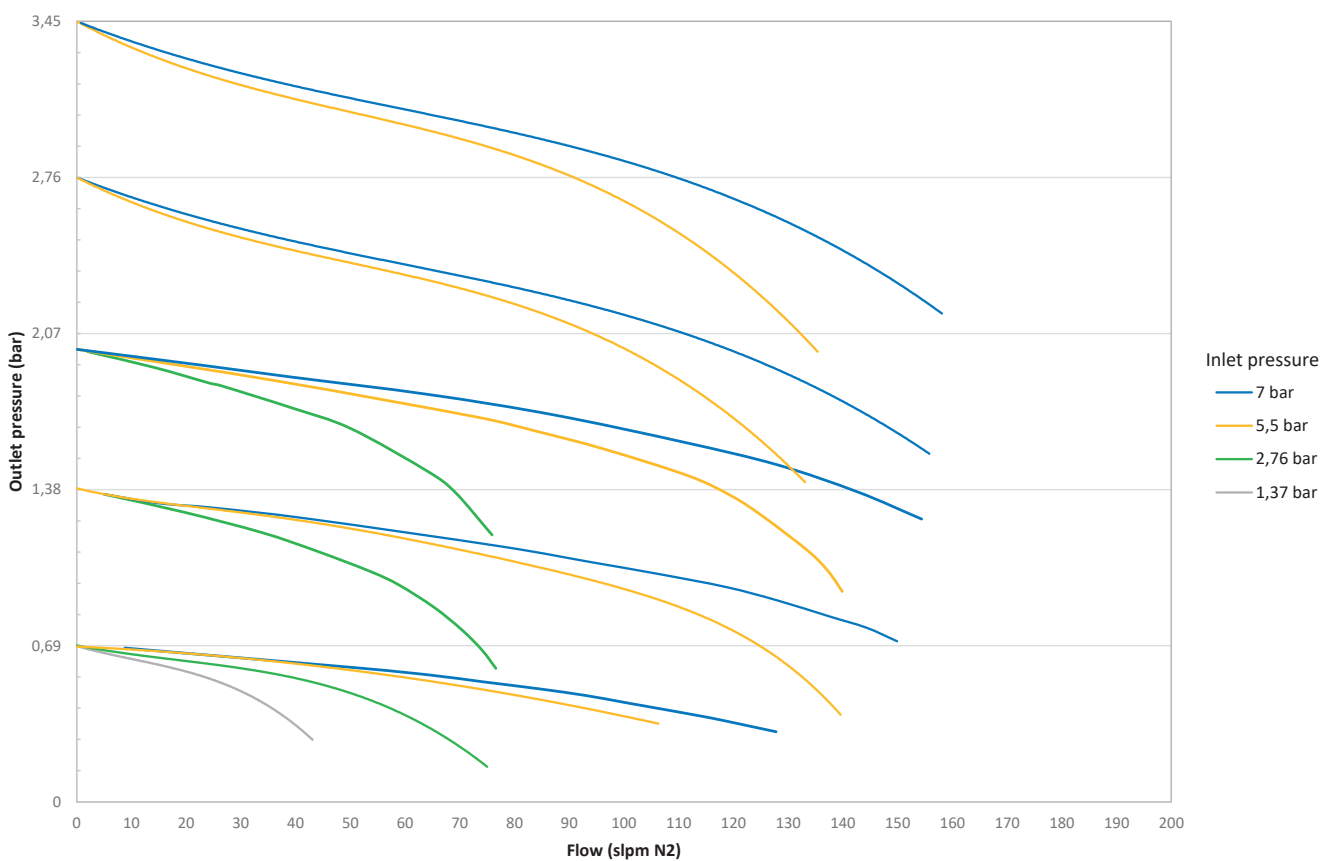
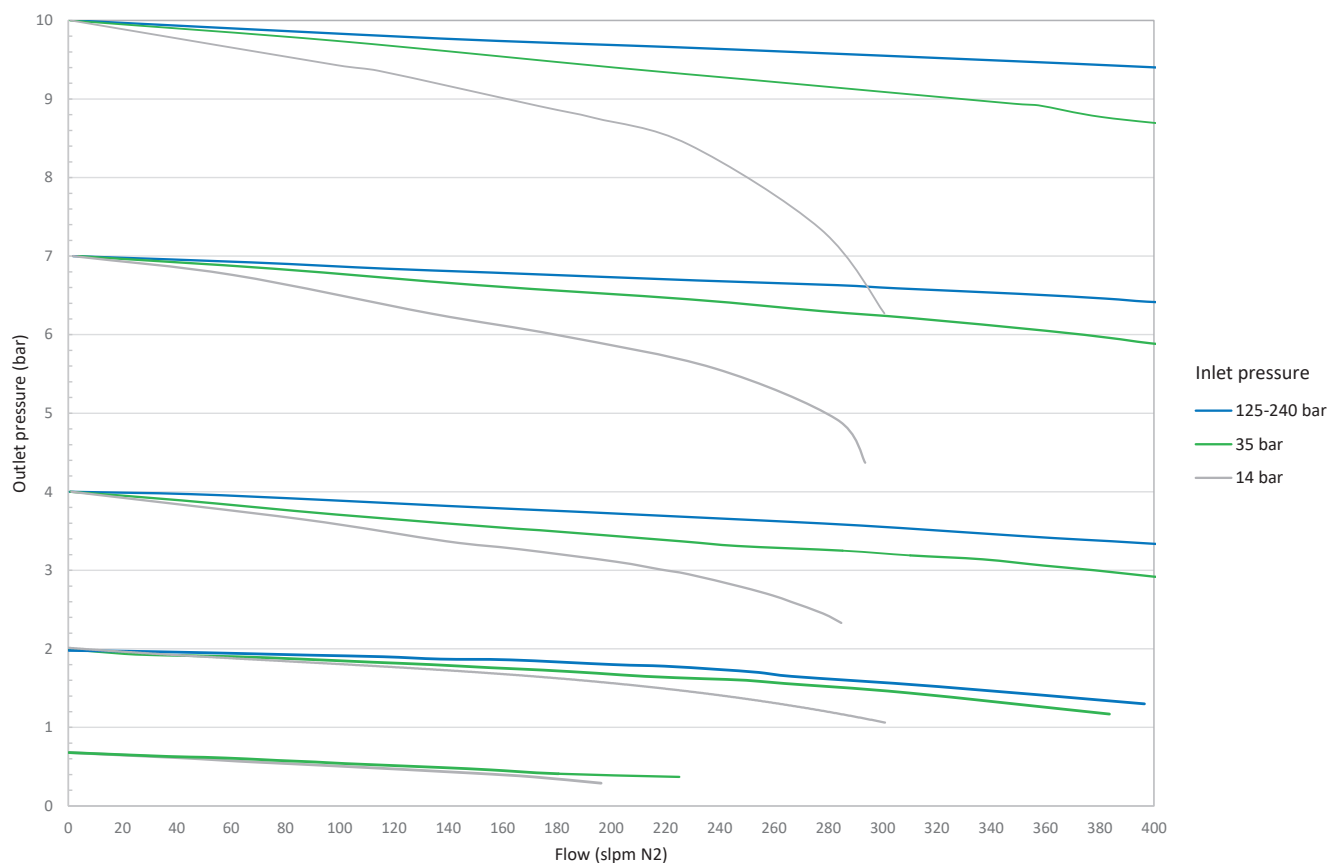
## CONSTRUCTION MATERIAL

	Parts	Material
<b>Wetted parts</b>	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
	Bonnet	SS 303
<b>Non-wetted parts</b>	Handwheel	PA 6.6
	Others	Stainless Steel and Brass

## SURFACE FINISH

<b>S</b>	Ra 0.4 µm (15 µin)
<b>V</b>	Ra 0.25 µm EP (10 µin)
<b>U</b>	Ra 0.13 µm EP (5 µin)

# FLOW CURVES



	Regulator type	Max. Delivery Pressure	Body Material	Surface Finish	Porting Configuration	Inlet / Outlet Connections	Seat Material	Options	Version							
RX	30	07	-	V	2W1	4M4M	-	-	HF							
	Free poppet	30 0.7 bar (10 psig)	01 ** SS 316L	-	Ra 0.4 µm (15 µin)	S	2 ports	2W1	Metal face seal 1/4" - Female	4F	PCTFE Seat	-	Hastelloy Trim****	H	Standard (Cv 0.09)	-
	Tied and sub atmospheric delivery pressure (min 100 mbara)	31 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	Gauge(s)****	PG	High Flow (Cv 0.15)	HF
	Tied diaphragm	32 4 bar (58 psig)	04		Ra 0.13 µm EP (5 µin)	U	4 ports	4W6			Vespel® Seat	V				
		7 bar (102 psig)	07													
		10 bar (145 psig)	10													
		21 bar (305 psig)	21													

\* Recommended with a max. delivery pressure of 0.7 bar or 2 bar

\*\* Max inlet pressure 21 bar

\*\*\* Hastelloy poppet, diaphragm and spring

\*\*\*\* Gauge(s) port(s) only, standard gauge ports are Metal Face Seal 1/4"