



# RX04

## DIAPHRAGM VALVE

- 100% Helium Leak Test performed
- Assembling, testing & Packaging in cleanroom: Class ISO 4
- Reverse seat design for high life cycle
- Individual serial number for full traceability
- Electropolished surface roughness per SEMI F19 UHP Grade
- Fluid specific seat material as standard options
- Low internal volume
- Constant bleed option available
- 316L VAR® stainless steel double melt per SEMI F20 option available
- Additional Multi-port options
- 270° multiturn handwheel with open/close indicator
- Loto option
- Pneumatic version available
- Indicative switch option

# RX04 | HIGH PERFORMANCE UHP LINE VALVES

## SPECIFICATIONS

<b>Max. inlet pressure</b> See table below	<b>Pneumatic actuator opening pressure</b> 5 to 7 bar (73 to 102 psig)*	<b>Certified max. Helium outboard leak rate</b> $\leq 1 \times 10^{-9}$ mbar.l/s
<b>Temperature range</b> See table below	<b>Nominal seat diameter</b> 4 mm (0,16")	<b>Certified max. Helium across the seat leak rate (at max. pressure)</b> $\leq 1 \times 10^{-9}$ mbar.l/s
<b>Wetted volume</b> $< 1.2 \text{ cm}^3$	<b>Flow capacity (Cv)</b> 0.2	<b>Certified max. Helium inboard leak rate (at max. pressure)</b> $\leq 1 \times 10^{-9}$ mbar.l/s
<b>Burst pressure</b> $> 700 \text{ bar (10152 psig)}$		

## CONSTRUCTION MATERIAL

	Parts	Material
<b>Wetted parts</b>	Body	SS 316L, VAR
	Seat	PCTFE, PVDF, VESPEL®
	Diaphragm	Phynox®
<b>Non-wetted parts</b>	Backup diaphragm	Phynox®
	Handwheel	Aluminium (QT) or Plastic (MT)
	Actuator Body	SS 316L or Aluminium
	Others	Stainless Steel, Alloys, brass

## SURFACE FINISH

<b>S</b>	Ra 0.4 $\mu\text{m}$ (15 $\mu\text{in}$ )
<b>V</b>	Ra 0.25 $\mu\text{m}$ EP (10 $\mu\text{in}$ )

## VALVE VERSION / MAX. WORKING PRESSURE

Valve	Max. working pressure
RX04 (LM) Multiturn handwheel <sup>1 2</sup>	20 bar
RX04 (HM) Multiturn handwheel <sup>1 2</sup>	240 bar
RX04 (LQ) Quarter turn handwheel <sup>1</sup>	20 bar
RX04 (HQ) Quarter turn handwheel <sup>1</sup>	240 bar
RX04 (BP*) Pneumatically actuated	10 bar
RX04 (LP*) Pneumatically actuated <sup>3</sup>	20 bar
RX04 (HP*) Pneumatically actuated <sup>3</sup>	240 bar

<sup>1</sup> FT (Panel Mounting) option available

<sup>2</sup> MSF LOTO option available

<sup>3</sup> Position indication switch available

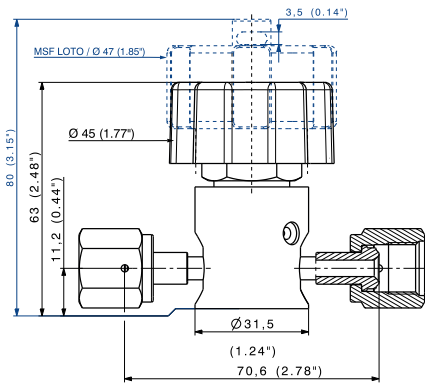
## TEMPERATURE RANGE

Seat (Actuation type)	Temperature Range
PCTFE / PVDF (manual & pneumatic*)	-40°C to +65°C (-40°F to +149°F)
VespeL® (manual & pneumatic*)	-40°C to +150°C (-40°F to +302°F)

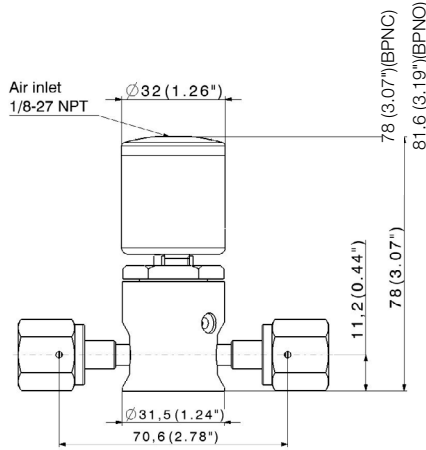
\*-20C° pneumatic versions

**PNEUMATIC VALVE LOW PRES-  
 SURE (BPNC, BPNO)**

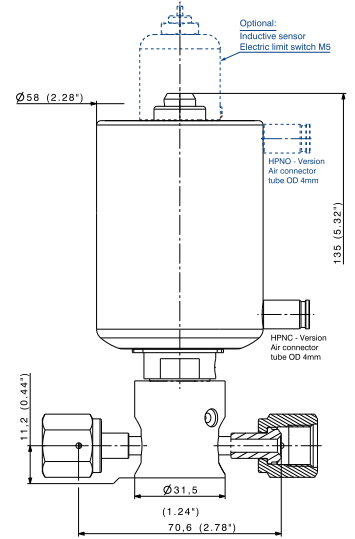
**PNEUMATIC VALVE HIGH  
 PRESSURE (HPNC, HPNO)**



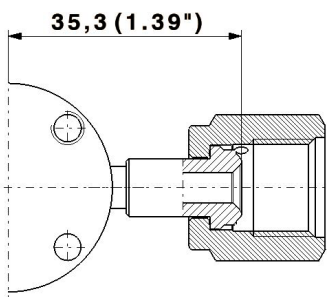
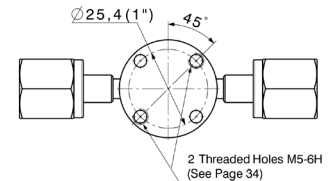
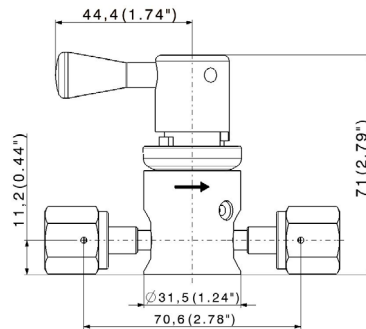
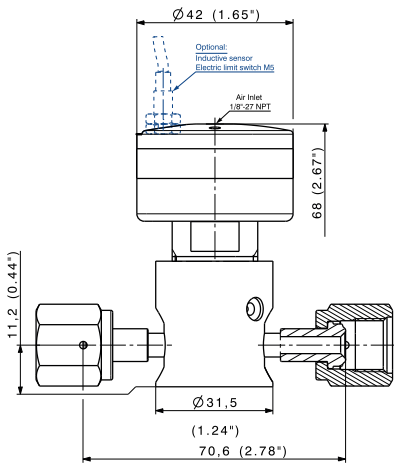
**PNEUMATIC VALVE  
 MEDIUM PRESSURE (LPNC, LPNO)**



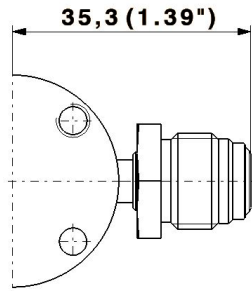
**QUARTER-TURN VALVE (LQ, HQ)**



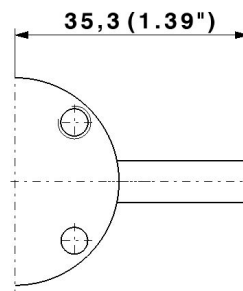
**BOTTOM VIEW**



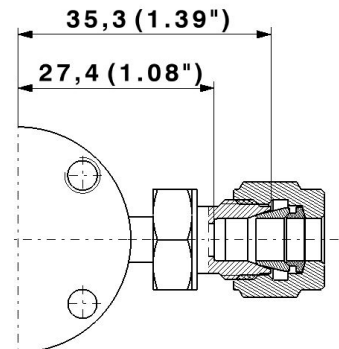
Female (face seal)  
Swivel



Male (face seal)  
non-Swivel



BWO for  
micro-welding head



Compression tube fittings



**OPEN/CLOSE INDICATOR**

Green - Open  
Red - Closed

All specifications and dimensions are subject to change without notice

	Surface Finish		Max. Delivery Pressure		Porting Configuration <sup>1</sup>		Body Material		Seat Material		End Connection		Options	
RX04	S		LM		2W1		-		K		A/B: B¼			
	Ra 0.4 µm (15 µin)	S	Multi-Turn Handwheel (20bar)	LM	2W1	2W1	SS 316L	-	PCTFE (Kel-F®)	K	Metal face seal ¼" - Female	V ¼ F	Panel Mounting	FT
	Ra 0.25 µm EP (10 µin)	V	Multi-Turn Handwheel (240bar)	HM	2W2	2W2	VAR**	A	PI (Vespel®)	V	Metal face seal ¼" - Male	V ¼ M	Electric limit switch***	CI
			Pneumatically actuated (10 bar)	BP*	3W4	3W4	Monel**	M	PVDF	P	BWO ¼"	B ¼	LOTO	MSF
			Pneumatically actuated (20 bar)	LP*	3W5	3W5	Hastelloy®**	H			BWO 6 mm	B6	Constant bleed	FPT
			Pneumatically actuated (240 bar)	HP*	3W6	3W6					Compression tube fittings	RDB ¼		
			Quarter-Turn Handwheel (20 bar)	LQ	3W8	3W8					Compression tube fittings	RDB 6		
			Quarter-Turn Handwheel (240 bar)	HQ	3W9	3W9								
						4W10	4W10							
						4W11	4W11							

<sup>1</sup> Check configurations here

\* Add NO for normally open or NC for normally closed

\*\* On demand

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