

M12 | DIAPHRAGM VALVE FOR UHP APPLICATIONS

Feature a unique proven design

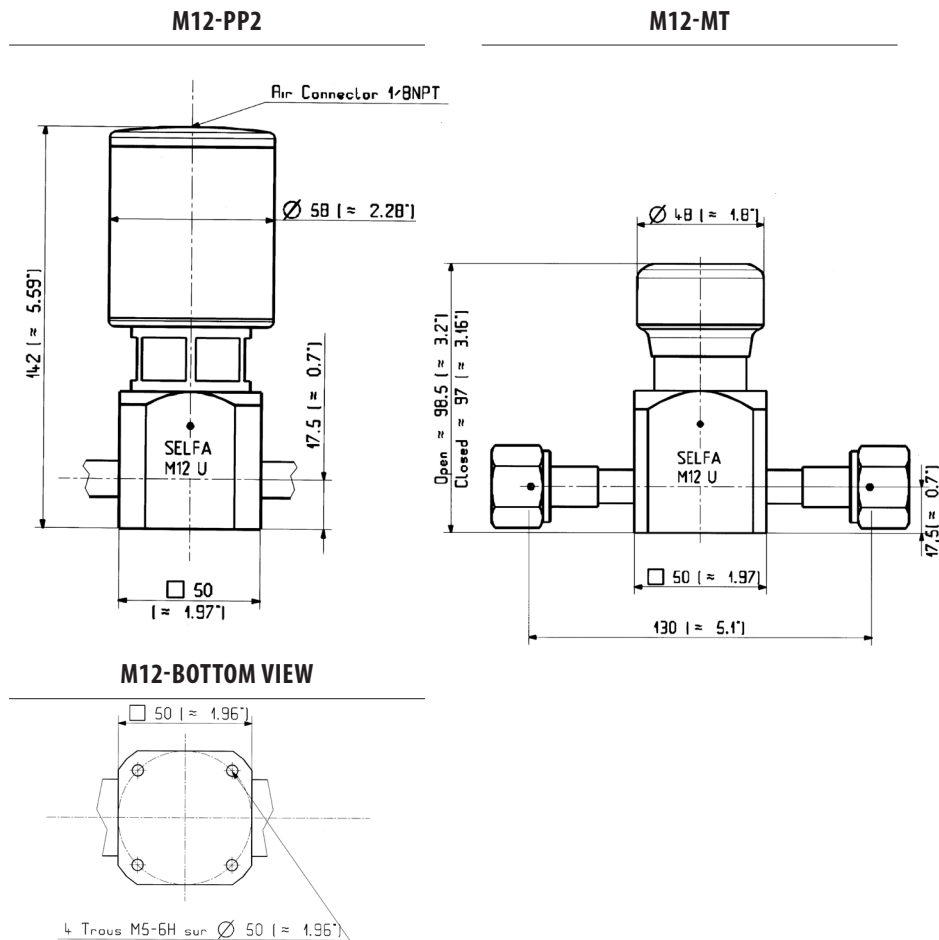


KEY FEATURES

- Tied diaphragm design for positive seat opening and closing
- Individual serial number for full traceability
- Assembly, testing and packaging in cleanroom class 10
- Easy purgeability (optional purge ports, up/down stream)
- Excellent flow coefficient
- Metal to Metal sealing to atmosphere
- 3 ports option



DIMENSIONS



SPECIFICATIONS

Fluid Media	High purity and UHP, corrosive and non-corrosive gases	Temperature range	-20°C to + 65°C (-4°F to 176°F) standard	Certified max. Helium across the seat (at max. pressure)	< 1.10 ⁻⁹ mbar.l./sec
Max. working pressure	• M12 MT manual: 15 bar (215psi) • M12 PP2 pneumatic: 15 bar (215psi)	Flow coefficient	CV = 1,75	Nominal seat Diameter	12 mm (0,47")
Actuator operating pressure	5 to 7 bar (75 to 105 psi)	Certified max. Helium inboard leak rate (at max. pressure)	< 10 ⁻⁹ mbar.l./sec		
		Certified max. Helium outboard leak rate (at max. pressure)	< 10 ⁻⁹ mbar.l./sec		

CONSTRUCTION MATERIAL

	Parts	Valve Grade & Materials		
		S	V	U
Wetted parts	Body	Stainless Steel 316L		
	Surface Finish	< 0,4 µm non EP (15 µ in Ra)	< 0,25 µm EP (10 µ in Ra)	< 0,18 µm EP (7 µ in Ra)
	Diaphragm	Phynox		
	Seat Material	PCTFE (Kel-F®) / PVDF or Vespel® (on request)		
Non-wetted parts	Backup diaphragms	Phynox		
	All others	Stainless steel or alloys		

MANUAL ACTUATION

Parts for all valve grades	
Handle	Aluminium
All others	Stainless Steel or Alloys

PNEUMATIC ACTUATION

Parts	
O-ring	NBR
Actuator Body	Aluminium

PRODUCT CONFIGURATOR

	Valve series	Valve Actuation	Valve Configurations	Body Material (others on request)	Seat Material	End connections (IN/OUT)	Options	
M12	S	MT	2V1	I	K	A/B: B½	FP	
	UHP - Ra 0.18 µm Ep. (7 µin Ra)	U Multi-Turn Handwheel	MT 2 ports in line	2V1 316 L	I PCTFE (Kel-F®)	K Metal face seal ½" - Female	V½-F Back Mounting	FP
	HP/UHP - Ra 0.25 µm Ep. (10 µin Ra)	V Pneumatically actuated (Normally closed version)	PP2 2 Ports in line, upstream purge port - left side	2VPEG Hastelloy® (on request)	H PI (Vespel®)	V Metal face seal ½" - Male	V½-M Electric Limit Switch (PP2 actuators)	CI
	HP Version - Ra 0.4 µm non EP (15 µin Ra)	S PP2 Normally open version	PP2 2 Ports in line, downstream purge port - left side	2VPSG	PVDF	P BWO ½" - (Butt Orbital Weld)	B½	
		PP2 Normally closed version	PP2 2 Ports in line, 2 purge ports upstream/downstream/left side	2V1P2		BWO ¾" (Butt Orbital Weld)	B¾	
			2 ports in line, full passage, downstream branch ("Tee" Valve)	3VT				
			2 ports in line, full passage, downstream branch, downstream purge port	3VTPS				