

High Vacuum Valves

Aluminum High Vacuum Angle Valve XL□-2



- Aluminum bodied
- Uniform baking temperature
- Lightweight, Compact
- Minimal outgassing
- Minimal contamination from heavy metals
- Bellows are replaceable.

Series	Actuation	Valve type	Shaft seal type	Application	Flange size
XLA-2	Air operated	Single acting (N.C.)	Bellows seal	Dust-free Cleaned	16 to 80
XLC-2		Double acting			16 to 80
XLF-2		Single acting (N.C.)	O-ring seal	High-speed operation High operating cycles	16 to 80
XLG-2		Double acting			16 to 80

Aluminum High Vacuum Angle Valve XL□



- High fluorine resistance
- Minimal outgassing
- Minimal contamination from heavy metals

Series	Actuation	Valve type	Shaft seal type	Application	Flange size
XLA	Air operated	Single acting (N.C.)	Bellows seal	Dust-free Cleaned	16 to 160
XLAV (With solenoid valve)		Single acting (N.C.)			16 to 160
XLC		Double acting			16 to 160
XLCV (With solenoid valve)		Double acting			16 to 80
XLF		Single acting (N.C.)	O-ring seal	High-speed operation High operating cycles	16 to 160
XLFV (With solenoid valve)		Single acting (N.C.)			16 to 160
XLG		Double acting			16 to 160
XLGV (With solenoid valve)		Double acting			16 to 80
XLD		Single acting (N.C.)	Bellows seal O-ring seal	For preventing dust turbulence For preventing a pump from running overloaded	25 to 160
XLDV (With solenoid valve)		Single acting (N.C.)			25 to 160
XLH	Manual	Manual	Bellows seal	Dust-free Cleaned	16 to 50
XLS	Electromagnetic	Single acting (N.C.)	(Bellows balance)	For portable equipment not requiring air	16, 25

Aluminum One-touch Connection and Release High Vacuum Angle Valve XLAQ/XLDQ



- One-touch connection and release (No tools are required.)

Series	Actuation	Shaft seal type	Valve type	Material	Flange size
XLAQ	Air operated	Bellows seal	Single acting (N.C.)	Body: Aluminum Bellows: Stainless steel 316L	16 to 50
XLDQ		Bellows seal O-ring seal			40, 50

High Vacuum Valves

Stainless Steel High Vacuum Angle/In-line Valve **XM/XY**



- The precision casting, unified composition prevents the accumulation of gas.
- The XM series is interchangeable with the XL series aluminum high vacuum angle valve.

(Note) Size 16 is not available for the in-line type.

Series	Actuation	Shaft seal type	Valve type	Material	Flange size
XMA/XYA	Air operated	Bellows seal	Single acting (N.C.)	Body: SCS13 (Equivalent to stainless steel 304) Bellows: Stainless steel 316L	16 to 80 (Note)
XMC/XYC		Bellows seal	Double acting		16 to 80 (Note)
XMD/XYD		Bellows seal O-ring seal	Single acting (N.C.)		25 to 80
XMH/XYH	Manual	Bellows seal	Manual		16 to 50 (Note)

Normal Close High Vacuum Solenoid Valve **XSA**



- Minimum operating pressure: 1×10^{-6} Pa (abs)
- Leakage: Internal 1.3×10^{-9} Pa·m³/s, External 1.3×10^{-11} Pa·m³/s
- 2 types of fittings are available.
- Power consumption: Max. 25% reduction
- Weight: Max. 18% lighter (0.5 kg → 0.41 kg)

Series	Valve type	Fluid	Piping	Port size
XSA	Normally closed	Air, Inert gas	Face seal fitting Compression fitting	1/4B, 3/8B

Smooth Vent Valve **XVD**



- The valve/needle valve-integrated construction requires only 1/4 the piping space of previous models.
- Particle numbers have been significantly reduced through the use of a metal diaphragm in the sheet portion.
- Flow of both the initial air supply and the main air supply can be adjusted.

Series	Valve type	Fluid	Piping	Port size
XVD	Normally closed (Pressurize to open, Spring seal)	Nitrogen, Air, Inert gas, etc.	VCR® Swagelok®	1/4B