

High Vacuum Angle Valve


Series XLH

Manual Valve Bellows Seal

How to Order

XLH — 16

High vacuum manual angle valve
(Bellows seal)



XLH

Flange size

16
25
40
50

Heater

Symbol	Heater type
Nil	None
H4	With heater for 100°C
H5	With heater for 120°C

Heater combination table

Setting temperature	Symbol	Model			
		XLH-16	XLH-25	XLH-40	XLH-50
100°C	H4	—	—	•	•
120°C	H5	—	•	•	•

Note) Heater cannot be retrofitted.

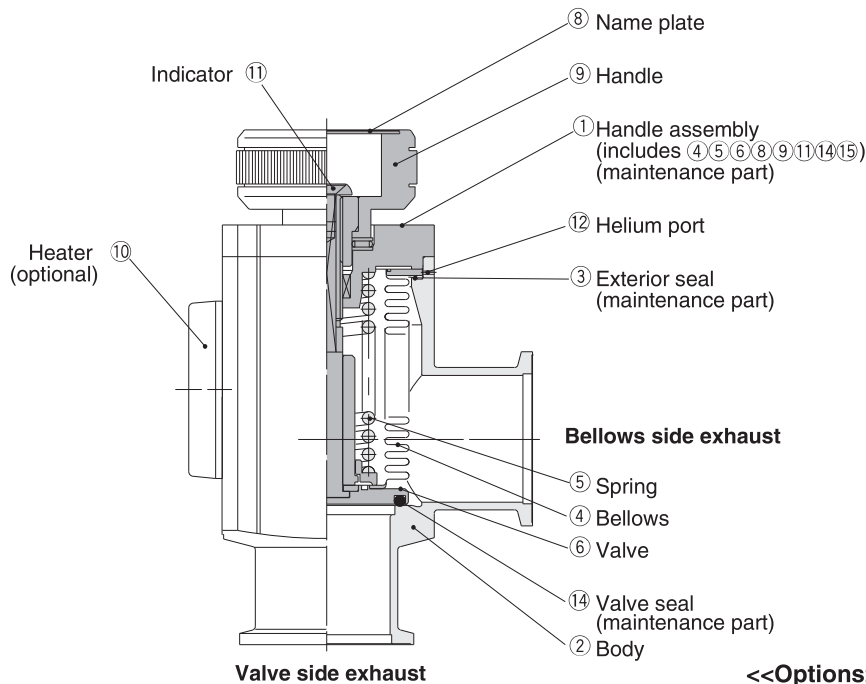
Specifications

Model	XLH-16	XLH-25	XLH-40	XLH-50
Fluid	Non-corrosive gas for aluminum alloy (A6063) and SUS304/316			
Operating temperature °C	5 to 150			
Operating pressure Pa {Torr}	Atmospheric pressure to 10^{-6} {760 to 7.5×10^{-9} }			
Conductance ℓ/s <small>Note 1)</small>	5	14	45	80
Leakage Pa m ³ /s {Torr ℓ/s }	Internal	1.3 x 10 ⁻¹⁰ {1 x 10 ⁻⁹ } at ordinary temperatures, excluding gas transmission		
	External	1.3 x 10 ⁻¹¹ {1 x 10 ⁻¹⁰ } at ordinary temperatures, excluding gas transmission		
Flange type	KF (NW)			
Principle materials	Body: Aluminum alloy Bellows: Stainless steel Seal: FKM (fluoro rubber)			
Surface treatment	Exterior: Hard anodized Interior: Machined for clean environment			
Actuation torque N·m {kgf·cm}	0.1{1}	0.15{1.5}	0.35{3.5}	0.5{5}
Handle revolutions	5	7	10	13
Service life (Million cycles)	0.1			
Weight kg	0.23	0.41	1.05	1.62

Note 1) The conductance is the same as that of an elbow of the same dimensions.

Note 2) For valve heater specifications, refer to "Common Option Specifications, [1] Heaters" on page 38.

Construction/Operation



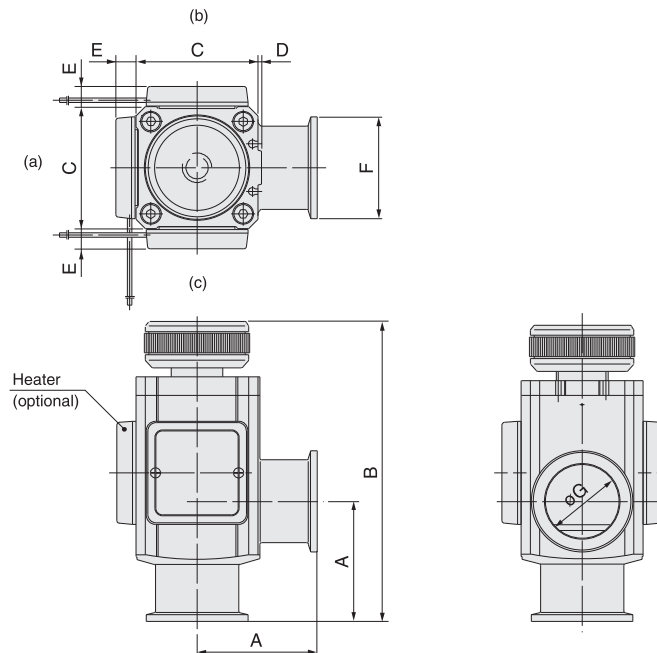
<<Operating principle>>

By turning the handle (9) to the left, the valve (6) opens. The handle (9) does not move up and down, but the indicator (11) shows the open or closed position of the valve. As the handle (9) is turned to the right, the valve (6) closes, and when the turning force of the handle (9) suddenly ceases to be felt, the valve (6) is sealed. The sealing force for the valve (6) comes from the spring (5), and is constant.

<<Options>>

- ⑩ Heater: Simple heating is performed using thermistors. The valve body can be heated to approximately 80, 100 or 120C, depending on the heater option and the valve size. The type and number of thermistors to be used will vary depending upon size and setting temperature.
- ⑪ Indicator: When the valve is open, an orange marker appears in the center of the name plate (8).

Dimensions



Model	A	B	C	D	E Note 1)	F	G
XLH-16	40	100.5	38	1	—	30	17
XLH-25	50	114	48	1	12	40	26
XLH-40	65	162.5	66	2	11	55	41
XLH-50	70	179.5	79	2	11	75	52

Note 1) Dimension E applies when heater option is included. (lead wire length: approx. 1m)

Note 2) (a), (b) and (c) in the above drawing indicate heater mounting positions.

Moreover, heater mounting positions will differ depending on the type of heater.

For further details, refer to mounting positions under Replacement heaters/Part Nos. on page 43.