

BALL VALVES

FLOATING BALL

soft seat | metal seat

Max. Allow. Pressure: 103 MPa: 85°C
Cv Value: 2.1 (for 9/16" 40,000 psi)
Temp.: -50°C to +85°C



FEATURES

1 DLC coated metal seat structure

An excellent durability has been achieved by incorporating DLC coating which sufficiently endures the high loads (surface pressure) generated by fluid pressure of 103 MPa and does not degrade the super precision machining on stem/ball and seat portions.

2 Metal seat structure less susceptible to variation of hydrogen temperature

Selection of ball-seat types available in accordance with the intended use.

(A) Metal Seat:

High durability (Open/Close operation durability: 40,000 cycles) has been achieved.
 Allowable leakage: 10 cc/min.

(B) Soft Seat:

High sealing performance has been achieved.
 Allowable leakage: 0 cc/min. (at shipment),
 0.3 cc/min. (after 20,000 cycles of operation)
 3. No restriction on flow directions provided by the symmetric structure (Metal seat only)
 Improved freedom of pipework layout based on no restriction on flow directions.

→ Specifications of Ball Valves (Manual)

Maximum Allowable Pressure	103 MPa: 85 °C
Fluid Temperature Range	-50 to +85 °C
Cv-Value	2.1 (for 9/16" 40,000 psi)
Body Material	F316/F316L-1.4401/04
Fitting	Coned & Thread
Actuator	Manual/Automatic (Pneumatic Spring Return)



BALL VALVES

AUTOMATIC ACTUATOR

soft sealing | metal sealing

Op. Pressure Range: 0.4 to 0.6 MPa
Pressure Resist. of Cyl.: 0.98 MPa
Op. Temp. Range: -20°C to +60°C



KITZ PRODUCT CODE

Metal Sealed Ball Valve: KH19-M

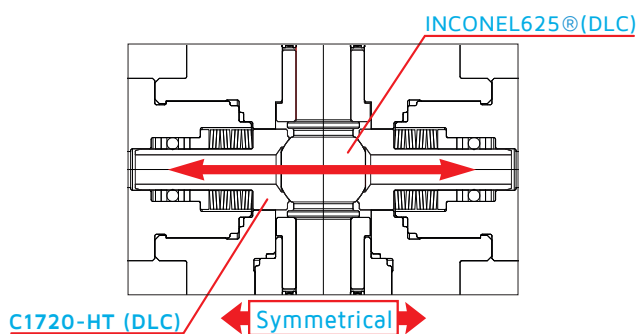
Soft Sealed Ball Valve: KH19-S

→ Actuator Specifications

Operating Fluid	Instrumentation Air
Operation Pressure Range	0.4 to +0.6 MPa
Pressure Resistance of Cylinder	0.98 MPa
Volume of Cylinder (L)	0.14 L
Operation Temperature Range	-20 to +60 °C

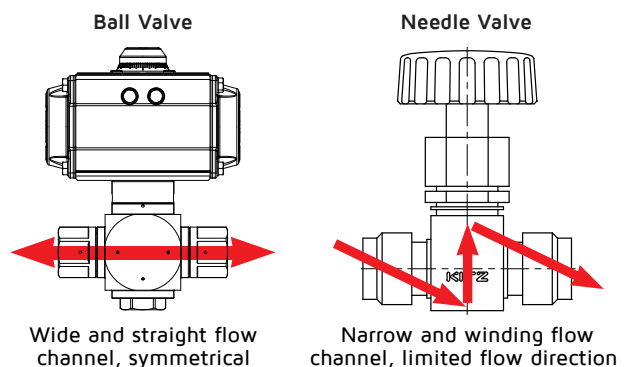
- 3** No restriction on flow directions provided by the symmetric structure (Metal seat only)

Improved freedom of pipework layout based on no restriction on flow directions.

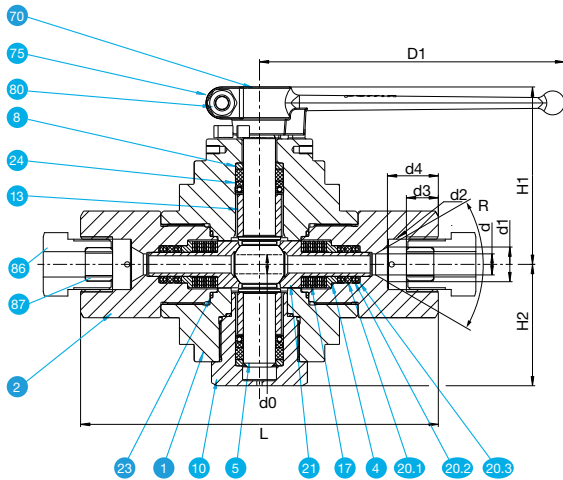


- 4** Cv-value almost 10 times as high as needle valve (in-house comparison)

Cv-value 2.1 (for 9/16" 40,000 psi)



KH19 LEVER HANDLE



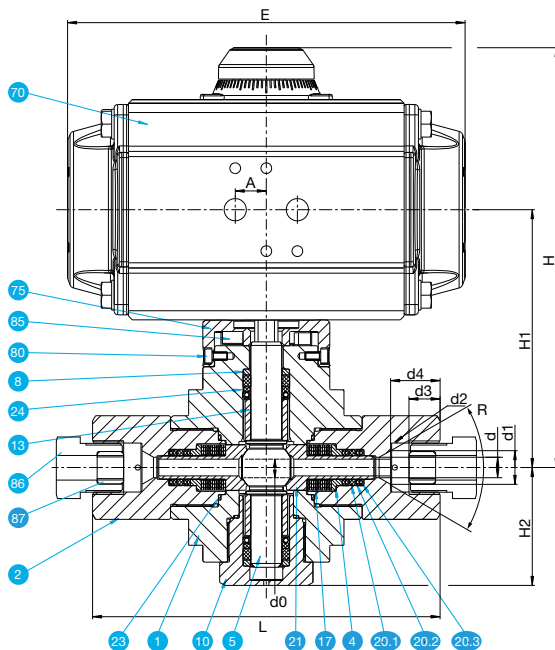
→ Component List

PN	Parts Name	Material
1	Body	F316/F316L-1.4401/04
2	Body Cap	F316/F316L-1.4401/04
4	Retainer Ring	F316/F316L-1.4401/04
5	Ball	2.4856 + DLC
8	Spacer Ring	2.0936
10	Bottom Cover	F316/F316L-1.4401/04
13	Bearing	2.0936
17	Disk Spring	A167 TYPE316
20.1	O-Ring	EPDM
20.2	Back-Up Ring	PTFE-25% GLAS
20.3	Back-Up Ring	PEEK
21	Seat Retainer	2.1247 + DLC
23	Gasket	2.0090
24	Stern Sealing	KITZ Standart
70	Lever	1.4308
75	Hex. Screw M6x25	A2.70
80	Hex. Nut M6	A4
86	Gland	A479 TYPE316
87	Collar	A479 TYPE316

→ Dimension Table

Nominal Size	Inch Tubing End	d0	d	d1	d1	d3	d4	R	H1	H2	D1	L	Weight
9/16	9/16" 20,000 psi	6.4	7.9	12.7	13/16" - 16UNF	11.2	19.1	60	66.5	45.5	114.5	134.2	2.8 kg
9/16	9/16" 60,000 psi	6.4	4.8	9.7	1-1/8" - 20UNF	15.7	19.1	60	66.5	45.5	114.5	134.2	
3/8	3/8" 20,000 psi	6.4	5.2	7.9	9/16" - 18UNF	9.7	15.7	60	66.5	45.5	114.5	134.2	
3/8	3/8" 60,000 psi	6.4	3.2	6.6	3/4" - 16UNF	13.5	15.7	60	66.5	45.5	114.5	134.2	
1/4	1/4" 20,000 psi	6.4	2.8	4.8	7/16" - 20UNF	7.1	12.7	60	66.5	45.5	114.5	134.2	
1/4	1/4" 60,000 psi	6.4	2.4	4.3	9/16" - 18UNF	9.7	11.2	60	66.5	45.5	114.5	134.2	

KH19 ACTUATOR



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PN	Parts Name	Material
1	Body	F316/F316L-1.4401/04
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20.1	O-Ring	EPDM
20.2	Back-Up Ring	PTFE-25% GLAS
20.3	Back-Up Ring	PEEK
21	Seat Retainer	2.1247 + DLC
23	Gasket	2.0090
24	Stern Sealing	KITZ Standart
70	PN Actuator	---
75	Extension F03	F316/F316L-1.4401/04
80	Screw M3 x 6	A2.70
85	Screw M5 x 10	A2.70
86	Gland	A479 TYPE316
87	Collar	A479 TYPE316

→ Dimension Table

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9/16	9/16" 20,000 psi	6.4	7.9	12.7	13/16" - 16UNF	11.2	19.1	60	162	99.5	45.5	153.5	12	134.2	4.5 kg
9/16	9/16" 60,000 psi	6.4	4.8	9.7	1-1/8" - 12UNF	15.7	19.1	60	162	99.5	45.5	153.5	12	134.2	
3/8	3/8" 20,000 psi	6.4	5.2	7.9	9/16" - 18UNF	9.7	15.7	60	162	99.5	45.5	153.5	12	134.2	
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1/4	1/4" 20,000 psi	6.4	2.8	4.8	7/16" - 20UNF	7.1	12.7	60	162	99.5	45.5	153.5	12	134.2	
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