

Bellows- and Diaphragm-Sealed Multiport and Elbow Valves

Selection Guide



HB, DL, and DS Series

- Choose a valve type from individual product catalogs.
- Follow the instructions to build a valve ordering number for the multiport valve that meets your system requirements.
- See product catalogs for materials of construction, pressure-temperature ratings, options, and accessories.

Multiport and Elbow Valves

To order a valve, select designators for:

- Valve type. See these Swagelok® catalogs:
 - *Diaphragm Valves—DL and DS Series, MS-01-73*
 - *High-Pressure, Pneumatically Actuated Bellows-Sealed Valves—HB Series, MS-01-76*
- Flow path—4, 3, or 2 ports
- End connections for each port
- Process.

Flow Path

Select a flow path as viewed from the top of the valve. Insert the flow path designator in the valve ordering number, as shown on page 4.

- An **a** next to the port number in the Flow Path column indicates a port **above** the valve seat.
- A **b** next to the port number in the Flow Path column indicates a port **below** the valve seat.

Ports	Schematic	Flow Path		Designator
		Closed	Open	
4				D
				E
3				A
				B
				C
				F
				G
2				L
				N
				R

End Connections

Select an end connection for each port on the body in numerical order. Insert the end connection designator in the valve ordering number in the same sequence it is selected, as shown on page 4.

End Connection		Designator
1/4 in. female VCR fitting		3
1/4 in. rotatable male VCR fitting		2
1/4 in. tube butt weld, 0.30 in. (7.6 mm) tube stub, 0.035 in. wall		1
6 mm tube butt weld, 1 mm wall		4

Process

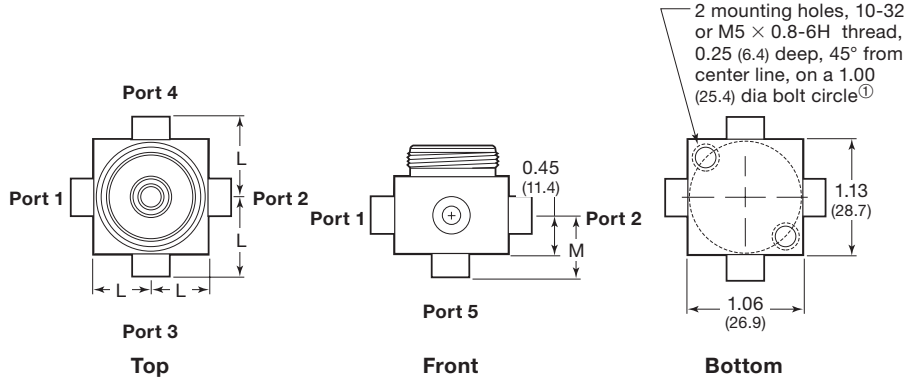
See individual product catalogs for process specifications.

Multiport and Elbow Valves

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Body and End Connections

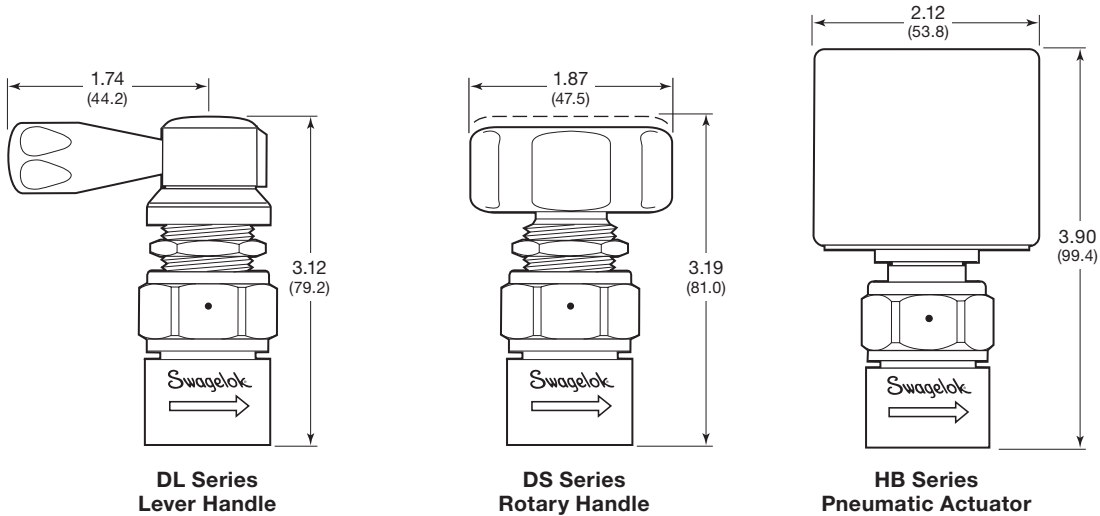


End Connections	Dimensions, in. (mm)	
	L	M
1/4 in. female VCR fitting	1.38 (35.1)	1.27 (32.3)
1/4 in. rotatable male VCR fitting	1.74 (44.2)	1.63 (41.4)
1/4 in. tube butt weld, 0.035 in. wall	0.87 (22.1) ^①	0.76 (19.3)
6 mm tube butt weld, 1 mm wall		

① L = 0.95 in. (24.1 mm) for ports 1 and 2 if the opposite port has a female or male VCR fitting end connection.

① Bodies with **L** or **R** flow path designators have mounting holes reversed from the pattern shown. Bodies with **N** flow path designator have no mounting holes.

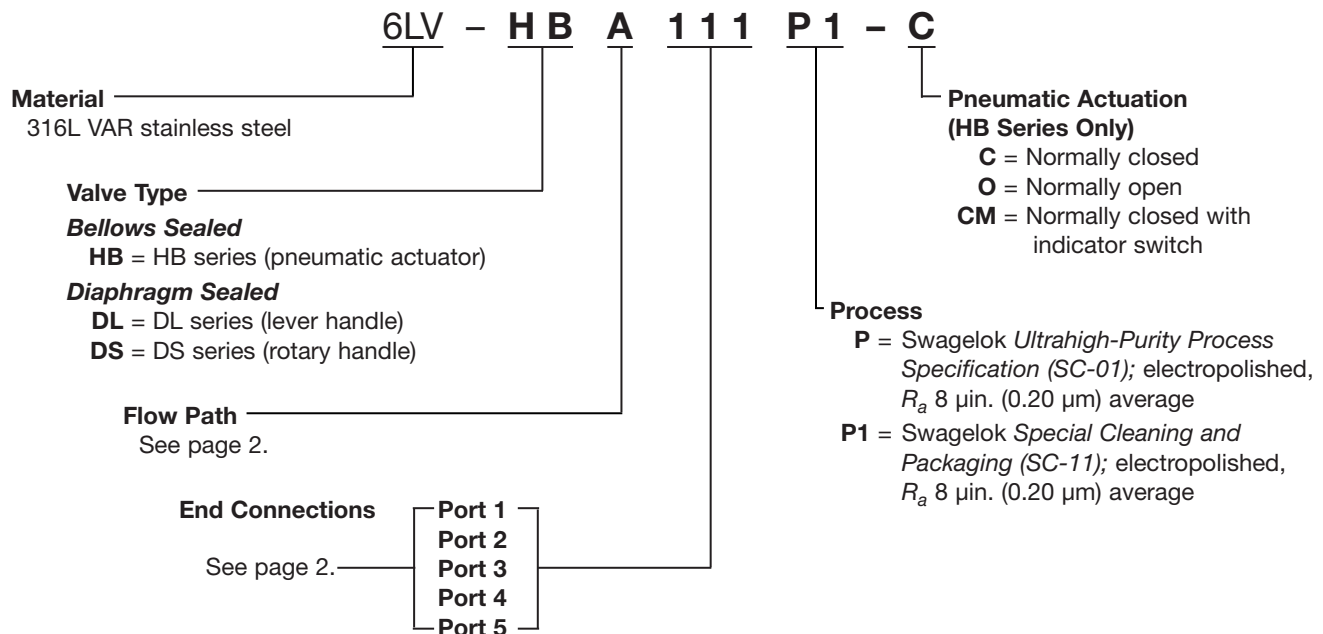
Body and Actuators



Multiport and Elbow Valves

Ordering Information

Build a valve ordering number by combining the designators in the sequence shown below.



Example Ordering Numbers

Ordering Number	6LV-DSR33P	6LV-DLD2121P1	6LV-HBL11P-C
Material	316L VAR stainless steel		
Valve type	DS series	DL series	HB series
Flow path	2-port, R pattern	4-port, D pattern	2-port, L pattern
Port 1 end connection	1/4 in. female VCR fitting	1/4 in. rotatable male VCR fitting	1/4 in. tube butt weld
Port 2 end connection	—	1/4 in. tube butt weld	—
Port 3 end connection	1/4 in. female VCR fitting	1/4 in. rotatable male VCR fitting	—
Port 4 end connection	—	1/4 in. tube butt weld	1/4 in. tube butt weld
Port 5 end connection	—	—	—
Process	Swagelok <i>Ultrahigh-Purity Process Specification (SC-01)</i>	Swagelok <i>Special Cleaning and Packaging (SC-11)</i>	Swagelok <i>Ultrahigh-Purity Process Specification (SC-01)</i>
Actuator	Rotary handle	Lever handle	Normally closed

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

Caution: Do not mix or interchange parts with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.