DIAPHRAGM VALVES

DV100 Low Pressure Manual Valve

OPEN

CLOSE

MANUAL ACTUATOR

- Round Handle
- Quick, quarter-turn actuation
- Handle with window to show open/close status

FEATURES

- Including valve seat
- Small valve seat volume
- Elgiloy diaphragm provides high strength and corrosion resistance to ensure long cycle life
- Suitable for ultra-high purity applications and meeting the control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

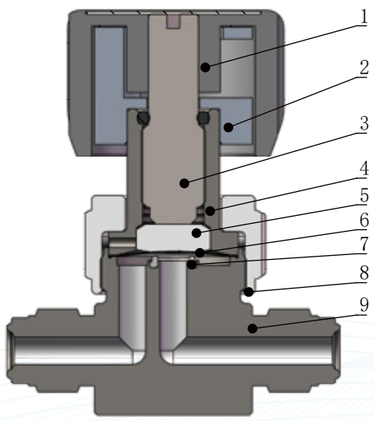
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/2"manual		●	
1/4"manual		●	
3/8"manual		●	

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/2" Cv 0.7; 1/4" Cv 0.3; 3/8" Cv 0.65
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	●Internal:⩽$1x10^{-9}$ atm.cc/Sec He ●External:⩽$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Round Handle	Aluminum Alloy
2	Stop Block	Aluminum Alloy
3	Stem	SS 316L
4	Slider Holder	SS 316L
5	Slider	SS 316L
6	Diaphragm	Elgiloy
7	Valve Seat	PCTFE/PI
8	Locking Nut	SS 316L
9	Valve Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP

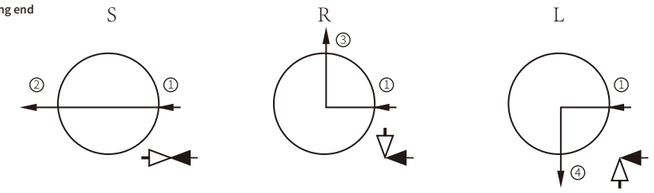
ORDERING DESCRIPTION

DV100 M S-JCR 04-PI -SV-E-P

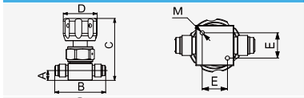
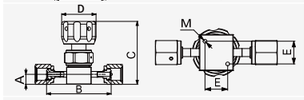
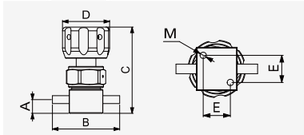
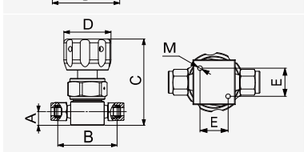
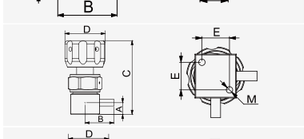
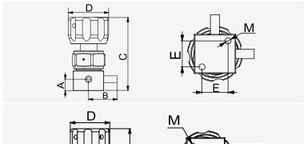
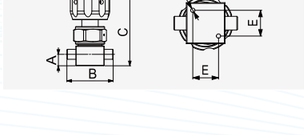
SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING	INSTALL METHOD
DV100	M manual	S Flow R Flow L Flow	TF Tube Fitting JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4" 06 3/8" 08 1/2"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished Passivation	P Panel installation Without

FLOW PATH

Inlet end ◁ Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch A	B	C	D	E	M
	DV100MS-JCR04	1/4"Male VCR Fitting	11 0.43	57 2.24	70 2.75	38 1.50	18 0.70	2*M5 (Depth 5/0.19")
	DV100MS-JCR08	1/2" Male VCR Fitting	16 0.63	77 3.03	76 2.99	46 1.81	19.8 0.78	
	DV100MS-FJCR04	1/4"Female VCR Fitting	11 0.43	70.6 2.77	70 2.75	38 1.50	18 0.70	
	DV100MS-FJCR08	1/2" Female VCR Fitting	16 0.63	83 3.27	76 2.99	46 1.81	19.8 0.78	
	DV100MS-TW04	1/4"Tube Butt Weld	11 0.43	54 2.23	70 2.75	38 1.50	18 0.70	
	DV100MS-TW06	3/8" Tube Butt Weld	16 0.63	69 2.72	76 2.99	38 1.50	19.8 0.78	
	DV100MS-TW08	1/2" Tube Butt Weld	16 0.63	69 2.72	76 2.99	38 1.50	19.8 0.78	
	DV100MS-TF04	1/4"Tube Fitting	11 0.43	48 1.89	70 2.76	38 1.50	18 0.70	
	DV100MS-TF06	3/8" Tube Fitting	16 0.63	64 2.52	76 2.99	46 1.81	19.8 0.78	
	DV100MS-TF08	1/2"Tube Fitting	16 0.63	64 2.52	76 2.99	46 1.81	19.8 0.78	
	DV100MR-TW04	1/4"Tube Butt Weld	11 0.43	27 1.06	70 2.76	38 1.50	18 0.70	
	DV100MR-TW06	3/8" Tube Butt Weld	16 0.63	34.5 1.36	76 2.99	46 1.81	19.8 0.78	
	DV100MR-TW08	1/2" Tube Butt Weld	16 0.63	34.5 1.36	76 2.99	46 1.81	19.8 0.78	
	DV100ML-TW04	1/4"Tube Butt Weld	11 0.43	27 1.06	70 2.76	38 1.50	18 0.70	
	DV100ML-TW06	3/8" Tube Butt Weld	16 0.63	34.5 1.36	76 2.99	46 1.81	19.8 0.78	
	DV100ML-TW08	1/2" Tube Butt Weld	16 0.63	34.5 1.36	76 2.99	46 1.81	19.8 0.78	
	DV100MS-SW04	1/4" Tube Socket Weld	11 0.43	44.5 1.75	70 2.75	38 1.50	18 0.70	

DIAPHRAGM VALVES

DV100 Low Pressure Pneumatic Valve

N.O

N.C

PNEUMATIC ACTUATORS

- "N.O" : Normally Open
- "N.C" : Normally Closed

FEATURES

- Elgiloy diaphragm provides high strength and corrosion resis-tance to ensure long cycle life
- Suitable for ultra-high purity applications and meeting the control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

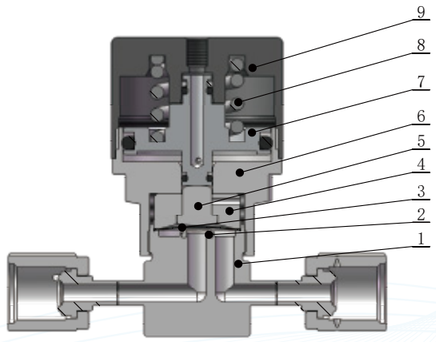
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.O	●		
1/4"N.C		●	
3/8"N.O	●		
3/8"N.C	●		
1/2"N.O	●		
1/2"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /316L VIM-VAR/ SEMI F20
Seat Ring	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/2" Cv 0.7; 1/4" Cv 0.3; 3/8" Cv 0.65
Connecting	M5
Air Drive Pressure	●1/4:N.C:70~125psig (0.48~0.86MPa) N.O:60~90psig (0.4~0.6MPa) ●3/8:60~90psig (0.4~0.6MPa) ●1/2:60~90psig (0.4~0.6MPa)
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.), BA Ra≤0.4 μm (16 μin.)
Leakage Rate (Helium)	●Internal:≤1x10^{-9} atm.cc/Sec He ●External:≤1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
2	Valve Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider Holder	SS 316L
5	Slider	SS 316L
6	Bonnet	SS 304
7	Piston	Aluminum Alloy
8	seal ring	FKM
9	Cylinder Head	Aluminum Alloy

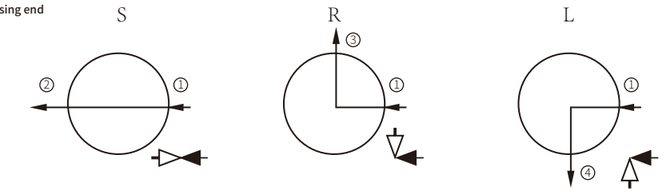
ORDERING DESCRIPTION

DV100 C S-JCR 04-PI -SV-E

SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DV100	C N.C O N.O	S Flow R Flow L Flow	TF Tube Fitting JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4" 06 3/8" 08 1/2"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished Passivation

FLOW PATH

Inlet end Outgassing end



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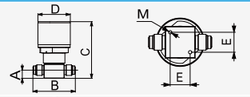
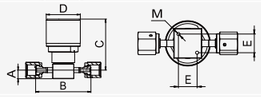
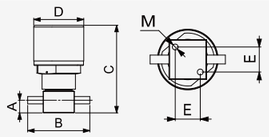
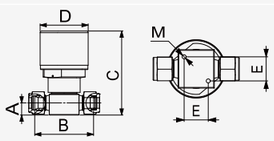
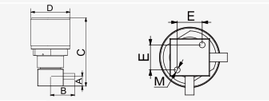
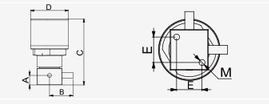
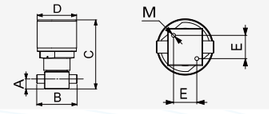
Picture	Model	Port	Dimension mm/inch A	B	C	D	E	M
	DV100CS-JCR04	1/4" Male VCR Fitting	11 0.43	57 2.24	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	2*M5 (Depth 5/0.19")
	DV100OS-JCR04							
	DV100CS-JCR08	1/2" Male VCR Fitting	16 0.63	77 3.03	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100OS-JCR08							
	DV100CS-FJCR04	1/4" Female VCR Fitting	11 0.43	70.6 2.78	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	
	DV100OS-FJCR04							
	DV100CS-FJCR08	1/2" Female VCR Fitting	16 0.63	83 3.27	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100OS-FJCR08							
	DV100CS-TW04	1/4" Tube Butt Weld	11 0.43	54 2.23	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	
	DV100OS-TW04							
	DV100CS-TW06	3/8" Tube Butt Weld	16 0.63	69 2.71	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100OS-TW06							
	DV100CS-TW08	1/2" Tube Butt Weld	16 0.63	69 2.72	81 3.19 77 3.03			
	DV100OS-TW08							
	DV100CS-TF04	1/4" Tube Fitting	11 0.43	48 1.89	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	
	DV100OS-TF04							
	DV100CS-TF06	3/8" Tube Fitting	16 0.63	64 2.52	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100OS-TF06							
	DV100CS-TF08	1/2" Tube Fitting	16 0.63	64 2.52	81 3.19 77 3.03			
	DV100OS-TF08							
	DV100CR-TW04 DV100OR-TW04	1/4" Tube Butt Weld	11 0.43	27 1.06	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	
	DV100CR-TW06 DV100OR-TW06	3/8" Tube Butt Weld	16 0.63	34.5 1.36	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100CR-TW08 DV100OR-TW08	1/2"Tube Butt Weld	16 0.63	34.5 1.36	81 3.19 77 3.03			
	DV100CL-TW04 DV100OL-TW04	1/4"Tube Butt Weld	11 0.43	27 1.06	76 2.99 72 2.83	44 1.73 40 1.57	18 0.70	
	DV100CL-TW06 DV100OL-TW06	3/8"Tube Butt Weld	16 0.63	34.5 1.36	81 3.19 77 3.03	55.5 2.18	19.8 0.78	
	DV100CL-TW08 DV100OL-TW08	1/2"Tube Butt Weld	16 0.63	34.5 1.36	81 3.19 77 3.03			
	DV100CS-SW04	1/4" Tube Socket Weld	11 0.43	44.5 1.75	76 2.99	44 1.73	18 0.70	
	DV100OS-SW04				72 2.83	40 1.57		

DIAPHRAGM VALVES

DVL100 Low Pressure Pneumatic Valve

N.C

PNEUMATIC ACTUATORS

- "N.C" : Normally Closed

FEATURES

- Elgiloy diaphragms provide high strength and corrosion resistance to ensure long cycle life
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes
- Designed and manufactured in accordance with SEMI UHP standards

Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F ●PI: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	1/4" Cv 0.3
Connecting	M5
Air Drive Pressure	60~90psi /0.4~0.6MPa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leak rate (helium)	●Internal:⩽1x10^{-9} atm.cc/Sec He ●External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

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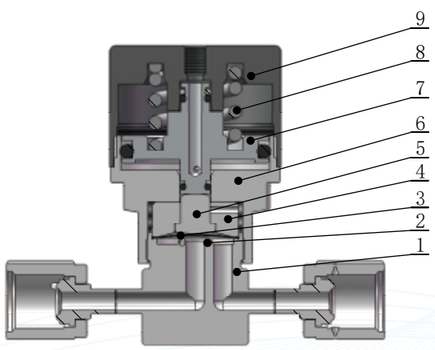


NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	valve body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
2	Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider seat	SS 316L
5	Slider	SS 316L
6	Body	SS 304
7	Piston	aluminum alloy
8	Seal	FKM Fluorine Rubber
9	Cylinder head	aluminium

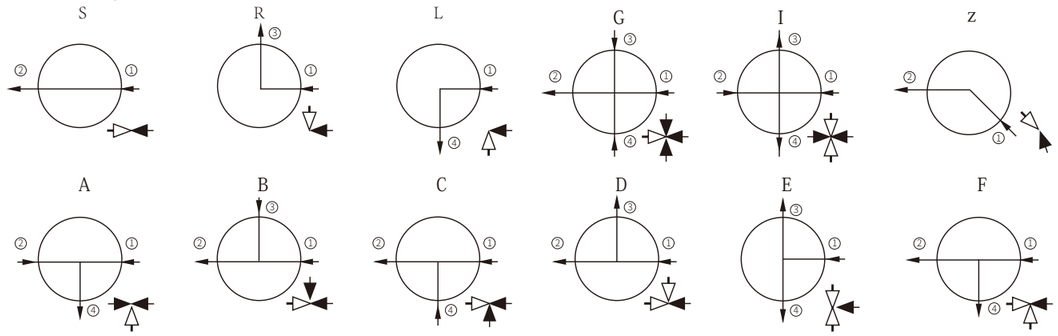
ORDERING DESCRIPTION

DVL100 C S-JCR 04-PI -SV-E

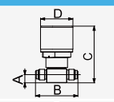
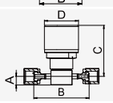
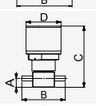
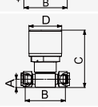
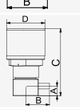
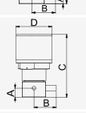
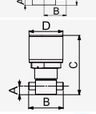
SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DVL100	C N.C	S Flow R Flow L Flow A Flow B Flow C Flow D Flow E Flow F Flow G Flow I Flow Z Flow	TF Tube Fitting JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4"	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electrop-olished Passivation

FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DVL100CS-JCR04	1/4"Male VCR Fitting	11 0.43	57 2.24	76 2.99	40 1.57	18 0.70	2*M5 (Depth 5/0.19")
	DVL100CS-FJCR04	1/4"Female VCR Fitting		70.6 2.78				
	DVL100CS-TW04	1/4"Tube Butt Weld		54 2.23				
	DVL100CS-TF04	1/4"Tube Fitting		48 1.89				
	DVL100CR-TW04	1/4" Tube Butt Weld		27 1.06				
	DVL100CL-TW04	1/4" Tube Butt Weld		27 1.06				
	DVL100CS-SW04	1/4"Tube Socket Weld		44.5 1.75				

DIAPHRAGM VALVES

DV110 Low Pressure Manual Valve

MANUAL ACTUATOR

- Round Handle
- Quick, quarter-turn actuation
- Handle with window to show open/close status

FEATURES

- Contained seats and Elgiloy diaphragms provide excellent resistance to swelling and contamination, providing high strength and corrosion resistance to ensure long cycle life
- Suitable for ultra-high purity applications and meeting the liquid control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards
- Same principle as conventional manual valves, allowing for multi-flow path operation

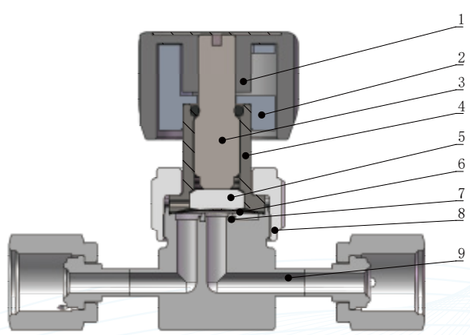
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/2" manual		●	
1/4" manual		●	
3/8" manual		●	

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/2" Cv 0.7; 1/4" Cv 0.3; 3/8" Cv 0.65
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.), BA Ra≤0.4 μm (16 μin.)
Leakage Rate (Helium)	•Internal:≤$1x10^{-9}$ atm.cc/Sec He •External:≤$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Round Handle	Aluminum Alloy
2	Stop Block	Aluminum Alloy
3	Stem	SS 316L
4	Slider Holder	SS 316L
5	Slider	SS 316L
6	Diaphragm	Elgiloy
7	Valve Seat Ring	PCTFE/PI/PA
8	Locking Nut	SS 316L
9	Valve Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP

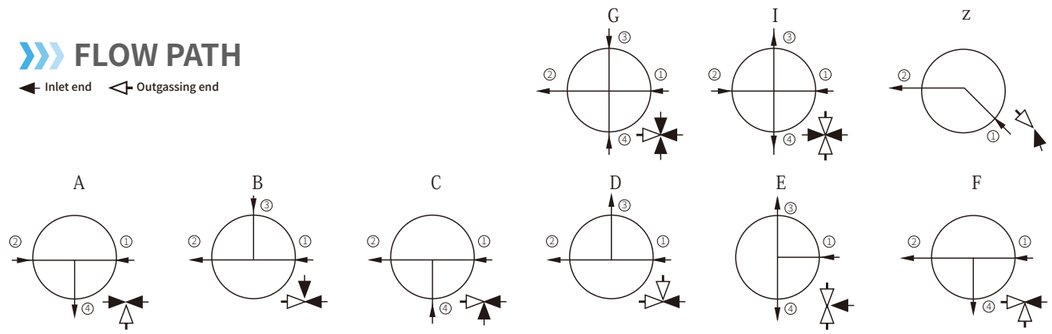
ORDERING DESCRIPTION

DV110 MB-TJCR 04-PI -SV-E

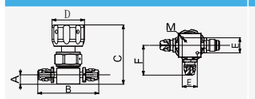
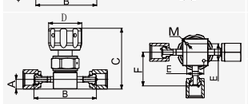
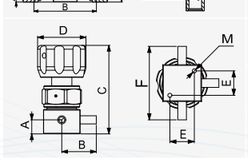
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV110	M manual	A Flow B Flow C Flow D Flow E Flow F Flow G Flow I Flow Z Flow	TF Tube Fitting TJCR Rotatabl Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4" 06 3/8" 08 1/2"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished Passivation

FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch						
			A	B	C	D	F	E	M
	DV110MB-TJCR04	1/4" Rotatable Male VCR Fitting	11 0.43	70.6 2.77	70 2.75	38 1.50	34.8 1.37	18 0.70	2*M5 (Depth 5/0.19")
	DV110MB-FJCR04	1/4" Female VCR Fitting	11 0.43	70.6 2.77	70 2.75	38 1.50	34.8 1.37	18 0.70	
	DV110MB-FJCR08	1/2" Female VCR Fitting	16 0.63	83 3.27	76 2.99	46 1.81	41.5 1.63	19.8 0.78	
	DV110MB-TW04	1/4" Tube Butt Weld	11 0.43	27 1.06	70 2.75	38 1.50	54 2.23	18 0.70	
	DV110MB-TW06	3/8" Tube Butt Weld	16 0.63	34.5 1.35	76 2.99	46 1.81	69 2.71	19.8 0.78	
	DV110MB-TW08	1/2" Tube Butt Weld	16 0.63	34.5 1.35	76 2.99	46 1.81	69 2.71	19.8 0.78	

DIAPHRAGM VALVE

DV110 Low Pressure Pneumatic Valve

N.O

N.C

PNEUMATIC ACTUATORS

- "N.O" : Normally Open
- "N.C" : Normally Closed

FEATURES

- Elgiloy diaphragms are hard-sealed for maximum sealing performance, durability, and resistance to corrosion resistance.
- Long cycle life, high-speed drive, providing durability
- Suitable for ultra-high purity applications and meeting the liquid control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards
- Same principle as conventional pneumatic valves, allowing for multi-flow path operation

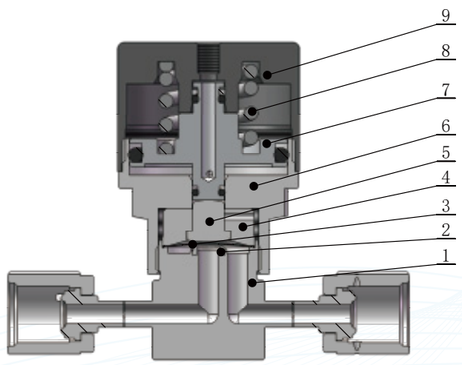
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.O	●		
1/4"N.C		●	
3/8"N.O	●		
3/8"N.C	●		
1/2"N.O	●		
1/2"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/2" Cv 0.7; 1/4" Cv 0.3; 3/8" Cv 0.65
Air Connection	M5
Air Drive Pressure	●1/4:N.C:70~125psig (0.48~0.86MPa) N.O:60~90psig (0.4~0.6MPa) ●3/8:60~90psig (0.4~0.6MPa) ●1/2:60~90psig (0.4~0.6MPa)
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.), BA Ra≤0.4 μm (16 μin.)
Leakage Rate (Helium)	●Internal:≤$1x10^{-9}$ atm.cc/Sec He ●External:≤$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	SS 316L/SS 316L VIM-VAR/SEMI F20 UHP
2	Valve Seat Ring	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider Holder	SS 316L
5	Slider	SS 316L
6	Body	SS 304
7	Piston	Aluminum Alloy
8	Spring	G2
9	Cylinder Head	Aluminum Alloy

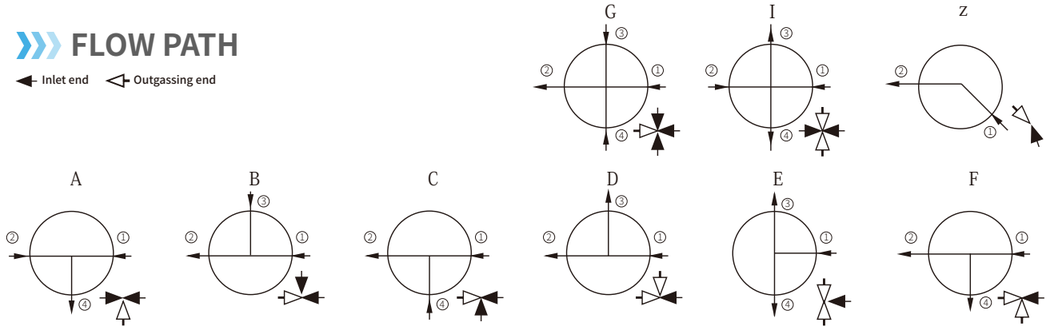
ORDERING DESCRIPTION

DV110 MB-TJCR 04-PI -SV-E

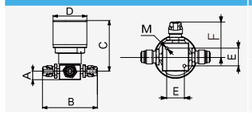
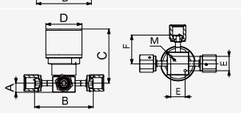
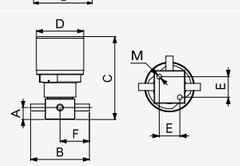
SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DV110	C N.C O N.O	A Flow B Flow C Flow D Flow E Flow F Flow G Flow I Flow Z Flow	TF Tube Fitting TJCR Rotatabl Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4" 06 3/8" 08 1/2"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropolished Passivation

FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch						
			A	B	C	D	F	E	M
	DV110CB-TJCR04	1/4" Rotatable Male VCR Fitting	11 0.43	70.6 2.77	76 2.99	44 1.73	34.8 1.37	18 0.70	2*M5 (Depth 5/0.19")
	DV110OB-TJCR04				72 2.83	40 1.57			
	DV110CB-FJCR04	1/4" Female VCR Fitting	11 0.43	70.6 2.77	76 2.99 72 2.83	44 1.73 40 1.57	34.8 1.37	18 0.70	
	DV110OB-FJCR04								
	DV110CB-FJCR08	1/2" Female VCR Fitting	16 0.63	83 3.27	76 2.99 72 2.83	55.5 2.18	41.5 1.63	19.8 0.78	
	DV110OB-FJCR08								
	DV110CB-TW04	1/4" Tube Butt Weld	11 0.43	54 2.23	76 2.99 72 2.83	44 1.73 40 1.57	27 1.06	18 0.70	
	DV110OB-TW04								
	DV110CB-TW06	3/8" Tube Butt Weld	16 0.63	69 2.72	81 3.19 77 3.03	55.5 2.18	34.5 1.36	19.8 0.78	
	DV110OB-TW06								
	DV110CB-TW08	1/2" Tube Butt Weld	16 0.63	69 2.72	81 3.19 77 3.03	55.5 2.18	34.5 1.36	19.8 0.78	
	DV110OB-TW08								

DIAPHRAGM VALVES

DV112 Diaphragm Valve Group

MANUAL ACTUATOR

- Round Handle
- Quick, quarter-turn actuation
- Handle with window to show open/close status

PNEUMATIC ACTUATORS

- “N.O” : Normally Open
- “N.C” : Normally Closed

FEATURES

- DV112 series integrates two pneumatic diaphragm valves and can be installed in smaller spaces and designed for more compact pipelines in a wide range of applications.
- Elgiloy diaphragms are hard-sealed for maximum sealing performance, durability, and resistance to corrosion resistance.
- Suitable for ultra-high purity applications and meeting the liquid control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

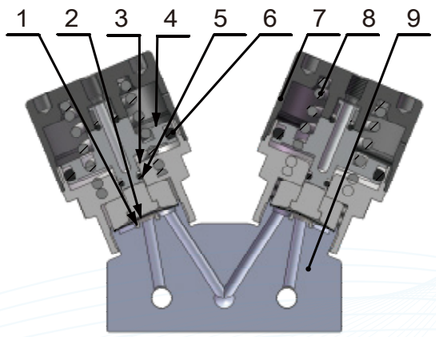
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4" N.O	●		
1/4" N.C		●	
3/8" N.O	●		
3/8" N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/4" Cv 0.3
Air Drive Pressure	•1/4:N.C:70~125psig (0.48~0.86MPa) N.O:60~90psig (0.4~0.6MPa) •1/2:60~90psig (0.4~0.6MPa)
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.),BA Ra≤0.4 μm (16 μin.)
Leakage Rate (Helium)	•Internal:≤1x10^{-9} atm.cc/Sec He •External:≤1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Seat Ring	PCTFE/PI/PA
2	diaphragm	Elgiloy
3	body	SS 316L
4	piston	Aluminum Alloy
5	O-ring seal	Fluorine Rubber (brown)
6	O-ring seal	Fluorine Rubber (brown)
7	Cylinder head	Aluminum Alloy
8	spring	G2
9	matrix	SS 316L

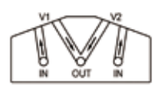
ORDERING DESCRIPTION

DV112CC A- JCR 04-PI-SV-E

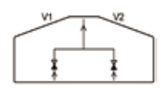
SERIES	CONTROL1	CONTROL2	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DV112	M Manual	M Manual	A: A Flow B: B Flow C: C Flow D: D Flow E: E Flow F: F Flow	JCR Male VCR Fitting	04 1/4" High Flow	PCTFE	SS SS 316L	E Electropo-lished
	C N.C.	C N.C.		FJCR Female VCR Fitting	06 3/8"	PFA PFA	SV 316L VIM-VAR or meets SEMI F20 UHP requir	Passivation
	O N.O.	O N.O.		TW Tube Butt Weld		PI		

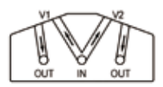
FLOW PATH

Inlet end Outgassing end

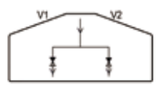


A FLOW

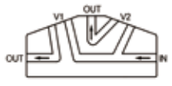




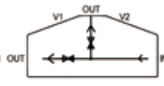
B FLOW

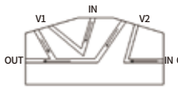


C FLOW

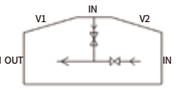


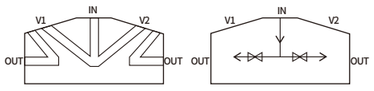
D FLOW





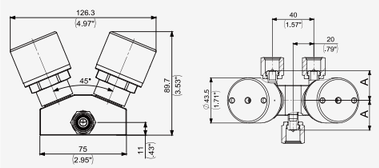
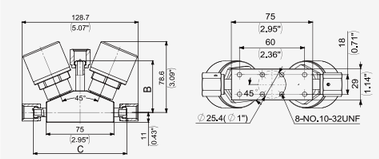
E FLOW





F FLOW

DIMENSIONS (mm/inches for reference only)

Picture	Port	Dimension mm/inch		
		A	B	C
	1/4" Male VCR Fitting	46.80 1.84	700 2.76	139.60 5.50
	1/4" Female VCR Fitting	28.70 1.13	57.30 2.26	103.00 4.07
	1/4" Tube Butt Weld	51.50 2.03	62.00 2.44	149.00 5.87
	3/8" Tube Butt Weld	34.50 1.36	57.00 2.24	115.00 4.53

DIAPHRAGM VALVES

DV120 Low Pressure Manual Valve(LOTO)

OPEN CLOSE

MANUAL ACTUATOR

- Handle with window to show open/close status
- Safety Feature: pull, then turn to open
- LOTO: integral standard feature, lock when valve in close

FEATURES

- After the valve is closed, the handle descends to expose the keyhole, and the valve can be locked and tagged using a padlock or latch to prevent operators from misoperating it
- Lift the handle to rotate when the valve is OPEN
- You can choose to lock in the OPEN state or lock in both OPEN CLOSE states

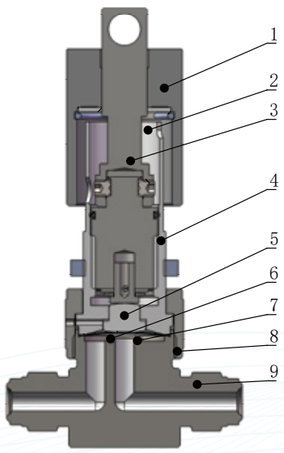
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4" Manual with lock		●	
1/2" Manual with lock	●		

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/2" Cv 0.7; 1/4" Cv 0.3;
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	•Internal:⩽1x10^{-9} atm.cc/Sec He •External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Locking Handle	Aluminum Alloy
2	Stop Block	Aluminum Alloy
3	Stem	SS 316L
4	Slider Holder	SS 316L
5	Slider	SS 316L
6	Diaphragm	Elgiloy
7	Valve Seat	PCTFE/PI/PA
8	Locking Nut	SS 316L
9	Valve Body	316L SS/SS 316L VIM-VAR/SEMI F20

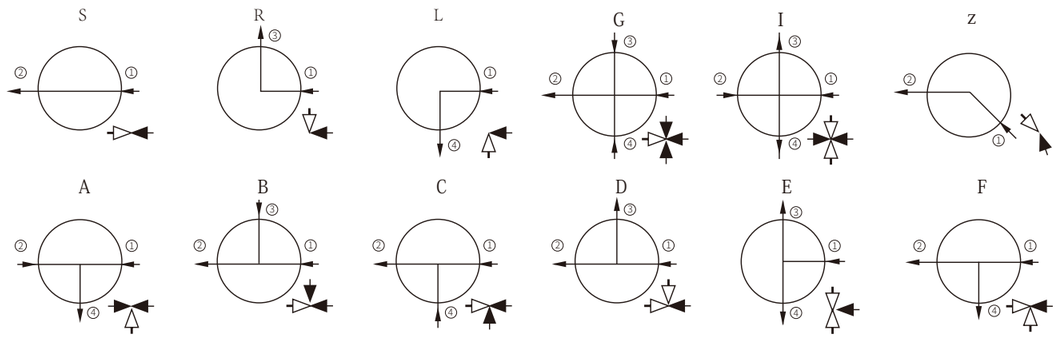
ORDERING DESCRIPTION

DV120 C S-JCR 04-PI -SV-E

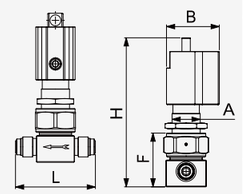
SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DV120	C LOCK IN CLOSE	S Flow R Flow L Flow A: A Flow B: B Flow C: C Flow D: D Flow E: E Flow F: F Flow G:G Flow I:I Flow Z:Z Flow	TF Tube Fitting JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld SW Tube Socket Weld	04 1/4" 08 1/2"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished

FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch							
			L	H	h	F	A	B	D	M
	DV120CS-TF04	1/4"Tube Fitting	48 1.89	106.5 4.19	11 0.42	38 1.50	21 0.83	38 1.49	25.4 1.00	2*M5 (Depth 5/0.19")
	DV120CS-TF08	1/2"Tube Fitting	64 2.52	110 4.33	16 0.63	49 1.93	30 1.18		28 1.10	
	DV120CS-JCR04	1/4" Male VCR Fitting	57 2.24	106.5 4.19	11 0.42	38 1.50	21 0.83		25.4 1.00	
	DV120CS-JCR08	1/2" Male VCR Fitting	77 3.03	110 4.33	16 0.63	49 1.93	30 1.18		28 1.10	
	DV120CS-FJCR04	1/4" Female VCR Fitting	70.6 2.78	106.5 4.19	11 0.42	38 1.50	21 0.83		25.4 1.00	
	DV120CS-FJCR08	1/2"Female VCR Fitting	83 3.26	110 4.33	16 0.63	49 1.93	30 1.18		28 1.10	
	DV120CS-TW04	1/4"Tube Butt Weld	54 2.13	106.5 4.19	11 0.42	38 1.50	21 0.83		25.4 1.00	
	DV120CS-TW08	1/2"Tube Butt Weld	69 2.72	110 4.33	16 0.63	49 1.93	30 1.18		28 1.10	
	DV120CS-SW04	1/4" Tube Socket Weld	44.5 1.75	106.5 4.19	11 0.43	38 1.50	22.2 0.87		25.4 1.00	

DIAPHRAGM VALVES

DV200 High Pressure Manual Valve

OPEN

CLOSE

MANUAL ACTUATOR

- Round Handle
- Quick，quarter-turn actuation
- Handle with window to show open/close status

FEATURES

- Adopting a large handle knob to improve the smoothness of operation when holding in the hand
- Valve stem anti-loosening structure design, to ensure the reliability of the valve, reduce safety risks
- Large perspective window to see the switching status at a glance
- No particles, zero dead angles, Elgiloy metal diaphragm and PCTFE seat sealing, making it highly airtight，high durability and other performance advantages.

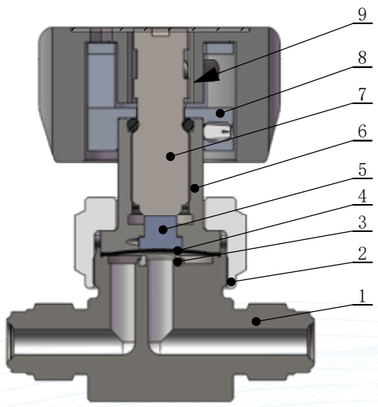
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4" manual			●

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/4" Cv 0.1
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	●Internal:⩽$1x10^{-9}$ atm.cc/Sec He ●External:⩽$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	316L SS/SS 316L VIM-VAR/SEMI F20 UHP
2	Connecting Nnt	SS 316L
3	Valve Seat	PCTFE/PI/PA
4	Diaphragm	Elgiloy
5	Slider Holder	SS 316L
6	Slider	SS 316L
7	Stem	SS 316L
8	Actuator	Aluminum Alloy
9	Round Handle	Aluminum Alloy

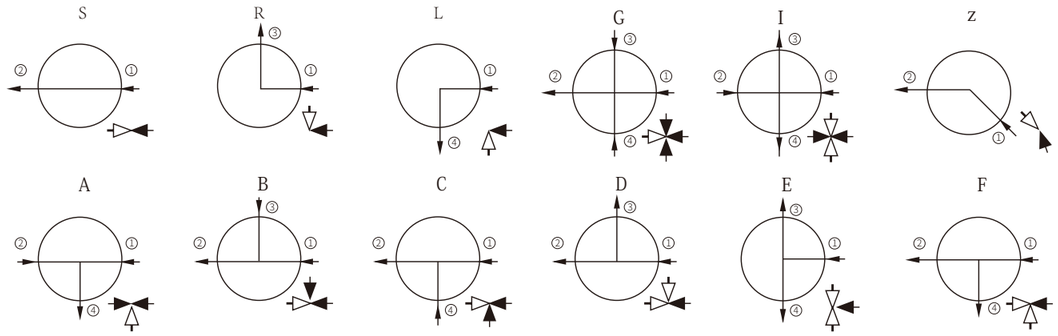
ORDERING DESCRIPTION

DV200 M S-JCR 04-PI-SV-E-P

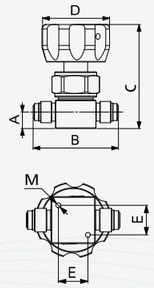
SERIES	CONTROL	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING	INSTALL METHOD
DV200	M manual	S Flow R Flow L Flow A: A Flow B: B Flow C: C Flow D: D Flow E: E Flow F: F Flow G:G Flow I:I Flow Z:Z Flow	TF Tube Fitting JCR Male VCR Fitting FJCR Female VCR Fitting	04 1/4"	PCTFE PFA PFA PI	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished	P Panel installation Without

FLOW PATH

Inlet end　Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DV200MS-JCR04	1/4" Male VCR Fitting	11 0.42	57 2.24	70 2.75	46 1.81	18 0.70	2*M5 (Depth 5/0.19")
	DV200MS-FJCR04	1/4" Female VCR Fitting	11 0.42	70.6 2.78	70 2.75	46 1.81	18 0.70	
	DV200MS-TF04	1/4" Tube Fitting	11 0.42	48 1.89	70 2.75	46 1.81	18 0.70	

DIAPHRAGM VALVES

DV200 High Pressure Pneumatic Valve

N.C

PNEUMATIC ACTUATORS

- "N.C" : Normally **Closed**

FEATURES

- Elgiloy metal diaphragm and PCTFE seat sealing ,making its high airtight, high durability, no particles, zero dead space and other performance advantages.
- Simplified pneumatic actuators and achieved structural miniaturization
- Applied in high-pressure work environments

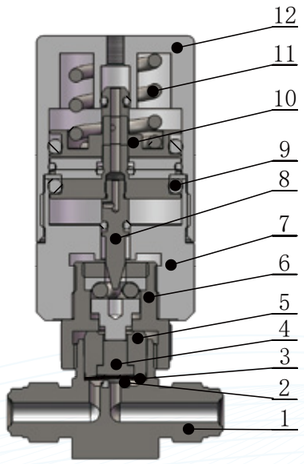
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C			●

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/4" Cv 0.1
Air Connecting	M5
Air Drive Pressure	58~87psi / 0.4~ 0.6 MPa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	•Internal:⩽1x10^{-9} atm.cc/Sec He •External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	316L SS/SS 316L VIM-VAR/SEMI F20 UHP
2	Valve Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider Holder	SS 316L
5	Slider	SUS 630-H900
6	Connecting Nnt	SS 316L
7	Actuator	Aluminum Alloy
8	Piston Head	SS 316L
9	O-Seal 25.5x3.5	FKM
10	Piston(Up)	SS 316L
11	Spring	G2
12	Bonnet	Aluminum Alloy

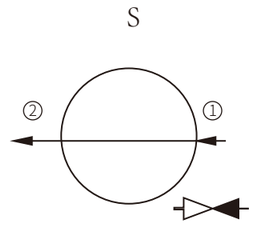
ORDERING DESCRIPTION

DV200 C S-JCR 04-PI-SV-E

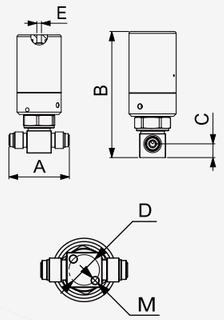
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV200	C N.C	S Flow	TF Tube Fitting	04 1/4"	PCTFE	SS SS 316L	E Electropolished
			JCR Male VCR Fitting		PFA PFA	SV 316L VIM-VAR or meets SEMI F20 UHP requir	Passivation
			FJCR Female VCR Fitting		PI		
			TW Tube Butt Weld				

FLOW PATH

Inlet end ◁ Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DV200CS-JCR04	1/4" Male VCR Fitting	52 2.04	102 4.01	11.1 0.44	Φ18	M5	M5*0.8
	DV200CS-FJCR04	1/4" Female VCR Fitting	71.6 2.82	102 4.01	11.1 0.44	Φ18	M5	
	DV200CS-TF04	1/4" Tube Fitting	41 1.61	102 4.01	11.1 0.44	Φ18	M5	
	DV200CS-TW04	1/4"Tube Butt Weld	51 2.01	102 4.01	11.1 0.44	Φ18	M5	

DIAPHRAGM VALVES

DV450Low Pressure Pneumatic Valve

PNEUMATIC ACTUATORS

- "N.C" : Normally **Closed**

FEATURES

- Small size, high flow rate, pneumatic head can be rotated to facilitate multi-directional installation
- Elgiloy diaphragms provide high strength and corrosion resistance for long cycle life
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

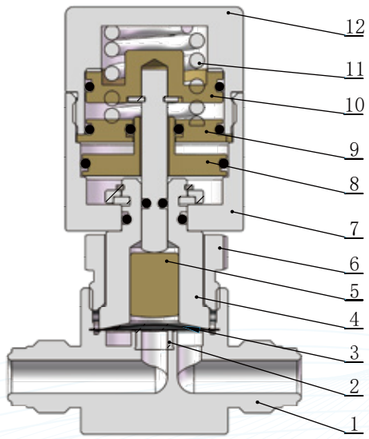
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C	●		
3/8"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS316L/SS316L VIM-WAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F P: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	1/4" Cv0.45 3/8" Cv0.5
Air source connection	M5
Air Drive Pressure	58-87psi/0.40-0.60MPa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leak rate (helium)	●Internal:⩽$1x10^{-9}$ atm.cc/Sec He ●External:⩽$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	female body	SS 316L
2	Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider Seat	SS 316L
5	Slider	C3602
6	Compression nut (connecting nut)	SS 316L
7	Cylinder body	SS 316L
8	Lower piston	C3602
9	Middle piston	C3602
10	Upper piston	C3602
11	Spring	G2
12	Cylinder head	SS 316L

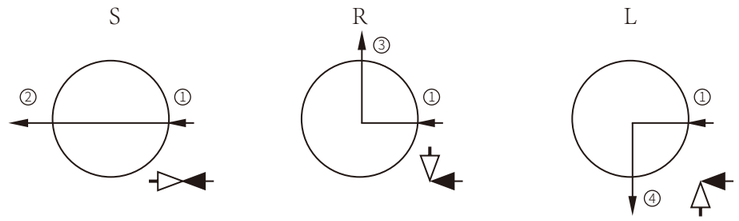
ORDERING DESCRIPTION

DV450 C S-JCR 04-PI-SV-E

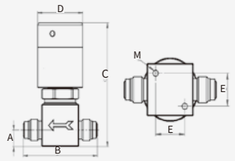
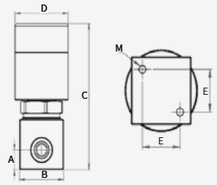
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV450	C N.C	S Flow R Flow L Flow	JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld W Tube root welding	04 1/4" 06 3/8"	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropo-lished Passivation

FLOW PATH

Inlet end ◁ Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DV450CS-JCR04	1/4"Male VCR Fitting	11.2 0.44	57 2.24	83.2 3.28	34.6 1.36	18 0.70	10-32 UNF
	DV450CS-FJCR04	1/4"Female VCR Fitting	11.2 0.44	73.6 2.90	83.2 3.28	34.6 1.36	18 0.70	
	DV450CS-W06	3/8"Tube root welding	11.2 0.44	28.6 1.13	83.2 3.28	34.6 1.36	18 0.70	

DIAPHRAGM VALVES

DV450Low Pressure Manual Valve(LOTO)

● MANUAL ACTUATOR

FEATURES

- Small size, high flow rate, locking of the valve with a pin
- Elgiloy diaphragms provide high strength and corrosion resistance to ensure long cycle life
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes
- Designed and manufactured in accordance with SEMI UHP standards

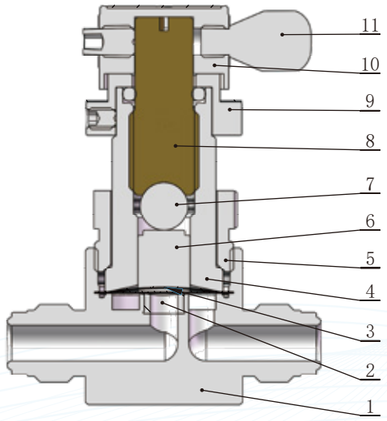
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C	●		
3/8"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS316L/SS316L VIM-WAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	1/4" Cv0.45 3/8" Cv0.5
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leakage rate (helium)	●Internal:⩽1x10^{-9} atm.cc/Sec He ●External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	female body	SS 316L
2	Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slide seat	SS 316L
5	Compression nut (connecting nut)	SS 316L
6	Slider	SS 316L
7	Ball	GCr12
8	Valve stem	C3602
9	Knob limit block	LY12(CZ)
10	Knob	LY12(CZ)
11	Handle	6061(T6)

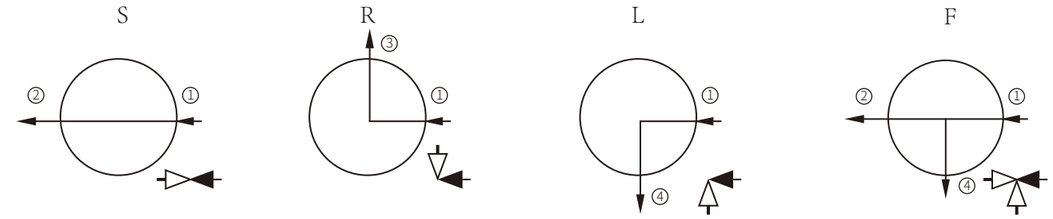
ORDERING DESCRIPTION

DV450 M S-JCR 04-PI-SV-E

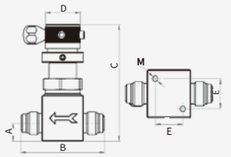
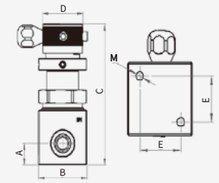
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV450	M manual	S Flow R Flow L Flow F Flow	JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld W Tube root welding	04 1/4” 06 3/8”	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electrop-olished Passivation

FLOW PATH

Inlet end ◁ Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DV450MS-JCR04	1/4"Male VCR Fitting	11.2 0.44	57 2.24	74 2.91	34.6 1.36	18 0.70	10-32 UNF
	DV450MS-FJCR04	1/4"Female VCR Fitting	11.2 0.44	73.6 2.90	74 2.91	34.6 1.36	18 0.70	
	DV450MF-W06	3/8"Tube root welding	11.2 0.44	28.6 1.13	74 2.91	34.6 1.36	18 0.70	

DIAPHRAGM VALVES

DV454Low Pressure Pneumatic Valve

N.C

PNEUMATIC ACTUATORS

- "N.C" : Normally **Closed**

FEATURES

- Small size, high flow rate
- Elgiloy diaphragms provide high strength and corrosion resistance to ensure long cycle life
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes
- Designed and manufactured in accordance with SEMI UHP standards

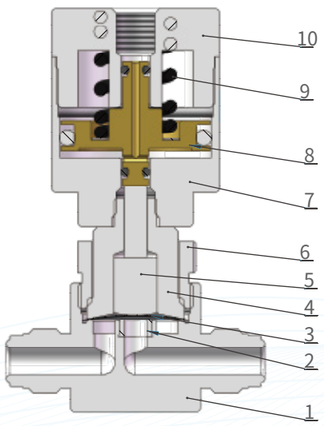
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS316L/SS316L VIM-WAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F P: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	1/4" Cv0.45
Air source connection	1/8-27 NPT
Air source driving pressure	58-87psi/0.40-0.60MPa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leak rate (helium)	●Internal:⩽1x10^{-9} atm.cc/Sec He ●External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	female body	SS 316L
2	Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider Seat	SS 316L
5	Slider	C3602
6	Compression nut (connecting nut)	SS 316L
7	Cylinder body	LY12(CZ)
8	Piston	C3602
9	Spring	G2
10	Cylinder head	LY12(CZ)

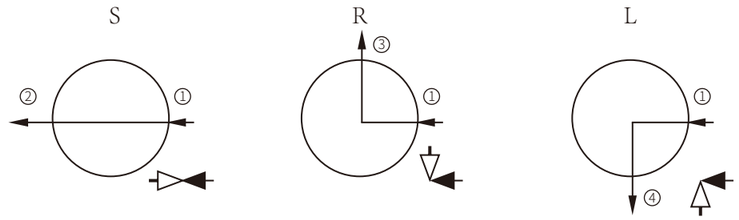
ORDERING DESCRIPTION

DV454 C S-JCR 04-PI-SV-E

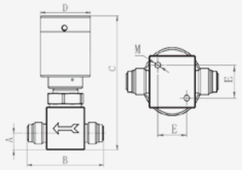
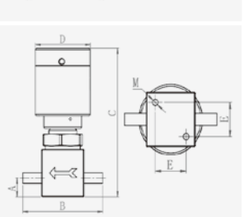
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV454	C N.C	S Flow R Flow L Flow	JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld	04 1/4" 06 3/8"	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electrop-olished Passivation

FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch					
			A	B	C	D	E	M
	DV454CS-JCR04	1/4"Male VCR Fitting	11.2 0.44	57 2.24	89.2 3.51	37 1.46	18 0.70	10-32 UNF
	DV454CS-FJCR04	1/4"Female VCR Fitting	11.2 0.44	70.6 2.78	89.2 3.51	37 1.46	18 0.70	
	DV454CS-TW04	1/4"Tube Butt Weld	11.2 0.44	53.8 2.12	89.2 3.51	37 1.46	18 0.70	

DIAPHRAGM VALVES

DV500 IGS SERIES

MANUAL
- With LOTO device can be locked in closed

PNEUMATIC

COMBINED TYPE
- Manual & Pneumatic
- With LOTO device can be locked in closed

PNEUMATIC IGS DIAPHRAGM VALVES WITH POSITION SENSOR

FEATURES

- The C-seal 1.125" mounting interface is designed to be standardised and modular, with smaller dimensions, shorter gas paths, greater configurability and simpler maintenance, with custom configurations and application support available on request.
- Elgiloy diaphragm provides high strength and corrosion resistance, to ensure long cycle life
- EP processing
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

Maximum working pressure gauge

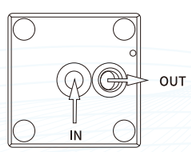
PRESSURE / PORT	145psi	300psi	3000psi
1/4" Manual with lock	●		
1/4" pneumatic	●		
1/4" Combined Type	●		

TECHNICAL PARAMETERS

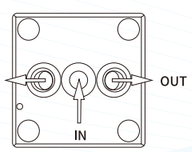
ITEM	DESP.
Body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PCTFE:-10~80°C/ 14~176°F •PI: -10~150°C/ 14~302°F
Diaphragm	Elgiloy
Flow Coefficient (Cv)	1/4" Cv 0.3
Air Drive Pressure	58~87psi /0.4~0.6 MPa
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.)
Leakage Rate (Helium)	•Internal:≤1x10^{-9} atm.cc/Sec He •External:≤1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

FLOW PATH

S FLOW



T FLOW



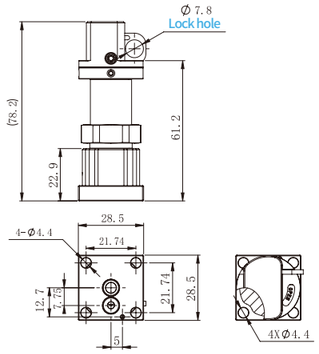
ORDERING DESCRIPTION

DV500 M S- 4 -PI-SV-E-S

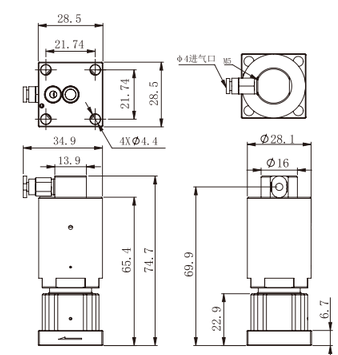
SERIES	CONTROL	FLOW PATHS	IGS	SEAT	BODY MATERIAL	POLISHING	配件
DV500	M Manual	S Flow T Flow	4 C-Seal 1.125"	PCTFE	SS 316L	E Electropolished	S Position Sensors
	C N.C Pneumatic		O4 O-ring sealing interface	PI PI	SV 316L VIM-VAR or meets SEMI F20 UHP requir		
	PMC Combined Type Manual & Pneumatic			PA PFA	A6061 aluminium		

DIMENSIONS (mm/inches for reference only)

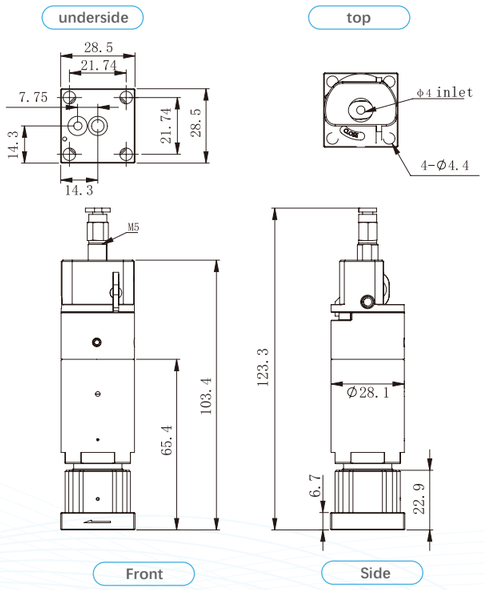
Manual



Pneumatic

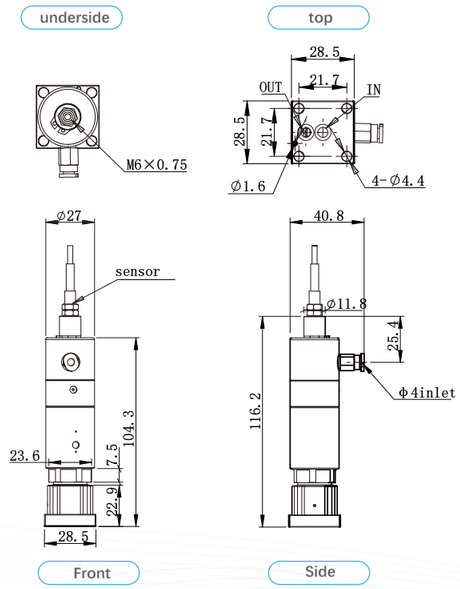


Manual



Combined Type Manual & Pneumatic

Pneumatic



Pneumatic IGS with position sensor

DIAPHRAGM VALVES

DV600 Series High Pressure Valve

● MANUAL ACTUATOR

FEATURES

- Packingless, all-metal housing
- Pressures from vacuum to 3500 psig (241 bar)
- Flow coefficient of 0.30 for high flow requirements
- Clean gas lines, degreased and cleaned, precision cleaned
- Designed and manufactured in accordance with SEMI UHP standards

TECHNICAL PARAMETERS

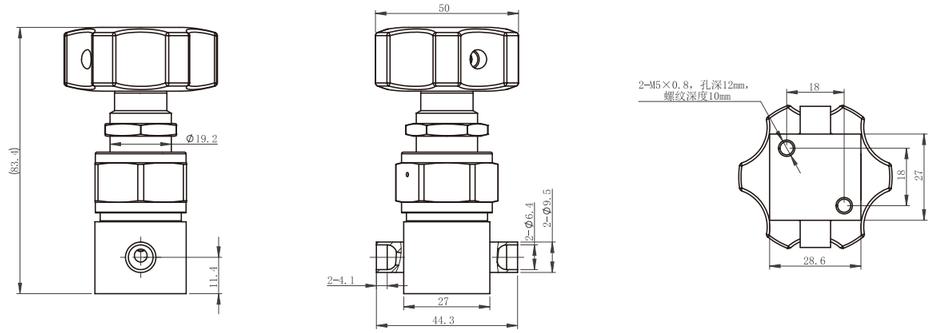
ITEM	DESP.
valve body	SS 316L VIM-VAR
Seat	•PCTFE:-40~120°C/ -40~248°F
Diaphragm	Elgiloy
Operating Pressure Range	3500Psig
Allowable maximum back pressure	1500Psig
Flow coefficient (Cv)	Cv 0.3
Runner Surface Roughness	EP Ra ≤0.125 μm
Leakage rate (helium)	•Internal:≤$4x10^{-9}$ atm.cc/Sec He •External:≤$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

ORDERING DESCRIPTION

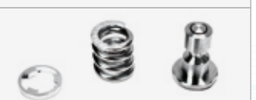
DV600 V S- SW 04-SV-E

SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	BODY MATERIAL	POLISHING
DV600	V Adjustable flow rate	S Flow	TF Tube Fitting	04 1/4”	SS 316L	E Electropol-ished
	S switching mode	R Flow	JCR Male VCR Fitting	06 3/8”	SV 316L VIM-VAR or meets SEMI F20 UHP requir	mechanically polished
		L Flow	FJCR Female VCR Fitting			
			TW Tube Butt Weld			
			SW Tube Socket Weld			

DIMENSIONS (mm/inches for reference only)



OTHER ACCESSORIES SELECTION GUIDE

ITEM	DESP.	CLEAR AND DETAILED	PICTURE
Spool assembly 5-piece set	DV600-FX-001	Spools, guides, springs, gaskets, diaphragms	
Valve Spool Assemblies	2-DV600-03-01	Spool	
Diaphragm seal set	DV600-FX-002	Gasket, Diaphragm	
Valve stem spare parts set	DV600-FX-003	Spool, guide, spring	

● The internal spool, guides, springs, PTFE gaskets, and diaphragms can be replaced directly after use to improve the service life of the valve.

DIAPHRAGM VALVES

DV955Low Pressure Pneumatic Valve

N.C

PNEUMATIC ACTUATORS

- "N.C" : Normally Closed

FEATURES

- The 955 diaphragm valve provides high flow rates in a compact unit with high flow rates in a wide range of applications.
- Elgiloy diaphragms provide high strength and corrosion resistance to ensure long cycle life.
- Suitable for ultra-high purity applications to meet the control requirements of large-scale integrated circuit processes.
- Designed and manufactured in strict compliance with SEMI UHP standards

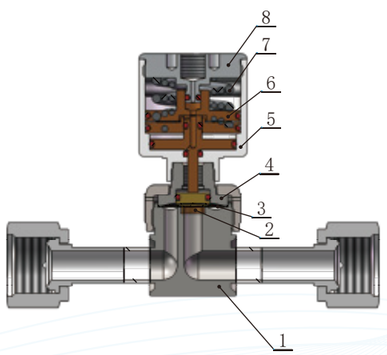
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS316L/SS316L VIM-WAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	Cv 0.55
Air source connection	1/8-27 NPT
Air source driving pressure	58-87psi/0.40-0.60MPa
Runner Surface Roughness	EP Ra ≤0.125 μm (5 μin.) BA Ra≤0.4 μm (16 μin.)
Leak rate (helium)	●Internal:≤1x10^{-9} atm.cc/Sec He ●External:≤1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	female body	SS 316L
2	Seat	PCTFE/PI/PA
3	Diaphragm	Elgiloy
4	Slider seat	SS 316L
5	Cylinder Body	6061-T6
6	Piston	C3602
7	Spring	SS 316L
8	Cylinder head	6061-T6

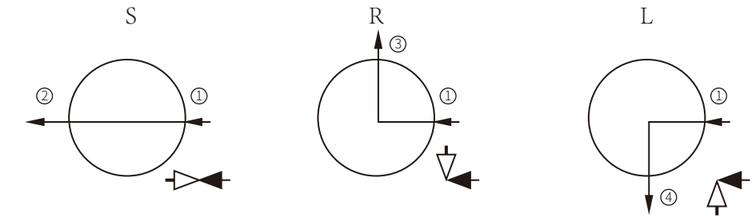
ORDERING DESCRIPTION

DV955 C S-JCR 04-PI-SV-E

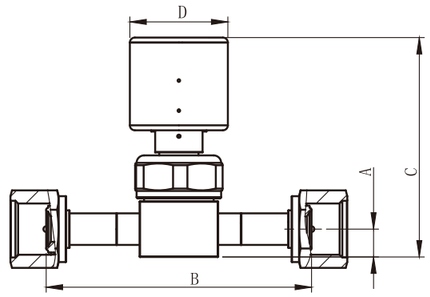
SERIES	CONTROL	FLOW PATHS	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING
DV955	C N.C	S Flow R Flow L Flow	JCR Male VCR Fitting FJCR Female VCR Fitting HJCR Rotatable Male VCR Fitting HFJCR Rotatable Female VCR Fitting	04 1/4" 06 3/8" 08 1/2"	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropol-ished passivation

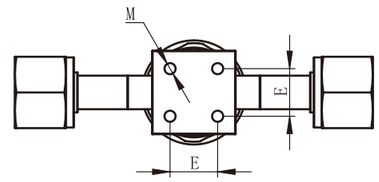
FLOW PATH

Inlet end Outgassing end



DIMENSIONS (mm/inches for reference only)





Item	Port	Dimension mm/inch					
		A	B	C	D	E	M
DV955CS-JCR04	1/4"Male VCR Fitting	11.2 0.44	75.2 2.96	87.3 3.44	39.4 1.55	18 0.707	10-32 UNF
DV955CS-JCR08	1/2"Male VCR Fitting	11.2 0.44	106.68 4.20	87.3 3.44	39.4 1.55	18 0.707	
DV955CS-HJCR04	1/4"Rotatable Male VCR Fitting	11.2 0.44	70.6 2.78	87.3 3.44	39.4 1.55	18 0.707	
DV955CS-HFJCR04	1/4"Rotatable Female VCR Fitting						

DIAPHRAGM VALVES

DV955 Diaphragm Valve Manifolds

N.C

PNEUMATIC ACTUATORS

- "N.C" : Normally Closed

FEATURES

- The DV955 series is two pneumatically actuated diaphragm valves in one, allowing for smaller space installations and more compact piping designs for a wide range of applications.
- Elgiloy diaphragms are hard-sealed for maximum sealing performance, durability and corrosion resistance.
- Long cycle life, high speed actuation for durability
- Suitable for ultra-high purity applications to meet the liquid control requirements of large-scale integrated circuit processes
- Designed and manufactured in strict compliance with SEMI UHP standards

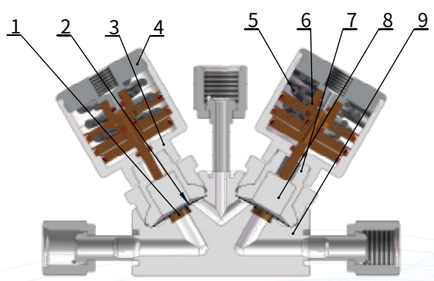
Maximum working pressure gauge

PORT \ PRESSURE	145psi	300psi	3000psi
1/4"N.C	●		

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS 316L /SS 316L VIM-VAR/SEMI F20 UHP
Seat	●PCTFE:-10~80°C/ 14~176°F PI: -10~150°C/ 14~302°F ●PA:-10~200°C/14~392°F
Diaphragm	Elgiloy
Flow coefficient (Cv)	1/4" CV0.43, 3/8" CV0.5
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.) BA Ra⩽0.4 μm (16 μin.)
Leakage rate (helium)	●Internal:⩽1x10^{-9} atm.cc/Sec He ●External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	valve seat	PCTFE/PI/PA
2	Diaphragm	Elgiloy
3	Cylinder body	6061-T6
4	Cylinder head	6061-T6
5	Spring	SS 316L
6	Upper Piston	C3602
7	Slider Block	SS 316L
8	Slider	SUS630-H900
9	Female body	SS 316L

ORDERING DESCRIPTION

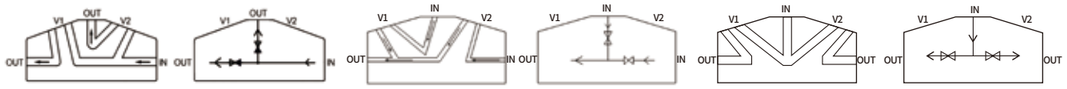
DV955CC A- JCR 04-PI-SV-E

SERIES	CONTROL 1	CONTROL 2	FLOW PATHS	PORT TYPE	PORT SIZE	SEAT	BODY MATERIAL	POLISHING
DV955	C 气动常闭	C 气动常闭	A FLOW B FLOW C FLOW D FLOW E FLOW F FLOW	JCR Male VCR Fitting FJCR Female VCR Fitting TW Tube Butt Weld	04 1/4" HIGH FLOW	PCTFE PI PI PA PFA	SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropol-ished passivation

FLOW PATH

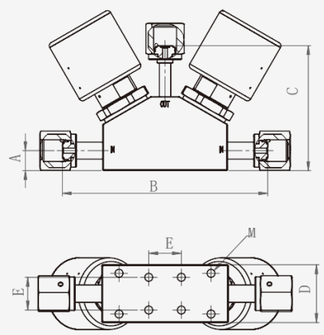
Inlet end Outgassing end

A FLOW B FLOW C FLOW



D FLOW E FLOW F FLOW

DIMENSIONS (mm/inches for reference only)

Picture	Port	Dimension mm/inch					
		A	B	C	D	E	M
	1/4"Male VCRFitting	11.2 0.44	115 4.53	70 2.76	31.8 1.25	18 0.71	10-32UNF-2B

DIAPHRAGM VALVES

ALD100 Atomic Deposition Diaphragm Valves

TECHNICAL PARAMETERS

ITEM	DESP.
Body	SS 316L VIM-VAR/SEMI F20 UHP
Seat Ring	•PFA:-10°C~120°C/-10°C~200°C
Diaphragm	145 Psig /1Mpa
Flow Coefficient (Cv)	1/4" Cv0.27 3/8" Cv0.62
Runner Surface Roughness	EP Ra <0.125 um (5 uin.)
Leakage Rate (Helium)	•Internal:⩽$1x10^{-9}$ atm.cc/Sec He •External:⩽$1x10^{-9}$ atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

FEATURES

- Actuator capable of meeting high cycle life.
- Cv range from 0.27 to 0.62 (customization acceptable).
- Heat-resistant actuator with operating temperature up to 150°C.
- Supports optional accessory position sensors and solenoid pilot valves.
- Suitable for ultra-high purity applications utilizing SS 316L VIM-VAR/SEMI F20 UHP stainless steel bodies.

DIAPHRAGMS

- Cobalt-based superalloy (UNS R30003) material for improved strength and corrosion resistance
- Meets ultra-high cycle life

ACTUATORS

- Adoption of ultra-high speed, high life pneumatic actuator
- Open or close response speed ⩽ 5ms
- Accepts customer-specific Cv
- Supports customisation of mounting positions for accessories (position sensors and solenoid pilot valves)

VALVE SEAT

- Adopting ultra-high purity grade PFA, fully fluorinated for superior corrosion resistance.
- Meets ultra-high cycle life
- Wide range of chemical compatibility
- Resistant to swelling and contamination
- Excellent seat sealing performance

VALVE BODY

- Valve body meets ultra-high cycle life
- 316L VIM-VAR stainless steel body material for ultrahigh-purity applications
- Application facilitates purge-clean flow paths

ORDERING DESCRIPTION

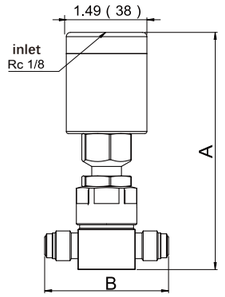
ALD100 C S H - JCR 04-PA-SV-E-S C

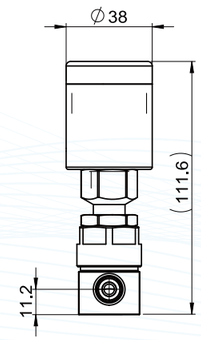
SERIES	CONTROL	FLOW PATHS	WORKING TEMPERATURE	PORT 1 TYPE	PORT 1 SIZE	SEAT	BODY MATERIAL	POLISHING	REPLACEMENT	REPLACEMENT
ALD100	C N.C	S Flow	conventional -10~120°C	JCR Male VCR Fitting	04 1/4"	PA PFA	316L	E Electropolished	S Position Sensors	C Solenoid Pilot Valve Assembly
	O N.O	R Flow	H crystal growth -10~200°C	FJCR Female VCR Fitting	06 3/8"		SV 316L VIM/VAR			
		L Flow		TW Tube Butt Weld	08 1/2"					
				HFJCR Rotatable Female VCR Fitting	12 3/4"					
				HJCR Rotatable Male VCR Fitting						
				TJCR Rotatabl Male VCR Fitting						

CONNECTOR TYPE		WORKING TEMPERATURE -10~120°C	WORKING TEMPERATURE -10~200°C	SIZE "B" LENGTH
PORTS	SIZE			
1/4"Female VCR Fitting	1/4" (Cv0.27)	ALD100CS-FJCR04-	ALD100CSH-FJCR04-	2.78(70.6)
1/4"Male VCR Fitting	1/4" (Cv0.27)	ALD100CS-JCR04-	ALD100CSH-JCR04-	2.30(58.4)
1/4"Rotatable Male VCR Fitting	1/4" (Cv0.27)	ALD100CS-TJCR04-	ALD100CSH-TJCR04-	2.78(70.6)
1/4"Tube Butt Weld	1/4" (Cv0.27)	ALD100CS-TW04-	ALD100CSH-TW04-	1.74(44.2)
1/4"Rotatable Female VCR Fitting	1/4" (Cv0.62)	ALD100CS-HFJCR04-	ALD100CSH-HFJCR04-	2.78(70.6)

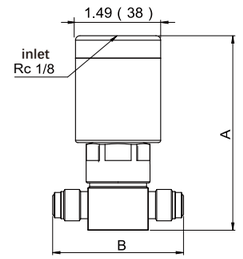
DIMENSIONS (mm/inches for reference only)

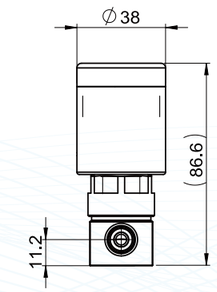
-10~200°CACTUATORS 1/4"MALE VCR FITTING



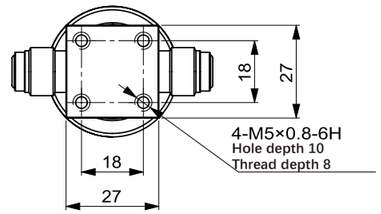


-10~120°CACTUATORS 1/4"MALE VCR FITTING

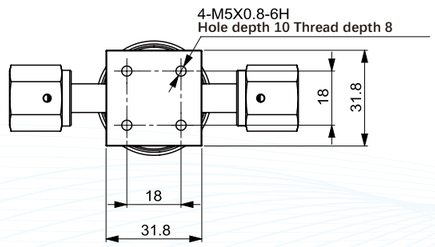




1/4" Cv0.27 Bottom Mounting Dimensions



1/4"HIGH FLOW Cv0.62 Bottom Mounting Dimensions



DIAPHRAGM VALVES

ALD500 IGS Series Atomic Deposition Diaphragm Valves

TECHNICAL PARAMETERS

ITEM	DESP.
valve body	SS 316L VIM-VAR/SEMI F20 UHP
Valve seat	•PFA:-10℃~120℃/-10℃~200℃
Working Pressure Range	145 Psig /1Mpa
Flow coefficient (Cv)	1.125"C-Seal Cv0.27　1.5"HC-Seal Cv0.6
Runner Surface Roughness	EP Ra <0.125 um (5 uin.)
Leakage rate (helium)	•Internal:≤1x10^{-9} atm.cc/Sec He　•External:≤1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging material	PE clean bag vacuum packaging

FEATURES

- IGS Integrated System Mount 1.125 ' or 1.5' HC-Seal (W-Seal)
- Actuators capable of meeting high cycle life.
- Cv range from 0.27 to 0.62 (customisation acceptable).
- Heat-resistant actuator for use up to 150°C.
- Supports optional accessory position sensors and solenoid pilot valves.
- Suitable for ultra-high purity applications with SS 316L VIM-VAR/SEMI F20 UHP stainless steel bodies.

DIAPHRAGMS

- Cobalt-based superalloy (UNS R30003) material for improved strength and corrosion resistance
- Meets ultra-high cycle life

ACTUATORS

- Adoption of ultra-high speed, high life pneumatic actuator
- Open or close response speed ⩽ 5ms
- Accepts customer-specific Cv
- Supports customisation of mounting positions for accessories (position sensors and solenoid pilot valves)

VALVE SEAT

- Adopting ultra-high purity grade PFA, fully fluorinated for superior corrosion resistance.
- Meets ultra-high cycle life
- Wide range of chemical compatibility
- Resistant to swelling and contamination
- Excellent seat sealing performance

VALVE BODY

- Valve body meets ultra-high cycle life
- 316L VIM-VAR stainless steel body material for ultrahigh-purity applications
- Application facilitates purge-clean flow paths

ORDERING DESCRIPTION

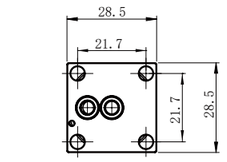
ALD500 C S H - C6 - PA-SV-E-S C

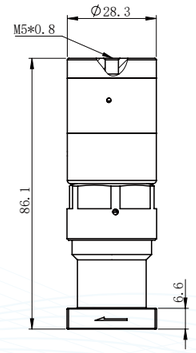
SERIES	CONTROL	FLOW PATHS	WORKING TEMPERATURE	CONNECTOR FORM	SEAT	BODY MATERIAL	POLISHING	REPLACEMENT	REPLACEMENT
ALD500	C N.C O N.O	S Flow T Flow	conventional -10~120℃ H crystal growth -10~200℃	C4 1.125"C-seal W4 1.125"W-seal C6 1.5"HC-seal W6 1.5"HW-seal C5 1.5"C-seal	空 PCTFE (80℃) PI PI PA PFA (200℃)	空 316L SV 316L VIM/VAR	E EP处理	S Position Sensors	C Solenoid Pilot Valve Assembly

CONNECTOR TYPE		WORKING TEMPERATURE -10~120℃	FLUID TEMPERATURE -10~200℃
PORTS	SIZE		
1.125"C-SEAL	Cv0.27	ALD500CS-C4	ALD500CSH-C4
1.5"HC-SEAL	Cv0.6	ALD500CS-C6	ALD500CSH-C6

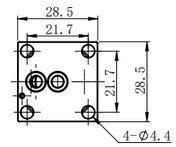
DIMENSIONS (mm/inches for reference only)

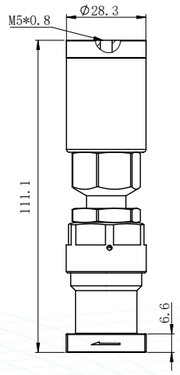
-10-120℃(FLUID TEMPERATURE) 1.125"C-SEAL



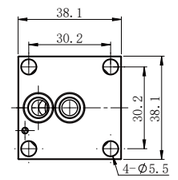


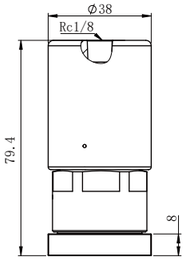
-10-200℃(FLUID TEMPERATURE) 1.125"C-SEAL



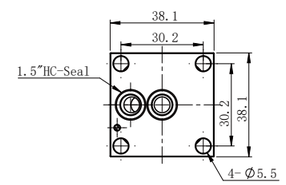


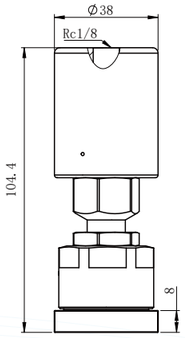
-10-120℃(FLUID TEMPERATURE) 1.5"HC-SEAL





-10-200℃(FLUID TEMPERATURE) 1.5"HC-SEAL





NEEDLE VALVES

MNV100 Needle Valve

MANUAL ACTUATOR

- Round Handle

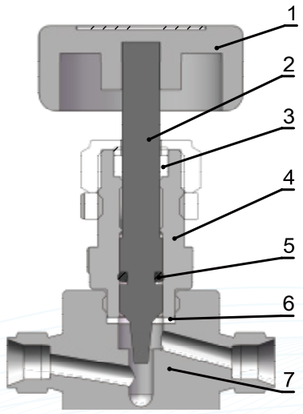
FEATURES

- Compact and lightweight ,suitable for clean handling of narrow air paths
- Roughness of internal electrolytic polishing of runner:≤Ra0.4
- Designed and manufactured in strict compliance with SEMI UHP standards

TECHNICAL PARAMETERS

ITEM	DESP.
Valve Material	SS 316L
Working Temperature	-10~80°C/ 14~176°F
Flow Coefficient (Cv)	Max.Cv 0.3
Function	10 laps of high-precision flow regulation
Max.Working Pressure	700psi /4.82Mpa
Runner Surface Roughness	Ra ⩽0.4 μm (15.76 μin.)
Leakage Rate (Helium)	•Internal:⩽5x10^{-9} atm.cc/Sec He •External:⩽5x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	Double bagged and vacuum sealed in cleanroom

CONSTRUCTION

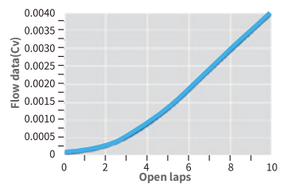


NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Handle	Alloy6061
2	Valve stem	SS 316L
3	Guide ring	PTFE
4	Valve stem seat	SS 316L
5	O-ring	FKM
6	Sealing gasket	PTFE
7	Body	SS 316L

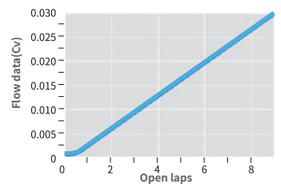
FLOW DATA

FLOW DATA VS OPEN LAPS

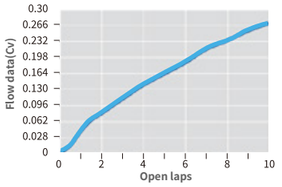
1°NEEDLE



3°NEEDLE



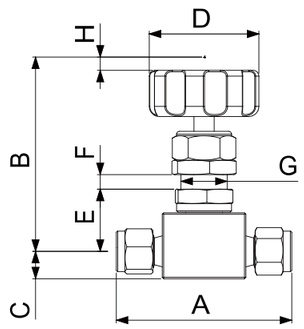
6°NEEDLE



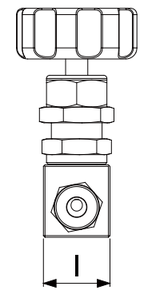
STEM TAPER VS CV DATA

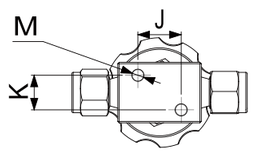
Stem Taper	Cv Data	Model
1°	0.004	MNV100-O
3°	0.03	MNV100-R
6°	0.3	MNV100-S

DIMENSIONS (mm/inches for reference only)



Combined Type





Model	Port	Dimension mm/inch											
		A	B	C	D	E	F	G	H	I	J	K	M
MNV100SLH-TF04-TF04	1/4" Tube Fitting	63 2.48	73 2.87	9.5 0.37	38 1.49	24 0.94	6 0.23	16.5 0.65	7 0.27	21 0.82	15 0.59	12 0.47	2-M5*0.8
MNV100SLH-FNPT04-FNPT04	1/4" Female NPT Fitting	52 2.04	75 2.95	12 0.47	38 1.50	26 1.02	6 0.23	16.5 0.65	7 0.27	21 0.82	15 0.59	12 0.47	
MNV100*LH-JCR04-JCR04	1/4" Male VCR Fitting	60.4 2.37	61.3 2.41	11 0.42	38 1.49	24 0.94	6 0.23	16.5 0.65	7 0.27	21 0.82	15 0.59	12 0.47	

"*" Indicates optional (O:1° R:3° S:6°)

ORDERING DESCRIPTION

MNV100 O L- V-TF 04-TF 04 -E-SS

SERIES	STEM TAPER	FLOW PATH	HANDLE	INLET PORT TYPE	INLET PORT SIZE	OUTLET PORT TYPE	OUTLET PORT SIZE	POLISHING	BODY MATERIAL
MNV100	O 1° R 3° S 6°	L Flow A Flow	V VERNIER SCALE H HANDWHEEL	TF TUBE FITTING FNPT Female NPT Fitting JCR MALE VCR FITTING	04 1/4" 06 3/8" 08 1/2" 04M 4mm 06M 6mm	Same as port 1 specification		E Electropolished mechanical polishing	SS SS 316L

NEEDLE VALVES

MNV200 Bellows-Sealed Valve

MANUAL ACTUATOR

- Stainless steel handle

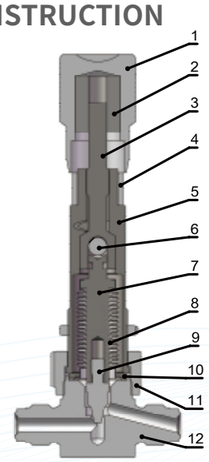
FEATURES

- The Cv value of the 3 ° valve needle is 0.019
  The Cv value of the 20 ° valve needle is 0.30
- Maximum number of turns 6
- The valve body screws can be locked during flow setting to fix the outlet flow rate
- Metering models are scale zero at 10-15cm3/min flow rate at 10psi pressure
  Regulating type is scale zero at an internal leakage rate of 7x10-7mbar*1/s
- Adjustable flow rate and pressure resistance make the valve suitable for various environments
- Accurate and repeatable flow rate setting
- Runner roughness: ⩽ Ra0.1
- Designed and manufactured in strict compliance with SEMI UHP standards

TECHNICAL PARAMETERS

ITEM	DESP.
Valve Material	SS 316L
Working Temperature	-28~400°C/ -18.4~752°F
Stem Taper	3°; 20°
Function	6 laps of high-precision flow regulation
Max.Working Pressure	145psi /1.0 Mpa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	•External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

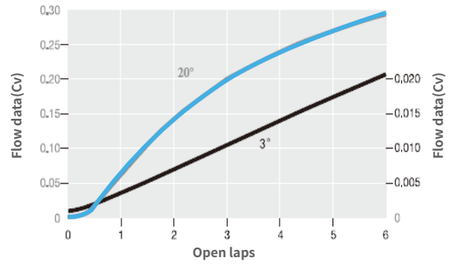
CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Handle	SS 303
2	Bushing Ring	SS 304
3	Threaded Rod	SS 316L
4	Scale Ring	SS303
5	Valve Seat	SS 316L
6	Steel Ball	SS 420C
7	Stem	SS 316L
8	Metal Bellow	SS 316
9	Valve Needle	SS 316L
10	Silver Plated Gasket	SS 316L
11	Gland Nut	SS 316L
12	Body	SS 316L

FLOW DATA

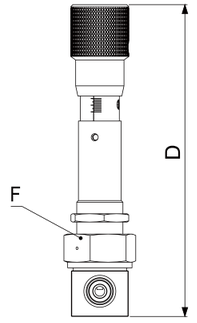
FLOW DATA VS OPEN LAPS

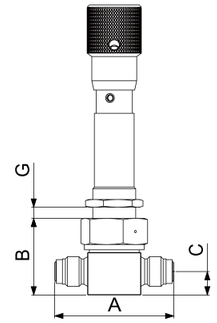


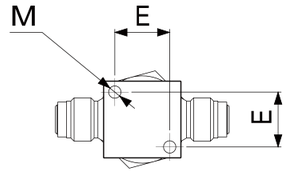
STEM TAPER VS CV DATA

Sealing Method	Stem Method	Stem Taper	Cv	Model
Spacer	Metering	3°	0.019	MNV200YR
Spacer	Regulating	20°	0.3	MNV200YV
Welding	Metering	3°	0.019	MNV200HR
Welding	Regulating	20°	0.3	MNV200HV

DIMENSIONS (mm/inches for reference only)







Model	Port	Dimension mm/inch							
		A	B	C	D	E	F	G	M
MNV200Y*L-JCR04	1/4" 外螺纹VCR接头	56.9 2.24	36.6 1.44	11.2 0.44	137 5.39	18 0.70	21.5 0.84	9.7 0.38	2-M5*0.8
MNV200Y*L-TF04	1/4" 卡套式接头	62.5 2.46	36.6 1.44	14.2 0.56	137 5.39	18 0.70	21.5 0.84	9.7 0.38	
MNV200Y*L-TF06M	3/8"& 6mm卡套式接头	62.5 2.46	36.6 1.44	14.2 0.56	137 5.39	18 0.70	21.5 0.84	9.7 0.38	
MNV200Y*L-TWO4	1/4" 对焊管接头	42.7 1.68	36.6 1.44	14.2 0.56	137 5.39	18 0.70	21.5 0.84	9.7 0.38	

"*" Indicates optional (R: metering type V: regulating type)

ORDERING DESCRIPTION

MNV200 H V- L -JCR 04-SV-E

SERIES	SEALING METHOD	STEM METHOD	FLOW PATH	INLET PORT TYPE	INLET PORT SIZE	BODY MATERIAL	POLISHING
MNV200	H Weld Y Spacer	R Metering V Regulating	L Flow A Flow	JCR MALE VCR FITTING TF TUBE FITTING TW TUBE BUTT WELD SW TUBE SOCKET WELD	04 1/4" 06M 3/8"& 6mm	SS SS 316L SV 316L VIM-VAR or meets SEMI F20 UHP requir	E Electropolished

CHECK VALVES
CV200

FEATURES

- Air circuit cleaning treatment, degreasing cleaning, precision cleaning, electrolytic polishing, etc
- Runner roughness: ⩽ Ra0.1
- Designed and manufactured in strict compliance with SEMI UHP standards

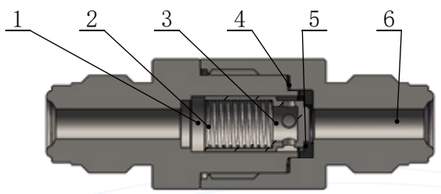
CAUTION

- The use of this valve for sealing requires the selection of an appropriate opening pressure.
- Valves with lower opening pressures will have deviation in sealing performance.
- The opening pressure of this valve may be slightly higher than the indicated value when it is first used or left standing for a long time.
- The opening pressure is the pressure at which the valve reaches a certain flow rate, and it can be opened at a certain pressure lower than that indicated.
- The back pressure seal changes with the material of the sealing ring.
- In principle, this valve is only suitable for use in ordinary atmospheric pressure environments and cannot be installed in vacuum containers.

TECHNICAL PARAMETERS

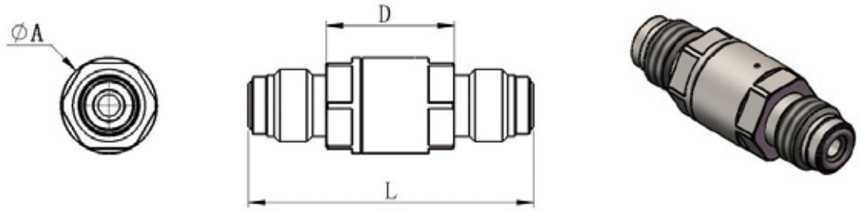
ITEM	DESP.
Valve Material	SS 316L/SV
Working Temperature	-50~200°C/-58~392 °F
Cracking Pressures	1/3psi ~25 psi / 0.003~0.172Mpa
Max.Working Pressure	2350psi /16.2 Mpa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	•External:⩽1x10^{-9} atm.cc/Sec He
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	SS 316L
2	Spring	SS 316L
3	Spool	SS 316L
4	Silver-plated gasket	SS 316L
5	Seal ring	FFKM
6	End caps	SS 316L

DIMENSIONS (mm/inches for reference only)



CRACKING & BACK PRESSURE

Nominal Cracking Pressure	Cracking Pressure Range	Back Pressure
psi (bar)	psi (bar)	psi (bar)
1/3(0.02)	Max 3(0.2)	Max 6(0.40)
1(0.06)	Max 4(0.27)	Max 3(0.41)
5(0.34)	3 to 9(0.2 to 0.62)	Max 2(0.13)
10(0.68)	7 to 15(0.48 to 1.0)	Inlet pressure not less than3 (0.2)
25(1.7)	20 to 30(1.3 to 2.0)	Inlet pressure not less than17 (1.1)

Model	Port	Dimension mm/inch			
		Cv	A	D	L
CV200-TF04	1/4" Tube Fitting	0.35	19 0.75	25.4 1.00	46 1.81
CV200-TF06	3/8" Tube Fitting	1.1	24 0.94	32 1.26	55.9 2.2
CV200-TF08	1/2" Tube Fitting	1.1	24 0.94	32 1.26	57.8 2.28
CV200-JCR04	1/4" Male VCR Fitting	0.35	19 0.75	25.4 1.00	56.4 2.22
CV200-JCR08	1/2" Male VCR Fitting	1.1	27 1.06	34 1.33	74 2.87
CV200-FJCR04	1/4" Female VCR Fitting	0.35	19 0.75	25.4 1.00	70 2.76
CV200-FJCR08	1/2" Female VCR Fitting	1.1	24 0.94	32 1.26	79 3.11

ORDERING DESCRIPTION

CV200 -JCR 04-1/3-FKM-E-SV

SERIES	PORT TYPE	PORT SIZE	CRACKING PRESSURES(PSI)	SEAL MATERIAL	POLISHING	BODY MATERIAL
CV200	JCR Male VCR Fitting	04 1/4"	1/3	FKM	E Electropolished	SS SS 316L
	FJCR Female VCR Fitting	06 3/8"	1	EPDM	When selecting the TF series card sleeve interface, the E: EP processing technology cannot be chosen	SV 316L VIM-VAR or meets SEMI F20 UHP requir
	TF Tube Fitting	08 1/2"	5	NBR		
			10	KZ		
			25	FVMQ		

- FKM:Fluorine rubber (conventional)
- EPDM:EPDM rubber
- NBR:Nitrile rubber
- KZ:Perfluorinated rubber (ultra high purity)
- FVMQ:Fluorosilicone rubber

CHECK VALVES
CV300

FEATURES

- Air circuit cleaning treatment, degreasing cleaning, precision cleaning, electrolytic polishing, etc
- All-welded design ensures reliable system fluid control
- Compact design minimizes gas accumulation
- Runner roughness: ⩽ Ra0.1
- Designed and manufactured in strict compliance with SEMI UHP standards

注意

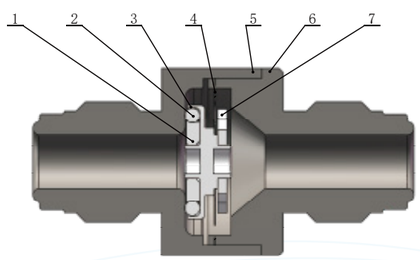
- The working temperature will vary with the material of the sealing ring inside the valve.
- The degree of corrosion resistance varies with the working temperature and medium, and a reasonable sealing ring material should be selected according to the temperature and medium.
- When this valve is first used or left to stand for a long time, the opening pressure may be slightly higher than the indicated value.
- The opening pressure of this valve refers to the pressure at which the valve reaches a certain flow rate, and can be opened at a pressure lower than the indicated pressure.
- The back pressure seal changes with the material of the sealing ring.
- In principle, this valve is only suitable for use in normal atmospheric pressure environments and cannot be installed for use in vacuum containers.

TECHNICAL PARAMETERS

ITEM	DESP.
Valve Material	SS 316L
Working Temperature	-50~200°C/-58~392 °F
Cracking Pressures	Less than 2 psi /0.014 Mpa
Max.Working Pressure	3000 psi / 20.6 Mpa
Max.Back Pressure	3000 psi / 20.6 Mpa
Valve Reclosure Back Pressure	Less than 4 psi / 0.027 Mpa
Flow Coefficient (Cv)	Cv 0.55
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	External: ⩽$1x10^{-9}$ atm.cc/Sec He
Max.Allowable Nitrogen Leakage Rate(valve base)	0.9 std cm3/min within 10 seconds
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

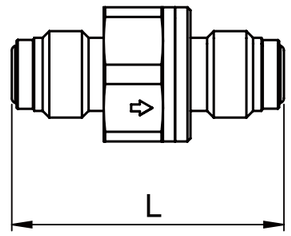
MATERIAL / °C	FKM (CONVENTION)	EPDM	NBR	KZ (ULTRA HIGH PURITY)	PTFE	FVMQ
	-20-200°C	-40-150°C	-40-120°C	-10-300°C	-100-280°C	-60-175°C

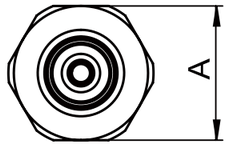
CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	O-Ring	SS 316L
2	O-Seal	FKM
3	Fixing Ring	SS 316L
4	Spring	Elgiloy
5	Valve	SS 316L
6	End Cap	SS 316L
7	Washer	SS 316L

DIMENSIONS (mm/inches for reference only)





Model	Port	Dimension mm/inch		
		Cv	A	L
CV300-JCR04	1/4" Male VCR Fitting	0.55	22.1 0.87	48.00 1.88
CV300S-JCR04	1/4" Male VCR Fitting			45.00 1.77
CV300-FJCR04	1/4" Female VCR Fitting			61.70 2.43
CV300-FJCR04-JCR04	1/4" Female/Male VCR Fitting			53.80 2.12
CV300-TW04	1/4" Tube Fitting			31.50 1.24
CV300-TW06	3/8"Tube Fitting			31.50 1.24
CV300-JCR08	1/2"Male VCR Fitting			52.3 2.06
CV300-FJCR08	1/2"Female VCR Fitting	0.7	27 1.06	61.7 2.43
CV300-TW08	1/2"Tube Fitting			31.50 1.24

ORDERING DESCRIPTION

CV300S -JCR 04-FKM-E-SV

SERIES	PORT TYPE	PORT SIZE	SEAL MATERIAL	POLISHING	BODY MATERIAL
CV300	JCR Male VCR Fitting	04 1/4"	FKM	E Electropolished	SS SS 316L
CV300S	FJCR Female VCR Fitting		EPDM	Mechanical Polishing	SV 316L VIM-VAR or meets SEMI F20 UHP requir
	TW Tube Butt Weld		NBR		
			KZ		
			PTFE		
			FVMQ		

- FKM:Fluorine rubber (conventional)
- EPDM:EPDM rubber
- NBR:Nitrile rubber
- KZ:Perfluorinated rubber (ultra high purity)
- PTFE:Teflon
- FVMQ:Fluorosilicone rubber

CHECK VALVES
CV500IGS

TECHNICAL PARAMETERS

ITEM	DESP.
Max.Working Pressure	20.6MPa(3000psi)
Working Temperature	-40-200°C/ -40-392 °F
Leakage Rate (Helium)	External:≤1x10^{-9} atm.cc/Sec He
Flow Coefficient (Cv)	CV=0.23
Cracking Pressure	≤2PSIG
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom
Packaging Material	PE clean bag vacuum packaging

SEAL MATERIAL / TEMP	FLUORINE RUBBER (CONVENTIONAL)	EPDM RUBBER	NITRILE RUBBER	PERFLUORINATE RUBBER (ULTRA HIGH PURITY)	PTFE	FLUOROSILICONE RUBBER
	-20-200°C	-40-150°C	-40-120°C	-10-300°C	-100-280°C	-60-175°C

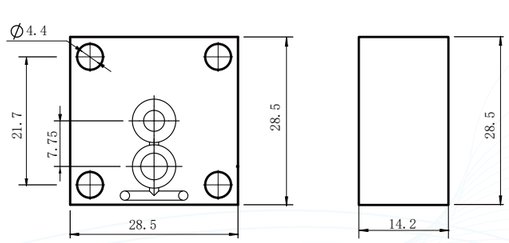
FEATURES

- All components are SEMI-compliant (SEMI-compliant surface-mount bodies: 1.125 ‘ C-Seal, 1.5’ C-Seal), making installation and maintenance simpler and more convenient than conventional check valves, while reducing equipment size.
- In practice, according to the principle of building blocks can be installed directly under the C - Seal diaphragm valves or pressure reducers and other valves to facilitate the prevention of backflow effect, engineers in the integrated design of the space location only need to reserve C - Seal diaphragm valves or pressure reducers and other valves can be the longitudinal installation of space, do not need to give the check valve separate space reserved for the installation of the transverse direction.
- In the C-Seal base block, the unidirectional shut-off flow paths can be divided into a centre shut-off flow path and a side shut-off flow path, depending on the integrated design principle.

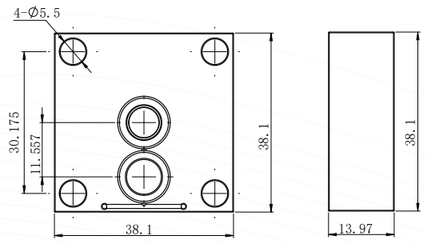
CAUTION

- The opening pressure of this valve may be slightly higher than the indicated value when the valve is used for the first time or when it is left standing for a long period of time.
- The opening pressure of this valve is the pressure at which the valve reaches a certain flow rate, and it can be opened at a certain pressure lower than that indicated.
- Back pressure sealing varies with the material of the sealing ring.
- In principle, this valve is limited to use under normal atmospheric pressure, and cannot be installed in a vacuum vessel.
- The operating temperature varies with the material of the seal inside the valve.
- The degree of corrosion resistance with the working temperature, the working medium is different, should be based on the temperature and medium to choose a reasonable sealing ring material.

DIMENSIONS (mm/inches for reference only)

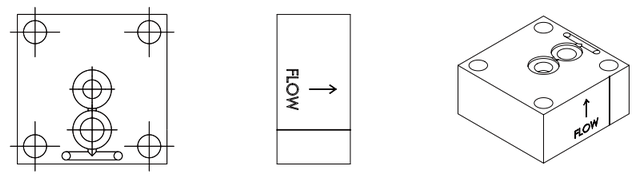


1.125" C-seal



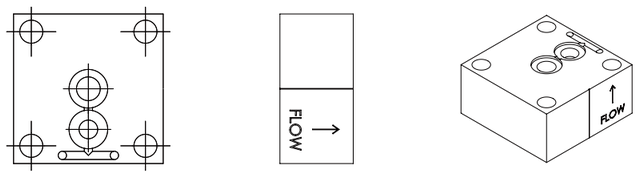
1.5" C-seal

FLOW PATH



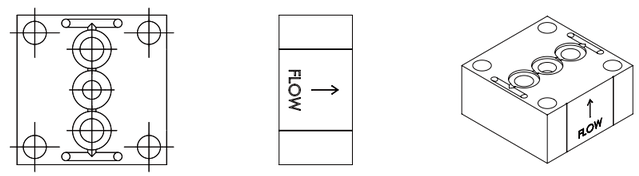
CV500S-C4-C-FKM-E-SV

CV500S-C5-C-FKM-E-SV



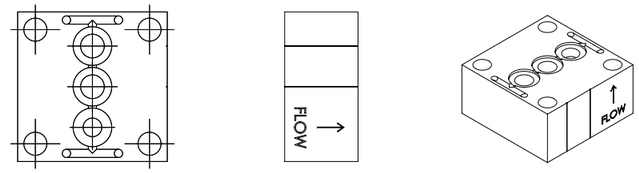
CV500S-C4-S-FKM-E-SV

CV500S-C5-S-FKM-E-SV



CV500T-C4-C-FKM-E-SV

CV500T-C5-C-FKM-E-SV



CV500T-C4-S-FKM-E-SV

CV500T-C5-S-FKM-E-SV

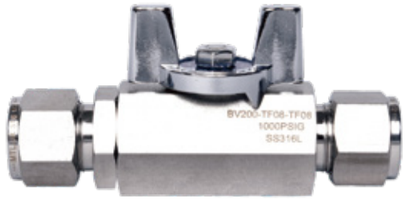
ORDERING DESCRIPTION

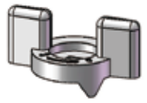
CV500S-C 4-C-FKM-E-SV

SERIES	HOLE POSITION	SEALING INTERFACE	PORT SIZE	HOLE POSITION	SEAL MATERIAL	POLISHING	BODY MATERIAL
IGS	S 2 passes	C C-seal	4 1.125"	C centre	FKM	E Electropolished	SV 316L VIM-VAR or meets SEMI F20 UHP requir
	T 3 passes	W W-seal	5 1.5"	S side	EPDM		
					KZ		

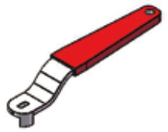
BALL VALVES

BV200 Low Pressure



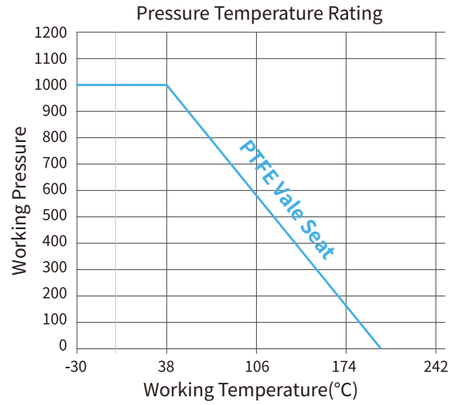


BH: Butterfly Handle



LD: Road Handle With Lock

WORKING PRESSURE, TEMPERATURE RATING



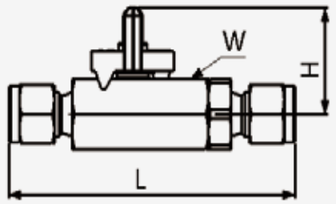
FEATURES

- Large port size and long service life
- High flow rate, low torque, and sealing
- Bidirectional flow
- Floating ball design with self compensating sealing
- Provide two types of handles
- Only suitable for operation under fully closed or fully open conditions
- Designed and manufactured in strict compliance with SEMI UHP standards

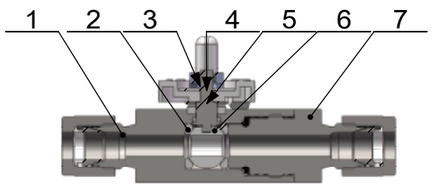
TECHNICAL PARAMETERS

ITEM	DESP.
Valve Material	SS 316L
Working Temperature	PTFE:-30~38°C / -22~100°F (The pressure range applicable to the valve seat will change as the temperature changes)
Max.Working Pressure	1000 psi /6.8 Mpa
Design Verification Pressure	150% of Max. Rated Pressure
Design Burst Pressure	400% of Max. Rated Pressure
Test Pressure	80psi /0.55Mpa；1000 psi / 6.89Mpa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.), BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	Internal:⩽0.1 atm.cc/min
Operating Conditions	Under fully closed and fully open conditions
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom

DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch				
			Aperture	CV	L	H	V
	BV200-TF04-BH-SS	1/4" Tube Fitting	4.80 0.18	1.25	80 3.14	27 1.06	17.46 0.68
	BV200-TF06-BH-SS	3/8" Tube Fitting	7.20 0.28	2.50	90.00 3.54	29 1.14	22.20 0.87
	BV200-TF08-BH-SS	1/2" Tube Fitting	9.20 0.36	9.25	100 3.93	36 1.41	27 1.06
	BV200-TF12-BH-SS	3/4" Tube Fitting	12.60 0.49	12.60	104.3 4.10	42 1.65	32 1.25

CONSTRUCTION



NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve Body	SS 316L
2	Seal	PTFE
3	Stem	SS 316L
4	Butterfly Knob NT4	Alloy
5	Holdown Ring	304
6	Ball Core	SS 316L
7	Joint	SS 316L

ORDERING DESCRIPTION

BV200-TF04- TF04 - BH- SS

SERIES	PORT 1&2 TYPE		PORT 1&2 SIZE		HANDLE TYPE		BODY MATERIAL	
BV200	TF	Tube Fitting	04	1/4"	BH	Butterfly Handle	SS	SS 316L
			06	3/8"	LD	Rod Handle With Lock		
			08	1/2"				

BALL VALVES

BV300 High Pressure

FEATURES

Reinforced PTFE (PTFE+carbon fiber)

- Suitable for clean working conditions, the valve seat is not prone to produce debris phenomenon during operation

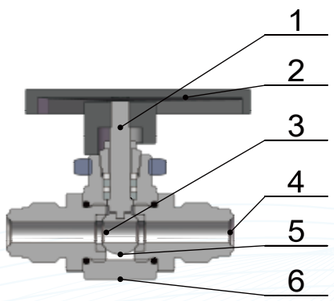
PEEK (Polyether Ether Ketone)

- Suitable for high-pressure and high-temperature working conditions, with excellent chemical corrosion resistance.
- The combination of this material wide seat and hot water will increase the operating torque of the valve.
- Simple design, integrated body
- Only suitable for operation under fully closed or fully open conditions
- Designed and manufactured in strict compliance with SEMI UHP standards

TECHNICAL PARAMETERS

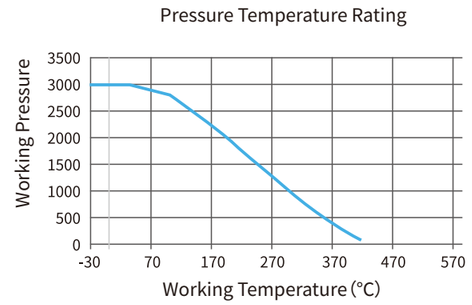
ITEM	DESP.
Valve Material	SS 316L
Working Temperature	PTFE:-30~38°C / -22~100°F (The pressure range applicable to the valve seat will change as the temperature changes)
Max.Working Pressure	3000 psi /20.7Mpa
Design Verification Pressure	150% of Max. Rated Pressure
Design Burst Pressure	400% of Max. Rated Pressure
Test Pressure	80psi / 0.55Mpa; 1000 psi /6.89Mpa
Runner Surface Roughness	EP Ra ⩽0.125 μm (5 μin.),BA Ra⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	Internal:⩽0.1 atm.cc/min
Operating Conditions	Under fully closed and fully open conditions
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom

CONSTRUCTION

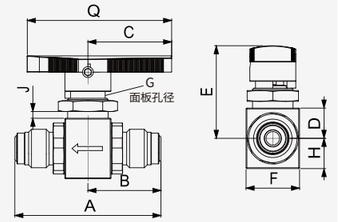


NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	Valve stem	SS 316L
2	Handle	Alloy
3	Spherical sealing ring	PTFE
4	connector	SS 316L
5	Ball core	SS 316L
6	valve body	SS 316L

WORKING PRESSURE, TEMPERATURE RATING



DIMENSIONS (mm/inches for reference only)

Picture	Model	Port	Dimension mm/inch.										
			CV	A	B	C	D	E	F	G	H	Q	J
	BV300M-TF04-3-SS	1/4" Tube Fitting	0.90	68.00 2.67	34.5 1.32	33.50 1.45	10.50 0.41	37.40 1.47	20.00 0.78	14.00 0.55	10.60 0.42	50.45 1.98	6.00 0.23
	BV300M-TF06-3-SS	3/8" Tube Fitting	2.00	75.00 2.95	37.50 1.47	39.00 1.53	12.75 0.50	42.25 1.66	22.00 0.86	16.00 0.62	12.75 0.50	61.00 2.40	6.00 0.23
	BV300M-TF08-3-SS	1/2" Tube Fitting	9.25	81.00 3.18	40.50 1.25	50.00 1.96	14.50 0.57	44.50 1.75	26.00 1.02	19.00 0.74	14.50 0.57	75.50 2.97	6.00 0.23
	BV300M-FNPT04-3-SS	1/4" Male NPT Fitting	0.90	69.00 2.71	34.50 1.32	37.00 1.45	10.6 0.41	37.4 1.47	20.00 0.78	14.00 0.55	10.6 0.41	56.00 2.20	6.00 0.23
	BV300M-FNPT06-3-SS	3/8" Male NPT Fitting	2.00	75.00 2.95	37.50 1.47	39.0 1.53	12.75 0.50	42.25 1.66	22.00 0.86	16.00 0.62	12.75 0.50	61.00 2.40	6.00 0.23
	BV300M-FNPT08-3-SS	1/2" Male NPT Fitting	4.60	81.00 3.18	40.50 1.25	50.00 1.96	14.50 0.57	44.50 1.75	26.00 1.02	19.00 0.74	14.50 0.57	75.50 2.97	19.00 0.74
	BV300M-JCR04-3-SS	1/4" Male VCR Fitting	0.90	54.62 2.15	27.10 1.06	31.00 1.22	11.2 0.44	34.3 1.35	19.80 0.77	15.10 0.59	11.00 0.43	53.10 2.09	2.50 0.09
	BV300M-JCR08-3-SS	1/2" Male VCR Fitting	4.60	90.00 3.54	45.00 1.77	53.50 2.10	15 0.59	52.20 2.05	30.00 1.18	24.00 0.94	15 0.59	82.60 3.25	6.00 0.23

ORDERING DESCRIPTION

BV300 M - TF04- 3- A - SS

SERIES	CONTROL METHOD	PORT 1&2 TYPE	PORT 1&2 SIZE	WORKING PRESSURE	FLOW PATH	BODY MATERIAL
BV300	M manual	TF Tube Fitting	04 1/4"	3 3000psi	Straight	SS SS 316L
	C Pneumatic N.C.	NPT Male NPT Fitting	06 3/8"		T Flow	
	O Pneumatic N.O.	FNPT Female NPT Fitting	08 1/2"		A Flow	
		JCR Male VCR Fitting				

BALL VALVES
BV500 Vacuum Series

Manual Vacuum Ball Valve
KF40 Connector

Pneumatic Vacuum Ball Valve
KF40 Connector

FEATURES

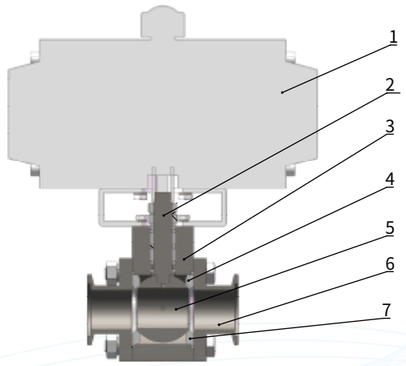
- Applied to semiconductor equipment vacuum process systems
- Designed and manufactured in strict compliance with SEMI UHP standards

TECHNICAL PARAMETERS

ITEM	DESP.
Valve Material	SS 316L
Max. Permissible Operating Temperature	230°C / 446°F
Sealing Material&Temperature	PCTFE:-10~160°C/ 14~320°F
Durability	Pneumatic Vacuum: More than 10,000times
Runner Surface Roughness	Ra ⩽0.4 μm (16 μin.)
Leakage Rate (Helium)	•Internal:⩽$1x10^{-9}$ atm.cc/Sec He •External:⩽$1x10^{-9}$ atm.cc/Sec He
Rated vacuum	$1x10^{-8}$ Torr
Operating Conditions	Under fully closed and fully open conditions
Cleaning	Continuous monitoring of deionized water and ultra-high purity cleaning using ultrasonic cleaning systems
Assembly Environment	In ISO Class 6 or Class 5/Federal Class 1000 or 100 cleanroom

Note: When the valve is closed, the ball core discharge hole should face the outlet end.

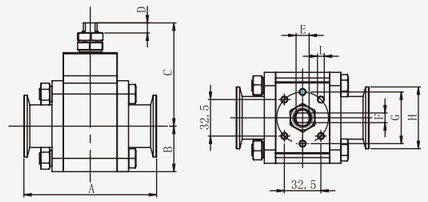
CONSTRUCTION



Pneumatic Vacuum Ball Valve
KF40 Connector

NO.	COMPONENTS	MATERIAL/SPECIFICATION
1	AT91DA double acting actuator	/
2	valve stem	SS 316L
3	valve body	SS 316L
4	Valve stem gasket	PDFE
5	Ball core	SS 316L
6	Flange end cap	SS 316L
7	Ball sealing ring	Graphite tetrafluoroethylene

DIMENSIONS (mm/inches for reference only)

Picture	Model	Dimension mm/inch.									
		Drift Diameter	A	B	C	D	E	F	G	H	L
	BV500M-KF40-SS	40.00	118.20 4.65	40.50 1.59	92.00 3.62	11.00 0.43	12.20 0.48	8.70 0.34	46.00 1.81	KF40	M4*15

ORDERING DESCRIPTION

BV500 M - KF40- SS-Y

SERIES	CONTROL METHOD		PORT	BODY MATERIAL		PURGING PORT	
BV500	M	Manual	KF40	SS	SS 316L		without
	C	Pneumatic N.C.				Y	With purging port
	O	Pneumatic N.O.					
	DA	Pneumatic normally closed Dual Drive					