

VLD

Diaphragm Valves

The VLD series embodies the pursuit of simplicity and utility found in the KD series. The VLD series achieves simplification through the minimization of the number of critical parts.

Features

- While maintaining the same degree of basic performance, material, and cleaning, the VLD series realizes security and low cost through overall reduction of the number of parts and changes to the review and processing methodology.
- Because the cleaning and inspection processes are the same as our conventional model, there is no change in reliability and durability.
- Achieves maximum particle performance for high-purity gases used in semiconductor by the highest-level manufacturing environment and polishing process.

Specifications

Size	VLD4 (1/4")	VLD8 (1/2")
Cv	0.27	0.7
Maximum Operating Pressure	0.98MPa (G)	
Wetted Area Volume	1.2cm ³	6.6cm ³
Fluid Temperature	PCTFE	-10°C~80°C
	PFA(Manual)	-10°C~150°C
	PI(Manual)	-10°C~150°C
Leak Rates	Across the Seat He Leak Test Rates	≤ 1×10 ⁻¹⁰ Pa·m ³ /sec
	Inboard He Leak Test Rates	≤ 1×10 ⁻¹⁰ Pa·m ³ /sec
Atmospheric Temperature	-10°C~60°C	
Actuation Pressure (Pneumatic)	0.4~0.7MPa (G)	
Cycle Life (N2 Charged, In-house Test)	Manual Valve	100,000 cycles
	Pneumatic Valve	4 million cycles

* Test Condition / Seat material : PCTFE Gas : N2 Pressure : 0.98MPa

Product Grade

Grade	STD	EP	SEP
Body Materials	SUS316L		SUS316LE (Double Melt Material)
Surface Roughness	≤ Rz 3.2 μm	≤ Rz 0.7 μm	
	≤Ra0.5μm/20μin	≤ Ra 0.13 μm / 5 μin	
Polish	Mechanical Polish	Electro Polish	
Cleaning	Degreasing + Precision Cleaning		
Clean Room Environment	Class 10 (Some Products, Class 100)		
Packing	Single Bagged Package	Double Bagged Package	

* PFA, PI Seats only available with Manual Valves

Wetted Area Material

Body	SUS316L, SUS316LE (Double Melt Material)
Seat *	PCTFE, PFA, PI
Diaphragm	Cobalt Alloy

* PFA, PI Seats only available with Manual Valves

Precautions

- The valves are designed to be used under atmospheric pressure. Usage such as under vacuum vessels are not guaranteed.
- For high temperature applications, please select appropriate material for air-fittings and tubes to assure proper performance.



Product Code Table

Model	Size	Operation	Valve Shape	Connection	Seat Material	Handle Color	Grade + Body Material
VLD	4	M	S	VF	C	RD	EP-316L
<p>VLD-Type Diaphragm Valve</p> <p>4: 1/4" 6: 3/8" 8: 1/2"</p> <p>270° Manual</p> <p>S: Straight B: Branch *1</p> <p>V: CVC Male VF: CVC Female S: Compression</p> <p>C: PCTFE A: PFA P: PI</p> <p>Not Shown: Blue (Standard) RD: Red GR: Green SL: Silver BK: Black YE: Yellow BR: Brown</p> <p>STD-316L : Mechanical Polish + SUS316L EP-316L : Electro Polish + SUS316L SEP-316LE : Electro Polish + SUS316LE</p>							

*1 For details, please speak with a sales representative.

VLD Dimensions

Unit: inch (mm)

Model	Type	Connection	L	L [*]	H	H ₁	A	B	C	M	M ₁
	VLD4MS-VC	1/4" CVC Male	2.24 (57.0)	-	2.46 (62.4)	0.43 (11.0)	1.65 (42.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD8MS-VC	1/2" CVC Male	3.03 (77.0)	-	2.99 (76.0)	0.63 (16.0)	1.65 (42.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD4MS-VFC	1/4" CVC Male	2.78 (70.6)	-	2.46 (62.4)	0.43 (11.0)	1.65 (42.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD8MS-VFC	1/2" CVC Male	3.27 (83.0)	-	2.99 (76.0)	0.63 (16.0)	1.65 (42.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD4MS-SC	1/4" Compression	1.89 (48.0)	0.31 (7.9)	2.46 (62.4)	0.43 (11.0)	1.65 (42.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD6MS-SC	3/8" Compression	2.52 (64.0)	0.37 (9.5)	2.99 (76.0)	0.63 (16.0)	1.65 (42.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD8MS-SC	1/2" Compression	2.52 (64.0)	0.50 (12.7)	2.99 (76.0)	0.63 (16.0)	1.65 (42.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)

* L₁ dimension for compression fitting is the dimension of how far tube is inserted from the end of the body.



Product Code Table

Model	Size	Operation	Valve Shape	Connection	Seat Material	Grade + Body Material
VLD	4	C	S	VF	C	EP-316L
VLD-type Diaphragm Valve	4:1/4" 6:3/8" 8:1/2"	C: Normally Closed	S: Straight	V: CVC Male VF: CVC Female S: Compression	C: PCTFE	STD-316L : Mechanical Polish + SUS316L EP-316L : Electro Polish + SUS316L

VLD Dimensions

Unit: inch (mm)

Model	Type	End connection	L	L ₁ *	H	H ₁	A	B	C	P	M	M ₁
	VLD4CS-VC	1/4" CVC Male	2.24 (57.0)	-	2.58 (65.5)	0.43 (11.0)	1.56 (39.7)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD8CS-VC	1/2" CVC Male	3.03 (77.0)	-	3.31 (84.0)	0.63 (16.0)	2.17 (55.0)	1.42 (36.0)	1.42 (36.0)	Rc1/8	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD4CS-VFC	1/4" CVC Female	2.78 (70.6)	-	2.58 (65.5)	0.43 (11.0)	1.56 (39.7)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD8CS-VFC	1/2" CVC Female	3.27 (83.0)	-	3.31 (84.0)	0.63 (16.0)	2.17 (55.0)	1.42 (36.0)	1.42 (36.0)	Rc1/8	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD4CS-SC	1/4" Compression	1.89 (48.0)	0.31 (7.9)	2.58 (65.5)	0.43 (11.0)	1.56 (39.7)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	VLD6CS-SC	3/8" Compression	2.52 (64.0)	0.37 (9.5)	3.31 (84.0)	0.63 (16.0)	2.17 (55.0)	1.42 (36.0)	1.42 (36.0)	Rc1/8	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	VLD8CS-SC	1/2" Compression	2.52 (64.0)	0.50 (12.7)	3.31 (84.0)	0.63 (16.0)	2.17 (55.0)	1.42 (36.0)	1.42 (36.0)	Rc1/8	1.10 (28.0)	2-M5 Depth 0.20 (5.0)

* L₁ dimension for compression fitting is the dimension of how far tube is inserted from the end of the body.

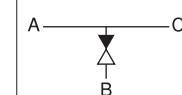
Product Code Table

Model	Size	Operation	Valve Shape	Main Pipe Connection	Main Pipe Size	B-Port Connection	Seat Material	Options	Grade + Body Material
VLD	4	M	B	W	15A	V	C	RD	EP-316L
VLD-type Diaphragm Valve	4:1/4" 6:3/8" 8:1/2"	270° Manual	Branch	Butt Weld	15A, 20A 25A, 32A 40A, 50A 65A	V: CVC Male S: Compression *1	C: PCTFE A: PFA P: PI	Not shown: Blue (Standard) RD: Red GR: Green SL: Silver BK: Black YE: Yellow BR: Brown	STD-316L : Mechanical Polish + SUS316L EP-316L : Electro Polish + SUS316L SEP-316LE : Electro Polish + SUS316LE *2

*1 For B-port fitting types other than shown, please consult a sales representative.

*2 Regardless of body material, the T-shape section of ports A-C will be SUS316L.

Flow Pattern



VLD Branch Dimensions

Unit: inch (mm)

Model	Type	B port End Connection	L	H	H ₁	D	T	A	F
	VLD4MB-W15AVC	1/4"CVC Male	4.33 (110.0)	3.62 (92.0)	1.22 (31.0)	0.85 (21.7)	0.06 (1.65)	1.65 (42.0)	1.85 (47.0)
	VLD4MB-W25AVC		4.72 (120.0)	4.13 (105.0)	1.49 (37.8)	1.34 (34.0)	0.06 (1.65)	1.65 (42.0)	1.85 (47.0)
	VLD4MB-W32AVC		5.51 (140.0)	4.74 (120.5)	1.91 (48.5)	1.68 (42.7)	0.06 (1.65)	1.65 (42.0)	2.32 (59.0)
	VLD4MB-W40AVC		5.51 (140.0)	5.00 (127.0)	2.05 (52.0)	1.91 (48.6)	0.06 (1.65)	1.65 (42.0)	2.32 (59.0)
	VLD4MB-W50AVC		5.51 (140.0)	5.49 (139.5)	2.30 (58.5)	2.38 (60.5)	0.06 (1.65)	1.65 (42.0)	2.32 (59.0)
	VLD4MB-W65AVC		5.91 (150.0)	6.10 (155.0)	2.62 (66.5)	3.00 (76.3)	0.08 (2.1)	1.65 (42.0)	2.32 (59.0)
	VLD8MB-W15AVC	1/2"CVC Male	4.33 (110.0)	4.29 (109.0)	1.54 (39.0)	0.85 (21.7)	0.06 (1.65)	1.65 (42.0)	2.58 (65.5)
	VLD8MB-W25AVC		4.72 (120.0)	4.80 (122.0)	1.81 (46.1)	1.34 (34.0)	0.06 (1.65)	1.65 (42.0)	2.58 (65.5)
	VLD8MB-W32AVC		5.51 (140.0)	5.18 (131.5)	2.01 (51.0)	1.68 (42.7)	0.06 (1.65)	1.65 (42.0)	2.58 (65.5)
	VLD8MB-W40AVC		6.30 (160.0)	5.45 (138.5)	2.17 (55.0)	1.91 (48.6)	0.06 (1.65)	1.65 (42.0)	2.58 (65.5)
	VLD8MB-W50AVC		6.30 (160.0)	6.00 (152.5)	2.48 (63.0)	2.38 (60.5)	0.06 (1.65)	1.65 (42.0)	2.58 (65.5)
	VLD8MB-W65AVC		7.09 (180.0)	6.59 (167.5)	2.76 (70.0)	3.00 (76.3)	0.08 (2.1)	1.65 (42.0)	2.58 (65.5)

For dimensions other than the model dimensions, header production is possible by special order. Please consult a sales representative.

RD

High Pressure Diaphragm Valves

The RD series diaphragm valves are high pressure valves with compact body and lower operation torque.

■ Features

Manual Valve

- ◎ Large diameter wheel handle provides smooth operation feel.
- ◎ The valves employ a large window and easy-to-see OPEN/CLOSE display so that the state of the valve can be confirmed at a glance.

Pneumatic Valve

- ◎ The new type vertical cylindrical actuator accommodates a minimal line pitch, so there is no need to worry about the orientation after installation.
- ◎ A compact, high-durability actuator is realized as a result of adopting KITZ SCT's patented wedge-type force booster.
- ◎ The rigidity of the joint between the actuator and the body is further increased for improved reliability.
- ◎ Stable opening and closing operation is ensured even at the lower limits of operating pressure, 0.4-0.7 MPa (G).

■ Specifications

Size		RD2 (1/8")	RD4 (1/4")	RD8 (1/2")
Cv		0.04	0.1	0.25
Maximum Operating Pressure		2350psig (16.2MPa (G))	2350psig (16.2MPa (G)) 3000psig (20.6MPa (G))	3000psig (20.6MPa (G))
Wetted area Volume		0.007in ³ (0.12cm ³)	0.061in ³ (1.0cm ³)	0.397in ³ (6.7cm ³)
Fluid Temperature Range		Straight flow, CVC male, OPEN state		
Atmospheric Temperature	PCTFE	-10°C~42°C		
	PI *1	-10°C~150°C		
Leak Rates	PCTFE	-10°C~40°C		
	PI	-10°C~60°C		
Cycle Life (N2 Charged, Own Test)	Across the Seat He Leak Test Rates	≤ 1×10 ⁻⁹ sccs (≤ 1×10 ⁻¹⁰ Pa·m ³ /sec)		
	Inboard He Leak Test Rates	≤ 1×10 ⁻⁹ sccs (≤ 1×10 ⁻¹⁰ Pa·m ³ /sec)		
Manual Valve		30,000 cycles		
Pneumatic Valve		100,000 cycles		

*1 In case ends connection are Female CVC, please refer to pp 43 for fluid temperature Range

■ Product Grade

Grade	STD	EP	SEP
Body Material	SUS316L		SUS316LE (Double melt material)
Surface Roughness	≤ Rz 3.2 μm	≤ Rz 0.7 μm	
	≤ Ra 0.5 μm / 20 μin	≤ Ra 0.13 μm / 5 μin	
Polish	Mechanical Polished	Electro Polished	
Cleaning	Degreasing + Precision cleaning		
Clean Room Environment	Class 10 (some products, Class 100)		
Packaging	Single bagged package	Double bagged package	

■ Wetted Area Material


Body	SUS316L, SUS316LE (Double melt material)
Seat	PCTFE, PI
Diaphragm	Cobalt alloy

■ Precautions

- ① The valves are designed to be used under atmospheric pressure. Usage such as under vacuum vessels are not guaranteed.
- ② For high temperature applications, please select appropriate material for air-fittings and tubes to assure proper performance.



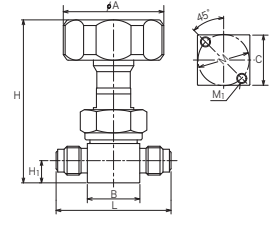
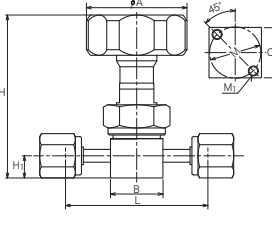
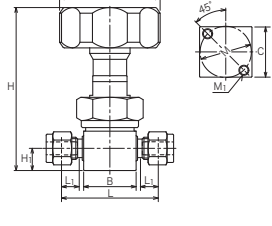
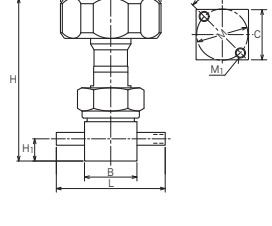
Product Code Table

Model	Size	Operation	Valve shape	Pressure	Connection	Seat material	Handle color	Grade + Body material
RD	4	M	S	H	V	C		EP-316L
RD-type diaphragm valve	2:1/8" 4:1/4" 8:1/2"	270° manual *1	Straight	H:16.2MPa(G) L:20.6MPa(G)	V:CVC male VF:CVC female S: Compression W:Butt weld	C:PTFE P:PI	Not shown: Blue (standard) RD: Red GR: Green SL: Silver BK: Black YE: Yellow BR: Brown WH: White	STD-316L : Mechanical Polished + SUS316L EP-316L : Electro Polished + SUS316L SEP-316LE : Electro Polished + SUS316LE

*1 1/8" size is 180° manual.

Dimensions

Unit: inch (mm)

Model	Type	Connection	L	L ₁ *	H	H ₁	A	B	C	M	M ₁
	RD2MSH-VC	1/8" CVC Male	1.61 (41.0)	-	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MSH-VC	1/4" CVC Male	2.24 (57.0)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MSI-VC		2.24 (57.0)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MSI-VC	1/2" CVC Male	3.03 (77.0)	-	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2MSH-VFC	1/8" CVC Female	2.20 (56.0)	-	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MSH-VFC	1/4" CVC Female	2.78 (70.6)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MSI-VFC		2.78 (70.6)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MSI-VFC	1/2" CVC Female	3.27 (83.0)	-	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2MSH-SC	1/8" Compression Fittings	3.06 (77.8)	0.24 (6.1)	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MSH-SC	1/4" Compression Fittings	1.89 (48.0)	0.31 (7.9)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MSI-SC		1.89 (48.0)	0.31 (7.9)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MSI-SC	1/2" Compression Fittings	2.52 (64.0)	0.50 (12.7)	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2MSH-WC	1/8" Butt Weld	1.65 (42.0)	-	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MSH-WC	1/4" Butt Weld	2.13 (54.0)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MSI-WC		2.13 (54.0)	-	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MSI-WC	1/2" Butt Weld	2.72 (69.0)	-	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)

* L₁ dimension for compression fitting is the dimension of how far tube inserted from end of body.



Product Code Table

Model	Size	Operation	Valve shape	Pressure	Connection	Seat material	Grade + Body material
RD	4	C	S	H	V	C	EP-316L
RD-type diaphragm valve	2:1/8" 4:1/4" 6:3/8" 8:1/2"	Normally closed	Straight	H:16.2MPa(G) I:20.6MPa(G)	V: CVC male VF: CVC female S: Compression W.: Butt weld	C: PCTFE P: PI	STD-316L: +SUS316L EP-316L: + SUS316L SEP-316LE: +SUS316LE

Dimensions

Unit: inch (mm)

Model	Type	Connection	L	L ₁ *	H	H ₁	A	B	C	P	M	M ₁
	RD2CSH-VC	1/8" CVC Male	1.61 (41.0)	-	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CSH-VC-971	1/4" CVC Male	2.24 (57.0)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CSI-VC-972		2.24 (57.0)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CSI-VC	1/2" CVC Male	3.03 (77.0)	-	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2CSH-VFC	1/8" CVC Female	2.20 (56.0)	-	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CSH-VFC-1371	1/4" CVC Female	2.78 (70.6)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CSI-VFC-1295		2.78 (70.6)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CSI-VFC	1/2" CVC Female	3.27 (83.0)	-	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2CSH-SC	1/8" Compression Fittings	3.06 (77.8)	0.24 (6.1)	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CSH-SC-1484	1/4" Compression Fittings	1.89 (48.0)	0.31 (7.9)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CSI-SC		1.89 (48.0)	0.31 (7.9)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CSI-SC	1/2" Compression Fittings	2.52 (64.0)	0.50 (12.7)	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2CSH-WC	1/8" Butt Weld	1.65 (42.0)	-	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CSH-WC-1408	1/4" Butt Weld	2.13 (54.0)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CSI-WC-1571		2.13 (54.0)	-	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CSI-WC	1/2" Butt Weld	2.72 (69.0)	-	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)

* L₁ dimension for compression fitting is the dimension of how far tube inserted from end of body.

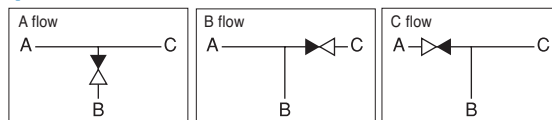


Product Code Table

Model	Size	Operation	Valve shape	Pressure	Connection	Seat material	Flow	Options	Grade + Body material
RD	4	M	B	H	V	C	A		EP-316L
RD-type diaphragm valve	2:1/8" 4:1/4" 8:1/2"	240° manual *2	Branch	H:16.2MPa(G) I:20.6MPa(G)	V: CVC male VF: CVC female W: Butt weld	C:PCTFE P:PI	A: A flow B: B flow C: C flow *1	Not shown: Blue (standard) RD: Red GR: Green SL: Silver BK: Black YE: Yellow BR: Brown WH: White	STD-316L : Mechanical Polished+SUS316L EP-316L : Electro Polished+SUS316L SEP-316LE : Electro Polished+SUS316LE

*1 Branched flow are shown in the diagram to the right.
*2 1/8" size is 180° manual.

Flow direction



Dimensions

Unit: inch (mm)

Model	Type	Connection	L	H	H ₁	A	B	C	F	M	M ₁
	RD2MBH-VC	1/8" CVC Male	1.61 (41.0)	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.81 (20.5)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MBH-VC	1/4" CVC Male	2.24 (57.0)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.10 (28.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MBI-VC		2.24 (57.0)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.10 (28.0)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MBI-VC	1/2" CVC Male	3.03 (77.0)	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.52 (38.5)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2MBH-VFC	1/8" CVC Female	2.20 (56.0)	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	1.10 (28.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MBH-VFC	1/4" CVC Female	2.78 (70.6)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.37 (34.8)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MBI-VFC		2.78 (70.6)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.37 (34.8)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MBI-VFC	1/2" CVC Female	3.27 (83.0)	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.63 (41.5)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2MBH-WC	1/8" Butt Weld	1.65 (42.0)	2.36 (60.0)	0.28 (7.0)	1.34 (34.0)	0.75 (19.0)	0.75 (19.0)	0.83 (21.0)	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4MBH-WC	1/4" Butt Weld	2.13 (54.0)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.04 (26.5)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4MBI-WC		2.13 (54.0)	3.19 (81.0)	0.43 (11.0)	2.05 (52.0)	1.02 (26.0)	0.98 (25.0)	1.04 (26.5)	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8MBI-WC	1/2" Butt Weld	2.72 (69.0)	3.90 (99.0)	0.63 (16.0)	2.36 (60.0)	1.42 (36.0)	1.42 (36.0)	1.36 (34.5)	1.10 (28.0)	2-M5 Depth 0.20 (5.0)

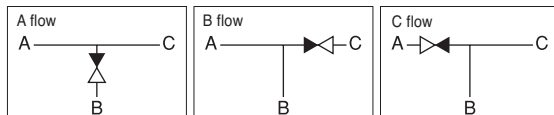


Product Code Table

Model	Size	Operation	Valve shape	Pressure	Connection	Seat material	Flow	Grade + Body material
RD	4	C	B	H	V	C	A	EP-316L
RD-type diaphragm valve	2:1/8" 4:1/4" 8:1/2"	Normally closed	Branch	H: 16.2MPa(G) I: 20.6MPa(G)	V: CVC male VF: CVC female W: Butt weld	C: PCTFE P: PI	A: A flow B: B flow C: C flow *1	STD-316L : Mechanical Polished + SUS316L EP-316L : Electro Polished + SUS316L SEP-316L : Electro Polished + SUS316LE

*1 Branched flow are shown in the diagram to the right.

Flow direction



Dimensions

Unit: inch (mm)

Model	Type	Connection	L	H	H ₁	A	B	C	F	P	M	M ₁
	RD2CBH-VC	1/8" CVC Male	1.61 (41.0)	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	0.81 (20.5)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CBH-VC	1/4" CVC Male	2.24 (57.0)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.10 (28.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CBI-VC		2.24 (57.0)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.10 (28.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CBI-VC	1/2" CVC Male	3.03 (77.0)	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	1.52 (38.5)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2CBH-VFC	1/8" CVC Female	2.20 (56.0)	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	1.10 (28.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CBH-VFC	1/4" CVC Female	2.78 (70.6)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.37 (34.8)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CBI-VFC		2.78 (70.6)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.37 (34.8)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CBI-VFC	1/2" CVC Female	3.27 (83.0)	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	1.63 (41.5)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)
	RD2CBH-WC	1/8" Butt Weld	1.65 (42.0)	3.52 (89.5)	0.28 (7.0)	1.26 (32.0)	0.75 (19.0)	0.75 (19.0)	0.83 (21.0)	Rc1/8	0.67 (17.0)	2-M4 Depth 0.20 (5.0)
	RD4CBH-WC	1/4" Butt Weld	2.13 (54.0)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.04 (26.5)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD4CBI-WC		2.13 (54.0)	3.90 (99.0)	0.43 (11.0)	1.50 (38.0)	1.02 (26.0)	0.98 (25.0)	1.04 (26.5)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.20 (5.0)
	RD8CBI-WC	1/2" Butt Weld	2.72 (69.0)	7.38 (187.5)	0.63 (16.0)	2.20 (56.0)	1.42 (36.0)	1.42 (36.0)	1.36 (34.5)	Rc1/4	1.10 (28.0)	2-M5 Depth 0.20 (5.0)