

Weir diaphragm valve Air operated

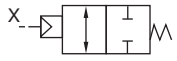
SWD Series

●Connection: ISO ferrule

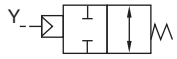
RoHS CAD

JIS symbol

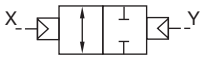
● NC (Normally Closed)



● NO (Normally Open)



● Double acting



Specifications

Item		SWD*1	SWD*2	SWD*3
Actuation		NC (Normally Closed)	NO (Normally Open)	Double acting
Working fluid		Water, pure water, chemical liquids (fluids that do not corrode wetted part materials)		
Working pressure	MPa	0 to 0.6		
Proof pressure (water pressure)	MPa	2.0		
Fluid temperature	°C	5 to 90 (during steam sterilization 130°C, allowable for 20 minutes or less)		
Ambient temperature	°C	0 to 60		
Frequency	cycles/min.	SWD1 to 4:20 or less SWD5:10 or less		
Valve seat leakage	cm^3/min	0 (water pressure)		
Mounting orientation		Unrestricted (*1)		
Operating port		Rc1/8		
Operating fluid		Air		
Operating pressure MPa	SWD1*-8	0.35 to 0.7	0.25 to 0.35	0.2 to 0.3
	SWD1*-10			
	SWD2*-15			
	SWD3*-25	0.4 to 0.7	0.3 to 0.35	0.25 to 0.3
	SWD4*-40		0.35 to 0.4	0.3 to 0.35
	SWD5*-50		0.27 to 0.32	0.2 to 0.25
Cv	SWD1*-8	2.3		
	SWD1*-10	2.6		
	SWD2*-15	4.5		
	SWD3*-25	13		
	SWD4*-40	27		
	SWD5*-50	50		
Material	Diaphragm	PTFE/EPDM		
	Body	SUS316L (buff polishing #400 or equiv., electrolytic polishing)		
	Actuator	ADC12 (fluoro resin coating)		

*1: For horizontal piping, liquid accumulation in the valve can be minimized by piping at the angles described on page 9.

How to order

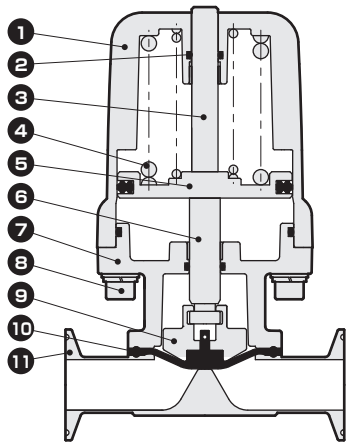
SWD **1** **1** - **8** - **F**

- Model No.
- Ⓐ Series
- Ⓑ Actuation
- Ⓒ Port size
- Ⓓ Actuator/Diaphragm/ Body material combination

Code	Description	Model No. SWD1	SWD2	SWD3	SWD4	SWD5
Ⓐ Series						
1	Size 1	●				
2	Size 2		●			
3	Size 3			●		
4	Size 4				●	
5	Size 5					●
Ⓑ Actuation						
1	NC (Normally Closed)	●	●	●	●	●
2	NO (Normally Open)	●	●	●	●	●
3	Double acting	●	●	●	●	●
Ⓒ Port size						
8	Clamp fitting 8A	●				
10	Clamp fitting 10A	●				
15	Clamp fitting 15A		●			
25	Clamp fitting 25A (1S)			●		
40	Clamp fitting 40A (1.5S)				●	
50	Clamp fitting 50 A(2S)					●

Ⓓ Actuator/diaphragm/body material combination									
	Actuator	Diaphragm	Body						
F	ADC12	PTFE/EPDM	SUS316L	●	●	●	●	●	

Internal structure and parts list

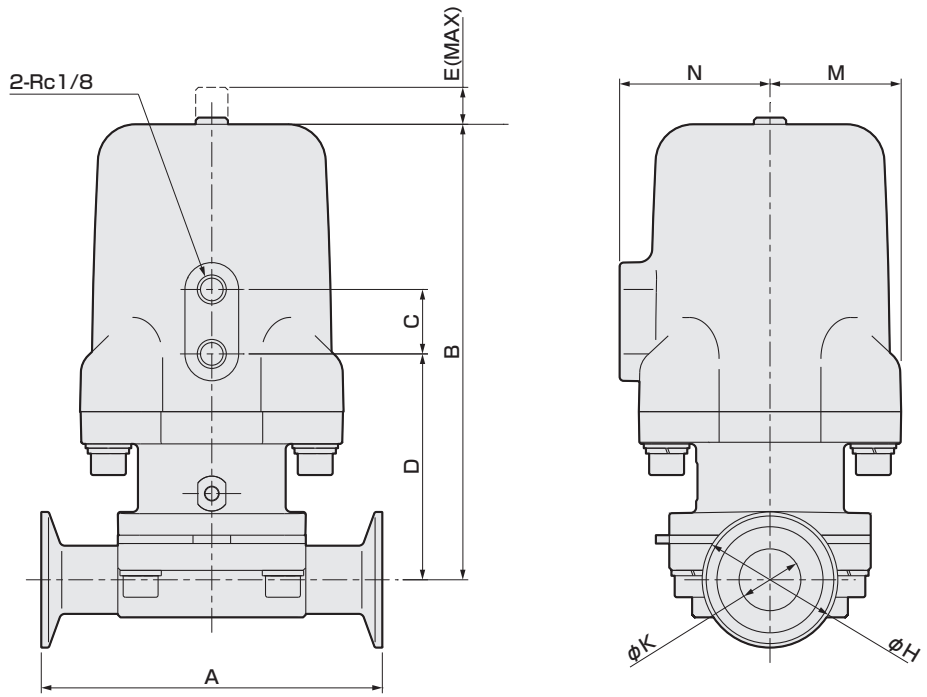


No.	Part name	Material	
1	Cylinder guard	ADC12	Aluminum die-casting
2	O-ring	FKM	Fluoro rubber
3	Indicator	SUS304	Stainless steel
4	Spring	SUS304 (or SWP, SWOSC)	Stainless steel (or piano wire, oil temper wire)
5	Piston	A2017	Aluminum
6	Piston rod	SUS304	Stainless steel
7	Rod cover, yoke	ADC12	Aluminum die-casting
8	Hexagon socket head cap screw	SUS304, SUSXM7	Stainless steel
9	Compressor	SCS13	Stainless steel
10	Diaphragm	PTFE, EPDM, SUS303, SUS304	Fluoro resin, ethylene propylene rubber, stainless steel
11	Body	SUS316L	Stainless steel

* For repair parts, refer to page 7.
Wetted parts material is PTFE(diaphragm) and SUS316L (body).

Dimensions

●SWD



Model No.	A	B	C	D	E	H	K	M	N	Weight [kg]		
										NC	NO	Double acting
SWD1*-8-F	90	99.5	22	60	7	34	10.5	32	40	0.6		
SWD1*-10-F	90	101	22	61.5	7	34	14	32	40	0.6		
SWD2*-15-F	108	130	22	73	8.5	34	17.5	38	46.5	1.2		
SWD3*-25-F	127	170	24	84	12.5	50.5	23	49	56	2.7	2.3	2.3
SWD4*-40-F	159	212	28	97	16.5	50.5	35.7	57	66	5.1	4.1	4.0
SWD5*-50-F	190	241.5	47	118	23	64	47.8	76.5	87.5	9.5	7.8	7.5



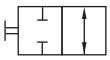
Weir diaphragm valve Manual

MWD Series

●Connection: ISO ferrule

RoHS CAD

JIS symbol



Specifications

Item		MWD 10-8	MWD 10-10	MWD 20-15	MWD 30-25	MWD 40-40	MWD 50-50
Working fluid		Water, pure water, chemical liquids (fluids that do not corrode wetted part materials)					
Working pressure	MPa	0 to 0.6					
Proof pressure(water pressure)	MPa	2.0					
Fluid temperature	°C	5 to 90 (during steam sterilization 130°C, allowable for 20 minutes or less)					
Ambient temperature	°C	0 to 60					
Valve seat leakage	cm^3/min	0 (water pressure)					
Mounting orientation		Unrestricted (*1)					
Operating torque	N·m	0.7 to 1.1	0.7 to 1.1	1.0 to 1.5	1.7 to 2.7	3.0 to 4.0	5.0 to 5.5
Cv		2.3	2.6	4.5	13	27	50
Material	Diaphragm	PTFE/EPDM					
	Body	SUS316L (buff polishing #400 or equiv., electrolytic polishing)					
	Actuator	A5056(fluoro resin coating)					

*1: For horizontal piping, liquid accumulation in the valve can be minimized by piping at the angles described on page 9.

How to order

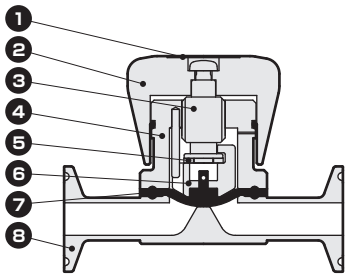
MWD 1 0- 8 - F

- MWD: Model No.
- 1: Ⓐ Series
- 8: Ⓑ Port size
- F: Ⓒ Actuator/Diaphragm/Body material combination

Code	Description	Model No. MWD1	MWD2	MWD3	MWD4	MWD5
Ⓐ Series						
1	Size 1	●				
2	Size 2		●			
3	Size 3			●		
4	Size 4				●	
5	Size 5					●
Ⓑ Port size						
8	Clamp fitting 8A	●				
10	Clamp fitting 10A	●				
15	Clamp fitting 15A		●			
25	Clamp fitting 25A (1S)			●		
40	Clamp fitting 40A (1.5S)				●	
50	Clamp fitting 50 A(2S)					●

Ⓒ Actuator/diaphragm/body material combination								
	Actuator	Diaphragm	Body					
F	A5056	PTFE/EPDM	SUS316L	●	●	●	●	●

Internal structure and parts list

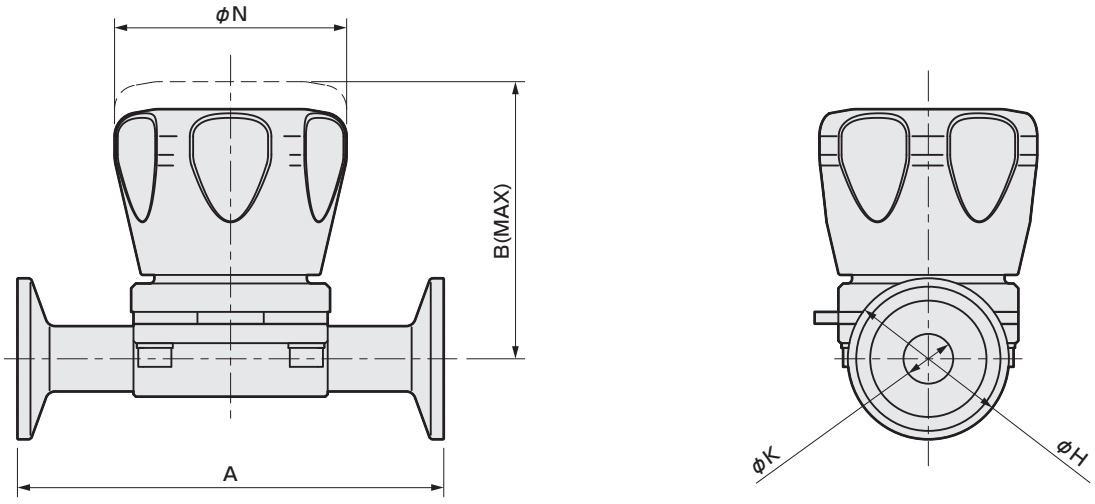


No.	Part name	Material	
1	Indicator	PET	Polyethylene terephthalate
2	Handle	A5056	Aluminum
3	Rod	SUS304	Stainless steel
4	Bonnet	A5056	Aluminum
5	Bearing	-	-
6	Compressor	SCS13	Stainless steel
7	Diaphragm	PTFE, EPDM, SUS303, SUS304	Fluoro resin, ethylene propylene rubber, stainless steel
8	Body	SUS316L	Stainless steel

* For repair parts, refer to page 7.
Wetted parts material is PTFE(diaphragm) and SUS316L (body).

Dimensions

●MWD



Model No.	A	B	H	K	N	Weight [kg]
MWD10-8-F	90	58.5	34	10.5	49	0.4
MWD10-10-F	90	60.7	34	14	49	0.4
MWD20-15-F	108	71.5	34	17.5	59	0.6
MWD30-25-F	127	88.7	50.5	23	69	1.2
MWD40-40-F	159	107.6	50.5	35.7	89	2.4
MWD50-50-F	190	164.5	64	47.8	89	4.6



Weir diaphragm valve Manual
Spring seal

MWD-S Series

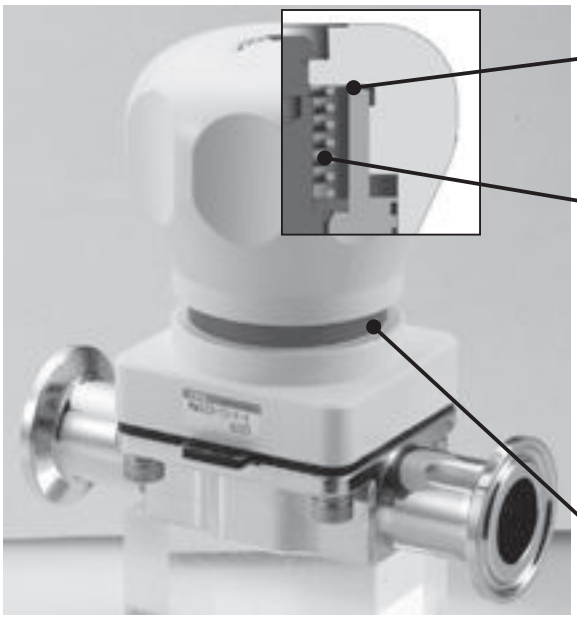
●Connection: ISO ferrule

Made-to-order product

RoHS

Features

No more diaphragm damage due to overtightening.



Handle stopper mechanism

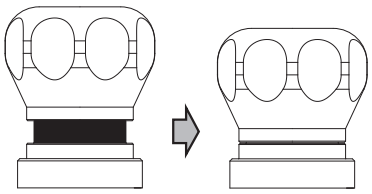
Lets you sense when tightening is finished.

Spring seal

Just turn the handle until tightening is finished, for consistently optimal sealing force. No handle tightening torque control required. Significant improvement of diaphragm durability at high temperatures. The spring conforms to loosening due to temperature changes, meaning that no retightening after SIP is required.

Indicator equipment

Open/close status is visually apparent even from a distance.



JIS symbol



Specifications

Item		MWD10-8	MWD10-10	MWD20-15	MWD30-25	MWD40-40
Working fluid		Water, pure water, chemical liquids (fluids that do not corrode wetted part materials)				
Working pressure	MPa	0 to 0.6				
Proof pressure(water pressure)	MPa	2.0				
Fluid temperature	°C	5 to 90 (during steam sterilization 130°C, allowable for 20 minutes or less)				
Ambient temperature	°C	0 to 60				
Valve seat leakage	cm^3/min	0 (water pressure)				
Mounting orientation		Unrestricted (*1)				
Cv		2.3	2.6	4.5	13	27
Material	Diaphragm	PTFE/EPDM				
	Body	SUS316L (buff polishing #400 or equiv., electrolytic polishing)				
	Actuator	A5056 (fluoro resin coating)				

*1: For horizontal piping, liquid accumulation in the valve can be minimized by piping at the angles described on page 9.

How to order

MWD 1 0- 8 - F -S

Model No.

Ⓐ Series

Ⓑ Port size

Ⓒ Actuator/Diaphragm/ Body material combination

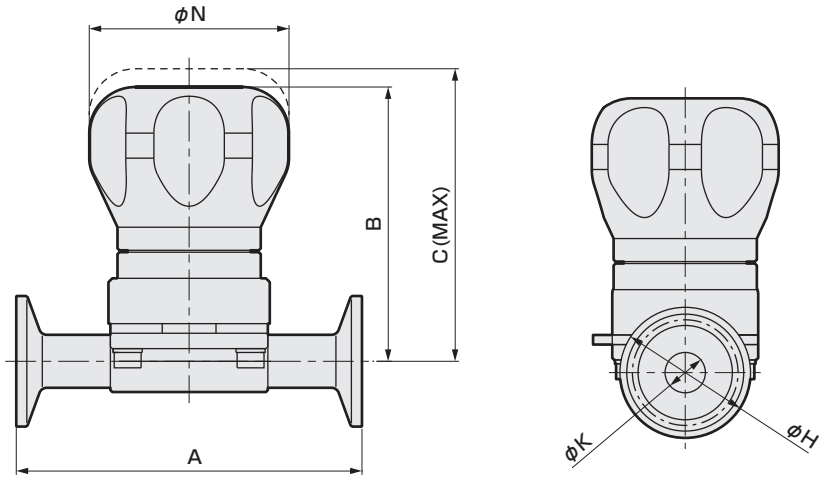
Code	Description	Model No. MWD1	MWD2	MWD3	MWD4
Ⓐ Series					
1	Size 1	●			
2	Size 2		●		
3	Size 3			●	
4	Size 4				●
Ⓑ Port size					
8	Clamp fitting 8A	●			
10	Clamp fitting 10A	●			
15	Clamp fitting 15A		●		
25	Clamp fitting 25A(1S)			●	
40	Clamp fitting 40A(1.5S)				●

Ⓒ Actuator/diaphragm/body material combination							
	Actuator	Diaphragm	Body				
F	A5056	PTFE/EPDM	SUS316L	●	●	●	●

* For repair parts, refer to page 7.
Wetted parts material is PTFE(diaphragm) and SUS316L (body).

Dimensions

●MWD-S



Model No.	A	B	C	H	K	N	Weight [kg]
MWD10-8-F-S	90	71	79	34	10.5	52	0.4
MWD10-10-F-S	90	74	81	34	14	52	0.4
MWD20-15-F-S	108	84	94	34	17.5	66	0.8
MWD30-25-F-S	127	119	133	50.5	23	80	2.0
MWD40-40-F-S	159	146	163	50.5	35.7	89	3.6

Consumable parts (diaphragm)

How to order

SWD- 1 PE

Model No. Ⓐ Series

Code	Description
Ⓐ Series	
1	Size 1
2	Size 2
3	Size 3
4	Size 4
5	Size 5

* Common model No. for SWD, MWD, MWD-S.





Made-to-order product

With opening adjustment mechanism



With open/close detection switch



Specially shaped body

