

Manual valve for chemical liquids

MMD303RN Series



Specifications

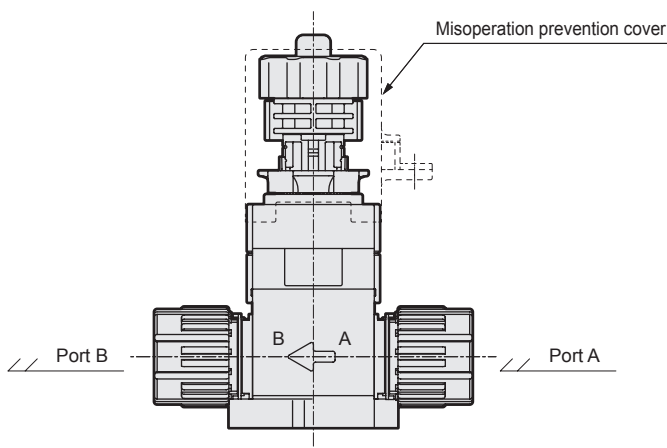
Descriptions	MMD303RN	
Working fluid	Chemical liquids, pure water, air, N ₂ gas (*1)	
Fluid temperature °C	5 to 120	
Proof pressure MPa	1.0	
Working pressure (A→B) MPa	0 to 0.5 Refer to figure below for "Working pressure"	
Working pressure (B→A) MPa	0 to 0.5 Refer to figure below for "Working pressure"	
Valve seat leakage cm ³ /min	0 (water pressure)	
Back pressure MPa	0 to 0.5	
Ambient temperature °C	0 to 60	
Mounting orientation	Unrestricted	
Connection	O.D. ø10/ø12 tube connection (integrated fitting)	
	O.D. 3/8" / 1/2" tube connection (integrated fitting)	
Orifice size	ø8	ø10
Cv	1.25	1.8

*1: Check the compatibility of product structural materials, working fluids and atmosphere. (Refer to the compatibility check list on page 20.)

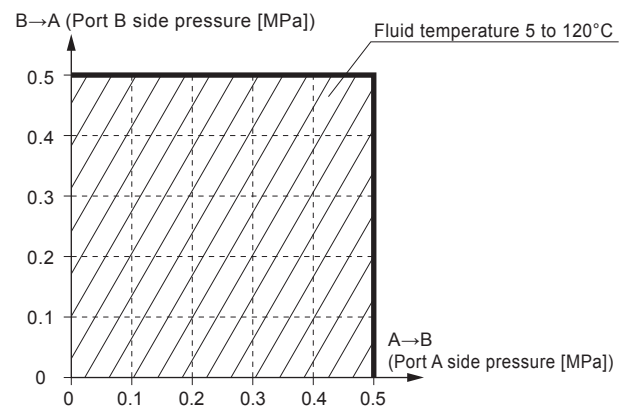
*2: For hydrofluoric acid or chemical liquids containing hydrofluoric acid, use within the range of 5 to 80°C.

*3: Refer to page 12 for flow characteristics.

Structure and parts list



Working pressure



Part name	Material
Actuator	PVDF, PP, etc.
Diaphragm	PTFE
Body	PFA
Mounting plate	PVDF
Misoperation prevention cover	PP

How to order

MMD303RN -

15BUP

- F

Model No.

A Connection

B Mounting method

A Connection			
10UP	10BUP	12UP	15BUP
Super 300 Pillar fitting P Series integrated			
ø10 x ø8 tube connection	3/8" x 1/4" tube connection	ø12 x ø10 tube connection	1/2" x 3/8" tube connection
ø8		ø10	
B Mounting method (Note)			
F	Flange mounting	●	●
H	4-point flange mounting	●	●
X	Bottom mounting	●	●

Code	Content	Orifice size
B	Mounting method (Note)	
F	Flange mounting	●
H	4-point flange mounting	●
X	Bottom mounting	●

Precautions for model No. selection

Note: Refer to the dimensions for the mounting method.

- Misoperation prevention cover

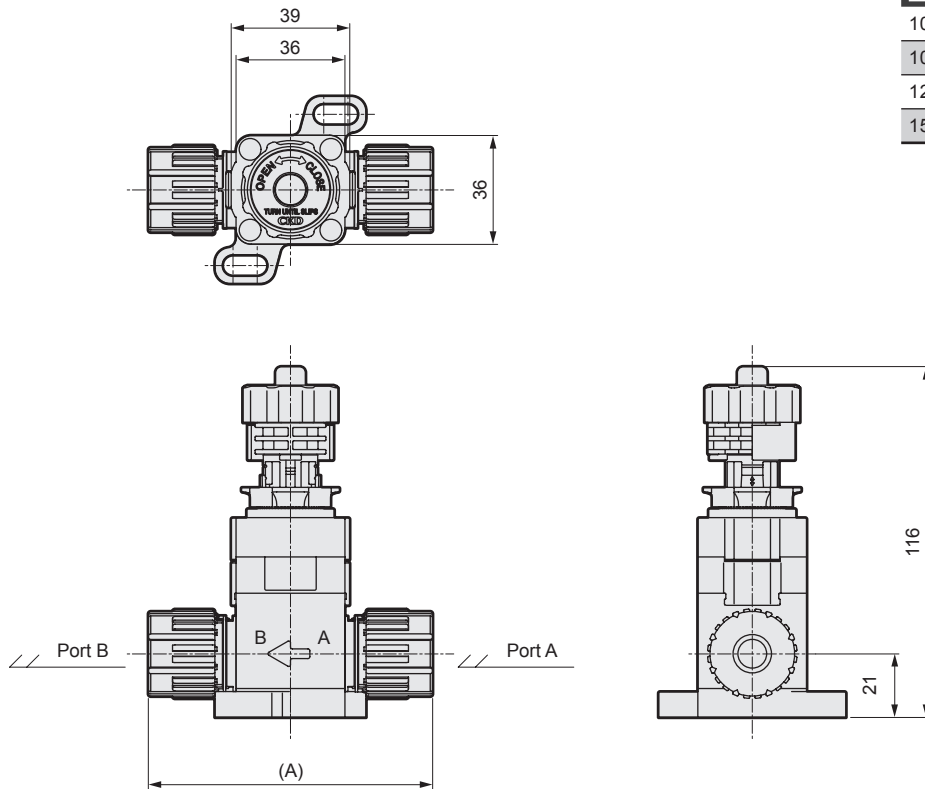
MMD303RN-C

MMD303RN Series

Dimensions

• MMD303RN-*1-*

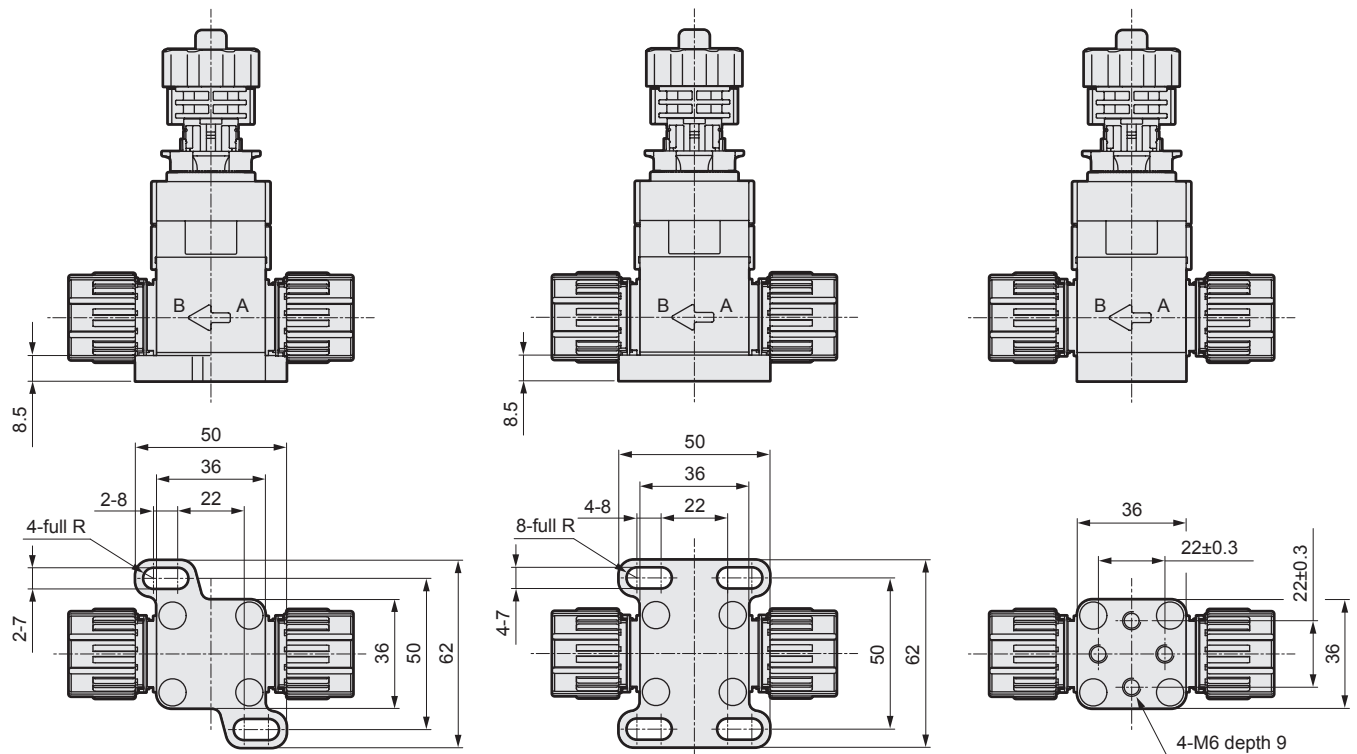
*1 Connection	A
10UP	86
10BUP	86
12UP	94
15BUP	94



● F Flange mounting
• MMD303RN-***F**

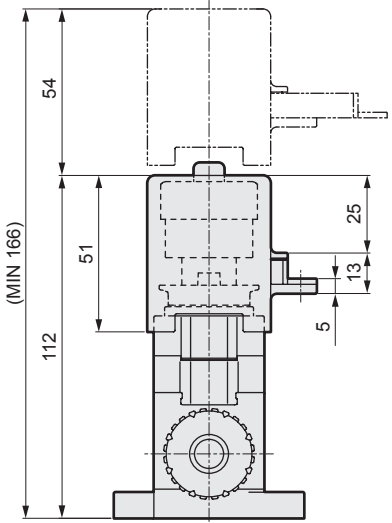
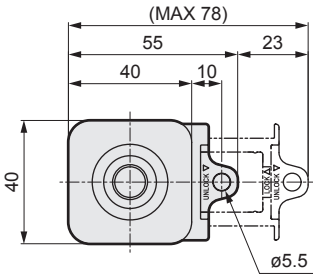
● H 4-point flange mounting
• MMD303RN-***H**

● X Bottom mounting
• MMD303RN-***X**

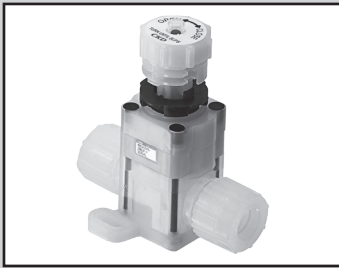


Dimensions

- Misoperation prevention cover
 - MMD303RN-C



*Mounting the misoperation prevention cover
Mountable in any direction (4 ways).



Manual valve for chemical liquids

MMD403RN Series



Export controlled items

Specifications

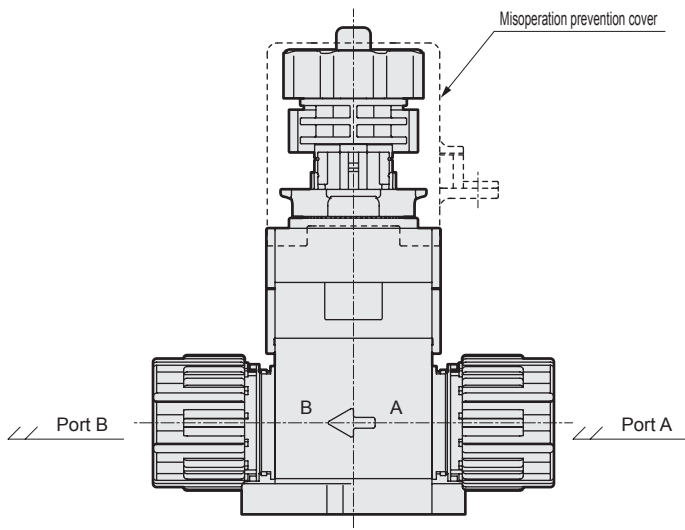
Descriptions	MMD403RN	
Working fluid	Chemical liquids, pure water, air, N ₂ gas (*1)	
Fluid temperature	°C	5 to 120 (*2)
Proof pressure	MPa	1.0
Working pressure (A→B)	MPa	0 to 0.5 Refer to figure below for "Working pressure"
Working pressure (B→A)	MPa	0 to 0.5 Refer to figure below for "Working pressure"
Valve seat leakage	cm ³ /min	0 (water pressure)
Back pressure	MPa	0 to 0.5
Ambient temperature	°C	0 to 60
Mounting orientation	Unrestricted	
Connection	O.D. 3/4" tube connection (integrated fitting)	
Orifice size	ø16	
Cv	5	

*1: Check the compatibility of product structural materials, working fluids and atmosphere. (Refer to the compatibility check list on page 20.)

*2: For hydrofluoric acid or chemical liquids containing hydrofluoric acid, use within the range of 5 to 80°C.

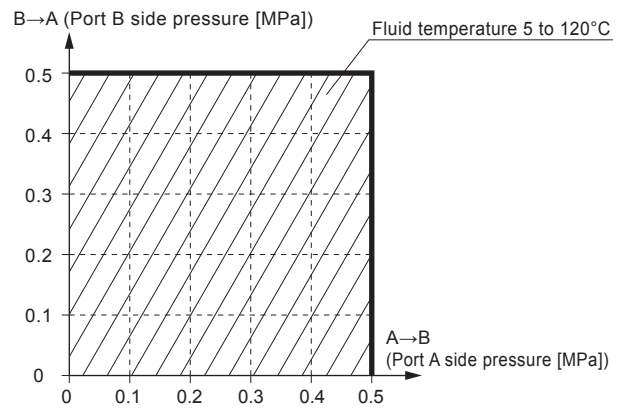
*3: Refer to page 12 for flow characteristics.

Structure and parts list



Part name	Material
Actuator	PVDF, PP, etc.
Diaphragm	PTFE
Body	PFA
Mounting plate	PVDF
Misoperation prevention cover	PP

Working pressure



How to order

MMD403RN - 20BUP - F

Model No.

A Connection

B Mounting method

A Connection
20BUP
Super 300 Pillar fitting P Series integrated
3/4" x 5/8" tube connection

Code	Content	Orifice size
		ø16
B Mounting method (Note)		
F	Flange mounting	● ●
H	4-point flange mounting	● ●
X	Bottom mounting	● ●

Precautions for model No. selection

Note: Refer to the dimensions for the mounting method.

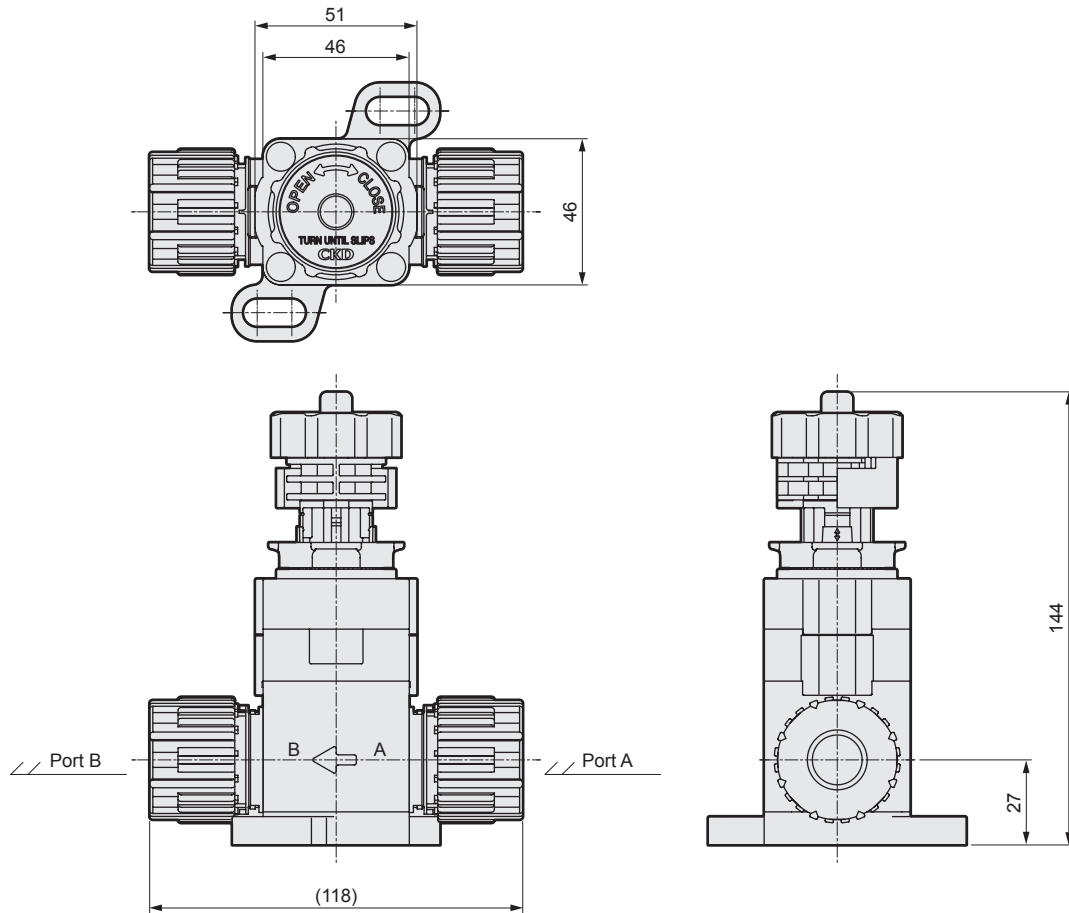
● Misoperation prevention cover

MMD403RN-C

MMD403RN Series

Dimensions

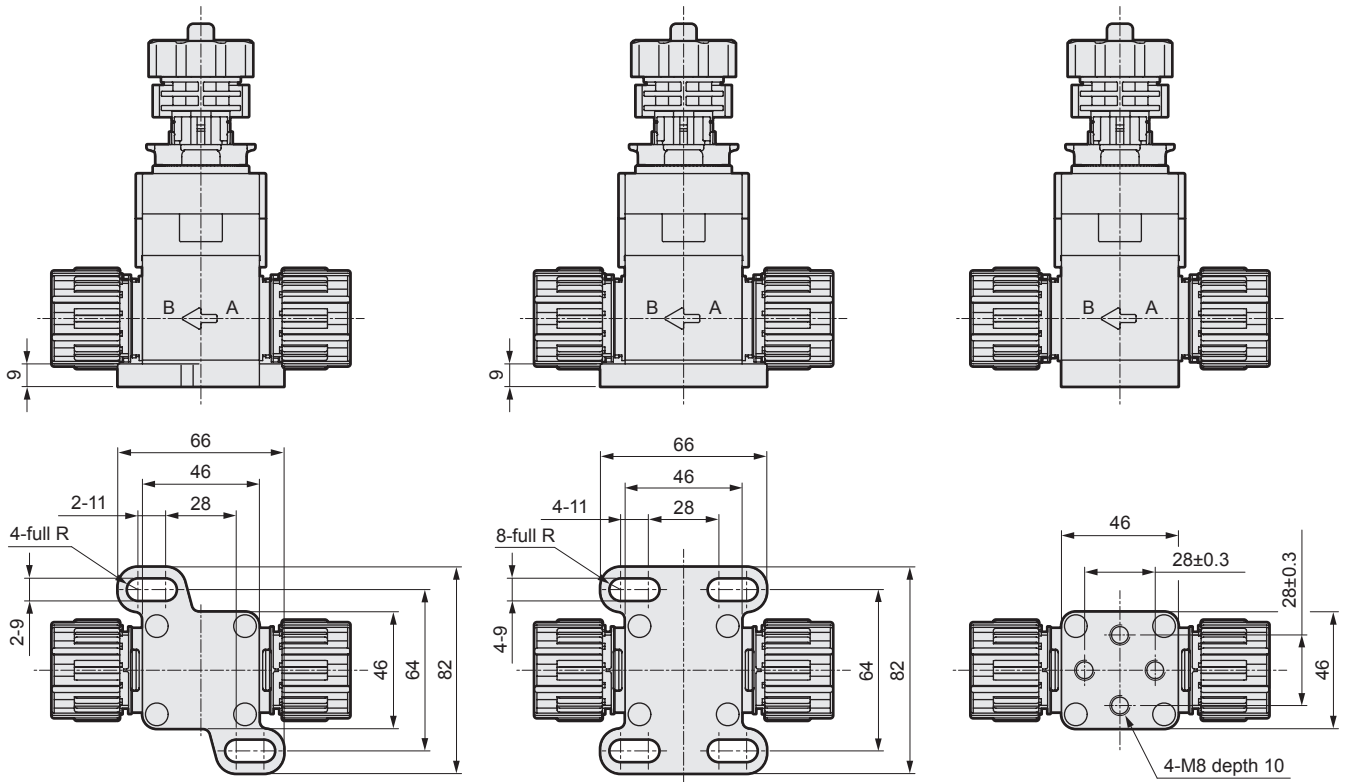
• MMD403RN-20BUP-*



● **F** Flange mounting
• MMD403RN-20BUP-F

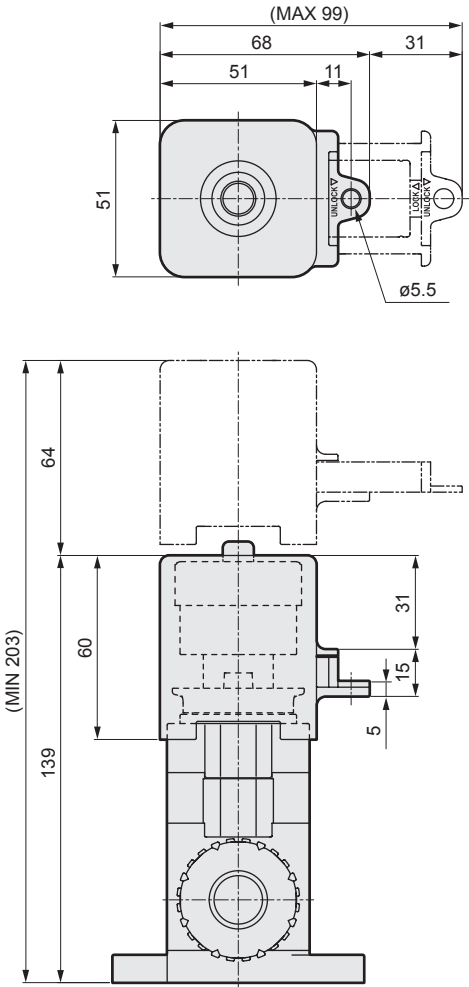
● **H** 4-point flange mounting
• MMD403RN-20BUP-H

● **X** Bottom mounting
• MMD403RN-20BUP-X



Dimensions

- Misoperation prevention cover
 - MMD403RN-C



*Mounting the misoperation prevention cover
Mountable in any direction (4 ways).



Manual valve for chemical liquids

MMD503RN Series



Export controlled items

Specifications

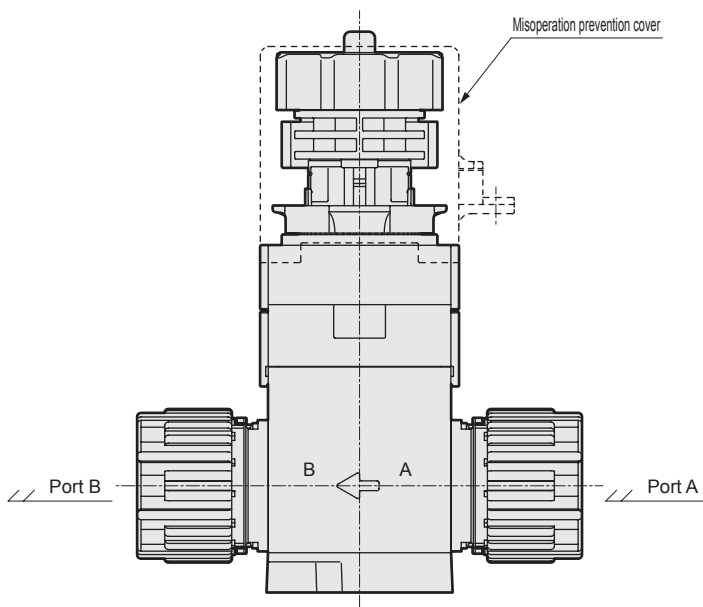
Descriptions	MMD503RN	
Working fluid	Chemical liquids, pure water, air, N ₂ gas (*1)	
Fluid temperature	°C	5 to 120
Proof pressure	MPa	1.0
Working pressure (A→B)	MPa	0 to 0.5 Refer to figure below for "Working pressure"
Working pressure (B→A)	MPa	0 to 0.5 Refer to figure below for "Working pressure"
Valve seat leakage	cm ³ /min	0 (water pressure)
Back pressure	MPa	0 to 0.5
Ambient temperature	°C	0 to 60
Mounting orientation	Unrestricted	
Connection	O.D. ø25 tube connection (integrated fitting) O.D. 1" tube connection (integrated fitting)	
Orifice size	ø20	
Cv	8	

*1: Check the compatibility of product structural materials, working fluids and atmosphere. (Refer to the compatibility check list on page 20.)

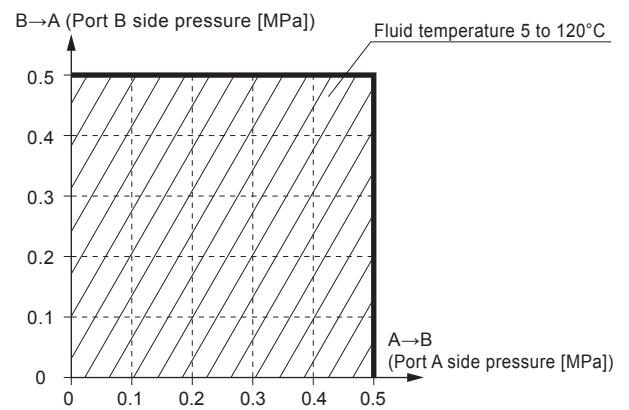
*2: For hydrofluoric acid or chemical liquids containing hydrofluoric acid, use within the range of 5 to 80°C.

*3: Refer to page 12 for flow characteristics.

Structure and parts list



Working pressure

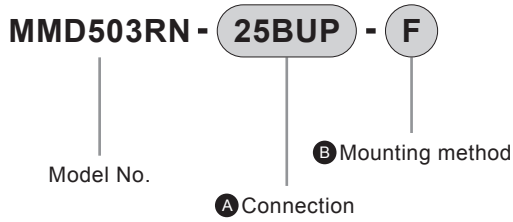


Part name	Material
Actuator	PVDF, PP, etc.
Diaphragm	PTFE
Body	PFA
Mounting plate	PVDF
Misoperation prevention cover	PP

MMD503RN Series

How to order

How to order



(A) Connection	
25UP	25BUP
Super 300 Pillar fitting P Series integrated	
$\phi 25$ x $\phi 22$ tube connection	1" x 7/8" tube connection

Code	Content	Orifice size	
		$\phi 20$	
(B) Mounting method (Note)			
F	Flange mounting	●	●
H	4-point flange mounting	●	●
X	Bottom mounting	●	●

Precautions for model No. selection

Note: Refer to the dimensions for the mounting method.

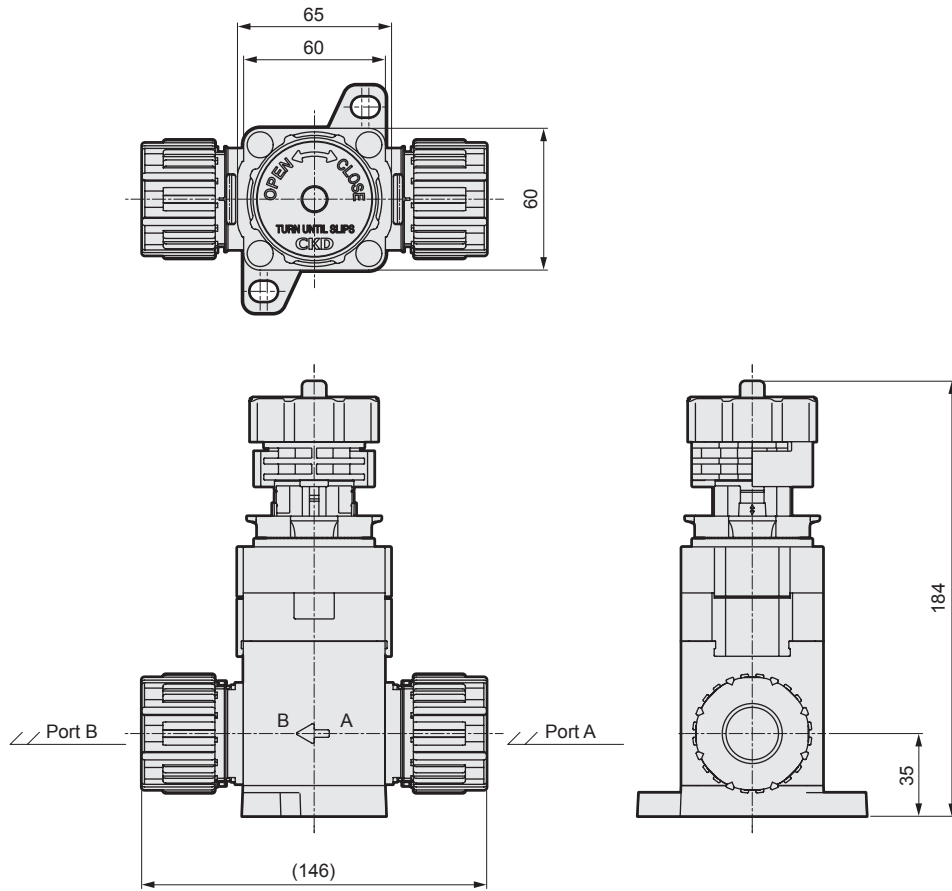
- Misoperation prevention cover

MMD503RN-C

MMD503RN Series

Dimensions

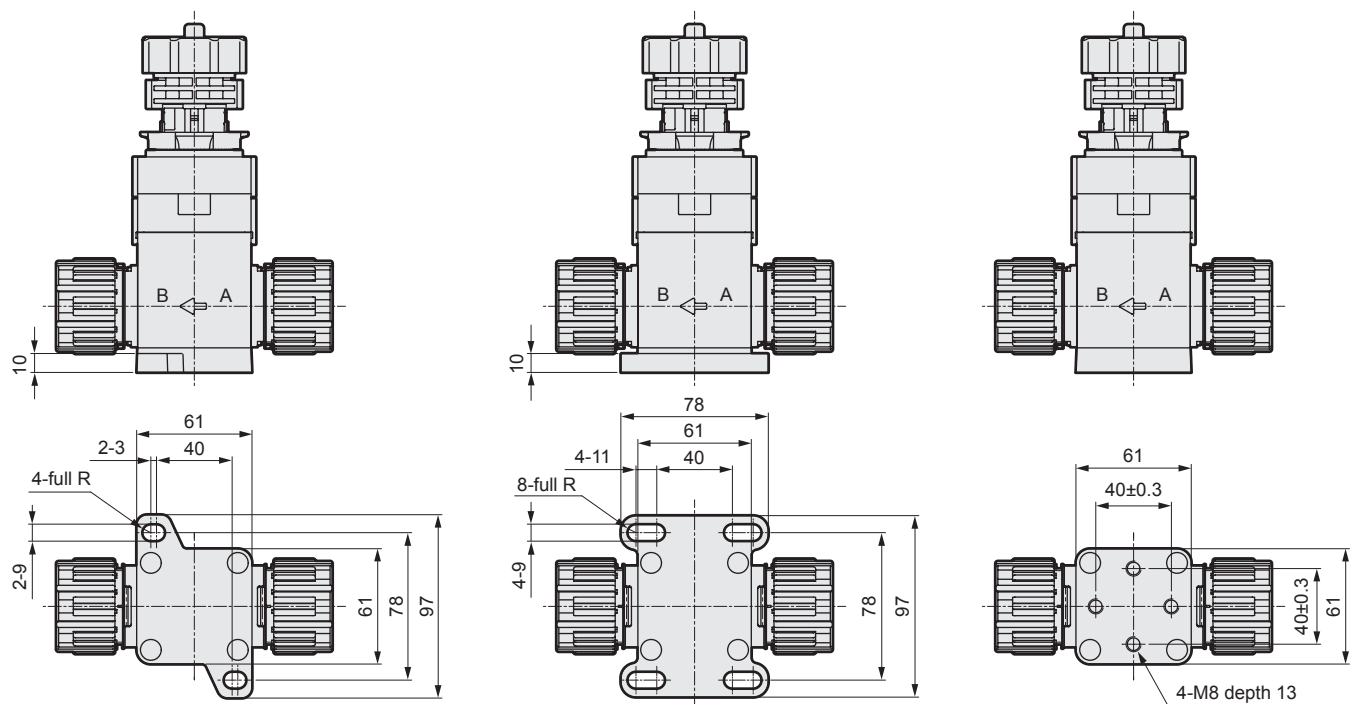
• MMD503RN-*.*



● **F** Flange mounting
• MMD503RN-*.F

● **H** 4-point flange mounting
• MMD503RN-*.H

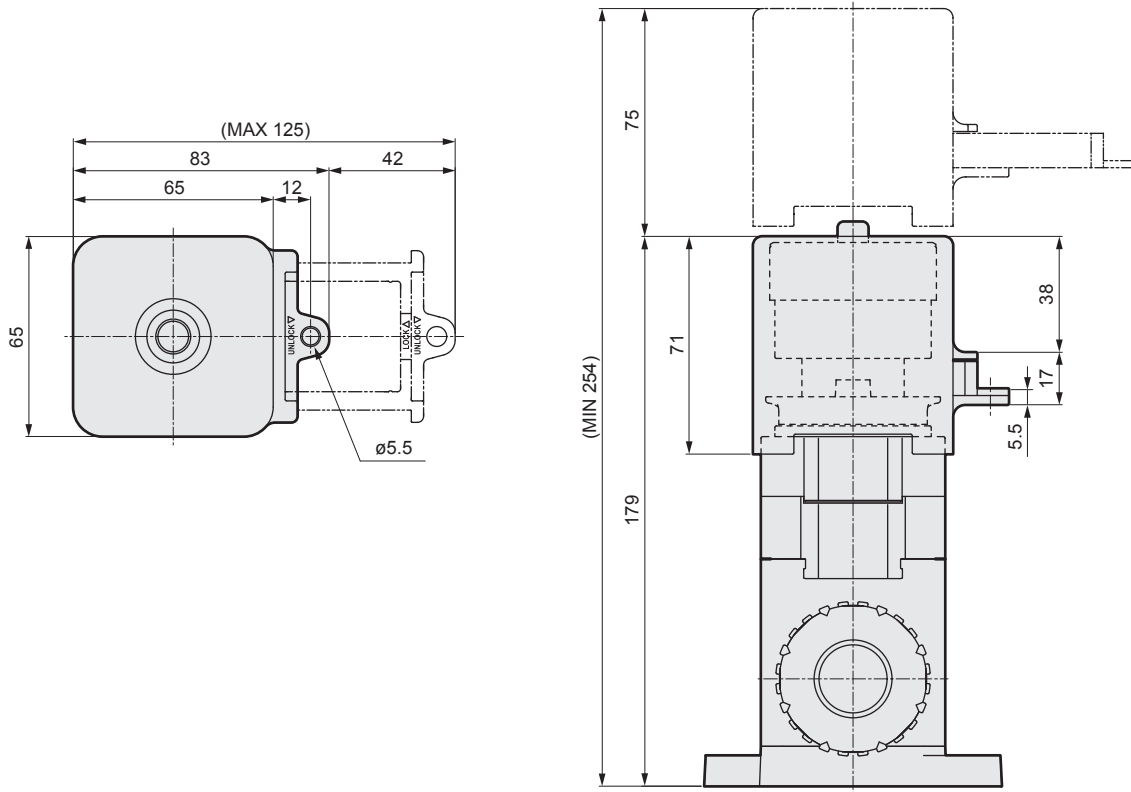
● **X** Bottom mounting
• MMD503RN-*.X



Dimensions

● Misoperation prevention cover

- MMD503RN-C



*Mounting the misoperation prevention cover Mountable in any direction (4 ways).

MMD303RN to MMD503RN Flow characteristics

● Flow characteristics (water)

Differential pressure - flow rate (): Cv value

