

Discontinue

Manual valve for chemical liquids



MMD20/MMD30/MMD40 Series

Metal-free design with flow adjustment and valve closing functions

● Orifice size: $\varnothing 8$, $\varnothing 10$, $\varnothing 12$, $\varnothing 16$, $\varnothing 20$



To be discontinued as of December 28, 2018

Export controlled items

* Target: MMD30 (*1), MMD40

Specifications

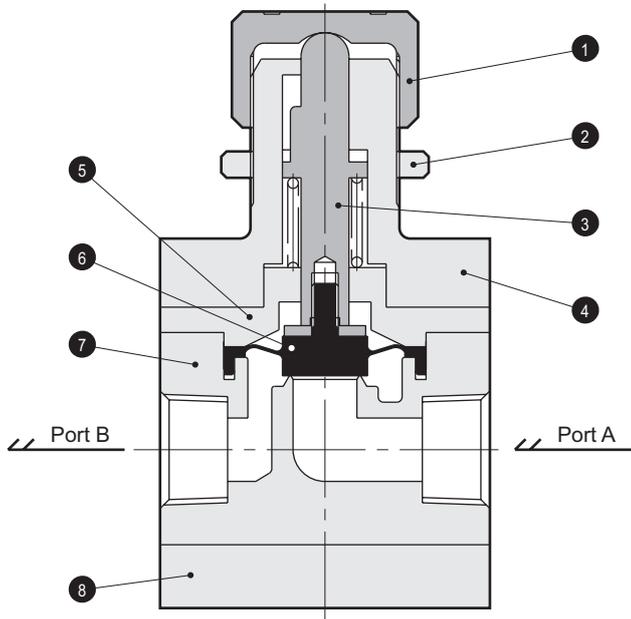
Descriptions	MMD20	MMD30	MMD40
Working fluid	Chemical liquid, pure water, N ₂ gas, air (*2)		
Fluid temperature °C	5 to 60 (5 to 90) (*3)		
Proof pressure MPa	1.4		
Working pressure MPa	0 to 0.5		0 to 0.4
Valve seat leakage cm ³ /min	0 (water pressure)		
Ambient temperature °C	0 to 40		
Mounting orientation	Unrestricted		
Connection	Rc3/8 O.D. $\varnothing 10$ tube connection O.D. 3/8" tube connection	O.D. $\varnothing 12$ tube connection O.D. 1/2" tube connection	Rc1/2 O.D. 3/4" tube connection Rc3/4
Orifice size	$\varnothing 8$	$\varnothing 10$	$\varnothing 12$, $\varnothing 16$, $\varnothing 20$
Cv	1.25	1.8	2.5, 5.2, 8

*1: Excludes O.D. $\varnothing 12$ tube connection and O.D. 3/8" tube connection.

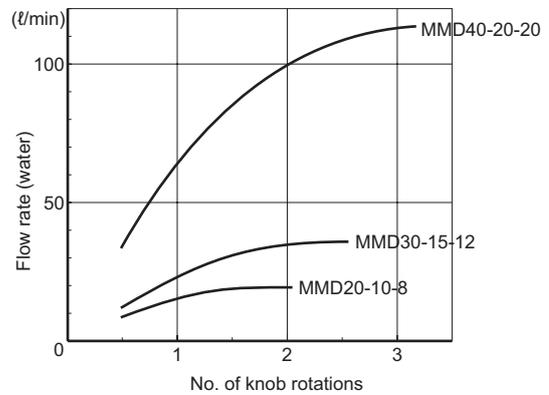
*2: Check the compatibility of product structural materials, working fluids and atmosphere. (Refer to the compatibility check list on Intro Page 15.)

*3: 5 to 40°C for hydrofluoric acid.

Internal structure and parts list



Flow rate: Knob rotations (when differential pressure is 0.1 MPa)



Knob rotations to flow rate where differential pressure is 0.1 MPa

- Make sure to turn the adjusting knob more than 3/8 from the closed state to ensure appropriate setting. If used below this level, vibration or flow rate fluctuation may occur depending on the working conditions.

- Tighten the knob at the torque below.

MMD20	0.4 to 0.6
MMD30	0.8 to 1.6
MMD40	2.0 to 2.8

(N·m)

No.	Part name	Material (by fluid code)	
		Standard	F
1	Knob	CPVC	
2	Lock nut	CPVC	
3	Rod	CPVC	CPVC/PVDF
4	Cover	CPVC	
5	Diaphragm holder	CPVC	
6	Diaphragm	PTFE	
7	Body	PFA	
8	Mounting plate	CPVC	

The material and structure may vary depending on the model number. Contact CKD for details.

! Always read the precautions on Intro Pages 7 to 16 before use.

How to order

● MMD2 Series

MMD20 - 10 - 8 - F

Model No.

A Connection

B Fluid

A Connection

	10	10US	10BUS	10UF	10BUF	10UA	10BUA
	Rc3/8	Super pillar integrated fitting	F-LOCK 20 Series integrated fitting	F-LOCK 20A Series integrated fitting			
		ø10 x ø8 tube connection	3/8" x 1/4" tube connection	ø10 x ø8 tube connection	3/8" x 1/4" tube connection	ø10 x ø8 tube connection	3/8" x 1/4" tube connection
Code		Content					
B Fluid							
Blank	Standard	●	●	●	●	●	●
F	For medium temperature (5 to 90°C)	●	●	●	●	●	●

B Fluid

Code	Content	10	10US	10BUS	10UF	10BUF	10UA	10BUA
B Fluid								
Blank	Standard	●	●	●	●	●	●	●
F	For medium temperature (5 to 90°C)	●	●	●	●	●	●	●

● MMD3 Series

MMD30 - 12US - 10 - F

Model No.

A Connection

B Instruction on orifice size

C Fluid

A Connection

	15	12US	15BUS	12UF	15BUF	12UA	15BUA
	Rc1/2	Super pillar integrated fitting	F-LOCK 20 Series integrated fitting	F-LOCK 20A Series integrated fitting			
		ø12 x ø10 tube connection	1/2" x 3/8" tube connection	ø12 x ø10 tube connection	1/2" x 3/8" tube connection	ø12 x ø10 tube connection	1/2" x 3/8" tube connection
Code		Content					
B Orifice size							
10	ø10		●	●	●	●	●
12	ø12	●					
C Fluid							
Blank	Standard	●	●	●	●	●	●
F	For medium temperature (5 to 90°C)	●	●	●	●	●	●

B Orifice size

Code	Content	15	12US	15BUS	12UF	15BUF	12UA	15BUA
B Orifice size								
10	ø10		●	●	●	●	●	●
12	ø12	●						
C Fluid								
Blank	Standard	●	●	●	●	●	●	●
F	For medium temperature (5 to 90°C)	●	●	●	●	●	●	●

AMDZ3R
 AMD03R
 AMD3R
 AMD0
 AMD02
 AMD12
 SUS 304
 AMD12
 AMD1H
 AMD1M
 AMG03R
 AMG03R
 AMG00
 AMG02
 AMG02
 GAMD3R
 GAMD3R
 GAMD3R
 GAMD2A
 GAMD2
 High pressure specification
 AMD
 Flow characteristics
 MMD02
 MMD0H
 MMD0M
 GAMD02
 MMD0
 TMD02
 FMD00
 MNV
 AMS
 AMDS
 Fine regulator
 KMIL
 Others
 Related

MMD40 Series

How to order

● MMD4 Series

MMD40 - 20 - 20 - F

Model No.

A Connection

B Instruction on orifice size

C Fluid

		A Connection			
		20	20BUS	20BUF	20BUA
		Rc3/4	Super pillar integrated fitting	F-LOCK 20 Series integrated fitting	F-LOCK 20A Series integrated fitting
		3/4" x 5/8" tube connection			
B Orifice size					
Code	Content				
16	ø16		●	●	●
20	ø20	●			
C Fluid					
Blank	Standard	●	●	●	●
F	For medium temperature (5 to 90°C)	●	●	●	●

