



Chemical liquid manual valve

MMD³₄⁵02 Series

- Orifice: MMD302: Ø6.3 to Ø10
MMD402: Ø14.7 to Ø16
MMD502: Ø20



Subject to Export Trade Control Ordinances

*Target: MMD402 and 502 only

Specifications

Descriptions	MMD302							MMD402			MMD502	
Working fluid	Chemical liquids, pure water (Note 1)											
Fluid temperature °C	5 to 90 (Note 2, 3)											
Withstanding pressure MPa	1.2											
Working pressure range (A → B) MPa	0 to 0.4											
Working pressure range (B → A) MPa	0 to 0.4											
Valve seat leakage cm ³ /min	0 (at, water pressure)											
Back pressure MPa	0 to 0.4											
Ambient temperature °C	0 to 60											
Installation attitude	Free											
Connection	ODØ10 tube connection (fitting integrated type) ODØ12 tube connection (fitting integrated type) OD3/8" tube connection (fitting integrated type) OD1/2" tube connection (fitting integrated type)							OD3/4" tube connection (Fitting integrated type)			ODØ25 tube connection (fitting integrated type) OD1" tube connection (fitting integrated type) Nominal 16 (PVC union fitting integrated type) Nominal 20 (PVC union fitting integrated type)	
Orifice	Ø6.3	Ø6.4	Ø7.5	Ø8	Ø9.4	Ø9.5	Ø10	Ø14.7	Ø15.9	Ø16	Ø20	
Cv value	0.8		1.25		1.8			5			8	

Note 1: Check the compatibility of the product's configuration materials, working fluid, and ambient atmosphere before use.

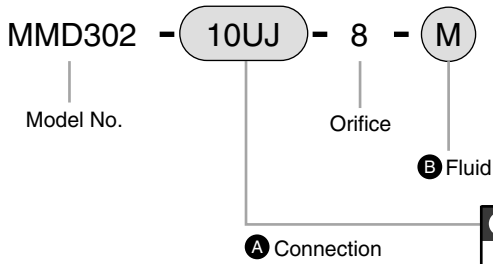
Note 2: 5 to 50 °C for PVC union fitting for MMD502 connection.

Note 3: 5 to 40 °C for hydrofluoric acids.

MMD302Series

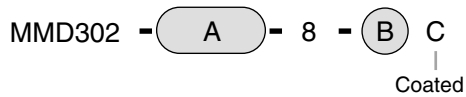
How to order

● MMD302 Series (Connection: Ø10, 3/8" tube)

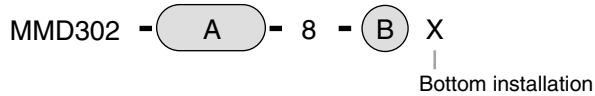


		A Connection												
		10US	10BUS	10UJ	10BUJ	10UP	10BUP	10UA	10BUA	10UR	10BUR	10UK	10BUK	10BUW
		Super type Pillar fitting integrated type		Super 300 type Pillar fitting J series integrated type		Super 300 type Pillar fitting P series integrated type		F-LOCK 20A series fitting integrated type		F-LOCK 60 series fitting integrated type		Final lock fitting integrated type		FLARTEC fitting integrated type
		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection		Ø10 X Ø8 tube connection
Symbol	Descriptions	Orifice												
		Ø8		Ø8		Ø8		Ø8		Ø7	Ø6.4	Ø7.5		Ø6.3
		B Fluid												
		PFA: PFA molded body, PTFE: PTFE machined body												
Blank	Standard	PFA		PFA		PFA		PFA		PTFE	PFA	PFA		PTFE
M	For ammonia	PFA		PFA		PFA		PFA		PTFE	PFA	PFA		PTFE
P	For nitric acid, for hydrofluoric acid	PFA		PFA		PFA		PFA		PTFE	PFA	PFA		PTFE

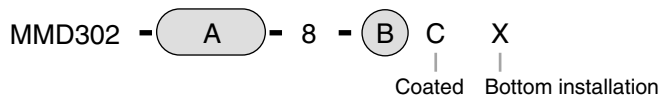
● Model No. for type with coated metal section



● Bottom installation type No.

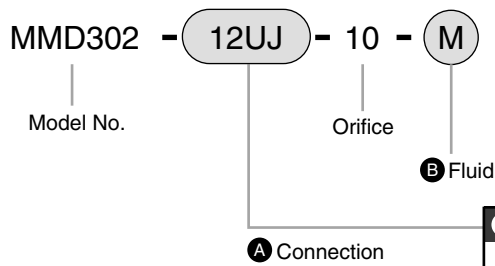


● Coated metal section + bottom installation type No.



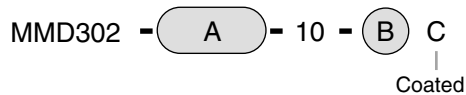
How to order

● MMD302 Series (Connection: Ø12, 1/2" tube)

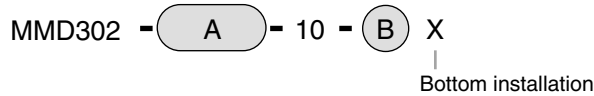


		A Connection												
		12US	15BUS	12UJ	15BUJ	12UP	15BUP	12UA	15BUA	12UR	15BUR	12UK	15BUK	15BUW
		Super type Pillar fitting integrated type		Super 300 type Pillar fitting J series integrated type		Super 300 type Pillar fitting P series integrated type		F-LOCK 20A series fitting integrated type		F-LOCK 60 series fitting integrated type		Final lock fitting integrated type		FLARTEC fitting integrated type
		Ø12 X Ø10 tube connection		Ø12 X Ø10 tube connection		Ø12 X Ø10 tube connection		Ø12 X Ø10 tube connection		Ø12 X Ø10 tube connection		Ø12 X Ø10 tube connection		1/2" X 3/8" tube connection
Symbol	Descriptions	Orifice												
		Ø10		Ø10		Ø10		Ø10		Ø9.5		Ø10		Ø9.4
B Fluid		PFA: PFA molded body												
Blank	Standard	PFA		PFA		PFA		PFA		PFA		PFA		PFA
M	For ammonia	PFA		PFA		PFA		PFA		PFA		PFA		PFA
P	For nitric acid, for hydrofluoric acid	PFA		PFA		PFA		PFA		PFA		PFA		PFA

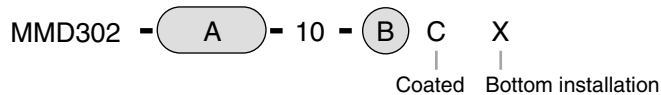
● Model No. for type with coated metal section



● Bottom installation type No.



● Coated metal section + bottom installation type No.

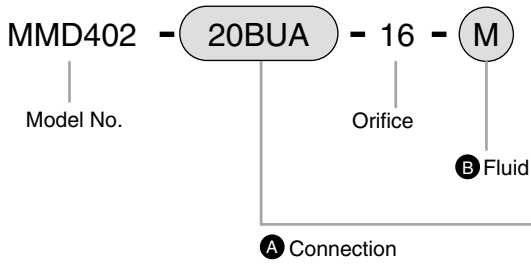


AMIDZ
AMID0
AMID0*2
AMID3+2
AMID4+2
AMID5+2
AMGZ0
AMG00
AMG*02
GAMID*+2
High-pressure specifications
AMID
AMB
Flow characteristics
MMD*02
GMMD*02
MMD*0
TMD*02
AMS
AMDS
TOAS
Fine regulator
KML
Others
Solenoid valve

MMD402Series

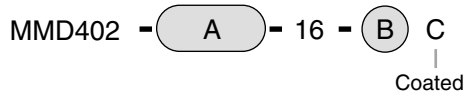
How to order

● MMD402 Series

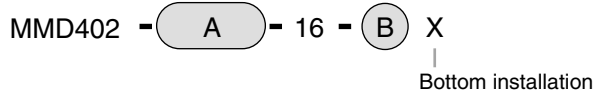


		A Connection							
		20BUS	20BUJ	20BUP	20BUA	20BUR	20BUK	20BUW	
		Super type Pillar fitting integrated type	J series integrated type	Super 300 type Pillar fitting J series integrated type	Super 300 type Pillar fitting P series integrated type	F-LOCK 20A series fitting integrated type	F-LOCK 60 series fitting integrated type	Final lock fitting integrated type	FLARTEC fitting integrated type
		3/4" X 5/8" tube connection							
Symbol	Descriptions	Orifice							
		Ø16	Ø16	Ø16	Ø16	Ø15.9	Ø16	Ø14.7	
		B Fluid							
		PFA: PFA molded body							
Blank	Standard	PFA	PFA	PFA	PFA	PFA	PFA	PFA	
M	For ammonia								
P	For nitric acid, for hydrofluoric acid								

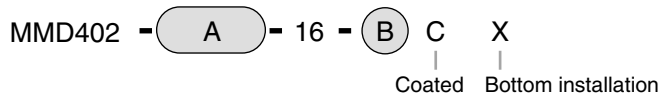
● Model No. for type with coated metal section



● Bottom installation type No.

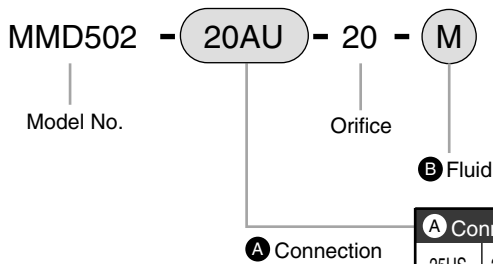


● Coated metal section + bottom installation type No.



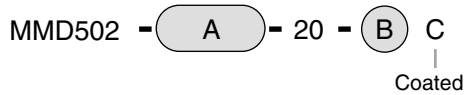
How to order

● MMD502 Series

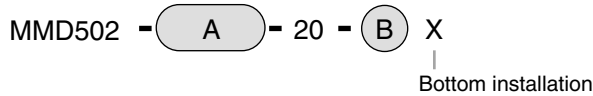


		A Connection													
		25US	25BUS	25UJ	25BUJ	25UP	25BUP	25BUA	25UR	25BUR	25UK	25BUK	25BUW	15AU	20AU
		Super type Pillar fitting integrated type		Super 300 type Pillar fitting J series integrated type		Super 300 type Pillar fitting P series integrated type		F-LOCK 20A series fitting integrated type	F-LOCK 60 series fitting integrated type		Final lock fitting integrated type		FLARTEC fitting integrated type	PVC union fitting integrated type	
		Ø25 X Ø22 tube connection		1" X 7/8" tube connection		Ø25 X Ø22 tube connection		1" X 7/8" tube connection		Ø25 X Ø22 tube connection		1" X 7/8" tube connection		Nominal 16	
Symbol	Descriptions	Ø20		Ø20		Ø20		Ø20		Ø20		Ø20		Ø20	
B Fluid		PFA: PFA molded body, PTFE: PTFE machined body													
Blank	Standard	PFA		PFA		PFA		PFA		PTFE		PFA		PTFE	
M	For ammonia	PFA		PFA		PFA		PFA		PTFE		PFA		PTFE	
P	For nitric acid, for hydrofluoric acid	PFA		PFA		PFA		PFA		PTFE		PFA		PTFE	

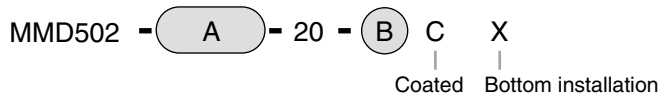
● Model No. for type with coated metal section



● Bottom installation type No.



● Coated metal section + bottom installation type No.



⚠ Note on model No. selection

Note 1: Also usable for the Ø25 x Ø22 diameter tube connection.

AM/DZ
AM/D0
AM/D0*2
AM/D3*2
AM/D4*2
AM/D5*2
AM/GZ0
AM/G00
AM/G*02
GAM/D**2
High-pressure specifications
AM/D
AM/B
Flow characteristics
MMD*02
GMMD*02
MMD*0
TMD*02
AMS
AM/D5
TOAS
Fine regulator
KML
Others
Solenoid valve