



Air-operated valve for chemical liquids

AMD3¹/₂2 Series

● Orifice: Ø6.3 to Ø10



Specifications

Descriptions	AMD3 ¹ / ₂ 2-* ⁻ 8				AMD3 ¹ / ₂ 2-* ⁻ 10		
Working fluid	Chemical liquids, pure water (Note 1)						
Fluid temperature °C	5 to 90 (5 to 160) (Note 5)						
Withstanding pressure MPa	0.9						
Working pressure range (A → B) MPa	0 to 0.3 (Note 3)						
Working pressure range (B → A) MPa	0 to 0.1 (Note 3)						
Valve seat leakage cm ³ /min	0 (at, water pressure)						
Back pressure MPa	0 to 0.1 (Note 3)						
Ambient temperature °C	0 to 60						
Frequency	30 times/min or less						
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)		
Orifice	Ø6.3	Ø6.4	Ø7.5	Ø8	Ø9.4	Ø9.5	Ø10
Cv value	0.8		1.25		1.8		
Bypass orifice (when bypass is installed)	Ø2.3						
Operation section	Operation pressure range MPa						
	Operation pressure connection port						
NC 0.3 to 0.5, NO 0.3 to 0.5 (0.3 to 0.35 for high temperature use), double acting 0.3 to 0.4 (0.2 to 0.25 for high temperature use)							
Rc1/8 (Note 2)							

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

Note 2: Connect a resin fitting when connecting to the operation port.

(When using a metal fitting, select one with a reinforcement ring.)

Note 3: See page 56 for high-pressure specifications.

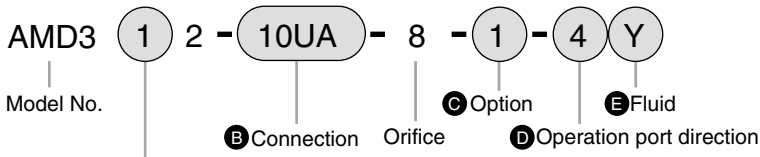
Note 4: See pages 70 and 71 for flow characteristics.

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

AMD3¹/₂/₃2 Series

How to order

● AMD3*2 Series (connection: Ø10, 3/8" tube)

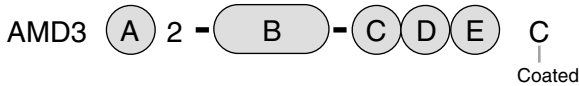


A Actuation	
1	NC (normally closed)
2	NO (normally open)
3	Double acting

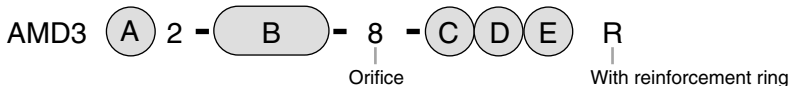
B Connection													
10US	10BUS	10UJ	10BUJ	10UP	10BUP	10UA	10BUA	10UR	10BUR	10UK	10BUK	10BUW	
Super type Pillar fitting integrated type		Super 300 type Pillar fitting J series integrated type		Super 300 type Pillar fitting P series integrated type		F-LOCK 20A series fitting integrated type		F-LOCK 60 series fitting integrated type		Final lock fitting integrated type		FLARTEC fitting integrated type	
Ø10 X Ø8 tube connection	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	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	3/8" X 1/4" tube connection	

Symbol	Descriptions	Orifice														
		Ø8	Ø8	Ø8	Ø8	Ø8	Ø8	Ø7.5	Ø6.4	Ø7.5	Ø6.3					
C Option		Body material														
		PFA: PFA molded body, PTFE: PTFE machined body														
0	ON/OFF only	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA				
1	With flow adjustment															
2	With bypass	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE			
3	With flow adjustment and bypass															
6	ON/OFF, with indicator	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA				
7	With bypass/with indicator	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE				
D Operation port direction																
4	<p>Indicates that fluid flows in direction of the black arrow when looking at valve from above. The white arrow indicates operation port direction.</p>	●	●	●	●	●	●	●	●	●	●	● (Note 1)	● (Note 1)	●		
1		●	●	●	●	●	●	●	●	●	●	●	●	●	●	
2		●	●	●	●	●	●	●	●	●	●	●	●	● (Note 1)	● (Note 1)	●
3		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
E Fluid																
Blank	Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
M	For ammonia	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
P	For nitric acid, for hydrofluoric acid (Note 3)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Y	For high temperature (5 to 160°C) (Note 2)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
E	For high temperature (5 to 160°C), PTFE machined body (Note 2)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

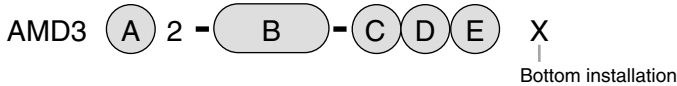
● Model No. for type with coated metal section (Orifice indication and hyphen (-) between C and D are not required.)



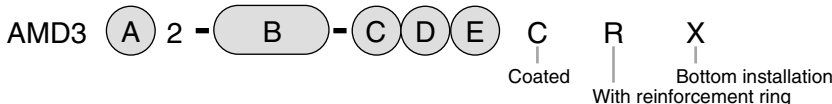
● Model No. for type with operation port reinforcement ring (Hyphen (-) between C and D is not required.)



● Bottom installation type No. (Orifice indication and hyphen (-) between C and D are not required.)



● Model No. for type with coated metal section + operation port reinforcement ring + bottom installation (Orifice indication and hyphen (-) between C and D are not required.)



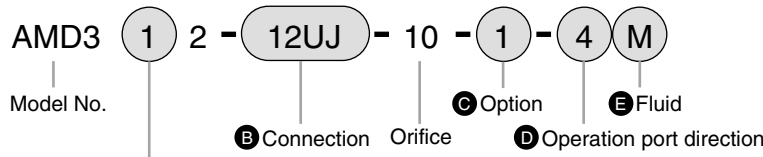
⚠ Note on model No. selection

Note 1: The final lock fitting nut and operation air piping could interfere, so check dimensions before selecting.

Note 2: The following C options are not available: 2 (with bypass), 3 (with flow adjustment, bypass), 7 (with bypass/with indicator). This valve is not compatible with nitric acid, hydrofluoric acid, or chlorine.

Note 3: C (with coated metal section) is included in the E Fluid P item.

● AMD3*2 Series (connection: Ø12, 1/2" tube)



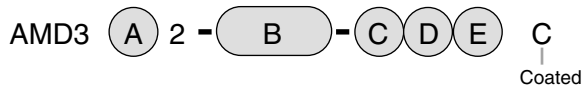
A Actuation	
1	NC (normally closed)
2	NO (normally open)
3	Double acting

B 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	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	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	1/2" X 3/8" tube connection

Symbol	Descriptions	Orifice	Body material											
C Option (Note 1)			PFA: PFA molded body, PTFE: PTFE machined body											
0	ON/OFF only	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA		
1	With flow adjustment	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PFA	PFA	PFA		
2	With bypass	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PFA	PFA	PTFE		
3	With flow adjustment and bypass	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PFA	PFA	PTFE		
6	ON/OFF, with indicator	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA	PFA		
7	With bypass/with indicator	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PFA	PFA	PTFE		
D Operation port direction														
4	<p>Indicates that fluid flows in direction of the black arrow when looking at valve from above. The white arrow indicates operation port direction.</p>	●	●	●	●	●	●	●	●	●	●	● (Note 1)	●	
1		●	●	●	●	●	●	●	●	●	●	●	● (Note 1)	●
2		●	●	●	●	●	●	●	●	●	●	●	●	●
3		●	●	●	●	●	●	●	●	●	●	●	●	●
E Fluid														
Blank	Standard	●	●	●	●	●	●	●	●	●	●	●	●	
M	For ammonia	●	●	●	●	●	●	●	●	●	●	●	●	
P	For nitric acid, for hydrofluoric acid (Note 3)	●	●	●	●	●	●	●	●	●	●	●	●	
Y	For high temperature (5 to 160°C) (Note 2)	●	●	●	●	●	●	●	●	●	●	●	●	
E	For high temperature (5 to 160°C), PTFE machined body (Note 2)	●	●	●	●	●	●	●	●	●	●	●	●	

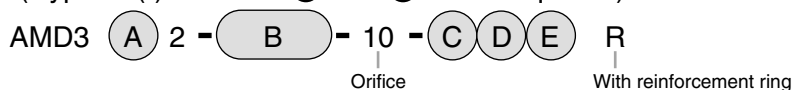
● Model No. for type with coated metal section

(Orifice indication and hyphen (-) between **C** and **D** are not required.)



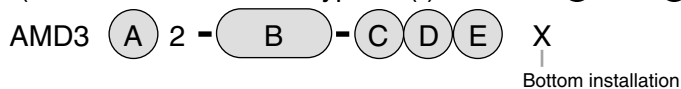
● Model No. for type with operation port reinforcement ring

(Hyphen (-) between **C** and **D** is not required.)



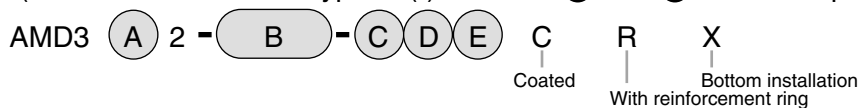
● Bottom installation type No.

(Orifice indication and hyphen (-) between **C** and **D** are not required.)



● Model No. for type with coated metal section + operation port reinforcement ring + bottom installation

(Orifice indication and hyphen (-) between **C** and **D** are not required.)



⚠ Note on model No. selection

Note 1: The final lock fitting nut and operation air piping could interfere, so check dimensions before selecting.

Note 2: The following **C** options are not available: 2 (with bypass), 3 (with flow adjustment, bypass), 7 (with bypass/with indicator). This valve is not compatible with nitric acid, hydrofluoric acid, or chlorine.

Note 3: C (with coated metal section) is included in the **E** Fluid P item.

AMDZ
AMD0*2
AMD3*2
AMD4*2
AMD5*2
AMGZ0
AMG00
AMG*02
GAMD*2
High-pressure specifications
AMD
AMB
Flow characteristics
MMD*02
GMMD*02
MMD*0
TMD*02
AMS
AMDS
TOAS
Fine regulator
KML
Others
Solenoid valve