

Air-operated valve for chemical liquids

AMD5¹/₂² Series

● Orifice: Ø20



Subject to Export Trade Control Ordinances

Specifications

Descriptions		AMD5 ¹ / ₂ ² -*-20
Working fluid		Chemical liquids, pure water (Note 1)
Fluid temperature °C		5 to 90 (Note 2)
Withstanding pressure MPa		0.9
Working pressure range (A → B) MPa		0 to 0.3 (Note 4)
Working pressure range (B → A) MPa		0 to 0.1 (Note 4)
Valve seat leakage cm ³ /min		0 (at, water pressure)
Back pressure MPa		0 to 0.1 (Note 4)
Ambient temperature °C		0 to 60
Frequency		20 times/min or less
Installation attitude		Free
Connection		ODØ25 tube connection (fitting integrated type)/OD1" tube connection (fitting integrated type) Nominal 16, nominal 20 (PVC union fitting integrated type)
Orifice		Ø20
Bypass orifice (when bypass is installed)		Ø6
Cv value		8
Operation section	Operation pressure range MPa	NC/NO 0.3 to 0.5, double acting 0.3 to 0.4
	Operation pressure connection port	Rc1/8 (Note 3)

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

Note 2: 5 to 50 °C when using PVC union fitting connection. 5 to 40 °C when using hydrofluoroc fitting.

Note 3: Connect a resin fitting when connecting to the operation port.

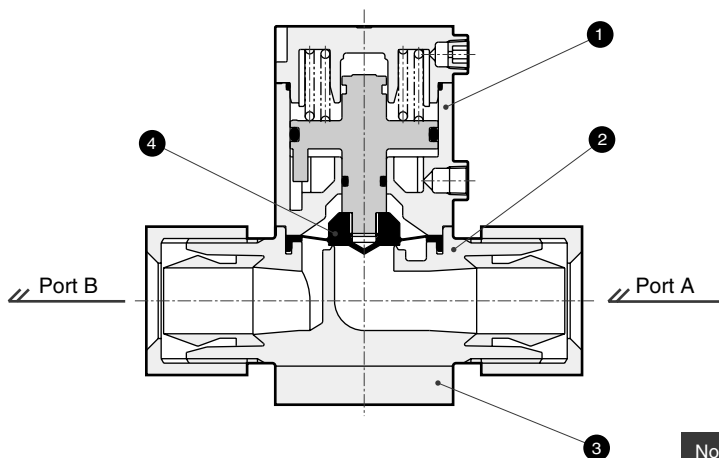
(When using a metal fitting, select one with a reinforcement ring.)

Note that a reinforcement ring is attached with the PVC union fitting integrated type, so a metal fitting can also be used.

Note 4: See page 56 for high-pressure specifications.

Note 5: See pages 70 and 71 for flow characteristics.

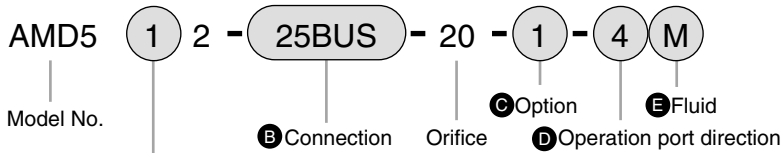
Internal structure and parts list



No.	Parts name	Material	Quantity
1	Actuator assembly	PPS	1
2	Body	PFA	1
3	Mounting plate	PPS	1
4	Diaphragm	PTFE	1

The material differs with the model. Contact CKD for details.

How to order



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

B 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	1" X 7/8" tube connection (Note 2)	Ø25 X Ø22 tube connection	1" X 7/8" tube connection	Ø25 X Ø22 tube connection	1" X 7/8" tube connection	1" X 7/8" tube connection	Nominal 16	Nominal 20

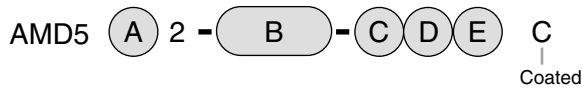
Symbol	Descriptions	Orifice	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20	Ø20
--------	--------------	---------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

C Option (Note 1)		PFA: PFA molded body, PTFE: PTFE machined body, CPVC: CPVC machined body											
0	ON/OFF only	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA
1	With flow adjustment	PTFE	PTFE	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	CPVC
2	With bypass												
3	With flow adjustment and bypass	PFA	PFA	PFA	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA
6	ON/OFF, with indicator	PTFE	PTFE	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	PFA	PTFE	CPVC
7	With bypass/with indicator												

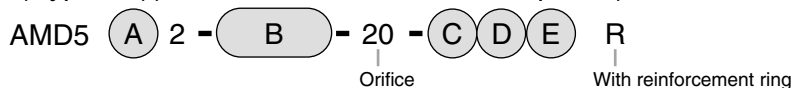
D Operation port direction													
4	<p>Indicates that fluid flows in direction of the black arrow when looking at valve from above. The white arrow indicates operation port direction.</p>	●	●	●	●	●	●	●	●	●	●	●	●
1		●	●	●	●	●	●	●	●	●	●	●	●
2		●	●	●	●	●	●	●	●	●	●	●	●
3		●	●	●	●	●	●	●	●	●	●	●	●

E Fluid													
Blank	Standard	●	●	●	●	●	●	●	●	●	●	●	●
M	For ammonia	●	●	●	●	●	●	●	●	●	●	●	●
P	For nitric acid, for hydrofluoric acid (Note 1)	●	●	●	●	●	●	●	●	●	●	●	●

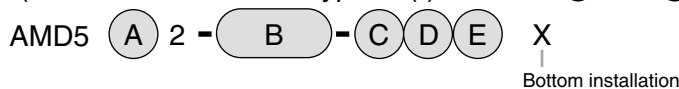
- Model No. for type with coated metal section (Orifice indication and hyphen (-) between **C** and **D** are not required.)



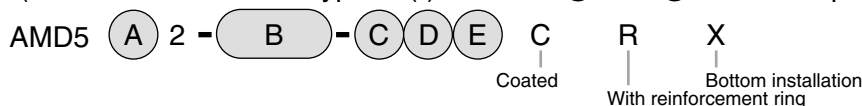
- Model No. for type with operation port reinforcement ring (Hyphen (-) between **C** and **D** is not required.)



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

Note 2: Also usable for the Ø25 x Ø22 diameter tube connection.

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