



Air operated valve for chemical liquids

AMD3 *3 R Series

P4 compliant as standard



Wet Fine System/high purity chemical liquid system
Catalog No. CB-031A

Specifications

Item		AMD3*3R				
Body option		N (normal body)			B (body with bypass)	
Working fluid		Chemical liquids, pure water, air, N ₂ gas (*1)				
Fluid temperature	°C	5 to 120 (*3, *4)			5 to 90	
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			Refer to figure below for "Working pressure"	
Ambient temperature	°C	0 to 60 (0 to 50 when sensor attached)				
Frequency		30 cycles/min. or less				
Mounting orientation		Unrestricted				
Connection		O.D. ø10/ø12 tube connection (integrated fitting) O.D. 3/8" / 1/2" tube connection (integrated fitting)				
Orifice size		ø6	ø7	ø8	ø9	ø10
Cv		0.7	1	1.25	1.6	1.8
Bypass orifice size		-			ø2.3	
Operating section	Operating pressure MPa	NC/NO: 0.35 to 0.5 Double acting: 0.3 to 0.4				
	Operating port	Rc1/8 (operation ports used NC: port Y NO: port X Double acting: ports X, Y)				
Sensor		Refer to General Purpose Valves (catalog No. CB-03-1SA).				
Weight	kg	0.21			0.23	

*1: Check the compatibility of product structural materials, working fluids and atmosphere. Refer to the compatibility check list described in "General Purpose Valves" (catalog No. CB-03-1SA).

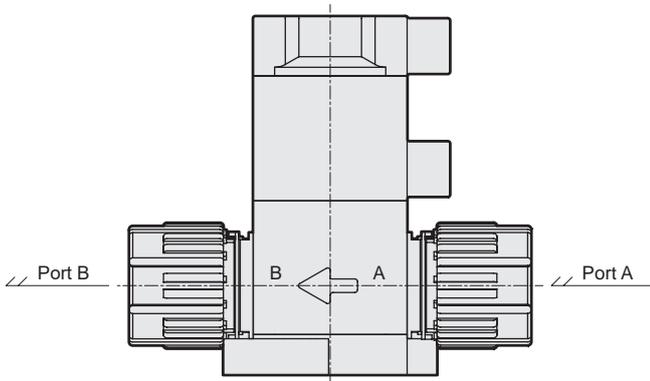
Body with bypass cannot be used for hydrofluoric acid or chemical liquids containing hydrofluoric acid.

*2: Refer to Wet Fine System/High Purity Chemical Liquid System (Catalog No. CB-031A) for flow characteristics.

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

*4: 5 to 100°C if the connection is F-LOCK60 Series fitting.

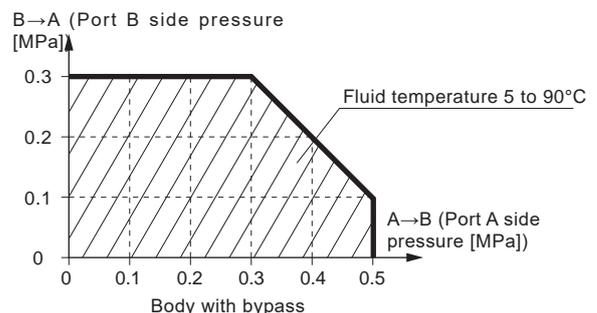
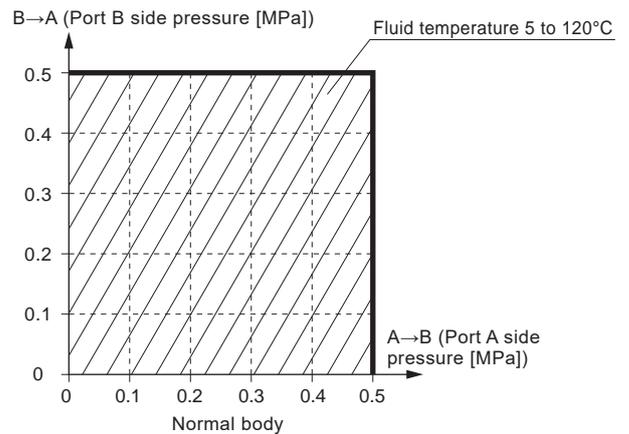
Structure and parts list



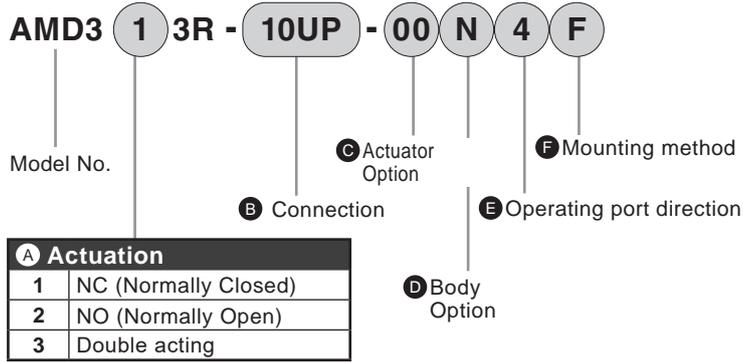
Part name	Material
Actuator	PVDF and others
Diaphragm	PTFE
Body	PFA, PTFE
Mounting plate	PVDF

* Refer to Wet Fine System/High Purity Chemical Liquid System (Catalog No. CB-031A) for specifications of AMDZ*3R, 0*3R, 4*3R, and 5*3R.

Working pressure



How to order



B Connection (*1)		10UP	10BUP	12UP	15BUP	10UR	10BUR	12UR	15BUR
Super 300 Pillar fitting P series integrated					F-LOCK 60 Series Integrated fitting				
ø10xø8Tube connection	3/8"x1/4"Tube connection	ø12xø10Tube connection	1/2"x3/8"Tube connection	ø10xø8Tube connection	3/8"x1/4"Tube connection	ø12xø10Tube connection	1/2"x3/8"Tube connection		
		ø8	ø10	ø7	ø6	ø9			
C Actuator option									
00	ON/OFF only (with indicator)	●	●	●	●	●	●	●	●
10	With flow rate adjustment	●	●	●	●	●	●	●	●
With sensor	Transistor								
	Cable direction (*2)								
	Cable length								
A1	NPN Operating port side	1m	●	●	●	●	●	●	●
A3		3m	●	●	●	●	●	●	●
B1	NPN Opposite side to operating port	1m	●	●	●	●	●	●	●
B3		3m	●	●	●	●	●	●	●
C1	PNP Operating port side	1m	●	●	●	●	●	●	●
D1		Opposite side to operating port	1m	●	●	●	●	●	●
D Body option									
N	Normal body	PFA	PFA	PTFE	PTFE				
B	Body with bypass	PTFE	PFA	PTFE	PTFE				
E Operating port direction (*2)									
4	<p>With valve viewed from above, ← indicates fluid flow in the direction of ← indicates the operating port direction.</p>	●	●	●	●	●	●	●	
1		●	●	●	●	●	●	●	
2		●	●	●	●	●	●	●	
3		●	●	●	●	●	●	●	
F Mounting method (*2)									
F	Flange mounting	●	●	●	●	●	●	●	●
H	4-point flange mounting	●	●	●	●	●	●	●	●
X	Bottom mounting	●	●	●	●	●	●	●	●

! Precautions for model No. selection

*1: Made-to-order product if the body material is PTFE.

*2: Refer to external dimensions of Wet Fine System/High Purity Chemical Liquid System (Catalog No. CB-031A) for operating port direction, sensor cable direction, and mounting plate.

P4
Series

Pneumatic actuator
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Related products
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Pneumatic valves

Clean air components controller
Speed
Fitting
Auxiliary valve
Silencer
Tube

Pneumatic auxiliary components
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Motor specification
Motorless specifications
Electric actuator