



Air operated valve for chemical liquids

AMD**3R Series

Export controlled items

*Eligibility: AMD4*3R, AMD5*3R



Specifications

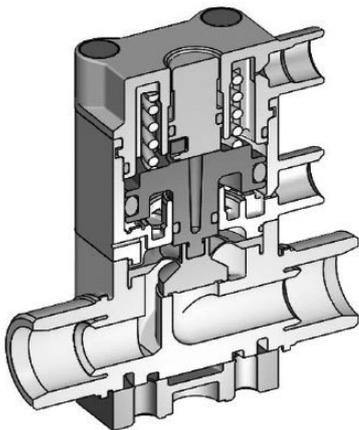
Item	Size	AMDZ*3R	AMD0*3R	AMD3*3R	AMD4*3R	AMD5*3R
		□ 22	□ 25	□ 36	□ 46	□ 60
Working fluid		Chemical liquids, pure water, N ₂ gas, air				
Fluid temperature °C		5 to 120 (5 to 90 for body with bypass) *1, *2				
Proof pressure MPa		1.0				
Working pressure range	(A→B) MPa	0 to 0.5 (Refer to table below for body with bypass)				
	(B→A) MPa	0 to 0.5 (Refer to table below for body with bypass)				
Valve seat leakage cm ³ /min		0 (water pressure)				
Back pressure MPa		0 to 0.5 (Refer to table below for body with bypass)				
Ambient temperature °C		0 to 60 (0 to 50 for type with sensor)				
Frequency		30 cycles/min. or less			20 cycle/min. or less	
Mounting orientation		Unrestricted				
Connection		Super 300 Pillar fitting P Series F-LOCK 60 Series				
Operating section	Operating pressure MPa	NC/NO:0.4 to 0.5 Double acting: 0.3 to 0.4		NC/NO:0.35 to 0.5 Double acting: 0.3 to 0.4		
	Port connection	Rc 1/8				
Weight	Normal body kg	0.07	0.1	0.21	0.48	0.91
	Body with bypass kg	-	-	0.23	0.49	1

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

*2: 5 to 100°C if the connection is F-LOCK 60 Series.

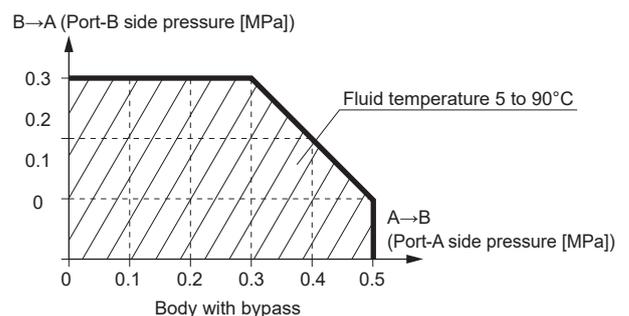
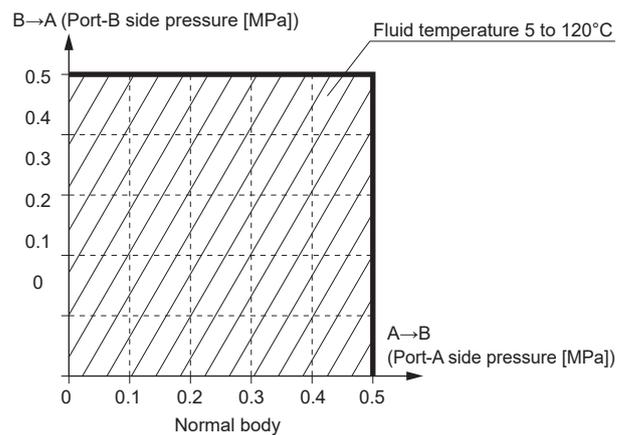
*3: Refer to pages 8 to 9 for Cv and flow characteristics.

Internal structure and parts list



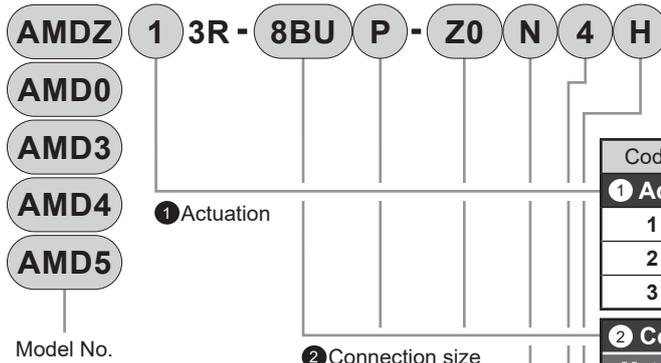
Part name	Material
Body (wetted parts)	PFA or PTFE
Diaphragm (wetted parts)	PTFE
Actuator	PVDF
O-ring	FEPM, FKM
Metal parts	Stainless steel (fluoro resin coating)
Mounting plate	PVDF

Working pressure



⚠ Always read the precautions on Intro Pages 7 to 14 before use.

How to order



Code	Description					
① Actuation						
1	NC					
2	NO					
3	Double acting					
② Connection size		Selectable models				
Metric	Tube size	AMDZ	AMD0	AMD3	AMD4	AMD5
3U	ø3×ø2	●				
6U	ø6 x ø4	●	●			
8U	ø8 x ø6		●			
10U	ø10 x ø8		●	●		
12U	ø12 x ø10			●		
25U	ø25×ø22					●
Inching	Tube size	AMDZ	AMD0	AMD3	AMD4	AMD5
6BU	1/8"×0.086"	●				
8BU	1/4"×5/32"	●	●			
10BU	3/8"×1/4"		●	●		
15BU	1/2"×3/8"			●		
20BU	3/4"×5/8"				●	
25BU	1"×7/8"					●
③ Connection						
P	Super 300 Pillar fitting P Series					
R	F-LOCK 60 Series					
④ Actuator option						
Z0	ON/OFF only (Note: Only AMDZ can be selected)					
00	ON/OFF only (with indicator)					
10	With flow rate adjustment					
With sensor	Transistor	Cable direction			Cable length	
A1	NPN	Operating port side			1 m	
A3					3 m	
B1		Opposite side to operating port			1 m	
B3	3 m					
C1	PNP	Operating port side			1 m	
D1					Opposite side to operating port	
⑤ Body option						
N	Normal body					
B	Body with bypass (Note: AMDZ/AMD0 cannot be selected.)					
⑥ Operating port direction						
1						With valve viewed from above, ← indicates fluid flow direction and ⇐ indicates operating port direction.
2						
3						
4						
⑦ Mounting method						
F	Flange mounting (Note: AMDZ cannot be selected.)					
H	4-point flange mounting					
X	Bottom mounting					

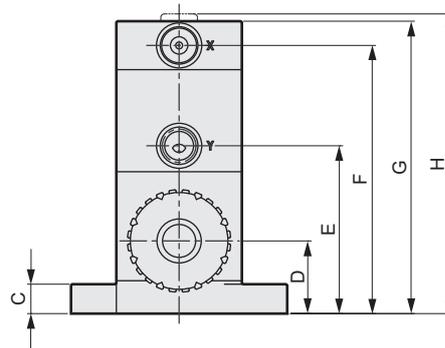
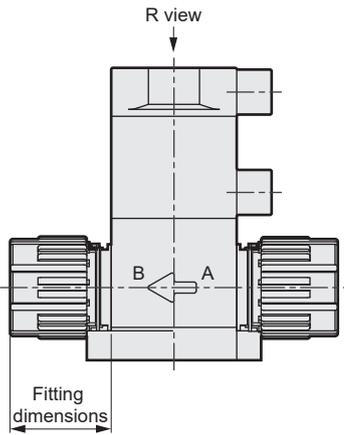
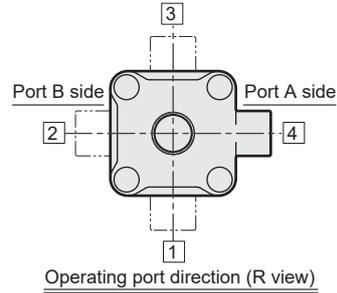
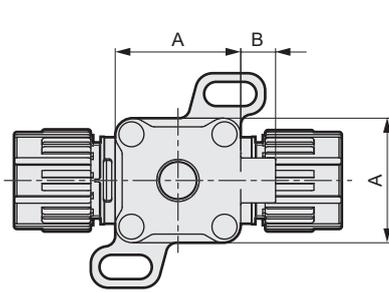
⚠ Precautions for model No. selection

- * Actuator option
For AMDZ, 00 (with indicator ON/OFF) is not selectable, and 10 (with flow rate adjustment) is only NC. Models with sensors can be selected with AMD3/AMD4/AMD5.
- * Body material
Connection F-LOCK 60 Series is PTFE body.

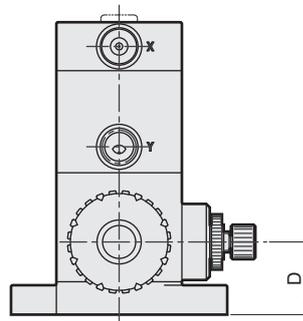
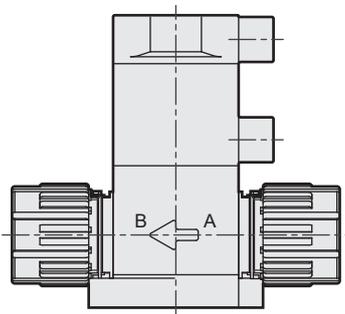
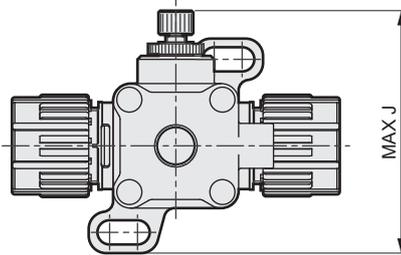
Part3R	Part2	Part1	High pressure	Metall-free	Large bore size	Polyvinyl chloride	Drainage	Part3RR	Part2	High pressure	Metall-free	Large bore size	Single unit	Air operated integrated	Pilot	Manual	Electric	Manual	Manual flow rate	Fine level Switch	Related products
			Air operated valve							Manual valve			Drip prevention valve		Regulator		Flow rate adjusting valve				

Dimensions

● ON/OFF only type (indicator)



● With bypass



Connection	Fitting dimensions
S300 fitting	
3UP/6BUP	14
6UP/8BUP	19
8UP	22
10UP/10BUP	25
12UP/15BUP	29
20BUP	36
25UP/25BUP	43

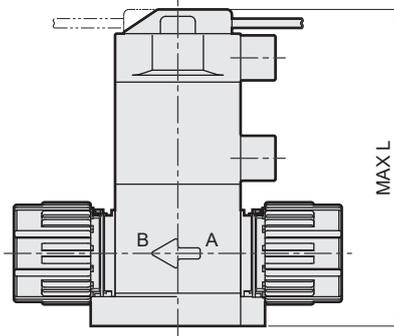
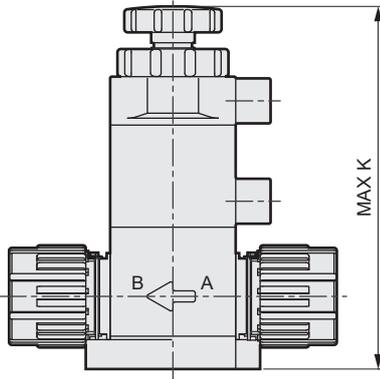
Connection	Fitting dimensions
F60 fitting	
6UR	30
8BUR	31
8UR	31
10UR	37
10BUR	39
12UR	37
15BUR	39
20BUR	44
25UR	49.5
25BUR	51

Model	A	B	C	D	E	F	G	H	J
AMDZ*3R	22	8	6	17	39	54	61	-	-
AMD0*3R	25	8	6	19	46	61	68	70	-
AMD3*3R	36	10	8.5	21	49	78	85	87	71
AMD4*3R	46	8	9	27	62	101	108	112	91
AMD5*3R	60	8	10	35	84	127	134	139	103

Dimensions

● With flow rate adjustment

● With sensor

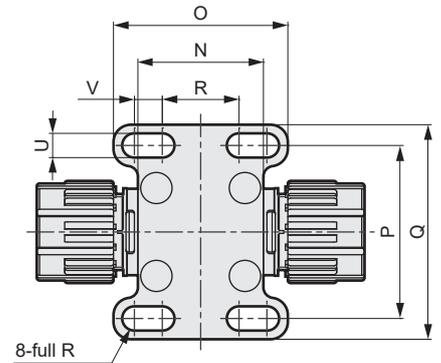
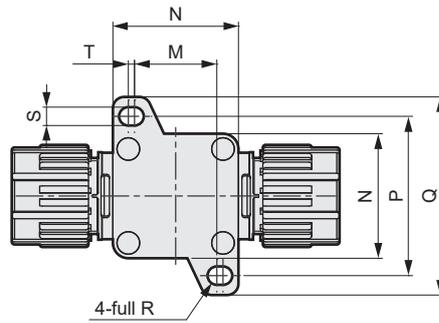
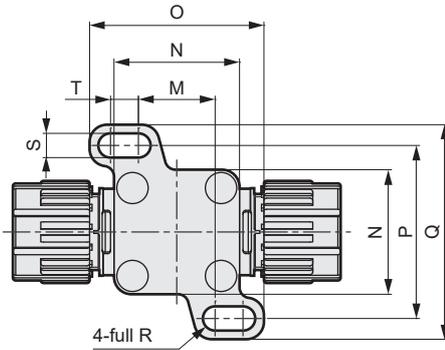


Model	K	L
AMDZ13R	77	-
AMD0*3R	86	-
AMD3*3R	108	92
AMD4*3R	131	115
AMD5*3R	166	141

● **F** Flange mounting (AMD 0/3/4)

● **F** Flange mounting (AMD5)

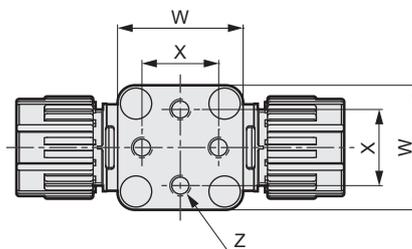
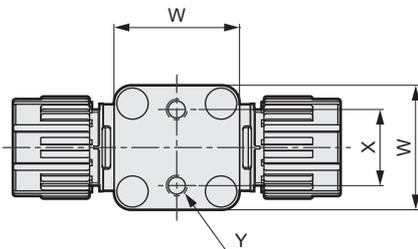
● **H** 4-point flange mounting



Model	M	N	O	P	Q	R	S	T	U	V
AMDZ*3R	-	22	27	30	36	12	-	-	4-3.5	4-4.5
AMD0*3R	15	25	30	33	39	15	2-3.5	2-4.5	4-3.5	4-4.5
AMD3*3R	22	36	50	50	62	22	2-7	2-8	4-7	4-8
AMD4*3R	28	46	66	64	82	28	2-9	2-11	4-9	4-11
AMD5*3R	40	61	78	78	97	40	2-9	2-3	4-9	4-11

● **X** Bottom mounting (AMDZ/O)

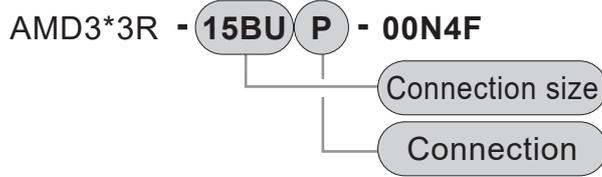
● **X** Bottom mounting (AMD 3/4/5)



Model	W	X	Y	Z
AMDZ*3R	22	14±0.3	2-M6 depth 6	-
AMD0*3R	25	14±0.3	2-M6 depth 8	-
AMD3*3R	36	22±0.3	-	4-M6 depth 9
AMD4*3R	46	28±0.3	-	4-M8 depth 10
AMD5*3R	61	40±0.3	-	4-M8 depth 13

Part3R	Part2	Part1	Air operated valve	High pressure	Metal-free	Large bore size	Polyvinyl chloride	Drainage	Part3RN	Part2	Manual valve	High pressure	Metal-free	Large bore size	Drip prevention valve	Air operated integrated	Regulator	Manual	Electric	Manual	Manual flow rate adjusting valve	Manual Fine flow rate	Fine level Switch	Related products
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Connection and Cv of AMD**3R Series



Super 300 pillar fitting (connection code: P)

	Connection size	Connection	Applicable tube size	Selectable model sizes and Cv				
				AMDZ	AMD0	AMD3	AMD4	AMD5
Metric	3U	P	ø3 × ø2	0.07				
	6U	P	ø6 × ø4	0.25	0.34			
	8U	P	ø8 × ø6		0.64			
	10U	P	ø10 × ø8		0.8	1.25		
	12U	P	ø12 × ø10			1.8		
	25U	P	ø25 × ø22					8
Inch	6BU	P	1/8" × 0.086"	0.07				
	8BU	P	1/4" × 5/32"	0.25	0.34			
	10BU	P	3/8" × 1/4"		0.8	1.25		
	15BU	P	1/2" × 3/8"			1.8		
	20BU	P	3/4" × 5/8"				5	
	25BU	P	1" × 7/8"					8

F-LOCK 60 Series (connection code: R)

	Connection size	Connection	Applicable tube size	Selectable model sizes and Cv				
				AMDZ	AMD0	AMD3	AMD4	AMD5
Metric	6U	R	ø6 × ø4	0.22	0.28			
	8U	R	ø8 × ø6		0.64			
	10U	R	ø10 × ø8		0.7	1		
	12U	R	ø12 × ø10			1.6		
	25U	R	ø25 × ø22					8
Inch	8BU	R	1/4" × 5/32"	0.22	0.28			
	10BU	R	3/8" × 1/4"		0.64	0.7		
	15BU	R	1/2" × 3/8"			1.6		
	20BU	R	3/4" × 5/8"				4.5	
	25BU	R	1" × 7/8"					8

