



Air operated valve for chemical liquids (manifold/branch valve)

GAMD³/₄/₅*2 Series

- Station No. 1 to 5 stations
- Connection tube size: $\varnothing 10$, $\varnothing 12$, $\varnothing 25$, 3/8", 1/2", 3/4", 1"



Export controlled items

*Eligibility: GAMD4*2, 5*2 (*6)

Specifications

Item	GAMD3*2	GAMD4*2	GAMD5*2	
Working fluid	Chemical liquids, pure water, air, N ₂ gas (*1)			
Fluid temperature °C	5 to 90 (For high temperature: 5 to 160) (*5)		5 to 90 (*5)	
Proof pressure MPa	1.0			
Working pressure (A→B) MPa	0 to 0.3 (*4...High pressure specification)			
Working pressure (B→A) MPa	0 to 0.1 (*4...High pressure specification)			
Valve seat leakage cm ³ /min	0 (water pressure)			
Back pressure MPa	0 to 0.1 (*4...High pressure specification)			
Ambient temperature °C	0 to 60			
Frequency	30 cycles/min. or less	20 cycle/min. or less		
Mounting orientation	Unrestricted			
Connection	O.D. $\varnothing 10/\varnothing 12$ tube connection (integrated fitting) O.D. 3/8" / 1/2" tube connection (integrated fitting)	O.D. 3/4" tube connection (integrated fitting)	O.D. $\varnothing 25$ tube connection (integrated fitting) O.D. 1" tube connection (integrated fitting)	
Orifice size	$\varnothing 6$ to $\varnothing 10$ (*3)	$\varnothing 14.7$ to $\varnothing 16$ (*3)	$\varnothing 20$	
Operating section	Operating pressure MPa	NC: 0.3 to 0.5, NO: 0.3 to 0.5 (0.3 to 0.35 for high temperature), double acting 0.3 to 0.4 (0.2 to 0.25 for high temperature)		
	Operating port	Rc1/8 (*2)		
Weight kg	1 station	0.25	0.51	1.0
	2 stations	0.50	1.0	2.0
	3 stations	0.75	1.5	3.0
	4 stations	1.0	2.0	4.0
	5 stations	1.3	2.5	—

*1: Check the compatibility of product structural materials, working fluids and atmosphere.

*2: Use a resin fitting for connection to the operating port. (When using a metal fitting, select one with a reinforcing ring. However, a reinforcing ring cannot be selected for those with fluid code P for nitric acid and hydrofluoric acid.)

*3: Check the orifice of each connection in How to order.

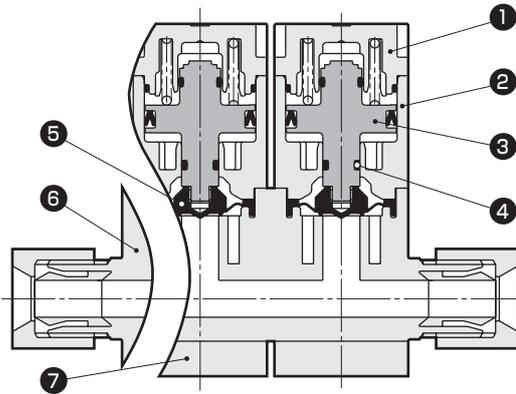
*4: Refer to page 64 for high-pressure specifications.

*5: For use with hydrofluoric acid, or when the fluid temperature exceeds 40°C, consult with CKD.

*6: GAMD3*2 is not applicable. (for individual piping of secondary side port)

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

Internal structure and parts list



Part No.	Part name	Material (by fluid code)		
		Standard/Y	M	P
1	Cover	PPS		
2	Cylinder	PPS		
3	Piston rod	PPS		
4	O-ring	FKM	EPDM	FKM
5	Diaphragm	PTFE		
6	Body	PTFE		
7	Mounting plate	PPS		PP

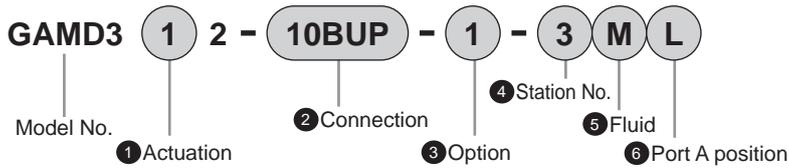
The material and structure may vary depending on the model number. Contact CKD for details.

Air operated valve	Part3R	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part3RR	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Manual valve	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part3R	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Drip prevention valve	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Regulator	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Flow rate adjusting valve	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part3	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Fine level Switch	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
	Part2	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage
Related products	Part1	High pressure	Metals-free	Large bore size	Polyvinyl chloride	Drainage

GAMD3*2 Series

How to order

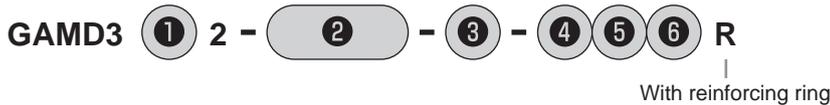
●GAMD3*2 Series (connection: $\phi 10$, 3/8" tube connection)



		② Connection										
		10US	10BUS	10UP	10BP	10UA	10BUA	10UR	10BUR	10UK	10BUK	10BUW
		Super Type Pillar fitting Integrated	Super Pillar fitting P series integrated		F-LOCK 20A Series Integrated fitting		F-LOCK 60 Series Integrated fitting		Final Lock Fitting Integrated		Flaretek Fitting Integrated	
		$\phi 10 \times \phi 8$ tube connection	$3/8" \times 1/4"$ tube connection		$\phi 10 \times \phi 8$ tube connection		$3/8" \times 1/4"$ tube connection		$\phi 10 \times \phi 8$ tube connection		$3/8" \times 1/4"$ tube connection	
Code	Description	$\phi 8$						$\phi 7$	$\phi 6$	$\phi 8$		$\phi 6.3$
Orifice size												
Body material		PTFE machined body										
① Actuation												
1	NC (normally closed)	●	●	●	●	●	●	●	●	●	●	●
2	NO (normally open)	●	●	●	●	●	●	●	●	●	●	●
3	Double acting	●	●	●	●	●	●	●	●	●	●	●
③ Option												
0	ON/OFF only	●	●	●	●	●	●	●	●	●	●	●
1	With flow rate adjustment	●	●	●	●	●	●	●	●	●	●	●
6	With indicator	●	●	●	●	●	●	●	●	●	●	●
④ Station No.												
1	One station											
to	to	●	●	●	●	●	●	●	●	●	●	●
5	5 stations											
⑤ Fluid												
Blank	Standard	●	●	●	●	●	●	●	●	●(*1)	●(*1)	●
M	For ammonia	●	●	●	●	●	●	●	●	●(*1)	●(*1)	●
P	For nitric acid, for hydrofluoric acid (*3)	●	●	●	●	●	●	●	●	●(*1)	●(*1)	●
Y	For high temperature (5 to 160°C) (*2)	●	●	●	●	●	●			●(*1)	●(*1)	
⑥ Port A position												
Blank	Right	●	●	●	●	●	●	●	●	●	●	●
L	Left	●	●	●	●	●	●	●	●	●	●	●
W	Both sides	●	●	●	●	●	●	●	●	●	●	●

* Machined PTFE products will be manufactured on a per-order basis.

●Model No. of operating port with reinforcing ring (indicate R at the end of the model No.)

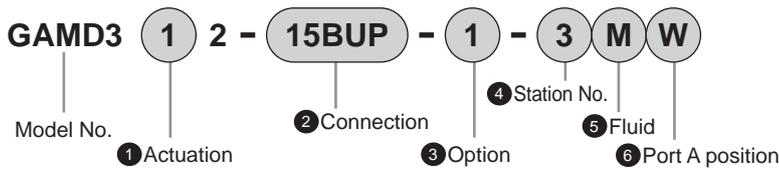


⚠️ Precautions for model No. selection

- *1: Since the Final Lock Fitting Nut and operating air piping may interfere, be sure to check the dimensions before making the selection.
- *2: It cannot be used for nitric acid or hydrofluoric acid.
- *3: If P is selected in ⑤, R with reinforcing ring cannot be selected.

How to order

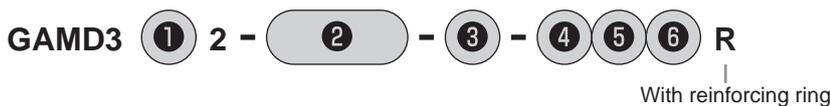
●GAMD3*2 Series (connection: $\phi 12$, 1/2" tube connection)



		② Connection											
		12US	15BUS	12UP	15BUP	12UA	15BUA	12UR	15BUR	12UK	15BUK	15BUW	
		Super Type Pillar fitting Integrated	Super 300 Pillar fitting P series integrated	F-LOCK 20A Series Integrated fitting		F-LOCK 60 Series Integrated fitting		Final Lock Fitting Integrated		Flaretek Fitting Integrated			
		$\phi 12 \times \phi 10$ tube connection	1/2" x 3/8" tube connection	$\phi 12 \times \phi 10$ tube connection	1/2" x 3/8" tube connection	$\phi 12 \times \phi 10$ tube connection	1/2" x 3/8" x connection	$\phi 12 \times \phi 10$ tube connection	1/2" x 3/8" tube connection	$\phi 12 \times \phi 10$ tube connection	1/2" x 3/8" tube connection	1/2" x 3/8" tube connection	
Code	Description	Orifice size $\phi 10$						$\phi 9$		$\phi 10$		$\phi 9.4$	
Body material		PTFE machined body											
① Actuation													
1	NC (normally closed)	●	●	●	●	●	●	●	●	●	●	●	
2	NO (normally open)	●	●	●	●	●	●	●	●	●	●	●	
3	Double acting	●	●	●	●	●	●	●	●	●	●	●	
③ Option													
0	ON/OFF only	●	●	●	●	●	●	●	●	●	●	●	
1	With flow rate adjustment	●	●	●	●	●	●	●	●	●	●	●	
6	With indicator	●	●	●	●	●	●	●	●	●	●	●	
④ Station No.													
1	One station												
to	to	●	●	●	●	●	●	●	●	●	●	●	
5	5 stations												
⑤ Fluid													
Blank	Standard	●	●	●	●	●	●	●	●	● (*1)	● (*1)	●	
M	For ammonia	●	●	●	●	●	●	●	●	● (*1)	● (*1)	●	
P	For nitric acid, for hydrofluoric acid (*3)	●	●	●	●	●	●	●	●	● (*1)	● (*1)	●	
Y	For high temperature (5 to 160°C) (*2)	●	●	●	●	●	●			● (*1)	● (*1)		
⑥ Port A position													
Blank	Right	●	●	●	●	●	●	●	●	●	●	●	
L	Left	●	●	●	●	●	●	●	●	●	●	●	
W	Both sides	●	●	●	●	●	●	●	●	●	●	●	

* Machined PTFE products will be manufactured on a per-order basis.

●Model No. of operating port with reinforcing ring (indicate R at the end of the model No.)



⚠ Precautions for model No. selection

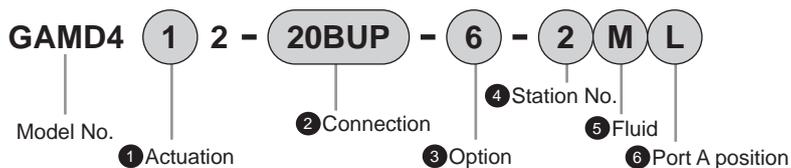
- *1: Since the Final Lock Fitting Nut and operating air piping may interfere, be sure to check the dimensions before making the selection.
- *2: It cannot be used for nitric acid or hydrofluoric acid.
- *3: If P is selected in ⑤, R with reinforcing ring cannot be selected.

Part3R	Part2	Part1	High pressure	Metar-free	Large bore size	Polyvinyl chloride	Drainage	Part3RN	Part2	High pressure	Metar-free	Large bore size	Single unit	Air operated	Pilot	Manual	Electric	Manual	Manual Fine flow rate	Fine level Switch	Related products
			Air operated valve							Manual valve			Drip prevention valve		Regulator		Flow rate adjusting valve				

GAMD4*2 Series

How to order

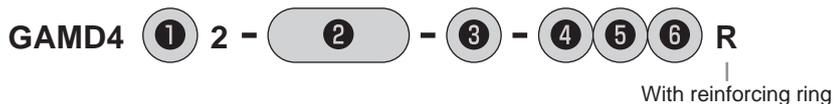
●GAMD4*2 Series



		② Connection					
		20BUS	20BUP	20BUA	20BUR	20BUK	20BUW
		Super-type pillar integrated fitting	Super 300 type Pillar fitting P Series integrated	F-LOCK 20A Series Integrated fitting	F-LOCK 60 Series Integrated fitting	Final Lock Integrated fitting	Flaretek Integrated fitting
		3/4" x5/8" tube connection					
Code	Description	Orifice size		ø16	ø15	ø16	ø14.7
Body material		PTFE machined body					
① Actuation							
1	NC (normally closed)	●	●	●	●	●	●
2	NO (normally open)	●	●	●	●	●	●
3	Double acting	●	●	●	●	●	●
③ Option							
0	ON/OFF only	●	●	●	●	●	●
1	With flow rate adjustment	●	●	●	●	●	●
6	With indicator	●	●	●	●	●	●
④ Station No.							
1	One station						
to	to	●	●	●	●	●	●
5	5 stations						
⑤ Fluid							
Blank	Standard	●	●	●	●	●	●
M	For ammonia	●	●	●	●	●	●
P	For nitric acid, for hydrofluoric acid (*2)	●	●	●	●	●	●
Y	For high temperature (5 to 160°C) (*1)	●	●	●		●	
⑥ Port A position							
Blank	Right	●	●	●	●	●	●
L	Left	●	●	●	●	●	●
W	Both sides	●	●	●	●	●	●

* Machined PTFE products will be manufactured on a per-order basis.

●Model No. of operating port with reinforcing ring (indicate R at the end of the model No.)



⚠ Precautions for model No. selection

- *1: It cannot be used for nitric acid or hydrofluoric acid.
- *2: If P is selected in ⑤, R with reinforcing ring cannot be selected.

Dimensions

Station No.	Model No.	A	B	C	D (by fluid code)		E	F	G	H	I	M	N	O
					Blank/M/Y	P								
1	GAMD3*2	21	59	89	96	96	35	18	38	36	36	-	22±0.3	M6 depth 9
	GAMD4*2	27	79	116	125	126	46	23	48	46	46	-	28±0.3	M8 depth 10
	GAMD5*2	35	101	143	153	157	60	30	62	60	60	-	40±0.3	M8 depth 13
2	GAMD3*2	21	59	89	96	96	35	18	38	74	36	38±0.3	22±0.3	M6 depth 9
	GAMD4*2	27	79	116	125	126	46	23	48	94	46	48±0.4	28±0.3	M8 depth 10
	GAMD5*2	35	101	143	153	157	60	30	62	122	60	62±0.4	40±0.3	M8 depth 13
3	GAMD3*2	21	59	89	96	96	35	18	38	112	36	76±0.4	22±0.3	M6 depth 9
	GAMD4*2	27	79	116	125	126	46	23	48	142	46	96±0.5	28±0.3	M8 depth 10
	GAMD5*2	35	101	143	153	157	60	30	62	184	60	124±0.5	40±0.3	M8 depth 13
4	GAMD3*2	21	59	89	96	96	35	18	38	150	36	114±0.5	22±0.3	M6 depth 9
	GAMD4*2	27	79	116	125	126	46	23	48	190	46	144±0.5	28±0.3	M8 depth 10
	GAMD5*2	35	101	143	153	157	60	30	62	246	60	186±0.7	40±0.3	M8 depth 13
5	GAMD3*2	21	59	89	96	96	35	18	38	188	36	152±0.7	22±0.3	M6 depth 9
	GAMD4*2	27	79	116	125	126	46	23	48	238	46	192±0.7	28±0.3	M8 depth 10

GAMD3*2 (10 mm / 3/8")

*1 (Connector No.)	L	P
10US	25	8
10BUS	25	8
10UP	25	8
10BUP	25	8
10UA	21	8
10BUA	21	8
10UR	37	7
10BUR	39	6
10UK	30	8
10BUK	30	8
10BUW	31	6.3

GAMD3*2 (12 mm, 1/2")

*1 (Connector No.)	L	P
12US	29.5	10
15BUS	29.5	10
12UP	29	10
15BUP	29	10
12UA	25	10
15BUA	25	10
12UR	37	9
15BUR	39	9
12UK	33	10
15BUK	33	10
15BUW	33.5	9.4

GAMD4*2

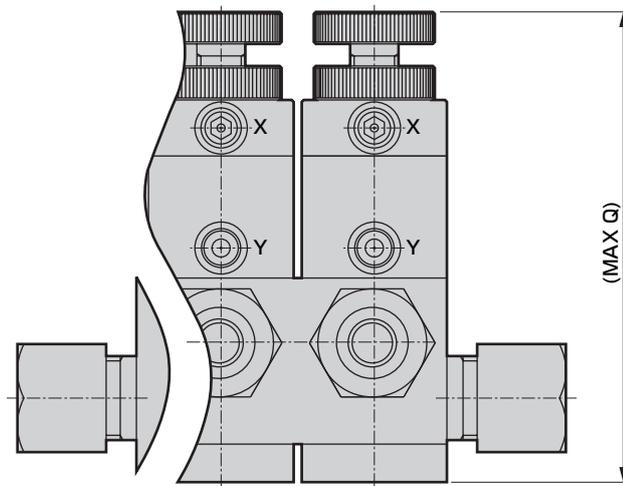
*1 (Connector No.)	L	P
20BUS	39	16
20BUP	36	16
20BUA	31	16
20BUR	44	15
20BUK	36.5	16
20BUW	38	14.7

GAMD5*2

*1 (Connector No.)	L	P
25US	43.5	20
25BUS	43.5	20
25UP	43	20
25BUP	43	20
25BUA	40	20
25BUR	49.5	20
25BUR	51	20
25UK	40.5	20
25BUK	40.5	20
25BUW	48	20

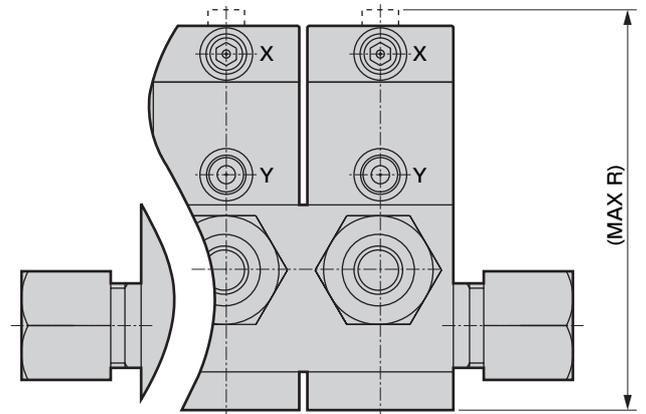
● With flow rate adjustment

· GAMD**2*-1



● With indicator

· GAMD**2*-6



Model No.	Q (by fluid code)		R (by fluid code)	
	Blank/M/Y	P	Blank/M/Y	P
GAMD3*2	120	120	98	98
GAMD4*2	149	152	129	130
GAMD5*2	185	192	158	162

Part3R
 Part2
 Part1
 High pressure
 Air operated valve
 Metal-free
 Large bore size
 Polyvinyl chloride
 Drainage
 Part3RN
 Part2
 High pressure
 Manual valve
 Metal-free
 Large bore size
 Single unit
 Air operated integrated
 Drip prevention valve
 Regulator
 Pilot
 Manual
 Electric
 Flow rate adjusting valve
 Manual
 Manual Fine flow rate
 Fine level Switch
 Related products