

General Purpose Valves
Catalog No. CB-03-1SA

Air operated 2-port valve
(cylinder valve)

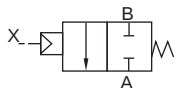
SAB*A-FP1 Series

- NC (normally closed), NO (normally open), double acting
- Port size: Rc1/4 to Rc2 32 to 50 flange
- Working fluid: Air

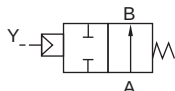


JIS symbol

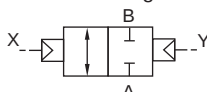
- NC (normally closed)



- NO (normally open)



- Double acting



Common specifications

Item	SAB1A	SAB2A	SAB3A
Actuation	NC (normally closed)	NO (normally open)	Double acting
Working fluid	Air		
Working pressure MPa	0 to 0.9	0 to 1	
Proof pressure(water pressure)MPa	2.0		
Fluid temperature °C	-10 to 90 (no freezing)		
Ambient temperature °C	-10 to 60		
Valve seat leakage cm³/min	0.12 or less (Pneumatic pressure)		
Mounting orientation	Unrestricted		
Pilot fluid	Air		
Pilot pressure MPa	0.35 to 0.7	Refer to General Purpose Valves (CB-03-1SA) .	

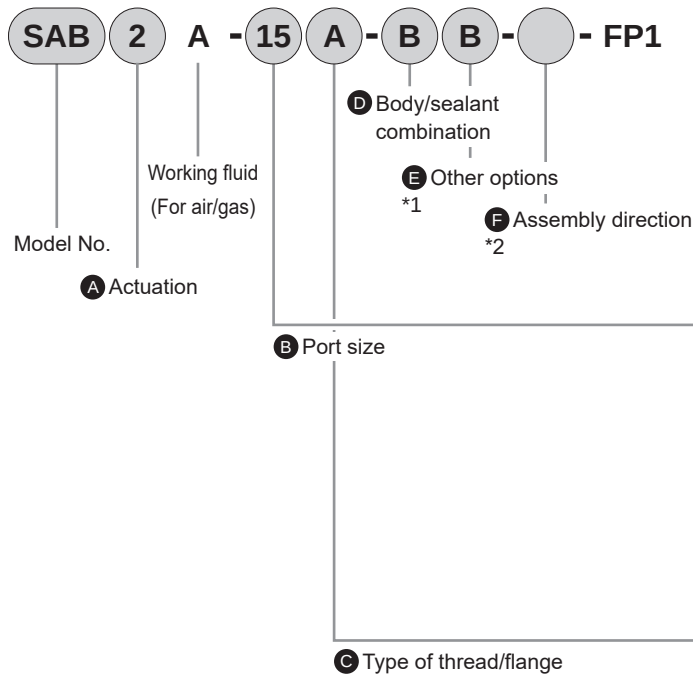
Individual specifications

Item	Port size	Orifice size(mm)	C [dm³/(s·bar)]	b	S (mm²)	Allowable back pressure (MPa)	Pilot port size	Weight (kg)
Model No.								
NC (normally closed)								
SAB1A-8A	Rc 1/4	10	8.3	0.4	-	0.5	Rc 1/8	0.3
SAB1A-10A	Rc 3/8	10	11	0.4	-			0.3
SAB1A-15A	Rc 1/2	15	-	-	120	0.1		0.6
SAB1A-20A	Rc 3/4	16	-	-	150			0.8
SAB1A-25A	Rc 1	20	-	-	240			1.1
SAB1A-32A	Rc 1¼	26	-	-	390			2.2
SAB1A-32F	32 flange	26	-	-	390			5.2
SAB1A-40A	Rc 1½	32	-	-	610			3.2
SAB1A-40F	40 flange	32	-	-	610			6.3
SAB1A-50A	Rc 2	42	-	-	920			5.2
SAB1A-50F	50 flange	42	-	-	920	9.1		
NO (normally open)								
SAB2A-8A	Rc 1/4	10	8.9	0.4	-	0.1	Rc 1/8	0.3
SAB2A-10A	Rc 3/8	10	12	0.3	-			0.3
SAB2A-15A	Rc 1/2	15	-	-	140			0.6
SAB2A-20A	Rc 3/4	16	-	-	180			0.8
SAB2A-25A	Rc 1	20	-	-	280			1.1
SAB2A-32A	Rc 1¼	26	-	-	450	0.05		2.2
SAB2A-32F	32 flange	26	-	-	450			5.2
SAB2A-40A	Rc 1½	32	-	-	680			3.2
SAB2A-40F	40 flange	32	-	-	680			6.3
SAB2A-50A	Rc 2	42	-	-	1020			5.2
SAB2A-50F	50 flange	42	-	-	1020			9.1
Double acting (*1)								
SAB3A-8A	Rc 1/4	10	8.3 (8.9)	0.4	-	1	Rc 1/8	0.3
SAB3A-10A	Rc 3/8	10	11 (12)	0.4 (0.3)	-			0.3
SAB3A-15A	Rc 1/2	15	-	-	120 (140)			0.6
SAB3A-20A	Rc 3/4	16	-	-	150 (180)			0.8
SAB3A-25A	Rc 1	20	-	-	240 (280)			1.1
SAB3A-32A	Rc 1¼	26	-	-	390 (450)			2.2
SAB3A-32F	32 flange	26	-	-	390 (450)			5.2
SAB3A-40A	Rc 1½	32	-	-	610 (680)			3.2
SAB3A-40F	40 flange	32	-	-	610 (680)			6.3
SAB3A-50A	Rc 2	42	-	-	920 (1020)			5.2
SAB3A-50F	50 flange	42	-	-	920 (1020)			9.1

*1: () for C, b and S columns of double acting shows the flow rates when port A is pressurized.

*2: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order



Code	Description	
A Actuation		
1	NC (Normally Closed)	
2	NO (Normally Open)	
3	Double acting	
B Port size		
8	1/4	
10	3/8	
15	1/2	
20	3/4	
25	1	
32	1½, 32 (Flange)	
40	1½, 40 (Flange)	
50	2, 50 (Flange)	
C Type of thread/flange		
A	Rc (8A to 50A)	
F	Flange (32F to 50F)	
D Body/sealant combination		
	Body	Seal
B	Copper alloy	Fluoro rubber
E	Stainless steel	Fluoro rubber
E Other options		
Blank	No option	
B	Mounting plate *1	
F Assembly direction		
Blank	No option	
R	Mounting plate assembly position reversed	
Refer to the figure below for the layout drawing.		

⚠ Precautions for model No. selection

- *1: The mounting plate (E Item B) can be attached to only the female thread of port sizes 8 to 32.
- *2: Reversed mounting plate (F Item B-R) is available for port sizes 15 to 32.
- *3: Clockwise when viewed from above with port A on the right.

[Example of model No.]

SAB2A-15A-BB-FP1

Model: SAB

- A** Actuation : NO (Normally Open)
- B** Port size : 1/2
- C** Type of thread/flange : Rc
- D** Body/sealant combination : Body - copper alloy, sealant - fluoro rubber
- E** Other options : Mounting plate
- F** Assembly direction : No option

F Item Assembly direction

SAB [Air operated] *1/3		
Code	B (with mounting plate)	B-R *2
Direction	No rotation	Mounting plate reversed
Layout		

← shows pilot port IN.

For dimensions, refer to the SAB*A Series in "General Purpose Valves (CB-03-1SA)".