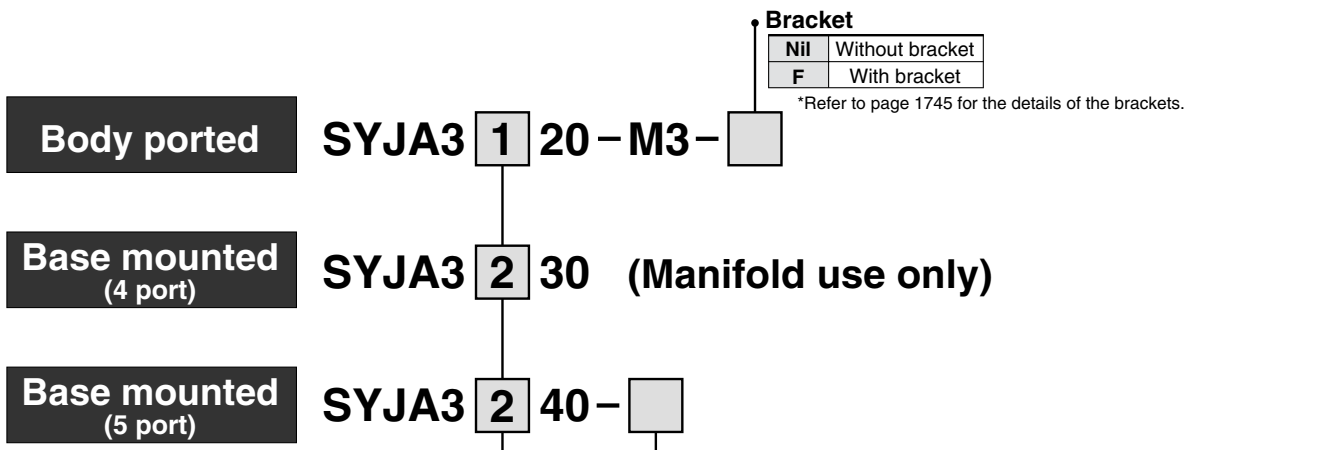


# 4/5 Port Air Operated Valve

# Series SYJA3000

## How to Order



**Bracket**

Nil	Without bracket
F	With bracket

\*Refer to page 1745 for the details of the brackets.

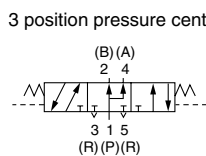
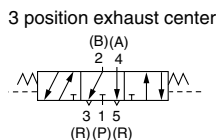
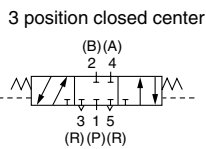
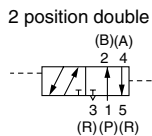
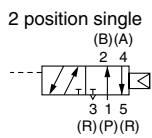
**Type of actuation**

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

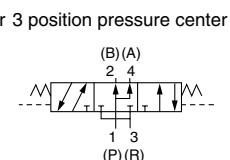
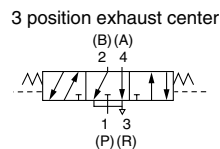
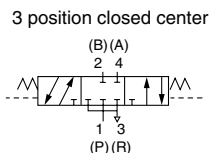
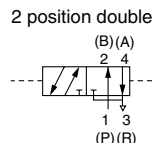
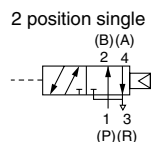
**Port size**

Nil	Without sub-plate
M5	M5 port With sub-plate

**JIS Symbol**  
**5 port**



**4 port**



## How to Order Manifold Base

Same manifolds as series SYJ3000 are prepared.

**SS5YJA3** -  Fill the same as SS5YJ3

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

- (Example)
- SS5YJA3-41-03-M5** ..... 1 pc.
  - \* SYJA3140 ..... 1 pc.
  - \* SYJA3240 ..... 1 pc.
  - \* SYJ3000-21-2A ..... 1 pc.

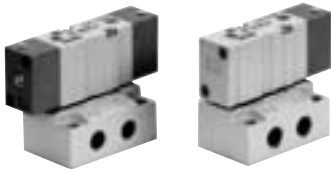
↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

**⚠ Caution**

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

# 4/5 Port Air Operated Valve *Series SYJA3000*

## Specifications



Base mounted

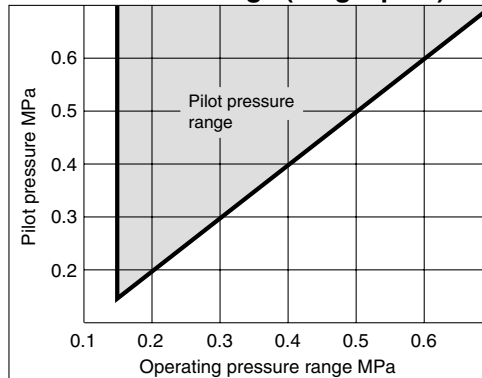


Body ported

<b>Fluid</b>		Air
<b>Operating pressure range MPa</b>	<b>2 position single</b>	0.15 to 0.7
	<b>2 position double</b>	-100 kPa to 0.7
	<b>3 position</b>	-100 kPa to 0.7
<b>Pilot pressure range MPa</b> <small>Note 1)</small>	<b>2 position single</b>	Operating pressure to 0.7
	<b>2 position double</b>	0.1 to 0.7
	<b>3 position</b>	0.2 to 0.7
<b>Ambient and fluid temperature °C</b>		-10 to 60 (No freezing.)
<b>Lubrication</b>		Not required
<b>Mounting orientation</b>		Unrestricted
<b>Impact/Vibration resistance (m/s<sup>2</sup>)</b> <small>Note 2)</small>		300/50

- Note 1) In case of single type, be certain that pressure within operating pressure range be supplied to supply port, because return pressure is introduced from supply port {1(P)} for activation.
- Note 2) Impact resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle directions of the main valve, when pilot signal is ON and OFF. (Value in the initial state)
- Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve when pilot signal is ON and OFF. (Value in the initial state)

### Pilot Pressure Range (Single pilot)



### With Bracket

Air operated valve	SYJA3□20-M3-F
--------------------	---------------

The mounting bracket for the 2 position double solenoid and 3 position is supplied unattached.

## Flow Characteristics/Mass

Valve model	Type of actuation	Port size	Pilot port size	Mass (g) <small>Note 3)</small>	Effective area mm <sup>2</sup>	Flow characteristics <small>Note 2)</small>					
						1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)		
						C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv
5 port Base mounted (with sub-plate)	2 position	Single	M5 x 0.8	M3 x 0.5	-	0.46	0.36	0.12	0.46	0.35	0.12
		Double									
	3 position	Closed center									
		Exhaust center									
		Pressure center									
Body ported	2 position	Single	M3 x 0.5	M3 x 0.5	0.9	0.47	0.33	0.12	0.47	0.31	0.12
		Double									
	3 position	Closed center									
		Exhaust center									
		Pressure center									
4 Port Base Mounted (For manifold) <small>Note 1)</small>	2 position	Single	-	M3 x 0.5	-	0.58 [0.32]	0.42 [0.33]	0.16 [0.080]	0.46	0.32	0.11
		Double									
	3 position	Closed center									
		Exhaust center									
		Pressure center									

- Note 1) Value when used on a manifold. Refer to page 1744 for details.
- Note 2) [ ]: denotes normal position.
- Note 3) ( ): Without sub-plate.
- Note 4) 5 port, base mounted without sub-plate: SYJA3□40

SYA

SYJA

VZA

VFA

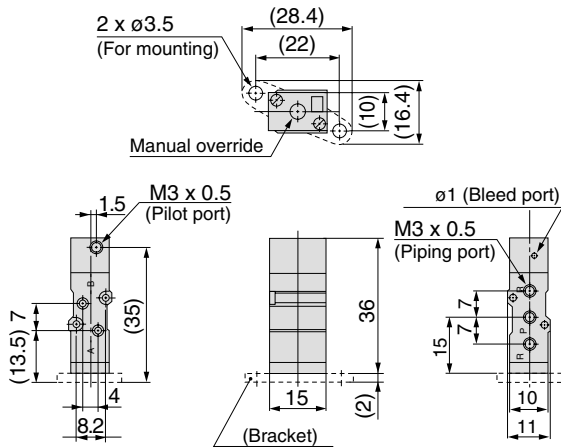
VFRA

V□A

# Series SYJA3000

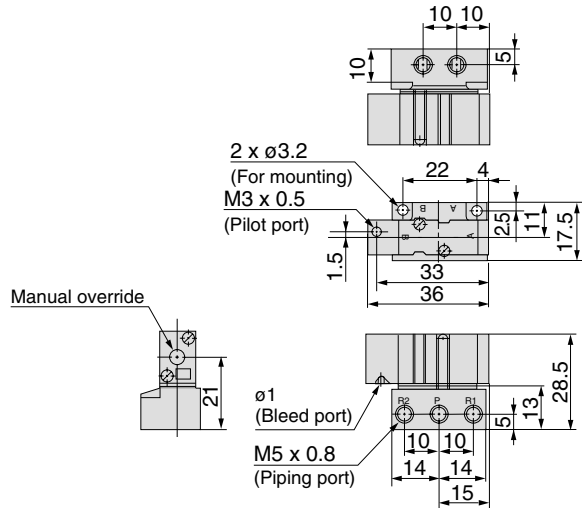
## Dimensions/Body Ported

### 2 position single: SYJA3120-M3(-F)

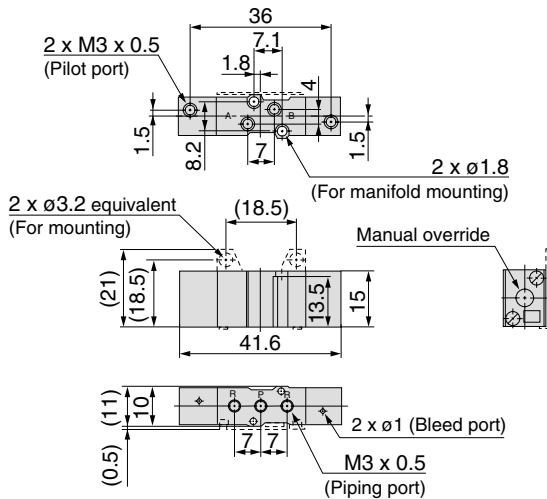


## Dimensions/Base Mounted

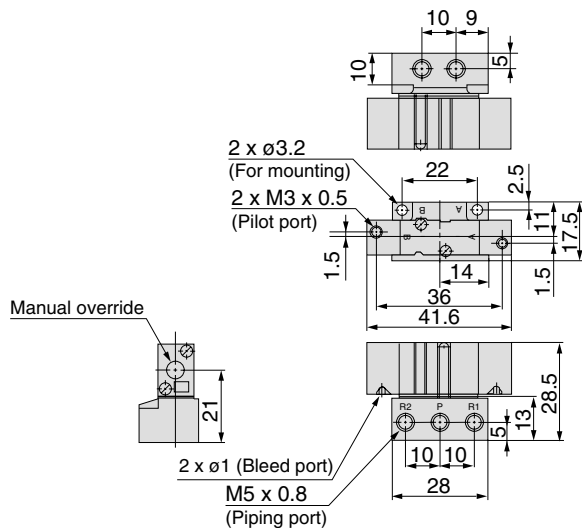
### 2 position single: SYJA3140-M5



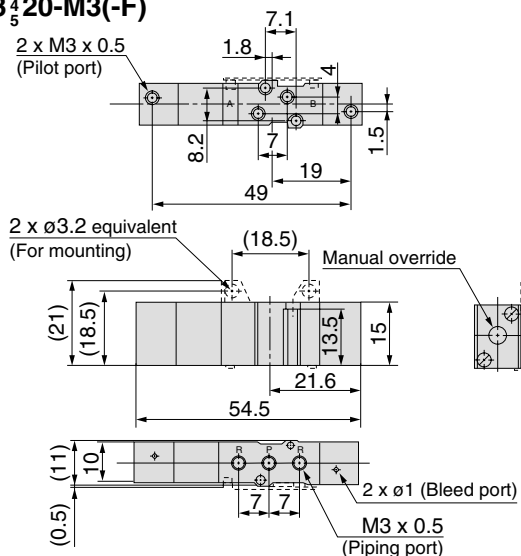
### 2 position double: SYJA3220-M3(-F)



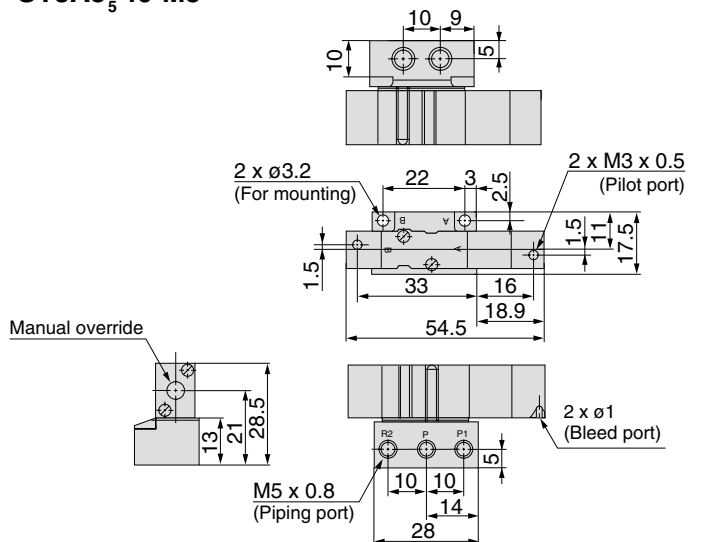
### 2 position double: SYJA3240-M5



### 3 position closed center/exhaust center/pressure center SYJA3<sub>4</sub>20-M3(-F)

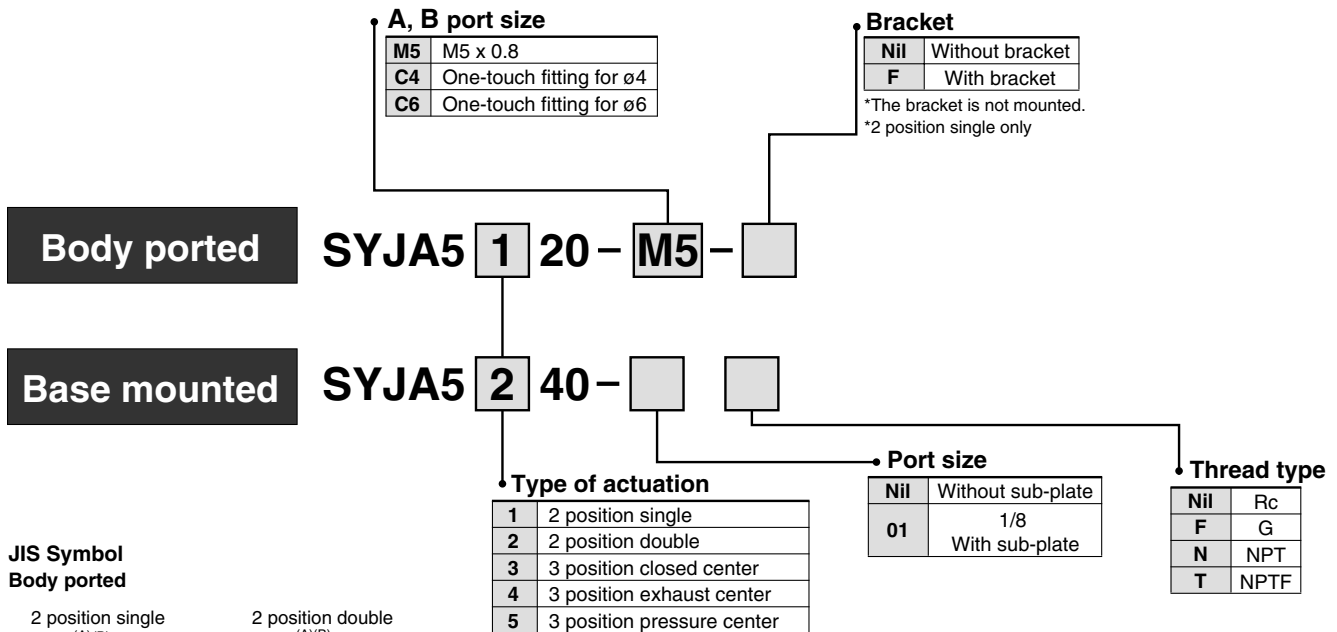


### 3 position closed center/exhaust center/pressure center SYJA3<sub>4</sub>40-M5

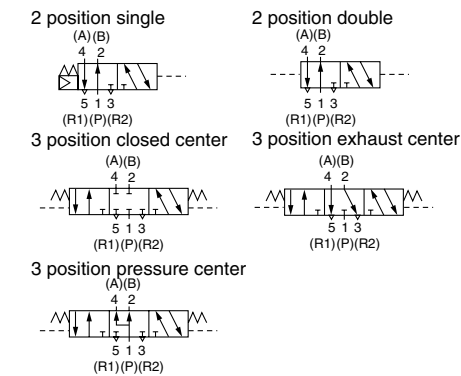


# 4/5 Port Air Operated Valve Series SYJA5000

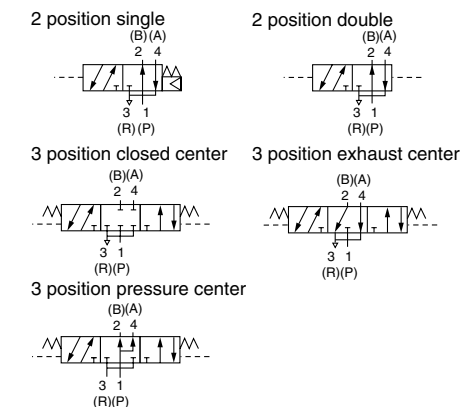
## How to Order



### JIS Symbol



### Base mounted



## How to Order Manifold Base

Same manifolds as series SYJ5000 are prepared.

SS5YJA5 -

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

(Ex.)  
**SS5YJA5-42-03-01** ..... 1 set  
 \* SYJA5140 ..... 1 set  
 \* SYJA5240 ..... 1 set  
 \* SYJ5000-21-1A ..... 1 set

↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

### Caution

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

SYA

SYJA

VZA

VFA

VFRA

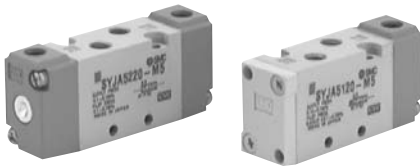
V□A

# Series SYJA5000

## Specifications



Base mounted



Body ported

<b>Fluid</b>		Air
<b>Operating pressure range MPa</b>	<b>2 position single</b>	0.15 to 0.7
	<b>2 position double</b>	-100 kPa to 0.7
	<b>3 position</b>	-100 kPa to 0.7
<b>Pilot pressure range MPa</b> <small>Note 1)</small>	<b>2 position single</b>	(0.4 x P+0.1) to 0.7 P: Operating pressure
	<b>2 position double</b>	0.1 to 0.7
	<b>3 position</b>	0.15 to 0.7
<b>Ambient and fluid temperature °C</b>		-10 to 60 (No freezing.)
<b>Lubrication</b>		Not required
<b>Mounting orientation</b>		Unrestricted
<b>Impact/Vibration resistance (m/s<sup>2</sup>)</b> <small>Note 2)</small>		300/50

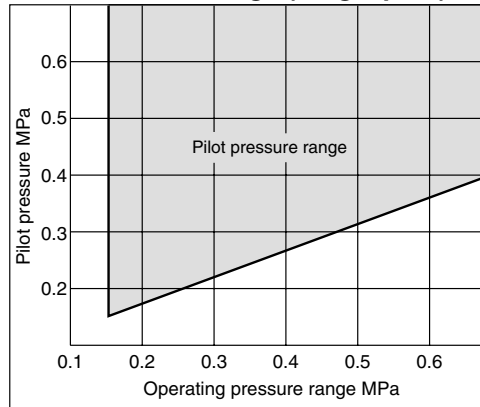


Note 1) In case of single type, be certain that pressure within operating pressure range be supplied to supply port, because return pressure is introduced from supply port {1(P)} for activation.

Note 2) Impact resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle directions of the main valve, when pilot signal is ON and OFF. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve when pilot signal is ON and OFF. (Value in the initial state)

### Pilot Pressure Range (Single pilot)



### With Bracket

Air operated valve	SYJA5120-M5-F
--------------------	---------------

The mounting bracket is supplied unattached.

Bracket Assembly	SYJ5000-13-3A
------------------	---------------

Mounting screws included.

## Flow Characteristics/Mass

Valve model	Type of actuation	Port size	Flow characteristics <small>Note 1)</small>						Pilot port size	Mass (g) <small>Note 2)</small>				
			1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)								
			C [dm <sup>3</sup> /s-bar]	b	Cv	C [dm <sup>3</sup> /s-bar]	b	Cv						
Body ported	SYJA5□20-M5	2 position	Single	M5 x 0.8	0.47	0.41	0.13	0.47	0.41	0.13	M5 x 0.8	34		
			Double		0.49	0.44	0.13	0.44	0.40	0.12		38		
		3 position	Closed center		0.46	0.37	0.12	0.47	0.43	0.13		48		
			Exhaust center		0.49	0.51	0.14	0.45	0.42	0.12				
	SYJA5□20-C4	2 position	Single	A, B port: C4 (One-touch fitting for ø4) P, R port: M5 x 0.8	0.69	0.39	0.18	0.44	0.39	0.12	M5 x 0.8	41		
			Double		0.69	0.40	0.19	0.43	0.40	0.12		45		
		3 position	Closed center		0.56	0.40	0.15	0.41	0.37	0.10		55		
			Exhaust center		0.57	0.40	0.15	0.41	0.37	0.10				
	SYJA5□20-C6	2 position	Single	A, B port: C6 (One-touch fitting for ø6) P, R port: M5 x 0.8	0.70	0.36	0.19	0.47	0.40	0.12	M5 x 0.8	41		
			Double		0.72	0.37	0.19	0.44	0.34	0.12		45		
		3 position	Closed center		0.67	0.54	0.19	0.41	0.38	0.11		55		
			Exhaust center		0.82	0.41	0.23	0.41	0.36	0.11				
Base mounted (with sub-plate)	SYJA5□40-01	2 position	Single	1/8	0.79	0.21	0.19	0.83	0.32	0.21	M5 x 0.8	68 (34)		
			Double		0.80	0.28	0.18	0.86	0.34	0.20		72 (38)		
		3 position	Closed center		0.71	0.26	0.18	1.1	0.24	0.26		82 (48)		
			Exhaust center		0.99	0.29	0.24	0.72	0.38	0.18				
					Pressure center	0.71	0.26	0.18	1.1	0.24		0.26		
					Pressure center	0.99	0.29	0.24	0.72	0.38		0.18		
						Pressure center	0.71	0.26	0.18	1.1		0.24	0.26	
						Pressure center	0.99	0.29	0.24	0.72		0.38	0.18	



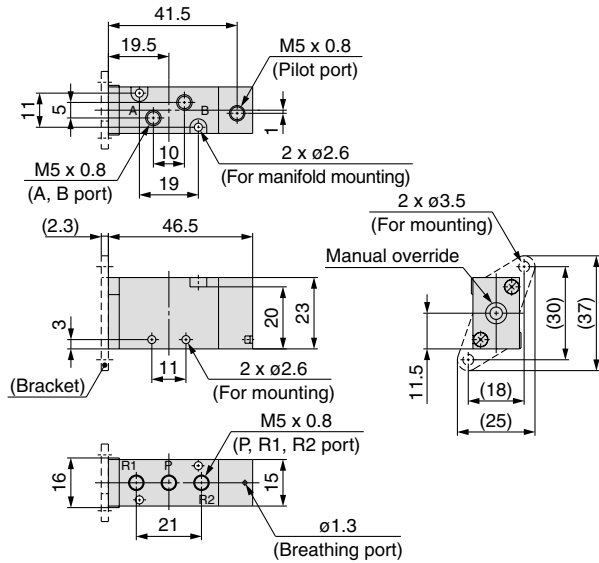
Note 1) [ ] : denotes normal position.

Note 2) ( ) : Without sub-plate.

Note 3) Model No. for 5 port base mounted style without sub-plate is SYJA5□40.

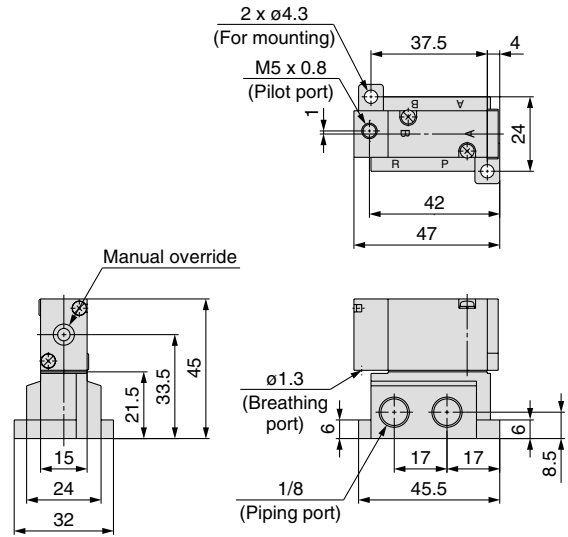
## Dimensions/Body Ported

### 2 position single: SYJA5120-M5(-F)

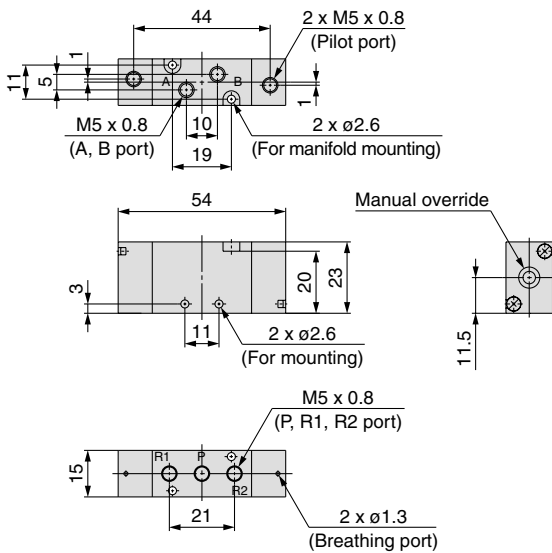


## Dimensions/Base Mounted

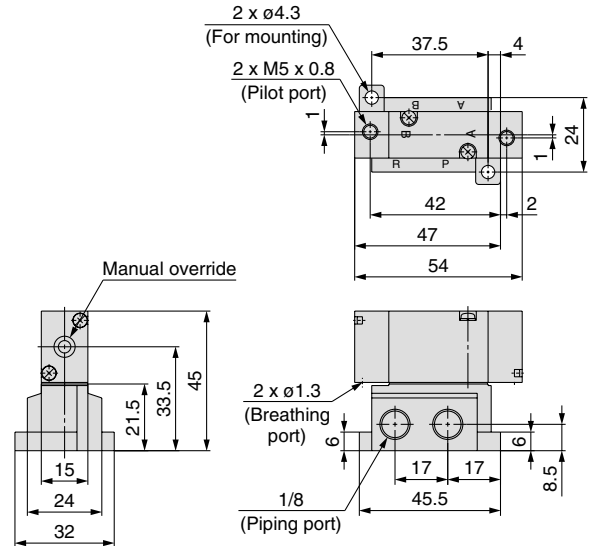
### 2 position single: SYJA5140-01□



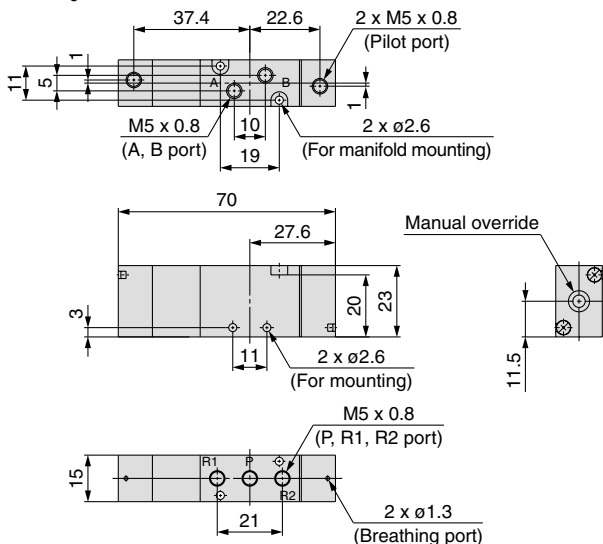
### 2 position double: SYJA5220-M5



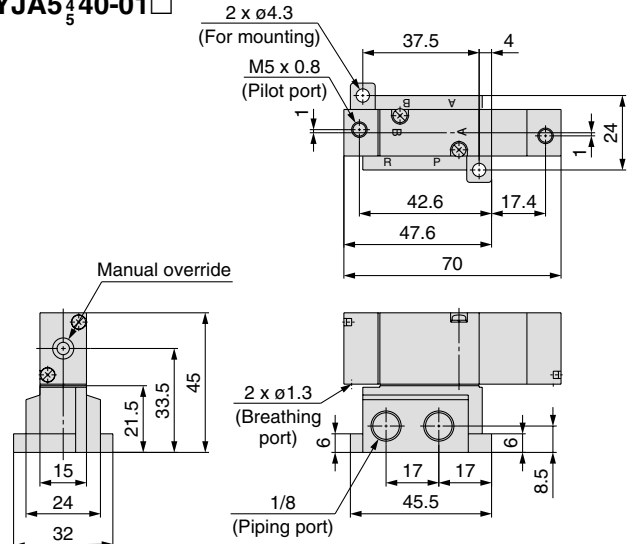
### 2 position double: SYJA5240-01□



### 3 position closed center/exhaust center/pressure center SYJA5<sub>3</sub><sup>4</sup>20-M5



### 3 position closed center/exhaust center/pressure center SYJA5<sub>3</sub><sup>4</sup>40-01□



SYA

SYJA

VZA

VFA

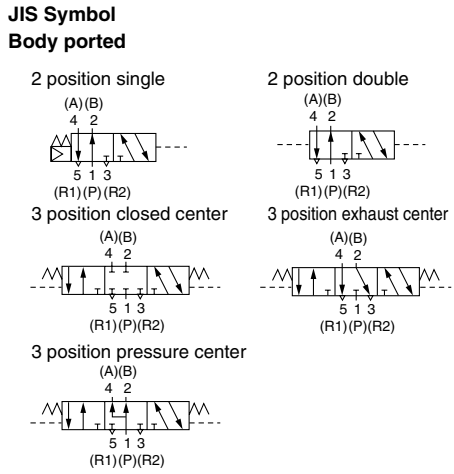
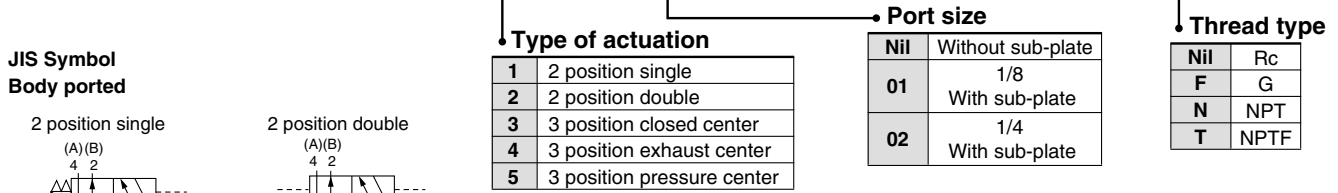
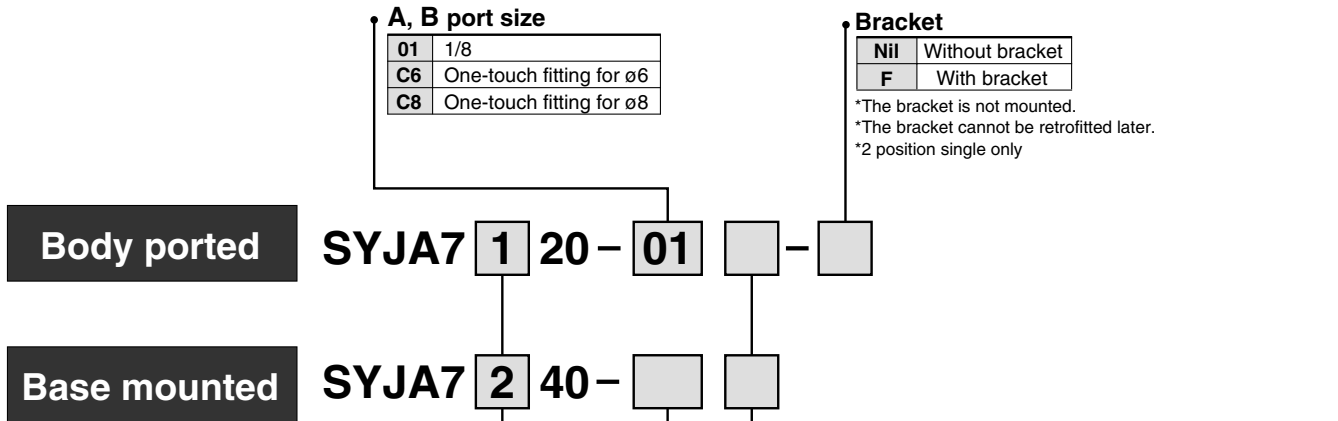
VFRA

V□A

# 4/5 Port Air Operated Valve

# Series SYJA7000

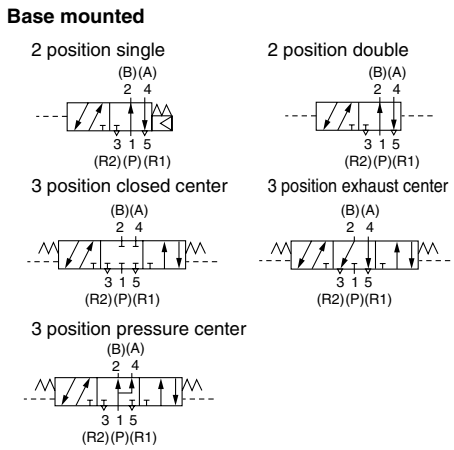
## How to Order



## How to Order Manifold Base

Same manifolds as series SYJ7000 are prepared.

SS5YJA7 - [ Fill the same as SS5YJ7. ]



Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

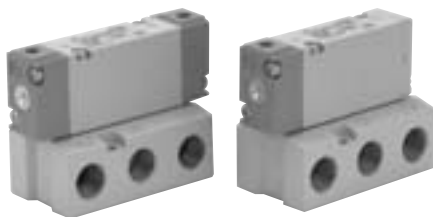
- (Ex.)
- SS5YJA7-41-03-01 ..... 1 pc.
  - \* SYJA7140 ..... 1 pc.
  - \* SYJA7240 ..... 1 pc.
  - \* SYJ7000-21-1A ..... 1 pc.

↳ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

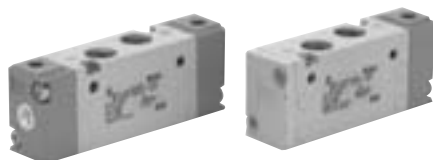
**⚠ Caution**

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

## Specifications



Base mounted



Body ported

<b>Fluid</b>		Air
<b>Operating pressure range MPa</b>	<b>2 position single</b>	0.15 to 0.7
	<b>2 position double</b>	-100 kPa to 0.7
	<b>3 position</b>	-100 kPa to 0.7
<b>Pilot pressure range MPa</b> <small>Note 1)</small>	<b>2 position single</b>	(0.4 x P+0.1) to 0.7 P: Operating pressure
	<b>2 position double</b>	0.1 to 0.7
	<b>3 position</b>	0.15 to 0.7
<b>Ambient and fluid temperature °C</b>		-10 to 60 (No freezing.)
<b>Lubrication</b>		Not required
<b>Mounting orientation</b>		Unrestricted
<b>Impact/Vibration resistance (m/s<sup>2</sup>)</b> <small>Note 2)</small>		300/50

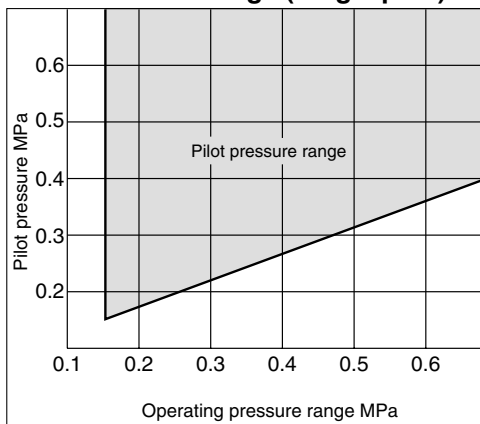


**Note 1)** In case of single type, be certain that pressure within operating pressure range be supplied to supply port, because return pressure is introduced from supply port {1(P)} for activation.

**Note 2) Impact resistance:** No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle directions of the main valve, when pilot signal is ON and OFF. (Value in the initial state)

**Vibration resistance:** No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve when pilot signal is ON and OFF. (Value in the initial state)

### Pilot Pressure Range (Single pilot)



### With Bracket

Air operated valve	SYJA7120-01-F
--------------------	---------------

As a bracket is designed for a body, be sure that a bracket is attached when ordering and operating.

SYA

SYJA

VZA

VFA

VFRA

V□A



# Series SYJA7000

## Flow Characteristics/Weight

Valve model	Type of actuation		Port size	Flow characteristics <sup>Note 2)</sup>						Pilot port size	Mass <sup>Note 3)</sup> (g)	
				1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)					
				C [dm <sup>3</sup> / (s·bar)]	b	Cv	C [dm <sup>3</sup> / (s·bar)]	b	Cv			
Body ported	SYJA7□20-01	2 position	Single	1/8	2.2	0.36	0.58	2.4	0.34	0.63	M5 x 0.8	71
			Double									72
		3 position	Closed center		1.8	0.37	0.45	2.0	0.35	0.49		82
			Exhaust center									
			Pressure center									
			3.0 [0.83]									
	SYJA7□20-C6	2 position	Single	A, B port: C6 (One-touch fitting for ø6) P, R port: 1/8	1.6	0.33	0.4	2.2	0.32	0.53		82
			Double									83
		3 position	Closed center		1.4	0.27	0.35	1.9	0.33	0.49		93
			Exhaust center									
			Pressure center									
			1.1									
SYJA7□20-C8	2 position	Single	A, B port: C8 (One-touch fitting for ø8) P, R port: 1/8	2.0	0.39	0.52	2.3	0.34	0.61	82		
		Double								83		
	3 position	Closed center		1.7	0.35	0.42	2.0	0.29	0.49	93		
		Exhaust center										
		Pressure center										
		1.2									0.38	0.33
Base mounted (with sub-plate)	SYJA7□40-01	2 position	Single	1/8 <sup>Note 1)</sup>	2.3	0.45	0.57	2.8	0.37	0.71	151 (71)	
			Double								152 (72)	
		3 position	Closed center		1.9	0.36	0.48	2.1	0.46	0.57	162 (82)	
			Exhaust center									
			Pressure center									
			1.2									0.48
	SYJA7□40-02	2 position	Single	1/4 <sup>Note 1)</sup>	2.3	0.41	0.61	2.9	0.35	0.74	151 (71)	
			Double								152 (72)	
		3 position	Closed center		1.9	0.46	0.50	2.2	0.44	0.60	162 (82)	
			Exhaust center									
			Pressure center									
			1.3									0.45
3.6 [0.83]	0.23 [0.55]	0.84 [0.25]	2.1	0.47	0.58							



Note 1) P, A, B port: 1/8 is R1, R2 port: 1/4

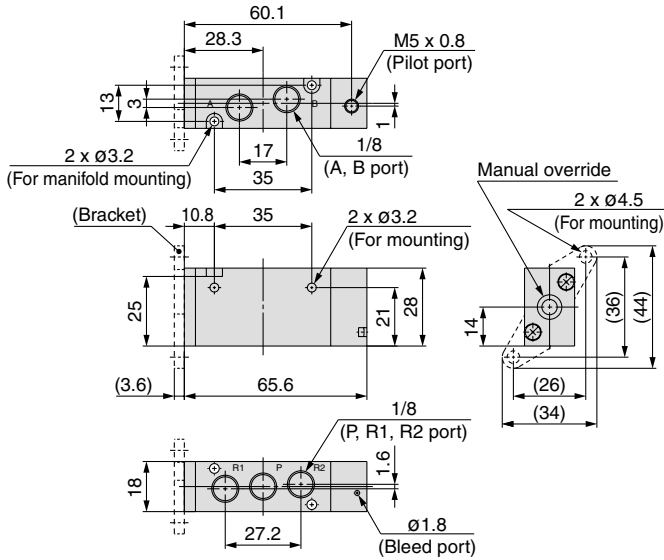
Note 2) [ ]: for normal position

Note 3) ( ): without sub-plate

Note 4) Model No. for base mounted style without sub-plate is SYJA7□40.

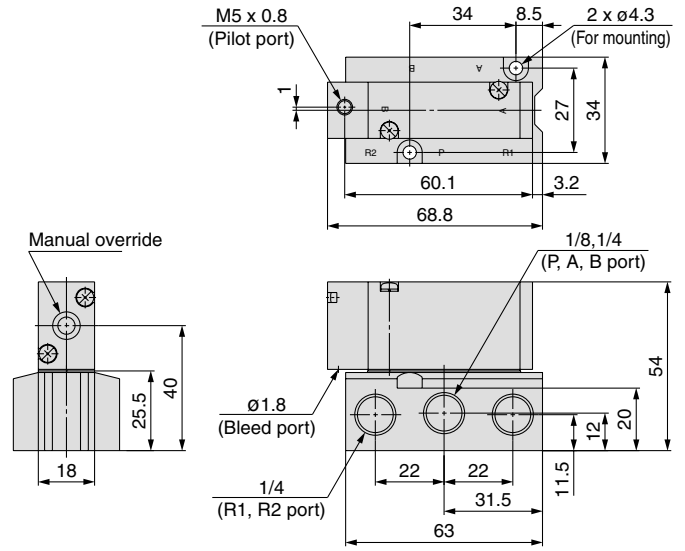
**Dimensions/Body Ported**

**2 position single: SYJA7120-01□(-F)**

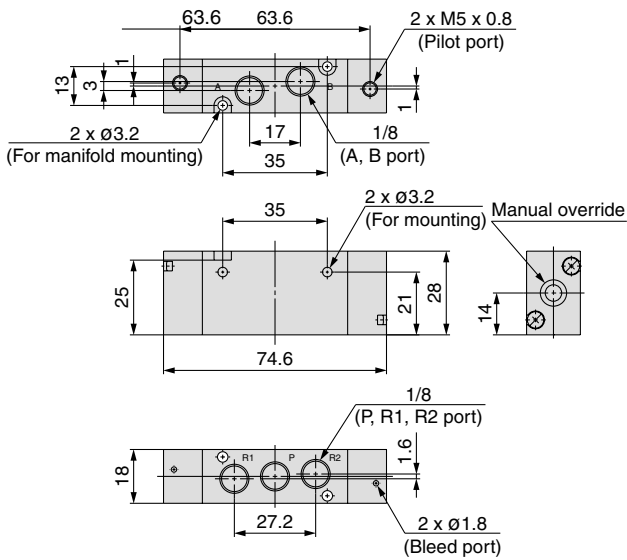


**Dimensions/Base Mounted**

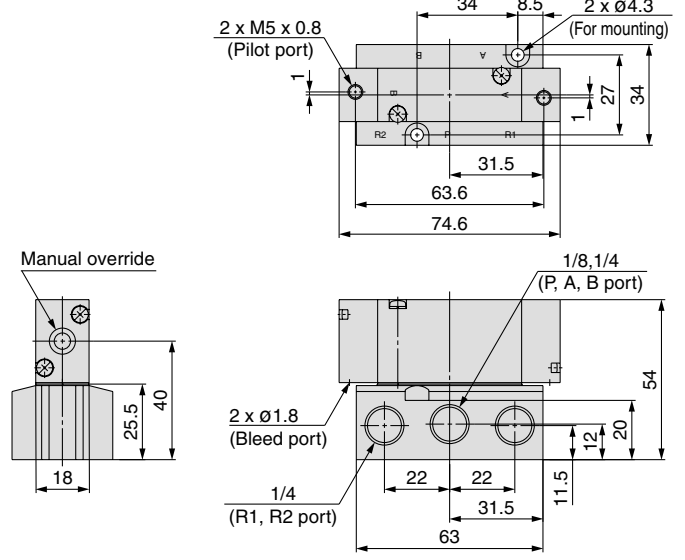
**2 position single: SYJA7140-01□**



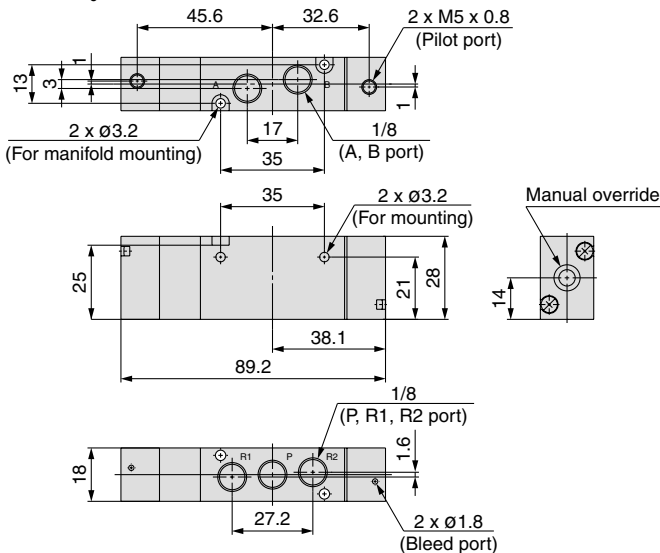
**2 position double: SYJA7220-01□**



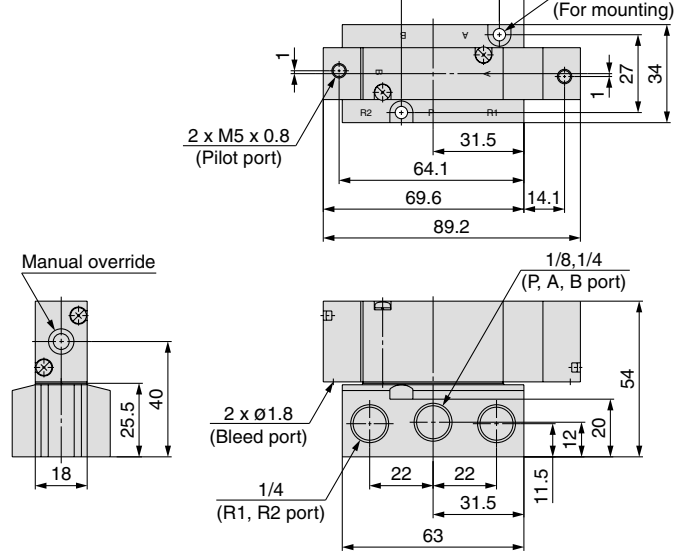
**2 position double: SYJA7240-01□**



**3 position closed center/exhaust center/pressure center SYJA7<sup>3</sup>/<sub>4</sub>20-01□**



**3 position closed center/exhaust center/pressure center SYJA7<sup>3</sup>/<sub>4</sub>40-01□**



- SYA
- SYJA
- VZA
- VFA
- VFRA
- V□A