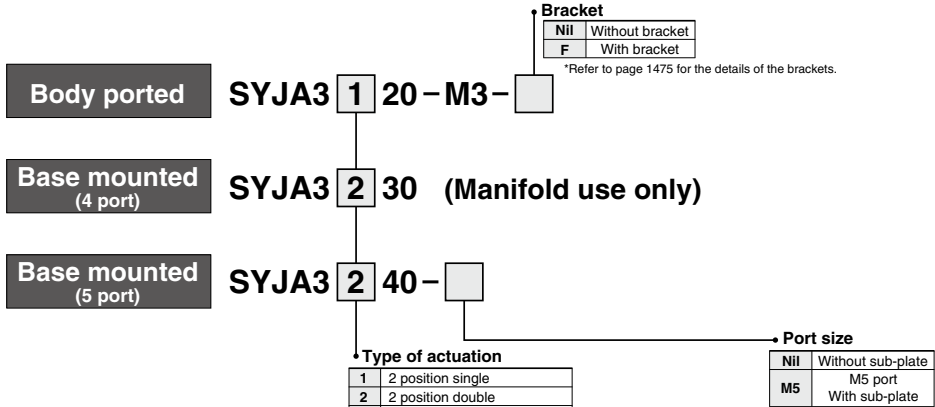


# 4/5 Port Air Operated Valve

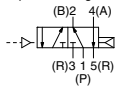
# SYJA3000 Series

## How to Order

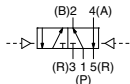


### Symbol 5 port

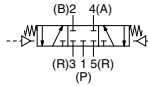
2 position single



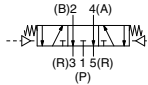
2 position double



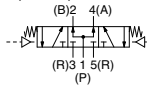
3 position closed center



3 position exhaust center

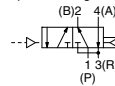


3 position pressure center

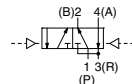


### 4 port

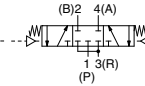
2 position single



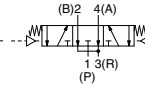
2 position double



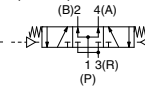
3 position closed center



3 position exhaust center



3 position pressure center



## How to Order Manifold Base

Same manifolds as SYJ3000 series are prepared.

SS5YJA3-  (Refer to page 166.)

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

(Example)

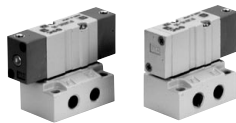
SS5YJA3-41-03-M5 ..... 1 pc.  
 \* SYJA3140 ..... 1 pc.  
 \* SYJA3240 ..... 1 pc.  
 \* SYJ3000-21-2A ..... 1 pc.

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

### ⚠ Caution

Be sure to read this before handling the products.  
 Refer to back page 50 for Safety Instructions  
 and pages 3 to 9 for 3/4/5 Port Solenoid Valve  
 Precautions.

## Specifications



Base mounted



Body ported

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

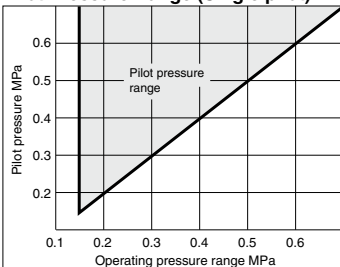
Note 1) In case of single type, be certain that pressure within operating pressure range be supplied to supply port, because return pressure is introduced from supply port (1(P)) for activation.

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 Rate Characteristics/Weight

Valve model	Type of actuation	Port size	Pilot port size	Weight (g) <sup>Note 3)</sup>	Effective area mm <sup>2</sup>	Flow rate characteristics <sup>Note 2)</sup>													
						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) <b>SYJA3□40-M5</b>	2 position	Single	M5 x 0.8	M3 x 0.5	-	0.9	0.46	0.36	0.12	0.46	0.35	0.12							
		Double											48 (22)						
	3 position	Closed center											51 (25)						
		Exhaust center											54 (28)						
3 position	Pressure center	28																	
	Double		22																
Body ported <b>SYJA3□20-M3</b>	2 position	Single	M3 x 0.5	M3 x 0.5	0.9	0.9	0.46	0.36	0.12	0.46	0.35	0.12							
		Double											25						
	3 position	Closed center											28						
		Exhaust center																	
4 Port Base Mounted (For manifold) <sup>Note 1)</sup> <b>SYJA3□30</b>	2 position	Single	-	M3 x 0.5	28								0.9	0.46	0.36	0.12	0.46	0.35	0.12
		Double																	
	3 position	Closed center				25													
		Exhaust center																	
3 position	Pressure center	28																	
	Double		25																

Note 1) Value when used on a manifold. Refer to page 1474 for details.

Note 2) [ ]: denotes normal position.

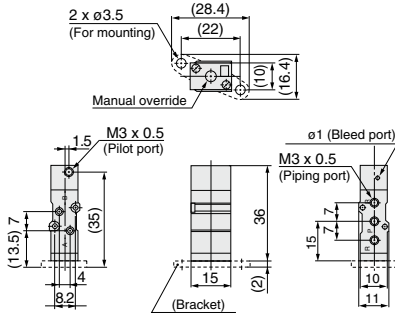
Note 3) ( ): Without sub-plate.

Note 4) 5 port, base mounted without sub-plate: SYJA3□40

# SYJA3000 Series

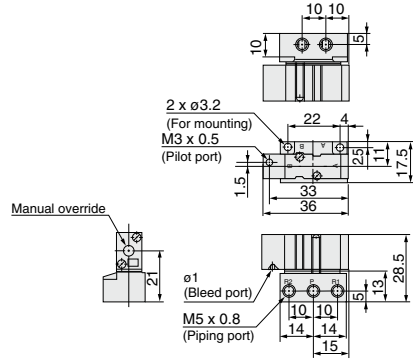
## Dimensions/Body Ported

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

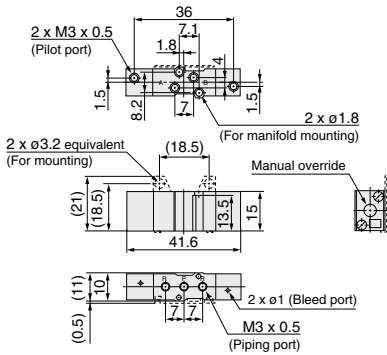


## Dimensions/Base Mounted

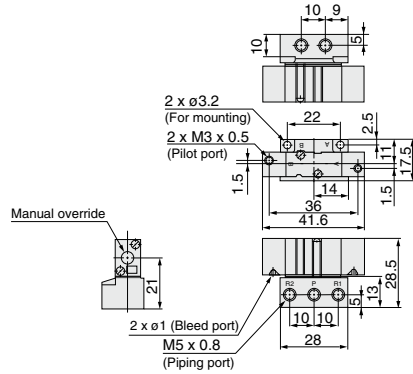
### 2 position single: SYJA3140-M5



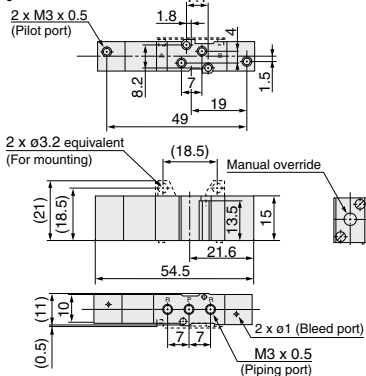
### 2 position double: SYJA3220-M3(-F)



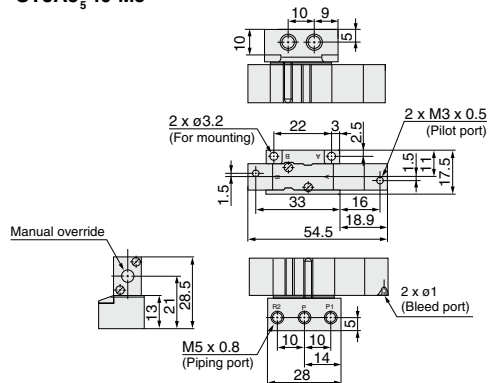
### 2 position double: SYJA3240-M5



### 3 position closed center/exhaust center/pressure center SYJA3<sub>300</sub>420-M3(-F)



### 3 position closed center/exhaust center/pressure center SYJA3<sub>300</sub>40-M5



# 4/5 Port Air Operated Valve

# SYJA5000 Series

## How to Order

Body ported

SYJA5 1 20 - M5 -

**A, B port size**

M5	M5 x 0.8
C4	One-touch fitting for ø4
C6	One-touch fitting for ø6

**Bracket**

Nil	Without bracket
F	With bracket

\*The bracket is not mounted.  
\*2 position single only

Base mounted

SYJA5 2 40 -

**Port size**

Nil	Without sub-plate
01	1/8 With sub-plate

**Thread type**

Nil	Rc
F	G
N	NPT
T	NPTF

**Symbol**

**Body ported**

2 position single  
(A)4 2(B)

(R1)5 1 3(R2)  
(P)

2 position double  
(A)4 2(B)

(R1)5 1 3(R2)  
(P)

3 position closed center  
(A)4 2(B)

(R1)5 1 3(R2)  
(P)

3 position exhaust center  
(A)4 2(B)

(R1)5 1 3(R2)  
(P)

3 position pressure center  
(A)4 2(B)

(R1)5 1 3(R2)  
(P)

**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

**Base mounted**

2 position single  
(B)2 4(A)

(R)3 1  
(P)

2 position double  
(B)2 4(A)

(R)3 1  
(P)

3 position closed center  
(B)2 4(A)

(R)3 1  
(P)

3 position exhaust center  
(B)2 4(A)

(R)3 1  
(P)

3 position pressure center  
(B)2 4(A)

(R)3 1  
(P)

**Caution**

Be sure to read this before handling the products.  
Refer to back page 50 for Safety Instructions  
and pages 3 to 9 for 3/4/5 Port Solenoid Valve  
Precautions.

## How to Order Manifold Base

Same manifolds as SYJ5000 series are prepared.

SS5YJA5 -  Fill the same as SS5YJ5. (Refer to page 194.)

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.

SYA
SYJA
VZA
VFA
VFRA
VPA4
SYJA
VZA
VTA
VGA
VPA
VPA3

# SYJA5000 Series



Base mounted



Body ported

## Specifications

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

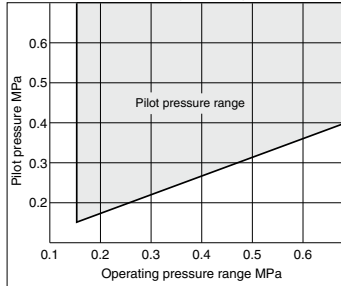
Note 1) In case of single type, be certain that pressure within operating pressure range be supplied to supply port, because return pressure is introduced from supply port {1(P)} for activation.

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 Rate Characteristics/Weight

Valve model	Type of actuation	Port size	Flow rate characteristics <sup>Note 1)</sup>						Pilot port size	Weight (g) <sup>Note 2)</sup>			
			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	48	34	
			Double									38	
		3 position	Closed center		0.49	0.44	0.13	0.44	0.40	0.12		48	
			Exhaust center		0.46	0.37	0.12	0.47 [0.39]	0.43 [0.35]	0.13 [0.10]			
	SYJA5□20-C4	2 position	Single	A, B port: C4 (One-touch fitting for ø4) P, R port: M5 x 0.8	0.49	0.51 [0.39]	0.14 [0.10]	0.45	0.42	0.12	M5 x 0.8	55	41
			Double										45
		3 position	Closed center		0.69	0.39	0.18	0.44	0.39	0.12			55
			Exhaust center		0.69	0.40	0.19	0.43 [0.41]	0.40 [0.37]	0.12 [0.11]			
	SYJA5□20-C6	2 position	Single	A, B port: C6 (One-touch fitting for ø6) P, R port: M5 x 0.8	0.56	0.40 [0.41]	0.15 [0.10]	0.41	0.37 [0.37]	0.10 [0.11]	M5 x 0.8	55	41
			Double										45
		3 position	Closed center		0.70	0.36	0.19	0.47	0.40	0.12			55
			Exhaust center		0.72	0.37	0.19	0.44 [0.41]	0.34 [0.38]	0.12 [0.11]			
SYJA5□40-01	2 position	Single	1/8	0.82	0.41 [0.44]	0.23 [0.12]	0.41	0.36	0.11	M5 x 0.8	82 (48)	68 (34)	
		Double										72 (38)	
	3 position	Closed center		0.79	0.21	0.19	0.83	0.32	0.21			82 (48)	
		Exhaust center		0.80	0.28	0.18	0.86 [0.60]	0.34 [0.44]	0.20 [0.18]				
Base mounted (with sub-plate)	2 position	Single	1/8	0.99	0.29 [0.38]	0.24 [0.12]	0.72	0.38	0.18	M5 x 0.8	82 (48)	68 (34)	
		Double										72 (38)	
3 position	Closed center	0.71		0.26	0.18	1.1 [0.60]	0.24 [0.44]	0.26 [0.18]	82 (48)				
	Exhaust center	0.99		0.29 [0.38]	0.24 [0.12]	0.72	0.38	0.18					

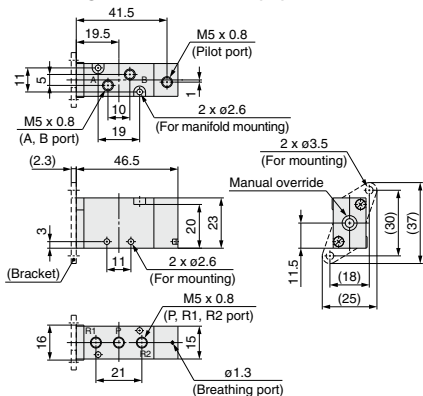
Note 1) [ ]: denotes normal position.

Note 2) ( ): Without sub-plate.

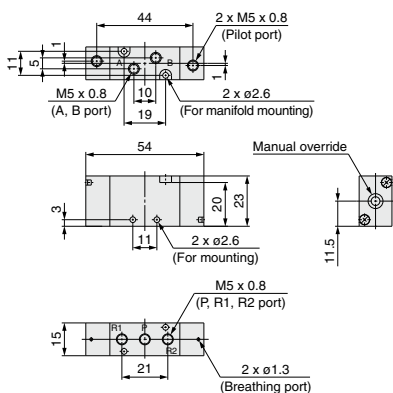
Note 3) Model No. for 5 port base mounted type without sub-plate is SYJA5□40.

## Dimensions/Body Ported

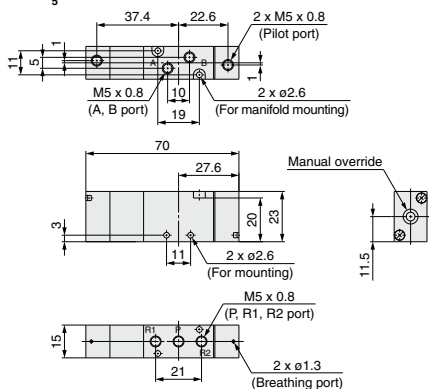
### 2 position single: SYJA5120-M5(-F)



### 2 position double: SYJA5220-M5

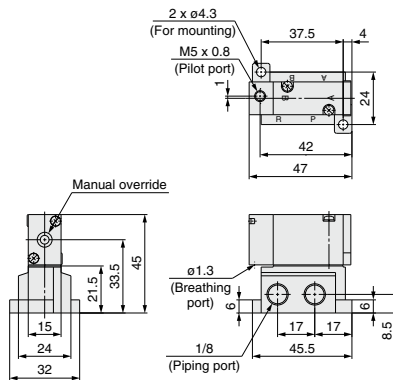


### 3 position closed center/exhaust center/pressure center SYJA5<sub>3</sub>420-M5

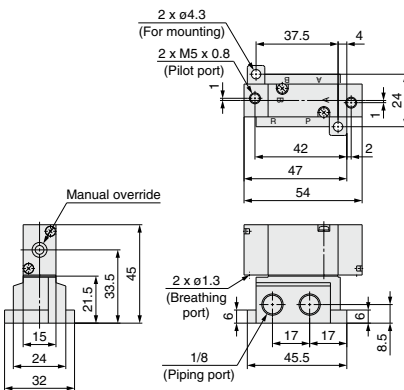


## Dimensions/Base Mounted

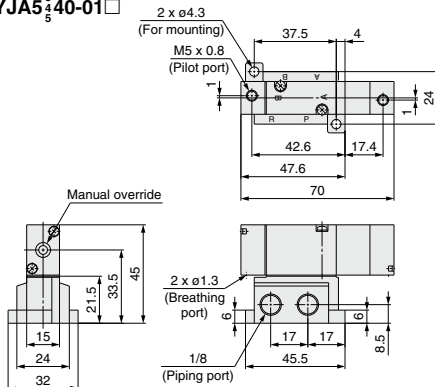
### 2 position single: SYJA5140-01□



### 2 position double: SYJA5240-01□



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



SYA
SYJA
VZA
VFA
VFRA
VPA4
SYJA
VZA
VTA
VGA
VPA
VPA3

# 4/5 Port Air Operated Valve

# SYJA7000 Series

## How to Order

Body ported

**A, B port size**

01	1/8
C6	One-touch fitting for ø6
C8	One-touch fitting for ø8

Base mounted

**Bracket**

Nil	Without bracket
F	With bracket

\*The bracket is not mounted.  
\*The bracket cannot be retrofitted later.  
\*2 position single only

**SYJA7 1 20 - 01**    **SYJA7 2 40 -**

**Symbol**

**Body ported**

2 position single (A)4 2(B)

(R1)5 1 3(R2) (P)

3 position closed center (A)4 2(B)

(R1)5 1 3(R2) (P)

3 position exhaust center (A)4 2(B)

(R1)5 1 3(R2) (P)

3 position pressure center (A)4 2(B)

(R1)5 1 3(R2) (P)

**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
01	1/8 With sub-plate
02	1/4 With sub-plate

**Thread type**

Nil	Rc
F	G
N	NPT
T	NPTF

## How to Order Manifold Base

Same manifolds as SYJ7000 series are prepared.

SS5YJA7 - Fill the same as SS5YJ7. (Refer to page 226.)

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 this before handling the products.  
 Refer to back page 50 for Safety Instructions  
 and pages 3 to 9 for 3/4/5 Port Solenoid Valve  
 Precautions.

## Specifications



Base mounted



Body ported

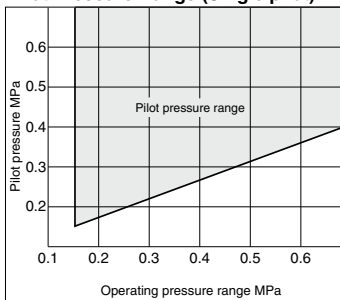
<b>Fluid</b>		Air
<b>Operating pressure range MPa</b>	<b>2 position single</b>	0.15 to 0.7
	<b>2 position double</b>	-100 kPa to 0.7
	<b>3 position</b>	-100 kPa to 0.7
<b>Pilot pressure range MPa</b> <small>Note 1)</small>	<b>2 position single</b>	(0.4 x P+0.1) to 0.7 P: Operating pressure
	<b>2 position 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

VPA4

SYJA

VZA

VTA

VGA

VPA

VPA3



# SYJA7000 Series

## Flow Rate Characteristics/Weight

Valve model		Type of actuation		Port size		Flow rate characteristics <sup>Note 2)</sup>					Pilot port size	Weight (g) <sup>Note 3)</sup>	
						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		1.2	0.50	0.34	3.0 [1.3]	0.35 [0.52]	0.73 [0.39]			
	3 position	Pressure center	3.0 [0.83]		0.37 [0.50]	0.78 [0.25]	1.8	0.37	0.45				
		Double								82			
	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	83
			Double										
		3 position	Closed center	1.4		0.27	0.35	1.9	0.33	0.49		93	
			Exhaust center	1.1		0.37	0.27	2.5 [1.3]	0.32 [0.54]	0.61 [0.38]			
	3 position	Pressure center	1.8 [0.78]	0.36 [0.40]		0.45 [0.22]	1.6	0.30	0.39				
		Double								82			
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	83		
		Double											
	3 position	Closed center		1.7	0.35	0.42	2.0	0.29	0.49	93			
		Exhaust center		1.2	0.38	0.33	2.6 [1.3]	0.35 [0.49]	0.67 [0.38]				
3 position	Pressure center	1.9 [0.86]		0.57 [0.46]	0.59 [0.25]	1.7	0.39	0.42					
	Double								82				
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	M5 x 0.8	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	1.2		0.48	0.35	3.4 [1.3]	0.36 [0.57]	0.86 [0.41]			
	3 position	Pressure center	3.3 [0.85]	0.43 [0.54]		0.78 [0.25]	2.1	0.45	0.56				
		Double								151 (71)			
	SYJA7□40-02	2 position	Single	1/4 <sup>Note 1)</sup>		2.3	0.41	0.61	2.9	0.35	0.74		152 (72)
			Double										
		3 position	Closed center		1.9	0.46	0.50	2.2	0.44	0.60	162 (82)		
			Exhaust center		1.3	0.45	0.35	3.7 [1.4]	0.27 [0.56]	0.87 [0.43]			
	3 position	Pressure center	3.6 [0.83]		0.23 [0.55]	0.84 [0.25]	2.1	0.47	0.58				
		Double								151 (71)			

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

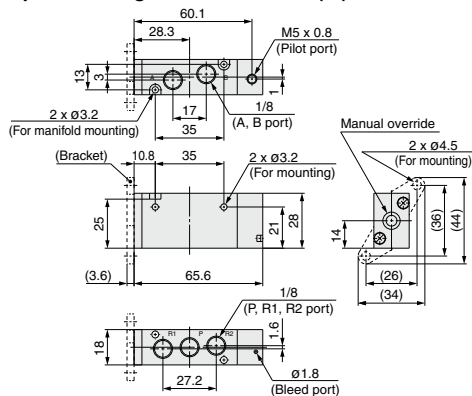
Note 2) [ ]: for normal position

Note 3) ( ): without sub-plate

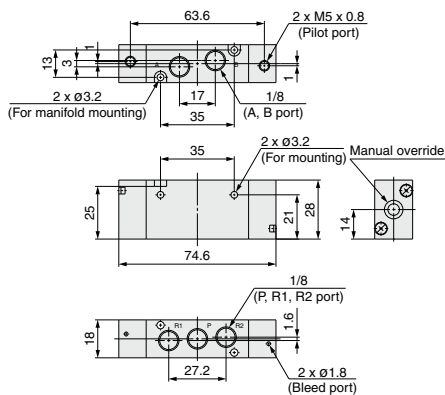
Note 4) Model No. for base mounted type without sub-plate is SYJA7□40.

**Dimensions/Body Ported**

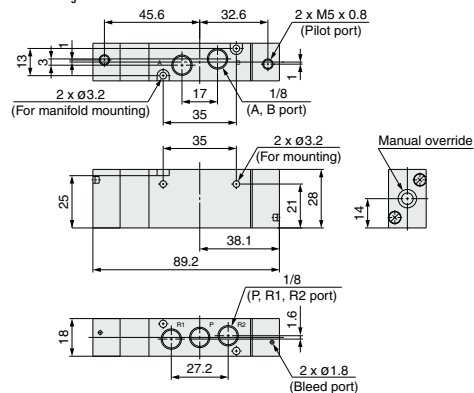
**2 position single: SYJA7120-01□(-F)**



**2 position double: SYJA7220-01□**

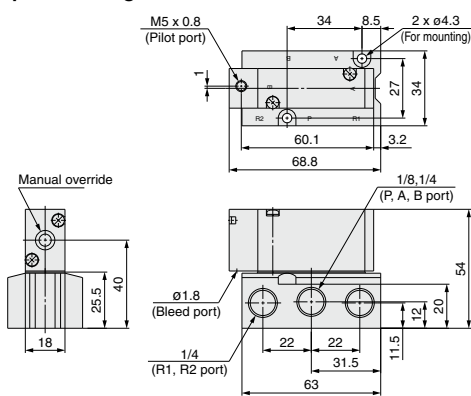


**3 position closed center/exhaust center/pressure center SYJA7<sub>4</sub>40-01□**

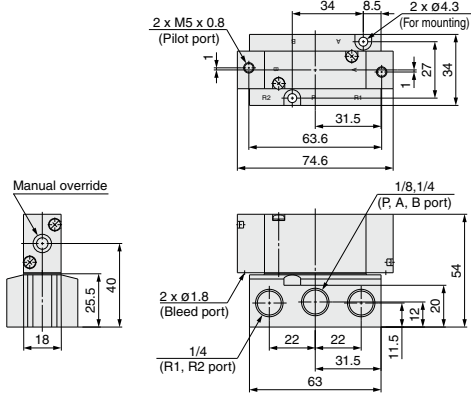


**Dimensions/Base Mounted**

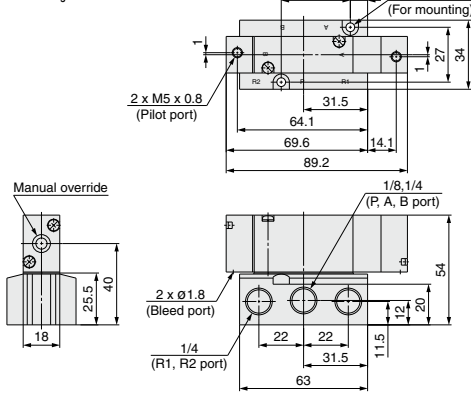
**2 position single: SYJA7140-<sup>01</sup><sub>02</sub>□**



**2 position double: SYJA7240-<sup>01</sup><sub>02</sub>□**



**3 position closed center/exhaust center/pressure center SYJA7<sub>3</sub>40-<sup>01</sup><sub>02</sub>□**



SYA
<b>SYJA</b>
VZA
VFA
VFRA
VPA4
SYJA
VZA
VTA
VGA
VPA
VPA3