

# SY3000/5000/7000/9000 Base Mounted Type Single Valve



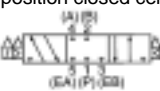


## How to Order

SY 5 2 40 5 L Q

### Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

### Type of actuation

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

### Pilot type

Nil	Internal pilot
R	External pilot

### Rated voltage

DC specifications	
5	24VDC
6	12VDC
V	6VDC
S	5VDC
R	3VDC
9	Less than 50 VDC

### AC specifications (50/60Hz)

1	100VAC
2	200VAC
3	110VAC [115VAC]
4	220VAC [230VAC]
9	Less than 250 VAC




Note 1) "D", "DO", "Y" and "YO" are only available in 24VDC and 12VDC in case of DC.

Note 2) "D", "DO", "Y" and "YO" are not




Contact SMC for other voltages (9)



Protective class class I (Mark: )..... DIN terminal type



Protective class class III (Mark: )..... Grommet, L and M plug connector

### Port size

Symbol	Port size	Applicable series
Nil	Without sub-plate	
01	1/8 With sub-plate	SY3000
02	1/4 With sub-plate	SY5000 SY7000
03	3/8 With sub-plate	SY7000 SY9000
04	1/2 With sub-plate	SY9000

### Thread

	Rc (PT)
N	NPT
T	NPTF
F	G (PF)

### Manual override

Nil: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



### Indicator light/Surge voltage suppressor

For electrical entry G, H, L, M

Nil	Without indicator light/surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light/surge voltage suppressor
U	With indicator light/surge voltage suppressor (non-polar type)



Note 1) "U" are available for DC only.

For electrical entry D











Nil	Without indicator light/surge voltage suppressor
S	With surge voltage suppressor (non-polar type)
Z	With indicator light/surge voltage suppressor (non-polar type)



Note 1) "DOZ" is not available.

Note 2) For AC, there is no "S" specification, since it is integrated with the rectifier.

### Electrical entry

24V, 12V, 6V, 5V, 3VDC				24V, 12VDC 100V, 110V, 200V, 220VAC
Grommet	L type plug connector	M type plug connector		DIN terminal
G: Lead wire length 300mm 	L: With lead wire (length 300mm) 	M: With lead wire (length 300mm) 	MN: Without lead wire 	(Except SY3000) D: With connector Y: With connector (DIN 43650C) 
H: Lead wire length 600mm 	LN: Without lead wire 	LO: Without connector 	MO: Without connector 	DO: Without connector YO: Without connector (DIN 43650C) 



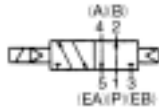
Note 1) "LN" and "MN" include 2 sockets

Note 2) "D", "DO", "Y", "YO" are not available for SY3000.

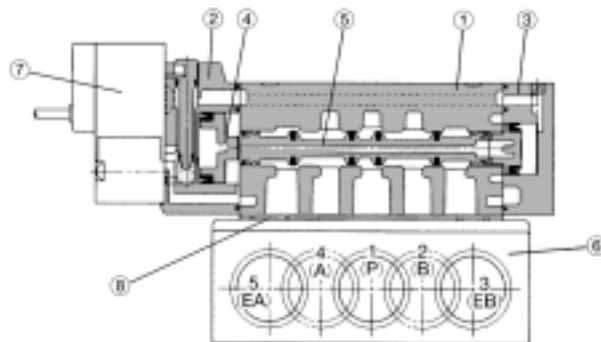
## Construction

### Series SY

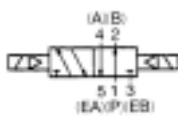
Symbol:  
2 position single



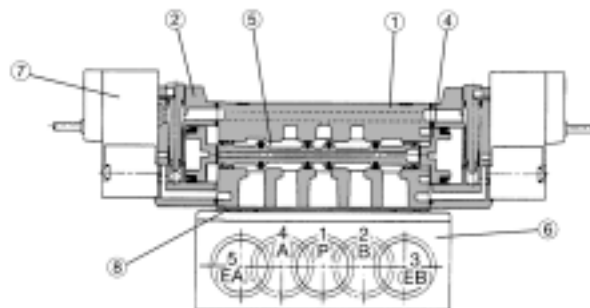
2 position single



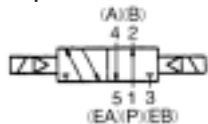
Symbol:  
2 position double



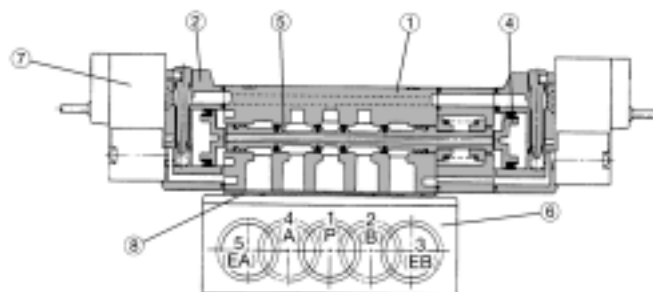
2 position double



Symbol:  
3 position closed centre



3 position closed centre/exhaust centre/pressure centre



3 position exhaust centre



3 position pressure centre



(The diagram above shows the closed centre type.)

### Parts list

No.	Description	Material	Note
1	Body	Die-cast aluminum (SY3000 is die-cast zinc.)	White
2	Adaptor plate	Resin	White (Grey for SY9000)
3	End plate	Resin	White
4	Piston	Resin	—
5	Spool valve assembly	Aluminum/NBR	—

### Replacement parts

No.	Description	Part no.				Note
		SY3□40	SY5□40	SY7□40	SY9□40	
6	Sub-plate	SY3000-27-1*-Q	SY5000-27-1*-Q	Rc 1/4: SY7000-27-1*-Q Rc 3/8: SY7000-27-2*-Q	Rc 3/8: SY9000-27-1*-Q Rc 1/2: SY9000-27-2*-Q	Die-cast aluminum
7	Pilot valve assembly	Refer to "How to Order Pilot Valve Assemblies" on page 1.2-32.				
8	Gasket	SY3000-11-25	SY5000-11-14	SY7000-11-13	SY9000-11-2	NBR
—	Round head combination screw	SY3000-23-4 (M2 x 21)	M3 x 26	M4 x 31	SY9000-18-2 (M3 x 42)	For mounting valves (Flat nickel plated)

### Caution

Mounting screw tightening torques

M2: 0.15N·m

M3: 0.6N·m

M4: 1.4N·m

#### \*Thread

—	Rc (PT)
N	NPT
T	NPTF
F	G (PF)