

# High Capacity & Simple Choices

## 5 Port Solenoid Valves

### SY3000/5000/7000/9000

#### Low power consumption: 0.5W

(Current value: 21mA at 24VDC)

Low power consumption enables direct operation by a PLC, and cost savings are realized through the use of a smaller power supply and switching elements and the elimination of relay cards.

[An energy saving type [0.22W] is also available. Refer to page 1.2-177 for details.]

#### Compact design with high flow capacity of 1668.6 to 2944.5 N/min with the same body width

The same size cylinder can be driven with a valve one physical size smaller than a conventional type, contributing greatly to both space and cost savings.

Valves to drive cylinders of sizes ø6 to ø200

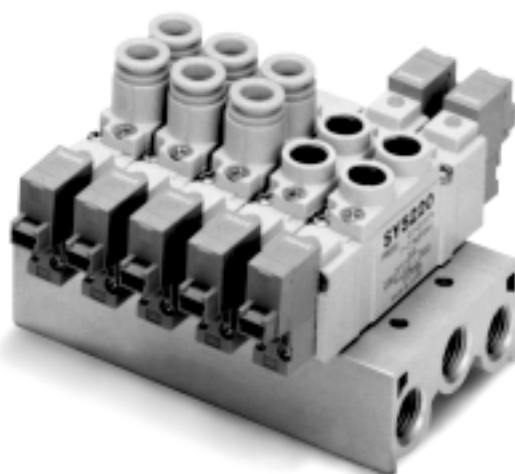
Pressure: 0.5MPa, Load factor: 50%

Base mounted (sub-plate)	Nl/min	Cylinder speed mm/s	Cylinder bore size mm																	
			Series CJ2						Series CM2				Series MB/CA1				Series CS1			
			ø6	ø10	ø16	ø20	ø25	ø32	ø40	ø40	ø50	ø63	ø80	ø100	ø125	ø140	ø160	ø180	ø200	
SY3000	294.5	150																		
		300																		
		450																		
		600																		
		750																		
SY5000	687	150																		
		300																		
		450																		
		600																		
		750																		
SY7000	1177.8	150												*	*					
		300											*	*						
		450										*	*							
		600										*	*							
		750								*	*									
SY9000	2748.2	150												*	*	*				
		300											*	*	*					
		450										*	*	*						
		600									*	*	*							
		750								*	*									

The speed of CJ2 and CM2 cylinders is controlled by a fixed orifice built into the cylinder.

\* Cylinder speeds are for extension of the cylinder.

\* The "\*" symbol indicates conditions with SGP (steel piping).



#### Long life exceeding 50 million cycles

(Based on SMC life test conditions.)

Long life is achieved by a new pilot design, guide rings that prevent main valve eccentricity, and a stronger return force.

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



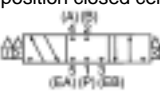


## How to Order

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.