

## solenoid valve SY series

### Model representation



SY5120-5LZD-01



SY5220-5LZD-01

SY **5** **1** **20** - **5** **L** **□** **□**

Series —  
 3 SY3000  
 5 SY5000  
 7 SY7000  
 9 SY9000

Function —  
 1 2 single-electric control  
 2 2 pairs of electronic control  
 3 3 in the sealing  
 4 3 in the vent-type  
 5 3 medium-pressure type

Rated Voltage —  
 3 AC110V  
 4 AC220V  
 5 DC24V  
 6 DC12V

Direct piping type

Manual mode of operation

Unmarked	Non-locking push-button	
D	Rotary rotary locking with depressed	
E	Rotary locking manually depressed	

Light, over-voltage protection circuit

Wire leads way

DC24V, 12V, 6V, 5V, 3V/AC100V, 110V, 200V, 220V

L-shaped socket

L: With wires Long 300mm  
 LN: Without wires

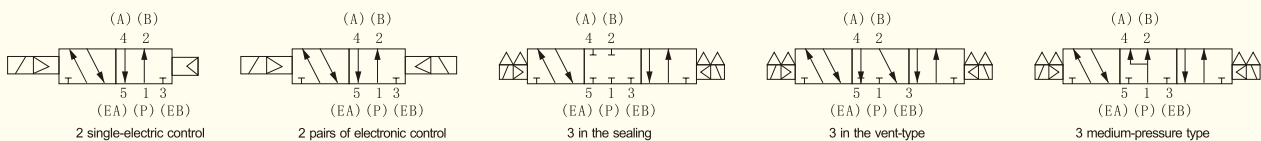
### Solenoid Specifications

#### Specification

Fluid	Air(filtered through 40 μ filter element)
Action	Internally piloted acting type
Port size	
Lubrication	Not required
Operating pressure	1.5~8.0kgf/cm <sup>2</sup>
Proof pressure	10.5kg/cm <sup>2</sup>
Ambient & fluid temperature	5~60℃
Voltage range	±10%
Power consumption	AC:4.5W DC:3.0W
Insulation grade	F grade
Protection	IP65(DIN 40050)
Connection	Cable box or directly drawn wire
Max.frequency	5 cycle/sec.
Min.response time	0.05 sec.
Main parts material	Body Aluminum alloy Seal NBR

Wire leads way		L-shaped socket	
Coil rated voltage V	DC	24、12、6、5、3	
	AC 50/60Hz	100、110、200、220*	
Allow voltage fluctuation(%)		±10%	
Power consumption W	DC	Standard 0.35{ Light: 0.4 (DIN-shaped socket Light 0.45) }	
	With a power-saving circuit	0.1(Light)	
Apparent Power VA	AC	100V	1.4(Light:1.5)
		110V [115V]	1.6(Light:1.7) [1.7(Light:1.8)]
		200V	2.3(Light:2.4)
		220V [230V]	2.5(Light:2.6) [2.7(Light:2.8)]
Over-voltage protection circuit		Diodes (DIN type socket, non-polar nature of type variable resistor)	
Indicator		LED	

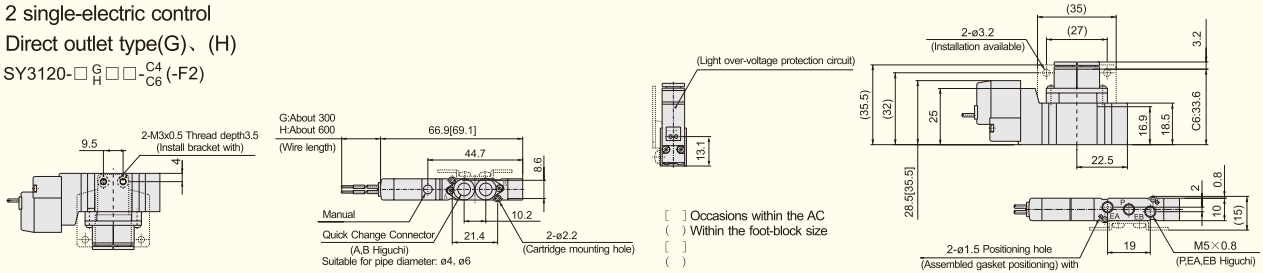
### Graphic symbol



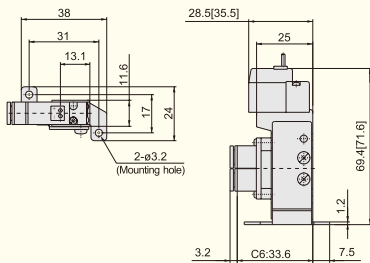
## Solenoid Valve Dimensions Chart SY3000 Series

### Dimension

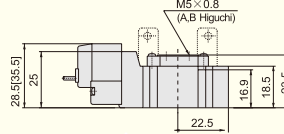
2 single-electric control  
Direct outlet type(G), (H)  
SY3120-□<sub>H</sub>□□□-C<sub>4</sub>-C<sub>6</sub>(-F2)



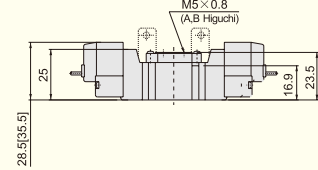
Bracket with a  
foot-block occasions  
SY3120-□<sub>H</sub>□□□-C<sub>4</sub>-F1



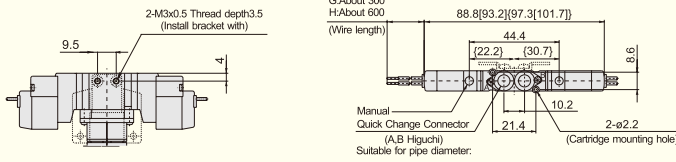
SY3120-□<sub>H</sub>□□□-M5(-F2)



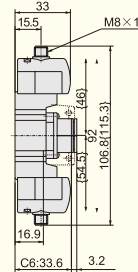
SY3220-□<sub>H</sub>□□□-M5(-F2)



2 pairs of electronic control  
Direct outlet type(G), (H)  
SY3220-□<sub>H</sub>□□□-C<sub>4</sub>(-F2)

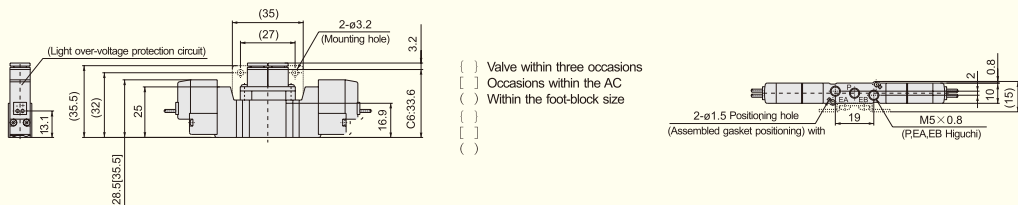


M8 Connector Type(WO)  
SY3220-WO□□□-C<sub>4</sub>(-F<sub>2</sub>)



3 valves

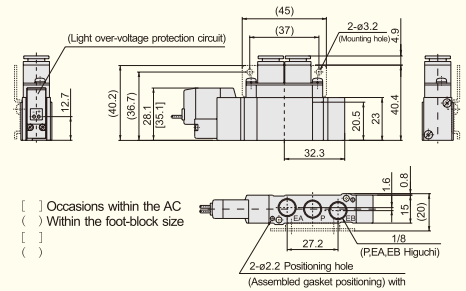
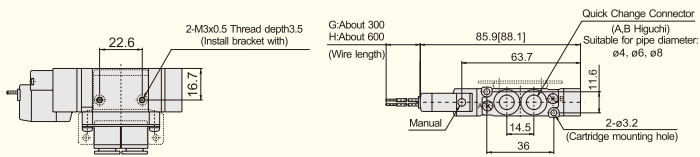
SY3420-<sup>3</sup>/<sub>5</sub>□<sub>H</sub>□□□-C<sub>4</sub>-C<sub>6</sub>(-F2)



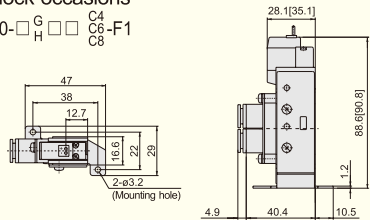
## Solenoid Valve Dimensions Chart SY5000 Series

### Dimension

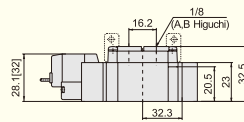
2 single-electric control  
Direct outlet type(G)、(H)  
SY5120-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-(-F2)  
□□□□<sub>C8</sub>



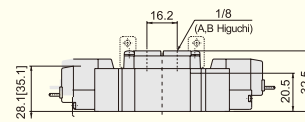
Bracket with a  
foot-block occasions  
SY5120-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-F1  
□□□□<sub>C8</sub>



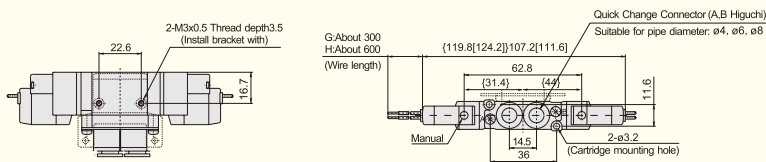
SY5120-□<sub>G</sub>□□□<sub>C4</sub>-01(-F<sub>1</sub>)  
□□□□<sub>C6</sub>



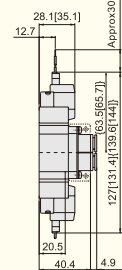
SY5220-□<sub>G</sub>□□□<sub>C4</sub>-01(-F<sub>2</sub>)  
□□□□<sub>C6</sub>



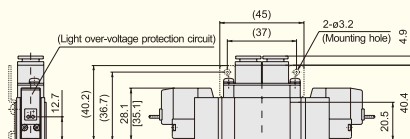
2 pairs of electronic control  
Direct outlet type(G)、(H)  
SY5220-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-(-F2)  
□□□□<sub>C8</sub>



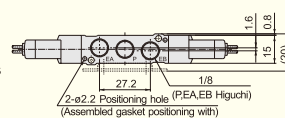
L plug connector (L):  
SY5220-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-(-F2)  
□□□□<sub>C8</sub>



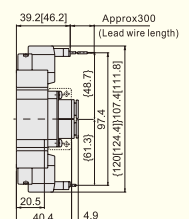
3 valves  
SY5420-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-(-F2)  
□□□□<sub>C8</sub>



[ ] Occasions within the AC  
[ ( ) Valve within three occasions  
[ ]  
[ ]



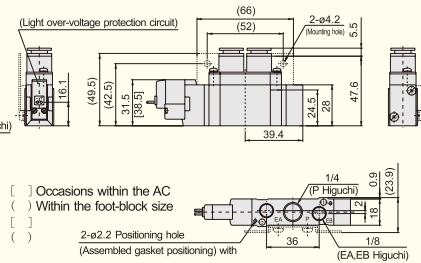
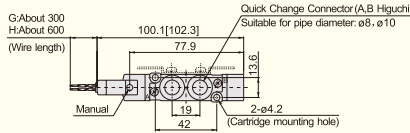
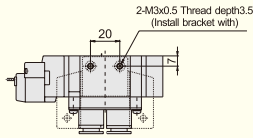
M plug connector (M):  
SY5220-□<sub>G</sub>□□□<sub>C4</sub>-  
□□□□<sub>C6</sub>-(-F2)  
□□□□<sub>C8</sub>



## Solenoid Valve Dimensions Chart SY7000 Series

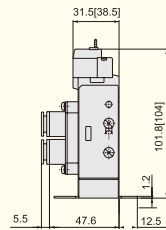
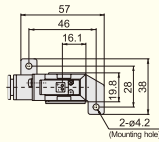
### Dimension

2 single-electric control  
Direct outlet type(G)、(H)  
SY7120-□□□□-C8  
C10 (-F2)

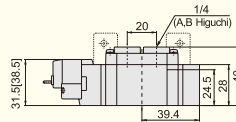


- [ ] Occasions within the AC
- ( ) Within the foot-block size
- [ ] 2-φ2.2 Positioning hole (Assembled gasket positioning) with

SY7120-□□□□-C8  
C10-F1



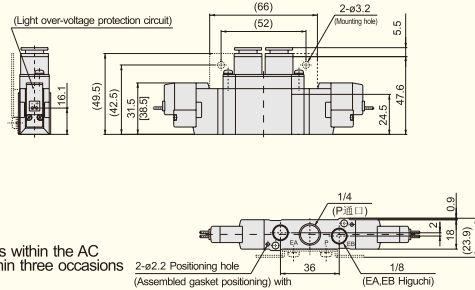
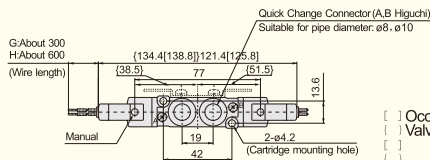
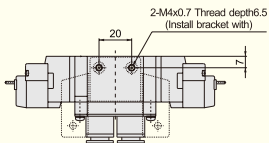
SY7120-□□□□-02(-F2)



2 pairs of electronic control  
Direct outlet type(G)、(H) SY7220-□□□□-C8  
C10 (-F2)

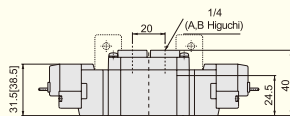
3 valves

SY7420-□□□□-C8  
C10

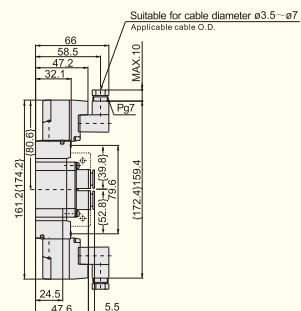


- [ ] Occasions within the AC
- ( ) Valve within three occasions

SY7220-□□□□-02(-F2)



DIN plug connector(M):  
SY7220-□□□□-C8  
C10 (-F2)



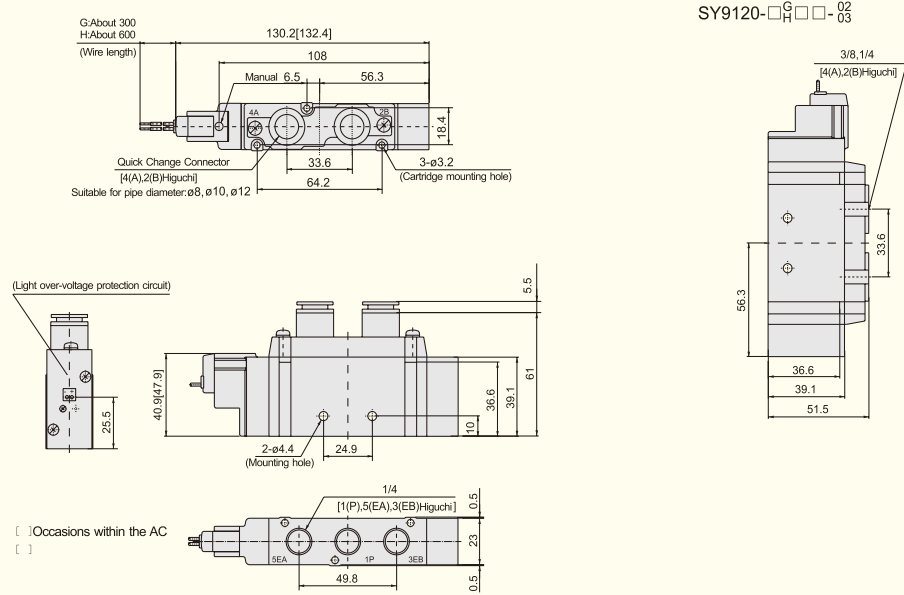
- [ ] Occasions within the AC
- ( ) Valve within three occasions

## Solenoid Valve Dimensions Chart SY9000 Series

### Dimension

2 single-electric control

Direct outlet type(G), (H)SY9120-□□□□-  
C8  
C10  
C12

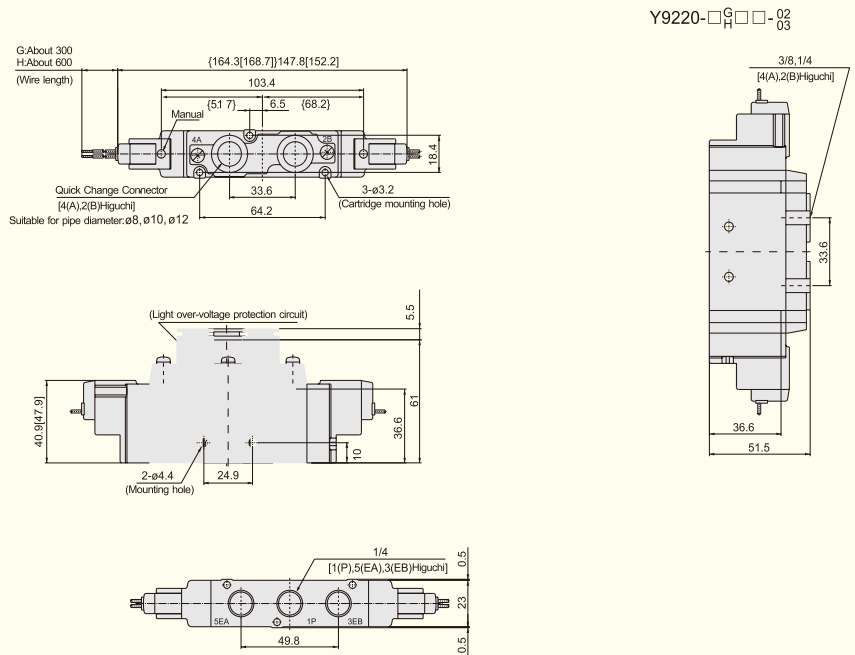


2 pairs of electronic control

Direct outlet type(G), (H)SY9220-□□□□-  
C8  
C10  
C12

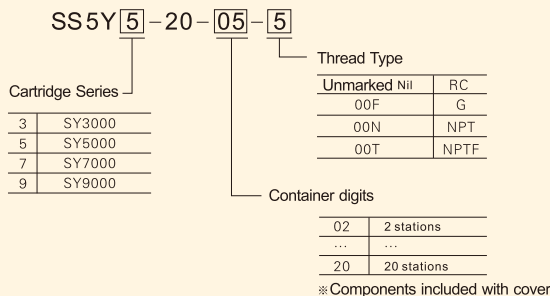
3 valves

SY9<sup>3</sup>/<sub>5</sub>20-□□□□-  
C8  
C10 S  
C12



## 20-type block container board SY3000 ~ 9000 series

### Model representation



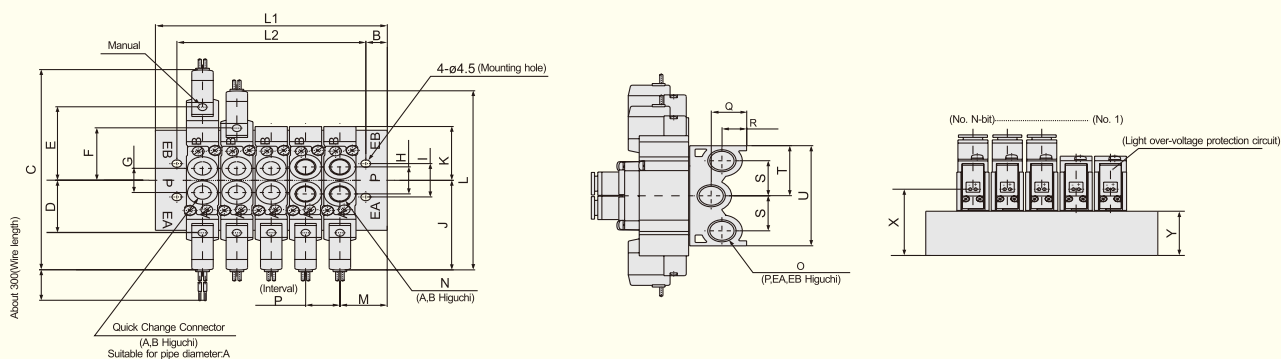
### Specification

Model	SS5Y3-20	SS5Y5-20	SS5Y7-20	SS5Y9-20
Suitable valve	SY3□-20	SY5□-20	SY7□-20	SY9□-20
Cartridge Type	Installed in the block container board			
P(SUP) · R(EXH) Way	Common SUP · Common EXH			
Valve bits	2-20 bit (Note 1)			
A, B Higuchi piping	The valve			
Port size	P,EA,EB Higuchi	1/8	1/4	1/4
	A, B Higuchi	M5×0.8 C4(φ4 Quick Change Connector) C6(φ6 Quick Change Connector)	1/8 C4(φ4 Quick Change Connector) C6(φ6 Quick Change Connector) C8(φ8 Quick Change Connector)	1/4 C8(φ8 Quick Change Connector) C10(φ10 Quick Change Connector)
				1/4 C8(φ8 Quick Change Connector) C10(φ10 Quick Change Connector) C12(φ12 Quick Change Connector)

Note 1) 10 or above (SS5Y7 bit 5 or more) of the occasion, from both sides of the P □ pressure, on both sides of the EA, EB □ exhaust.

### Dimension

SS5Y□-20- Median - Direct outlet type(G)



#### Formula(mm)

Model	L1=	L2=
SS5Y3-20	48.5+10.5(n-2)	L1-18
SS5Y5-20	60+16(n-2)	L1-20
SS5Y7-20	66+19(n-2)	L1-20
SS5Y9-20	96+24(n-2)	L1-20

Model	A	B	C	D	E	F	G	H
SS5Y3-20	φ4, φ6	9	97.3[101.7]	22.2	30.7	22.2	10.2	16
SS5Y5-20	φ4, φ6, φ8	10	119.8[124.2]	31.4	44	31.4	14.5	16.2
SS5Y7-20	φ8, φ10	10	1134.4[138.8]	38.5	51.5	38.5	19	20
SS5Y9-20	φ8, φ10, φ12	10	164.3[167.5]	53	69.5	53	33.6	33.6

Model	I	J	K	L	M	N	O	P	Q	R	S	T	U	X	Y
SS5Y3-20	16	44.4[46.6]	23.5	88.8[93.2]	19	M5×0.5	1/8	10.5	12.5	12.5	16.5	23.5	49	33.6	20
SS5Y5-20	20	53.6[55.8]	32.3	107.2[111.6]	22	1/8	1/4	16	16.5	11.5	21	30	60	39.7	26.5
SS5Y7-20	21	60.7[62.9]	39.4	121.4[125.8]	23.5	1/4	1/4	19	16.5	11.5	21	30	60	43.1	26.5
SS5Y9-20	25	73.9[75.5]	56.3	147.8[151]	36	1/4, 3/8	3/8	24	13.8	13.8	25.5	48.3	96.6	60	31.5