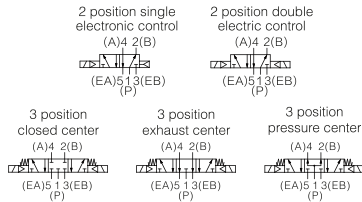


### Valve

3V1  
3V2  
3V2M  
3V3  
3V100  
3V200  
3V300  
4V100  
4V200  
4V300  
4V400  
HY-S1  
HY-S2  
HY-S3  
HY-S4  
4M  
3V Manifold  
4V Manifold  
Coil  
3A100  
3A200  
3A300  
4A100  
4A200  
4A300  
4A400  
3A Manifold  
4A Manifold  
VF3000  
VF5000  
SY  
SY Manifold  
MVSD-180  
MVSC-220  
MVSC-260  
MVSC-300  
MVSC-460  
HB10  
3H  
4H  
TSV  
3R  
4R  
HSV  
4HV/4HVL  
HV  
K<sup>24</sup><sub>34</sub>  
MOV  
JM  
MSV  
XQ<sup>23</sup><sub>25</sub>  
3F/3FM  
4F  
FV  
K<sup>23</sup><sub>25</sub>  
ASC  
RE  
QE  
ST  
KA  
XQ  
AQ



### Symbol



### Specifications

| Series                                          |                           | SY3000                                       | SY5000 | SY7000 | SY9000 |
|-------------------------------------------------|---------------------------|----------------------------------------------|--------|--------|--------|
| Fluid                                           |                           | Air                                          |        |        |        |
| Internal pilot                                  | 2 position single         | 0.15~0.7                                     |        |        |        |
| Operating pressure range (MPa)                  | 2 position double         | 0.1~0.7                                      |        |        |        |
|                                                 | 3 position                | 0.2~0.7                                      |        |        |        |
| Ambient and fluid temperature (°C)              |                           | -10 to 50 (No freezing)                      |        |        |        |
| Max. operating frequency (Hz)                   | 2 position single, double | 10Hz                                         | 5Hz    | 5Hz    | 5Hz    |
|                                                 | 3 position                | 3Hz                                          | 3Hz    | 3Hz    | 3Hz    |
| Manual override (Manual operation)              |                           | Bolt driver pressure lock type               |        |        |        |
| Pilot exhaust method                            |                           | Common exhaust type for main and pilot valve |        |        |        |
| Lubrication                                     |                           | Not required                                 |        |        |        |
| Mounting orientation                            |                           | Unrestricted                                 |        |        |        |
| Impact/Vibration resistance (m/s <sup>2</sup> ) |                           | 150/30                                       |        |        |        |
| Proofing                                        |                           | Dust proof                                   |        |        |        |

### Solenoid specifications

| Electrical entry              |                           | Grommet (G) L plug terminal (L)                                       |                                                                          |
|-------------------------------|---------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------|
| Coil rated voltage (V)        | DC                        | 24, 12                                                                |                                                                          |
|                               | AC50/60Hz                 | 110, 220                                                              |                                                                          |
| Allowable voltage fluctuation |                           | ±10%                                                                  |                                                                          |
| Power consumption (W)         | DC                        | Standard                                                              | 0.35 (With indicator light: 0.4 DIN terminal with indicator light: 0.45) |
|                               | With power saving circuit | 0.1(With indicator light)                                             |                                                                          |
| Apparent power (VA)*          | AC                        | 110V [115V]                                                           | 0.86 (With indicator light: 0.89) [0.94 (With indicator light: 0.97)]    |
|                               | 220V [230V]               | 1.30 (With indicator light: 1.34) [1.42 (With indicator light: 1.46)] |                                                                          |
| Surge voltage suppressor      |                           | Diode (Varistor is for DIN terminal and Non-polar type.)              |                                                                          |
| Indicator light               |                           | LED (AC of DIN connector is neon light.)                              |                                                                          |

\*SY9000 No bracket.

\* AC110V and 115V, AC220V and 230V Share.

| Model <sup>Note</sup> | Specifications                       |                   |                                               |                            |                    |
|-----------------------|--------------------------------------|-------------------|-----------------------------------------------|----------------------------|--------------------|
|                       | Functional type                      | Response time(ms) | Effective sectional area mm <sup>2</sup> (Cv) | Pipe size Rc(PT)           | Weight(g) Terminal |
| 5Y3120-□△D-◇          | 2 position single electronic control | 12 or less        | 2.88(0.16)                                    | * M5x0.8<br>C4<br>C6       | 51                 |
| 5Y3220-□△D-◇          | 2 position double electric control   | 10 or less        | 2.88(0.16)                                    |                            | 68                 |
| 5Y3320-□△D-◇          | 3 position closed center             | 15 or less        | 2.34(0.13)                                    |                            | 71                 |
| 5Y3420-□△D-◇          | 3 position exhaust center            | 15 or less        | 2.34(0.13)                                    |                            | 71                 |
| 5Y3520-□△D-◇          | 3 position pressure center           | 15 or less        | 2.7(0.15)                                     | * 1/8"<br>C4<br>C6<br>C8   | 71                 |
| 5Y5120-□△D-◇          | 2 position single electronic control | 19 or less        | 8.82(0.49)                                    |                            | 70                 |
| 5Y5220-□△D-◇          | 2 position double electric control   | 18 or less        | 8.82(0.49)                                    |                            | 88                 |
| 5Y5320-□△D-◇          | 3 position closed center             | 32 or less        | 8.1(0.45)                                     |                            | 93                 |
| 5Y5420-□△D-◇          | 3 position exhaust center            | 32 or less        | 7.38(0.41)                                    |                            | 93                 |
| 5Y5520-□△D-◇          | 3 position pressure center           | 32 or less        | 10.98(0.61)                                   | * 1/4"<br>C8<br>C10        | 93                 |
| 5Y7120-□△D-◇          | 2 position single electronic control | 31 or less        | 16.74(0.93)                                   |                            | 101                |
| 5Y7220-□△D-◇          | 2 position double electric control   | 27 or less        | 16.74(0.93)                                   |                            | 120                |
| 5Y7320-□△D-◇          | 3 position closed center             | 50 or less        | 12.6(0.7)                                     |                            | 128                |
| 5Y7420-□△D-◇          | 3 position exhaust center            | 50 or less        | 11.7(0.65)                                    |                            | 128                |
| 5Y7520-□△D-◇          | 3 position pressure center           | 50 or less        | 17.46(0.97)                                   | * 3/8"<br>C8<br>C10<br>C12 | 128                |
| 5Y9120-□△D-◇          | 2 position single electronic control | 35 or less        | 34.2(1.9)                                     |                            | 236                |
| 5Y9220-□△D-◇          | 2 position double electric control   | 35 or less        | 34.2(1.9)                                     |                            | 255                |
| 5Y9320-□△D-◇          | 3 position closed center             | 62 or less        | 34.2(1.9)                                     |                            | 279                |
| 5Y9420-□△D-◇          | 3 position exhaust center            | 62 or less        | 34.2(1.9)                                     |                            | 279                |
| 5Y9520-□△D-◇          | 3 position pressure center           | 62 or less        | 39.6(2.2)                                     |                            | 279                |

Note: □-Representative voltage

△-Representative wiring mode  
G=Grommet (Line length 300mm)  
L=terminal (Line length 300mm)  
LZ=terminal (Line length 300mm, With indicator light and over voltage protection circuit)  
D=Grommet

◇-Representative pipe size  
M5=M5 × 0.8 Thread (SY3000 Use)  
01=Rc1/8 Thread (SY5000 Use)  
02=Rc1/4 Thread (SY7000 Use)  
03=Rc3/8 Thread (SY9000 Use)  
C4=Φ4mm Quick change joint (SY3000-5000 Use)  
C6=Φ6mm Quick change joint (SY3000-5000 Use)  
C8=Φ8mm Quick change joint (SY5000-7000-9000 Use)  
C10=Φ10mm Quick change joint (SY7000-9000 Use)  
C12=Φ12mm Quick change joint (SY9000 Use)

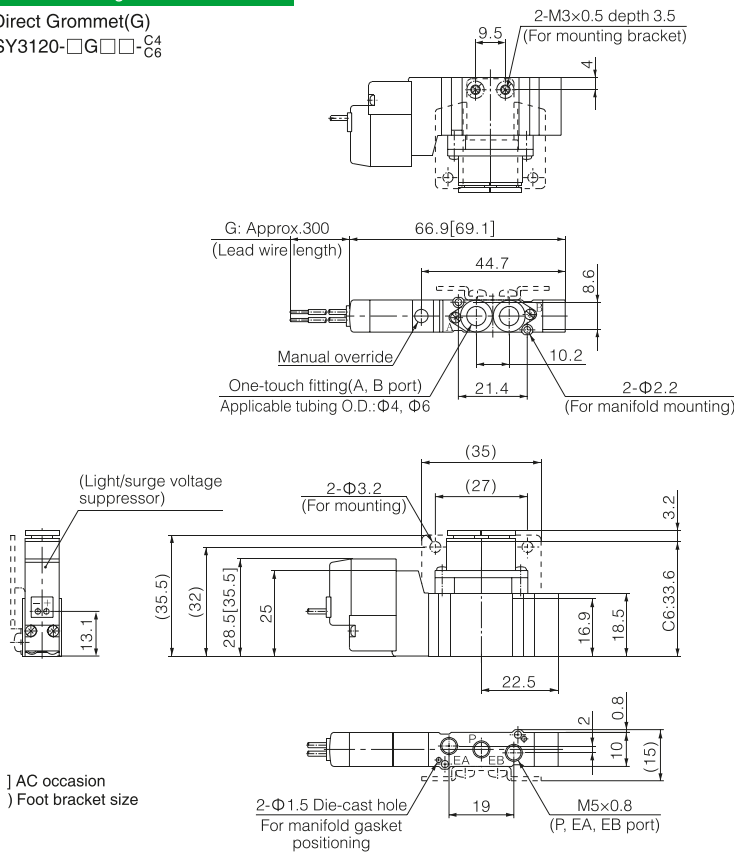
\* Corresponding orifice CV value

Ordering example:  
1: Ordering 5/2 way solenoid valve single electric control type, Voltage: 24VDC, Grommet, pipe size: M5, With tripod  
Correct model: SY3120-5GD-M5 1pcs  
SX3000-16-2A 1pcs  
2: Ordering 5/3 way solenoid valve exhaust center type, Voltage: 220VAC, terminal, pipe size: Rc3/8, With indicator light and over voltage protection circuit  
Correct model: SY9320-4LZD-03

## Dimensions

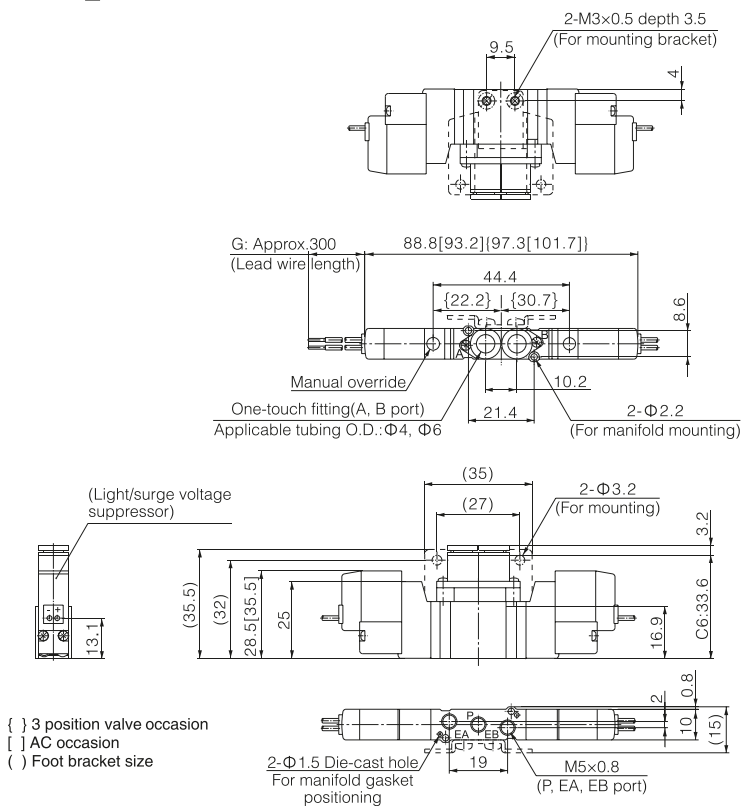
### 2 Position single electronic control

Direct Grommet(G)  
SY3120-□G□□-C<sub>4</sub>



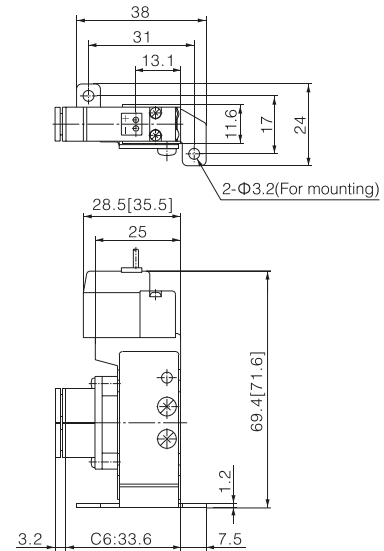
### Double electric control

(SY3220.SY3320.SY3420.SY3520)  
Direct Grommet(G)  
SY3\*20-□GD-C4/C6

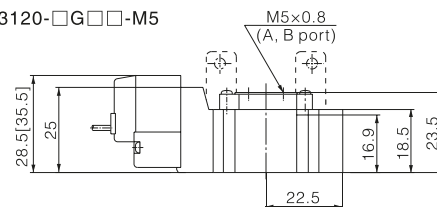


### Foot bracket

SY3120-□G□□-C<sub>4</sub>

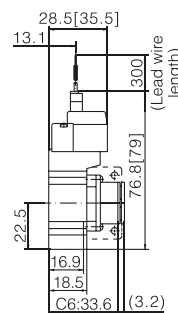


SY3120-□G□□-M5



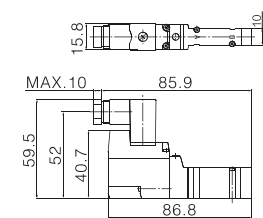
### 2 Position single electronic control

L Terminal  
SY3120-□L□□-C<sub>4</sub>



DIN Terminal  
SY3120-□D□□-C<sub>4</sub>

DIN terminal SY3000 series not suitable containerized type



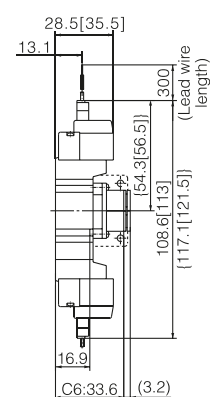
<DIN terminal Model>

No lights SY100-61-1

With light

| Rated voltage | DIN Plug      |
|---------------|---------------|
| 24 VDC        | SY100-61-3-05 |
| 12 VDC        | SY100-61-3-06 |
| 110 VAC       | SY100-61-2-03 |
| 220 VAC       | SY100-61-2-04 |

L Terminal  
SY3\*20-□LD-C4/C6



## Valve

3V1  
3V2  
3V2M  
3V3  
3V100  
3V200  
3V300  
4V100  
4V200  
4V300  
4V400  
HY-S1  
HY-S2  
HY-S3  
HY-S4  
4M  
3V Manifold  
4V Manifold  
Coil  
3A100  
3A200  
3A300  
4A100  
4A200  
4A300  
4A400  
3A Manifold  
4A Manifold  
VF3000  
VF5000

## SY

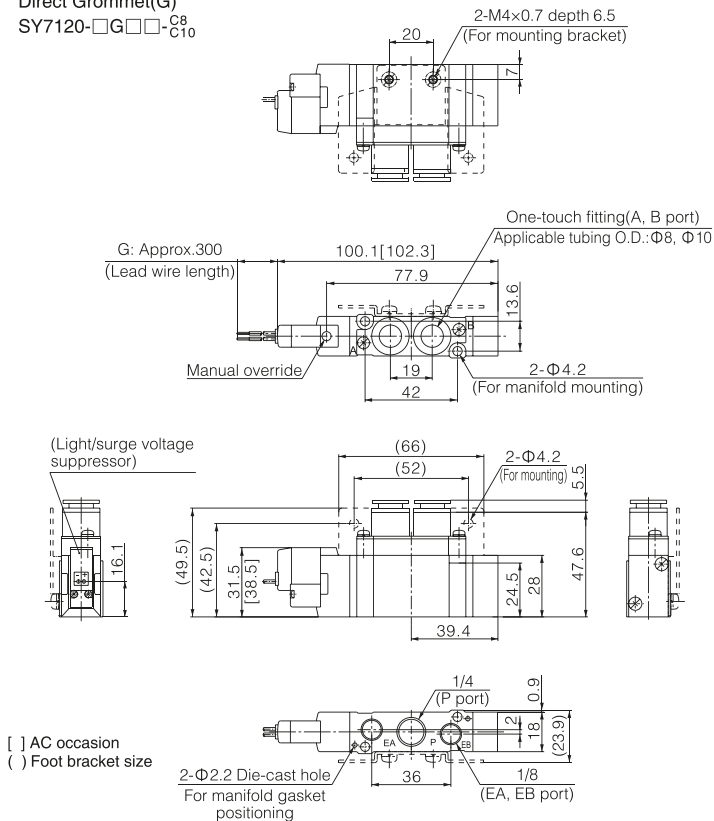
SY Manifold  
MVSD-180  
MVSC-220  
MVSC-260  
MVSC-300  
MVSC-460  
HB10  
3H  
4H  
TSV  
3R  
4R  
HSV  
4HV/4HVL  
HV  
K<sub>34</sub><sup>24</sup>  
MOV  
JM  
MSV  
XQ<sub>25</sub><sup>23</sup>  
3F/3FM  
4F  
FV  
K<sub>25</sub><sup>23</sup>  
ASC  
RE  
QE  
ST  
KA  
XQ  
AQ



## Dimensions

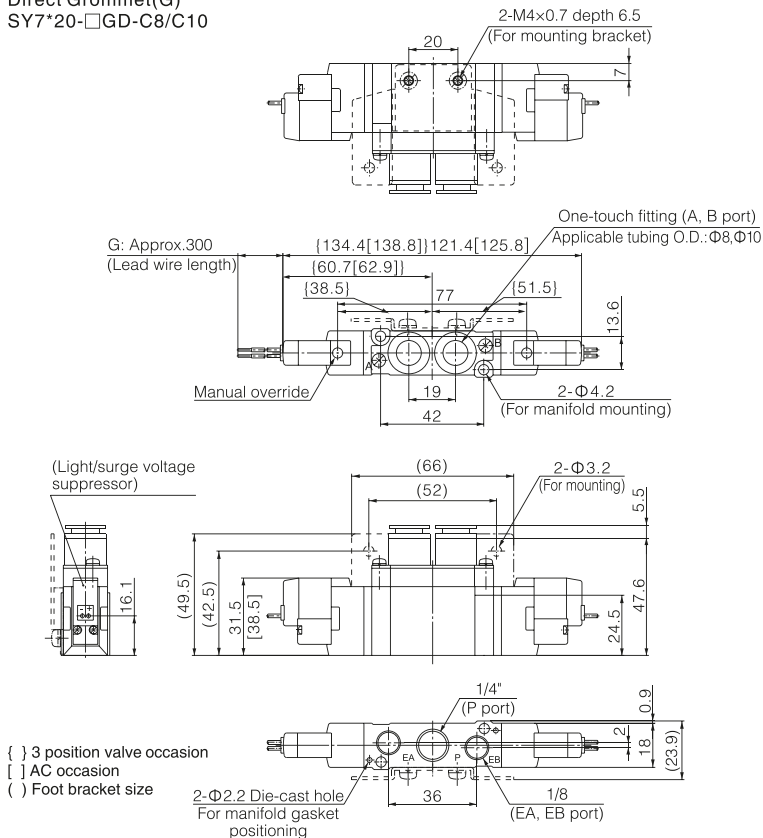
## 2 Position single electronic control

Direct Grommet(G)  
SY7120-□G□□- $\frac{C_8}{C_{10}}$

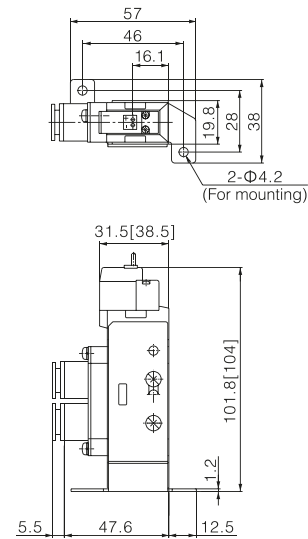


## Double electric control

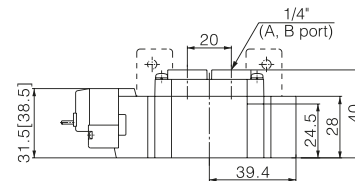
(SY7220.SY7320.SY7420.SY7520)  
Direct Grommet(G)  
SY7\*20-□GD-C8/C10



## Foot bracket

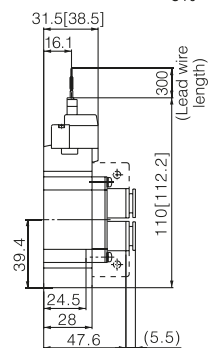
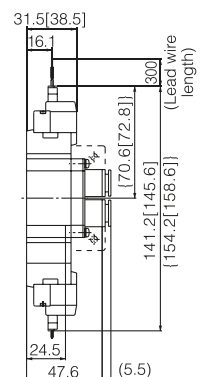
SY7120-□G□□- $\frac{C_8}{C_{10}}$ 

SY7120-□G□□-02

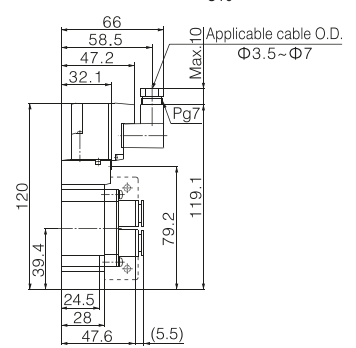
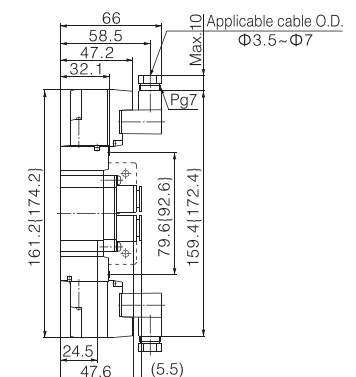


## 2 Position single electronic control

L Terminal  
SY7120-□L□□-C8  
C10□


$$\text{SY7}_{420}^{\frac{2}{3}}\text{-}\square\text{L}\square\square\text{-}\frac{\text{C8}}{\text{C10}}\square$$


DIN Terminal  
SY7120-□D□□- $\begin{smallmatrix} C8 \\ C10 \end{smallmatrix}$


$$\text{SY7}_{45}^{23}20\text{-}\square\text{D}\square\square\text{-}\text{C}_{10}^8\square$$


## Valve

|             |
|-------------|
| 3V1         |
| 3V2         |
| 3V2M        |
| 3V3         |
| 3V100       |
| 3V200       |
| 3V300       |
| 4V100       |
| 4V200       |
| 4V300       |
| 4V400       |
| HY-S1       |
| HY-S2       |
| HY-S3       |
| HY-S4       |
| 4M          |
| 3V Manifold |
| 4V Manifold |
| Coil        |
| 3A100       |
| 3A200       |
| 3A300       |
| 4A100       |
| 4A200       |
| 4A300       |
| 4A400       |
| 3A Manifold |
| VF3000      |
| VF5000      |

## SY

|                                |
|--------------------------------|
| SY Manifold                    |
| MVSD-180                       |
| MVSC-220                       |
| MVSC-260                       |
| MVSC-300                       |
| MVSC-460                       |
| HB10                           |
| 3H                             |
| 4H                             |
| TSV                            |
| 3R                             |
| 4R                             |
| HSV                            |
| 4HV/4HVL                       |
| HV                             |
| K <sup>24</sup> <sub>34</sub>  |
| MOV                            |
| JM                             |
| MSV                            |
| XQ <sup>23</sup> <sub>25</sub> |
| 3F3F/3FM                       |
| 4F                             |
| FV                             |
| K <sup>23</sup> <sub>25</sub>  |
| ASC                            |
| RE                             |
| QE                             |
| ST                             |
| KA                             |
| XQ                             |
| AQ                             |

### Valve

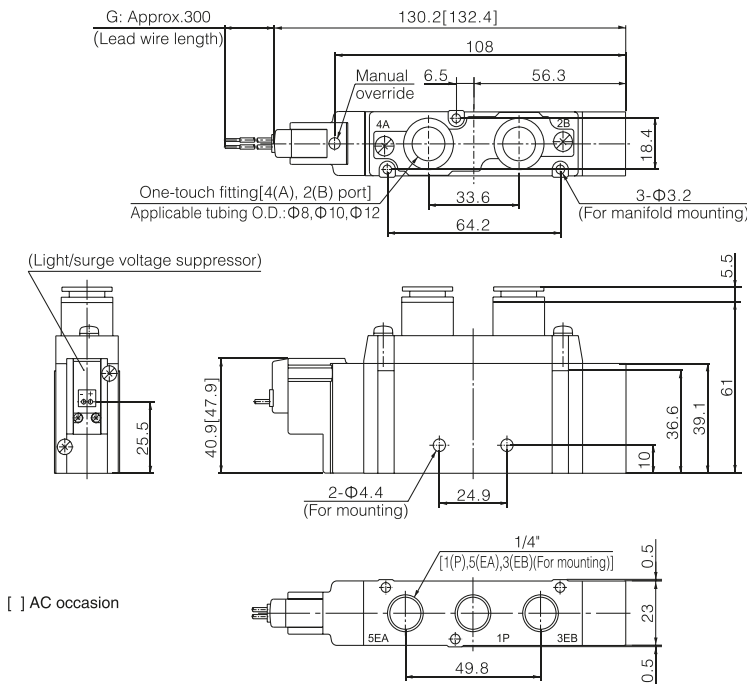
3V1  
3V2  
3V2M  
3V3  
3V100  
3V200  
3V300  
4V100  
4V200  
4V300  
4V400  
HY-S1  
HY-S2  
HY-S3  
HY-S4  
4M  
3V Manifold  
4V Manifold  
Coil  
3A100  
3A200  
3A300  
4A100  
4A200  
4A300  
4A400  
3A Manifold  
4A Manifold  
VF3000  
VF5000  
SY  
SY Manifold  
MVSD-180  
MVSC-220  
MVSC-260  
MVSC-300  
MVSC-460  
HB10  
3H  
4H  
TSV  
3R  
4R  
HSV  
4HV/4HVL  
HV  
K<sup>24</sup><sub>34</sub>  
MOV  
JM  
MSV  
XQ<sup>23</sup><sub>25</sub>  
3F/3FM  
4F  
FV  
K<sup>23</sup><sub>25</sub>  
ASC  
RE  
QE  
ST  
KA  
XQ  
AQ

### Dimensions

#### 2 Position single electronic control

Direct Grommet(G)

SY9120-□G□□-<sup>C8</sup><sub>C10</sub>  
C12



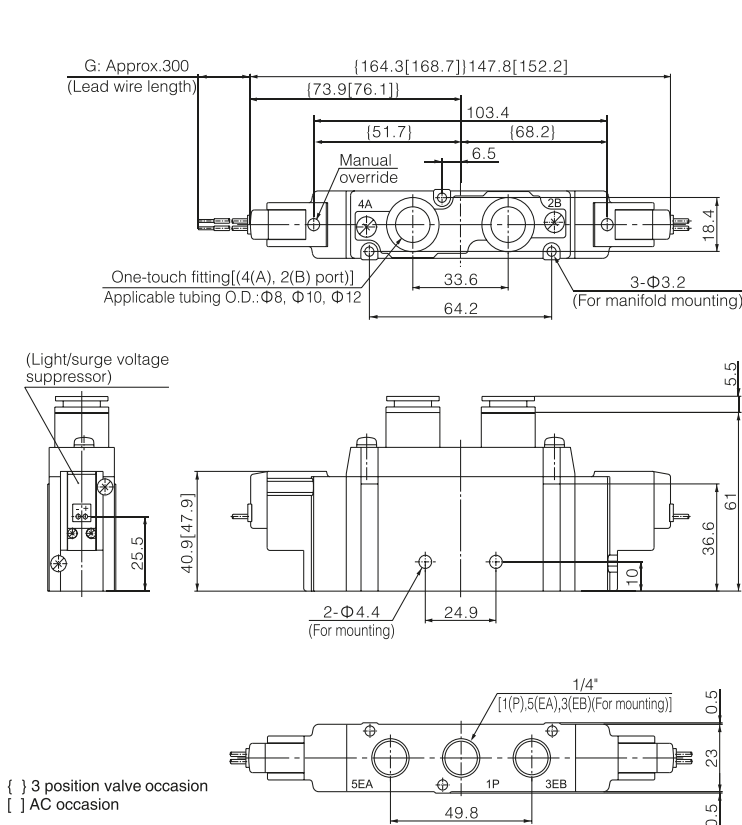
[ ] AC occasion

#### Double electric control

(SY9220.SY9320.SY9420.SY9520)

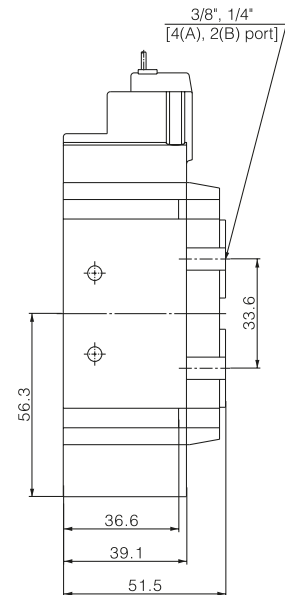
Direct Grommet(G)

SY9\*20-□GD-C8/C10



{ } 3 position valve occasion  
[ ] AC occasion

SY9120-□G□□-<sup>C8</sup><sub>C10</sub>  
C03



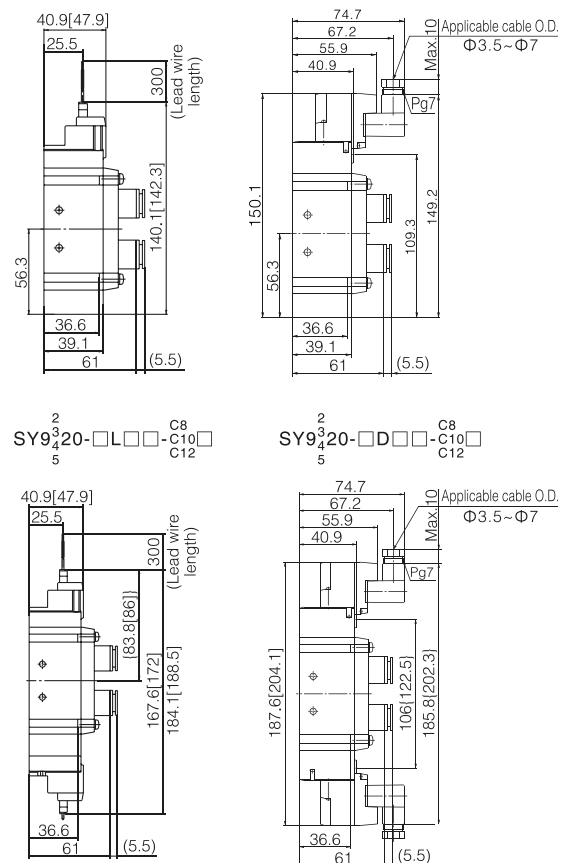
#### 2 Position single electronic control

L Terminal

SY9120-□L□□-<sup>C8</sup><sub>C10</sub>  
C12

DIN Terminal

SY9120-□D□□-<sup>C8</sup><sub>C10</sub>  
C12





## Manifold specifications

| Model              | SS5Y3-20                | SS5Y5-20                                                               | SS5Y7-20                                                                                                                               |
|--------------------|-------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Applicable valve   | SY3□20                  | SY5□20                                                                 | SY7□20                                                                                                                                 |
| Manifold type      | Single base/B mount     |                                                                        |                                                                                                                                        |
| P (SUP)/R (EXH)    | Common SUP, Common EXH  |                                                                        |                                                                                                                                        |
| Valve stations     | 2 to 20 stations (Note) |                                                                        |                                                                                                                                        |
| A, B port location | Valve                   |                                                                        |                                                                                                                                        |
| Port size          | P, EA, EBport           | 1/8"                                                                   | 1/4"                                                                                                                                   |
|                    | A, B port               | M5×0.8<br>C4(One-touch fitting for Φ4)<br>C6(One-touch fitting for Φ6) | 1/8"<br>C4(One-touch fitting for Φ4)<br>C6(One-touch fitting for Φ6)<br>C8(One-touch fitting for Φ8)<br>C10(One-touch fitting for Φ10) |

Note: For more than 10 stations (more than 5 stations in case of SS5Y7), supply pressure to P port on both sides and exhaust from EA/EB port on both sides.

## Flow rate characteristics

| Model    | Port size          |              | Flow rate characteristics |      |      |                    |      |      |
|----------|--------------------|--------------|---------------------------|------|------|--------------------|------|------|
|          | 1,5,3<br>(P,EA,EB) | 4,2<br>(A,B) | 1→4/2(P→A/B)              |      |      | 4/2→5/3(A/B→EA/EB) |      |      |
|          |                    |              | C{dm³/(s·bar)}            | b    | Cv   | C{dm³/(s·bar)}     | b    | Cv   |
| SS5Y3-20 | 1/8"               | C6           | 0.72                      | 0.29 | 0.18 | 0.80               | 0.36 | 0.21 |
| SS5Y5-20 | 1/4"               | C8           | 1.9                       | 0.28 | 0.48 | 2.2                | 0.20 | 0.53 |
| SS5Y7-20 | 1/4"               | C10          | 3.6                       | 0.31 | 0.93 | 3.6                | 0.27 | 0.88 |

Note: The value is for manifold base with 5 stations and individually operated 2 position type.

## How to order manifold

SS5Y 5 20 05

### Manifold series

|   |        |
|---|--------|
| 3 | SY3000 |
| 5 | SY5000 |
| 7 | SY7000 |

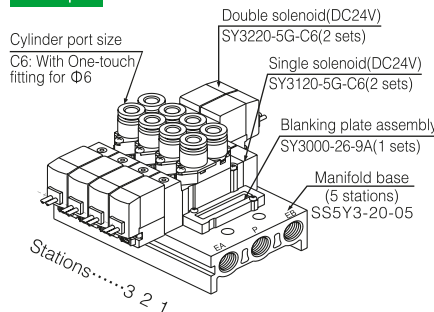
### Stations

|     |            |
|-----|------------|
| 02  | 2 stations |
| ... | ...        |
| 20  | 20stations |

※ This also includes the number of blanking plate assemblies.

## How to order manifold assembly (Example)

### Example



SS5Y3-20-05.....1 set (Type 20, 5-station manifold base part no.)

- SY3000-26-9A.....1 set (Blanking plate assembly part no.)
- SY3120-5G-C6.....2 sets (Single solenoid part no.)
- SY3220-5G-C6.....2 sets (Double solenoid part no.)

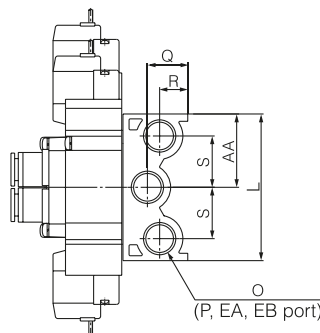
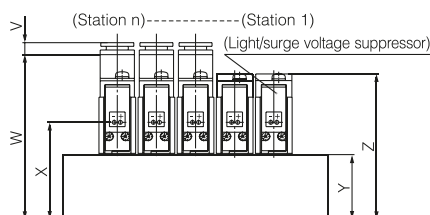
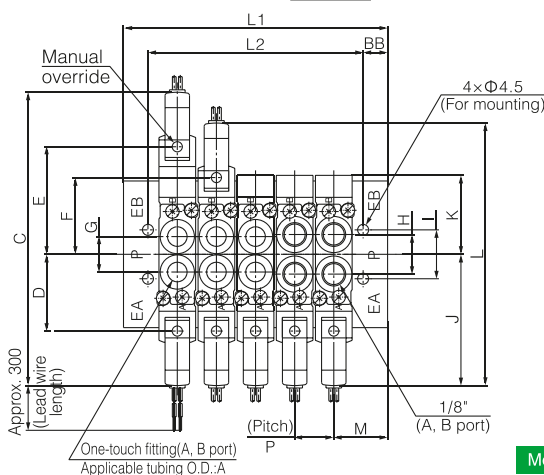
→ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

## Dimensions

### Grommet (G)

SS5Y□-20- [Stations]



N: Stations (up to 20 stations)

| Model | L1=          | L2=    |
|-------|--------------|--------|
| SS5Y3 | 40+10.5(n-2) | L1-9.5 |
| SS5Y5 | 60+16(n-2)   | L1-20  |
| SS5Y7 | 55+19(n-2)   | L1-9   |

| Model | A        | B    | C            | D    | E    | F    | G    | H  | I  | J          | K    | L            |
|-------|----------|------|--------------|------|------|------|------|----|----|------------|------|--------------|
| SS5Y3 | Φ4,Φ6    | 4.75 | 97.3[101.7]  | 22.2 | 30.7 | 22.2 | 10.2 | 16 | 16 | 44.4[46.6] | 23.5 | 88.8[93.2]   |
| SS5Y5 | Φ4,Φ6,Φ8 | 10   | 119.8[124.2] | 31.4 | 44   | 31.4 | 14.5 | 20 | 20 | 53.6[55.8] | 32.3 | 107.2[111.6] |
| SS5Y7 | Φ8,Φ10   | 4.5  | 134.4[138.8] | 38.5 | 51.5 | 38.5 | 19   | 21 | 21 | 60.7[62.9] | 39.4 | 121.4[125.8] |

| Model | M     | N      | O    | P    | Q    | R    | S    | T    | U  | V   | W    | X    | Y    | Z      | AA   | BB   |
|-------|-------|--------|------|------|------|------|------|------|----|-----|------|------|------|--------|------|------|
| SS5Y3 | 14.7  | M5×0.5 | 1/8" | 10.5 | 12.5 | 12.5 | 16.5 | 23.5 | 49 | 3.2 | 54.1 | 33.6 | 20   | 49[56] | 23.5 | 4.75 |
| SS5Y5 | 22    | 1/8"   | 1/4" | 16   | 16.5 | 11.5 | 21   | 30   | 60 | 4.9 | 67.4 | 39.7 | 26.5 | 59.5   | 30   | 10   |
| SS5Y7 | 19.25 | 1/4"   | 1/4" | 19   | 16.5 | 11.5 | 21   | 30   | 60 | 5.5 | 74.6 | 43.1 | 26.5 | 67     | 30   | 4.5  |

Note: [ ] is the situation of AC voltage.

## Valve

|                                |
|--------------------------------|
| 3V1                            |
| 3V2                            |
| 3V2M                           |
| 3V3                            |
| 3V100                          |
| 3V200                          |
| 3V300                          |
| 4V100                          |
| 4V200                          |
| 4V300                          |
| 4V400                          |
| HY-S1                          |
| HY-S2                          |
| HY-S3                          |
| HY-S4                          |
| 4M                             |
| 3V Manifold                    |
| 4V Manifold                    |
| Coil                           |
| 3A100                          |
| 3A200                          |
| 3A300                          |
| 4A100                          |
| 4A200                          |
| 4A300                          |
| 4A400                          |
| 3A Manifold                    |
| 4A Manifold                    |
| VF3000                         |
| VF5000                         |
| SY                             |
| SY Manifold                    |
| MVSD-180                       |
| MVSC-220                       |
| MVSC-260                       |
| MVSC-300                       |
| MVSC-460                       |
| HB10                           |
| 3H                             |
| 4H                             |
| TSV                            |
| 3R                             |
| 4R                             |
| HSV                            |
| 4HV/4HVL                       |
| HV                             |
| K <sup>24</sup> <sub>34</sub>  |
| MOV                            |
| JM                             |
| MSV                            |
| XQ <sup>23</sup> <sub>25</sub> |
| 3F/3FM                         |
| 4F                             |
| FV                             |
| K <sup>23</sup> <sub>25</sub>  |
| ASC                            |
| RE                             |
| QE                             |
| ST                             |
| KA                             |
| XQ                             |
| AQ                             |