

SY3000/5000/7000/9000 Body Ported Type Single Valve

How to Order

SY 5 1 20 — 5 L — — — 01 — — — 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 | |

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 available for SY3000.



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



Note) When single body ported solenoid valves are ordered, manifold mounting bolts and gaskets are not included. Order them separately, if necessary. (Refer to page 1.2-65 for details.)

Thread

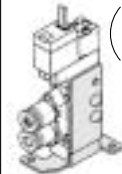
| | |
|---|---------|
| — | Rc (PT) |
| N | NPT |
| T | NPTF |
| F | G (PF) |

A/B port size

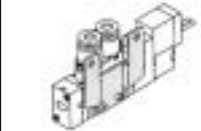
| Symbol | Port size | Applicable series |
|--------|-----------------------|-------------------|
| M5 | M5 | SY3000 |
| C4 | ø4 One-touch fitting | |
| C6 | ø6 One-touch fitting | |
| 01 | 1/8 | SY5000 |
| C4 | ø4 One-touch fitting | |
| C6 | ø6 One-touch fitting | |
| C8 | ø8 One-touch fitting | SY7000 |
| 02 | 1/4 | |
| C8 | ø8 One-touch fitting | |
| C10 | ø10 One-touch fitting | SY9000 |
| 02 | 1/4 | |
| 03 | 3/8 | |
| C8 | ø8 One-touch fitting | |
| C10 | ø10 One-touch fitting | |
| C12 | ø12 One-touch fitting | |

Bracket

Nil: Without bracket
F1: With foot bracket
(2 position single type only)



F2: With side bracket



* SY9000 does not use brackets.

Manual override

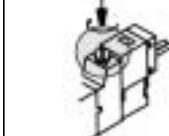
Nil: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever



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" is 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" and "DO" are not available for SY3000.

Specifications



| Series | | SY3000 | SY5000 | SY7000 | SY9000 |
|---|---------------------------|---|--------|--------|--------|
| Fluid | | Air | | | |
| Internal pilot operating pressure range MPa | 2 position single | 0.15 to 0.7 | | | |
| | 2 position double | 0.1 to 0.7 | | | |
| | 3 position | 0.2 to 0.7 | | | |
| Ambient and fluid temperature °C | | Maximum 50 | | | |
| Maximum operating frequency Hz | 2 position single, double | 10 | 5 | 5 | 5 |
| | 3 position | 3 | 3 | 3 | 3 |
| Manual override | | Non-locking push type, Push-turn locking slotted type, Push-turn locking lever type | | | |
| Pilot exhaust method | | Common exhaust for main and pilot valves | | | |
| Lubrication | | Not required | | | |
| Mounting orientation | | Unrestricted | | | |
| Impact resistance/Vibration resistance m/s ² Note) | | 150/30 | | | |
| Enclosure | | Dust proof (IP65 for DIN terminal ^{*)}) | | | |

* In compliance with IEC529 standard.
 Note) **Impact resistance:** No malfunction resulted from the impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature, for both energized and de-energized states. (Value in the initial stage)
Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed for both energized and de-energized states in the axial and right angle directions of the main valve and armature. (Value in the initial stage)

Solenoid specifications

| | | | |
|-------------------------------|---|--|---|
| Electrical entry | Grommet (G)/(H), L type plug connector (L), M type plug connector (M), DIN terminal (D) Note 1) | | |
| Rated coil voltage V | DC | 24, 12, 6, 5, 3 | |
| | AC 50/60Hz | 100, 110, 200, 220 Note 2) | |
| Allowable voltage fluctuation | ±10% of rated voltage | | |
| Current consumption W | DC | 0.5 [With indicator light: 0.55 (0.6 for DIN terminal with indicator light)] Note 3) | |
| Apparent power VA | AC | 100V | 0.9 (With indicator light: 1.0) |
| | | 110V | 1.0 (With indicator light: 1.1) |
| | | [115V] | [1.1 (With indicator light: 1.2)] |
| | | 200V | 1.8 (With indicator light: 1.9) |
| | | 220V [230V] | 1.9 (With indicator light: 2.0) [2.2 (With indicator light: 2.3)] |
| Surge voltage suppressor | Diodes (ZNR for DIN terminal, Zener diode for G, L or M non-polar type) | | |
| Indicator light | LED (Neon bulb for AC type DIN terminal) | | |

Note 1) DIN terminal (D) is not available for SY3000.
 Note 2) 110 and 115VAC are common, as are 220 and 230VAC.
 Note 3) Energy saving [0.22W] type is also available. Refer to page 1.2-177 for details.
 Note 4) AC specifications are only for the DIN terminal type.

Response time

Note) Based on dynamic performance test JISB8375-1981 (at coil temperature of 20°C with rated voltage)

SY3000

| Type of actuation | Response time ms (at 0.5MPa) | | |
|-------------------|--|---|------------|
| | Without indicator light/surge voltage suppressor | With indicator light/surge voltage suppressor | |
| | | S, Z types | U types |
| 2 position single | 12 or less | 15 or less | 12 or less |
| 2 position double | 10 or less | 13 or less | 10 or less |
| 3 position | 15 or less | 20 or less | 16 or less |

SY5000

| Type of actuation | Response time ms (at 0.5MPa) | | |
|-------------------|--|---|------------|
| | Without indicator light/surge voltage suppressor | With indicator light/surge voltage suppressor | |
| | | S, Z types | U types |
| 2 position single | 19 or less | 26 or less | 19 or less |
| 2 position double | 18 or less | 22 or less | 18 or less |
| 3 position | 32 or less | 38 or less | 32 or less |

SY7000

| Type of actuation | Response time ms (at 0.5MPa) | | |
|-------------------|--|---|------------|
| | Without indicator light/surge voltage suppressor | With indicator light/surge voltage suppressor | |
| | | S, Z types | U types |
| 2 position single | 31 or less | 38 or less | 33 or less |
| 2 position double | 27 or less | 30 or less | 28 or less |
| 3 position | 50 or less | 56 or less | 50 or less |

SY9000

| Type of actuation | Response time ms (at 0.5MPa) | | |
|-------------------|--|---|------------|
| | Without indicator light/surge voltage suppressor | With indicator light/surge voltage suppressor | |
| | | S, Z types | U types |
| 2 position single | 35 or less | 41 or less | 35 or less |
| 2 position double | 35 or less | 41 or less | 35 or less |
| 3 position | 62 or less | 64 or less | 62 or less |



Pages 1.2-168 to 1.2-177

SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

Body Ported Type

Models/Series SY3000

| Valve model | Type of actuation | | Port size | | Effective area mm ² (N/min) | | Weight g | | |
|-------------|-------------------|-----------------|---------------------------------|------|--|-------------------------------|----------|-------------------------|--------------|
| | | | P, EA, EB | A, B | P to A/B | A/B to EA/EB | Grommet | L/M type plug connector | DIN terminal |
| SY3□20-□-M5 | 2 pos. | Single | M5 | | 3.6 (196.3) | 3.78 (206) | 48 | 51 | |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 3.6 (196.3) | 3.42 (186.5) | 65 | 72 | |
| | | Exhaust centre | | | 3.6 (196.3) | 3.78 (206) [2.7 (147.2)] | | | |
| | | Pressure centre | | | 3.96 (216) [2.88 (157)] | 3.6 (196.3) | | | |
| | | | | | | | | | |
| SY3□20-□-C4 | 2 pos. | Single | C4 ø4 (One-touch fitting) | M5 | 3.42 (186.5) | 3.6 (196.3) | 57 | 61 | |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 3.42 (186.5) | 3.42 (186.5) | 75 | 82 | |
| | | Exhaust centre | | | 3.42 (186.5) | 3.78 (206) [2.7 (147.2)] | | | |
| | | Pressure centre | | | 3.6 (196.3) [2.16 (117.8)] | 3.6 (196.3) | | | |
| | | | | | | | | | |
| SY3□20-□-C6 | 2 pos. | Single | C6 ø6 (One-touch fitting) | M5 | 3.6 (196.3) | 4.14 (225.7) | 53 | 57 | |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 3.6 (196.3) | 3.96 (216) | 71 | 78 | |
| | | Exhaust centre | | | 3.78 (206) | 4.5 (245.4) [3.06 (166.9)] | | | |
| | | Pressure centre | | | 3.96 (216) [2.88 (157)] | 3.96 (216) | | | |
| | | | | | | | | | |

Note) Values inside [] are for normal position.

Models/Series SY7000

| Valve model | Type of actuation | | Port size | | Effective area mm ² (N/min) | | Weight g | | |
|--------------|-------------------|-----------------|-----------------------------------|------|--|---------------------------------|----------|-------------------------|--------------|
| | | | P, EA, EB | A, B | P to A/B | A/B to EA/EB | Grommet | L/M type plug connector | DIN terminal |
| SY7□20-□-02 | 2 pos. | Single | 1/4 | | 16.2 (883.4) | 15.66 (854) | 98 | 102 | 125 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 12.06 (657.6) | 11.34 (618.3) | 122 | 129 | 175 |
| | | Exhaust centre | | | 11.88 (647.8) | 16.74 (912.8) [11.7 (638)] | | | |
| | | Pressure centre | | | 17.1 (932.4) [11.16 (608.5)] | 11.34 (618.3) | | | |
| | | | | | | | | | |
| SY7□20-□-C8 | 2 pos. | Single | C8 ø8 (One-touch fitting) | 1/4 | 13.86 (755.8) | 13.68 (746) | 104 | 108 | 131 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 11.52 (402) | 10.44 (569.3) | 128 | 136 | 182 |
| | | Exhaust centre | | | 11.16 (608.5) | 14.4 (785.2) [10.8 (353.3)] | | | |
| | | Pressure centre | | | 14.58 (795) [10.62 (579)] | 10.44 (569.3) | | | |
| | | | | | | | | | |
| SY7□20-□-C10 | 2 pos. | Single | C10 ø10 (One-touch fitting) | 1/8 | 15.84 (863.7) | 14.94 (814.6) | 100 | 103 | 126 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 12.24 (453.8) | 11.16 (608.5) | 124 | 131 | 177 |
| | | Exhaust centre | | | 11.88 (647.8) | 16.2 (873.5) [11.34 (618.3)] | | | |
| | | Pressure centre | | | 16.74 (912.8) [11.16 (608.5)] | 11.34 (618.3) | | | |
| | | | | | | | | | |

Note) Values inside [] are for normal position.

Models/Series SY5000

| Valve model | Type of actuation | | Port size | | Effective area mm ² (N/min) | | Weight g | | |
|-------------|-------------------|-----------------|---------------------------------|------|--|---------------------------------|----------|-------------------------|--------------|
| | | | P, EA, EB | A, B | P to A/B | A/B to EA/EB | Grommet | L/M type plug connector | DIN terminal |
| SY5□20-□-01 | 2 pos. | Single | 1/8 | | 9.18 (500.5) | 10.6 (579) | 67 | 70 | 93 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 7.38 (402.4) | 7.92 (431.9) | 87 | 94 | 140 |
| | | Exhaust centre | | | 7.56 (402.4) | 12.06 (341.7) [8.28 (451.5)] | | | |
| | | Pressure centre | | | 10.62 (341.7) [4.32 (235.6)] | 8.46 (451.5) | | | |
| | | | | | | | | | |
| SY5□20-□-C4 | 2 pos. | Single | C4 ø4 (One-touch fitting) | 1/8 | 5.5 (304.3) | 3.9 (216) | 91 | 94 | 117 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 5.3 (284.6) | 3.9 (216) | 111 | 118 | 164 |
| | | Exhaust centre | | | 5.3 (284.6) | 3.9 (216) | | | |
| | | Pressure centre | | | 5.7 (314) | 3.9 (216) | | | |
| | | | | | | | | | |
| SY5□20-□-C6 | 2 pos. | Single | C6 ø6 (One-touch fitting) | 1/8 | 9 (500.5) | 9 (500.5) | 85 | 89 | 112 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 7.2 (402.4) | 7.38 (402.4) | 105 | 112 | 158 |
| | | Exhaust centre | | | 7.38 (402.4) | 9.72 (530) [7.2 (402.4)] | | | |
| | | Pressure centre | | | 10.62 (579) [4.32 (235.6)] | 7.2 (402.4) | | | |
| | | | | | | | | | |
| SY5□20-□-C8 | 2 pos. | Single | C8 ø8 (One-touch fitting) | 1/8 | 9.18 (500.5) | 9.9 (530) | 77 | 80 | 103 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 7.38 (402.4) | 7.92 (431.9) | 97 | 104 | 150 |
| | | Exhaust centre | | | 7.38 (402.4) | 11.88 (341.7) [7.74 (431.9)] | | | |
| | | Pressure centre | | | 10.62 (579) [4.32 (235.6)] | 7.92 (431.9) | | | |
| | | | | | | | | | |

Note) Values inside [] are for normal position.

Models/Series SY9000

| Valve model | Type of actuation | | Port size | | Effective area mm ² (N/min) | | Weight g | | |
|--------------|-------------------|-----------------|-----------------------------------|------|--|-----------------------------------|----------|-------------------------|--------------|
| | | | P, EA, EB | A, B | P to A/B | A/B to EA/EB | Grommet | L/M type plug connector | DIN terminal |
| SY9□20-□-02 | 2 pos. | Single | 1/4 | | 35.76 (1953.2) | 37.43 (2041.5) | 238 | 242 | 265 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 34.69 (1894.3) | 30.51 (1678.4) | 278 | 286 | 332 |
| | | Exhaust centre | | | 33.63 (1835.4) | 41.09 (2238) [18.96 (1030.6)] | | | |
| | | Pressure centre | | | 37.99 (2071) | 31.62 (1727.4) [15.22 (834.3)] | | | |
| | | | | | | | | | |
| SY9□20-□-03 | 2 pos. | Single | 3/8 | | 37.90 (2071) | 38.23 (2071) | 233 | 237 | 260 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 35.98 (1963) | 32.37 (1757) | 273 | 281 | 327 |
| | | Exhaust centre | | | 34.17 (1865) | 44.76 (2444) [24.92 (1354.5)] | | | |
| | | Pressure centre | | | 39.94 (2179) | 32.97 (1796) [14.67 (660)] | | | |
| | | | | | | | | | |
| SY9□20-□-C8 | 2 pos. | Single | C8 ø8 (One-touch fitting) | 1/4 | 27.34 (1492) | 16.23 (795) | 290 | 294 | 317 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 26.75 (1462.4) | 16.55 (795) | 330 | 338 | 384 |
| | | Exhaust centre | | | 26.17 (1423.2) | 16.42 (795) [15.68 (854)] | | | |
| | | Pressure centre | | | 27.49 (1492) | 16.28 (795) [16.28 (795)] | | | |
| | | | | | | | | | |
| SY9□20-□-C10 | 2 pos. | Single | C10 ø10 (One-touch fitting) | 1/4 | 31.16 (1698) | 27.40 (1492) | 276 | 280 | 303 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 30.74 (1678.4) | 26.08 (1423.2) | 316 | 324 | 370 |
| | | Exhaust centre | | | 30.02 (1639) | 27.13 (1492) [18.26 (991.3)] | | | |
| | | Pressure centre | | | 32.28 (1757) | 26.36 (1423.2) [15.10 (660)] | | | |
| | | | | | | | | | |
| SY9□20-□-C12 | 2 pos. | Single | C12 ø12 (One-touch fitting) | 1/4 | 33.45 (1835.4) | 35.81 (1953.2) | 262 | 266 | 289 |
| | | Double | | | | | | | |
| | 3 position | Closed centre | | | 32.96 (1796) | 29.62 (1619.5) | 302 | 310 | 356 |
| | | Exhaust centre | | | 32.38 (1767) | 37.77 (2071) [18.83 (1030.6)] | | | |
| | | Pressure centre | | | 35.41 (1933.5) | 30.55 (1678.4) [15.23 (834.3)] | | | |
| | | | | | | | | | |

Note) Values inside [] are for normal position.

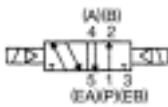
Construction

Series SY

Symbol:
2 position single



Symbol:
2 position double



Symbol:
3 position closed centre



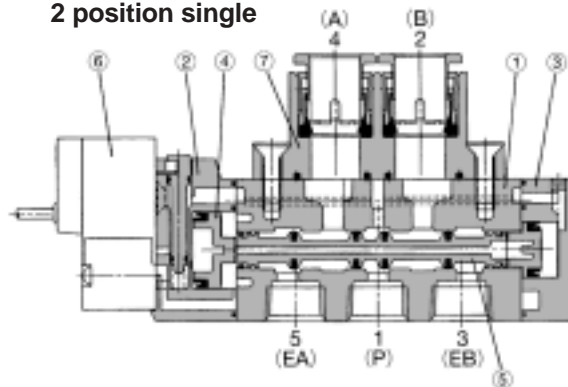
3 position exhaust centre



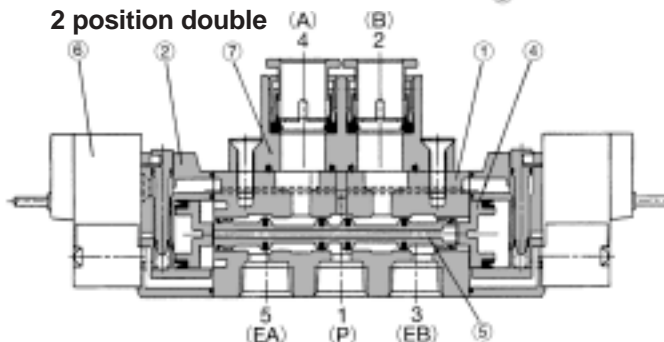
3 position pressure centre



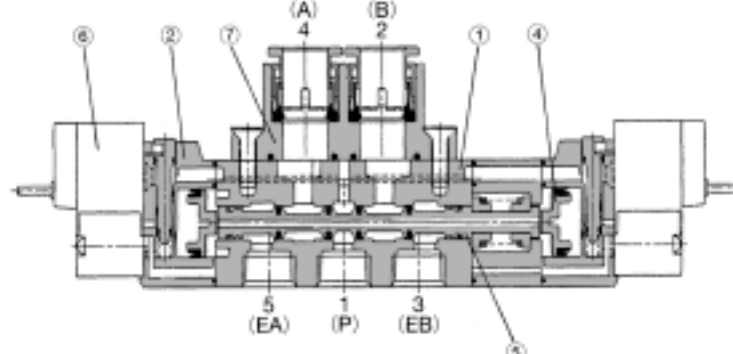
2 position single



2 position double



3 position closed centre/exhaust centre/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 (Gray for SY9000) |
| 3 | End plate | Resin | White |
| 4 | Piston | Resin | — |
| 5 | Spool valve assembly | Aluminum/NBR | — |

Replacement parts

| No. | Description | Part no. |
|-----|----------------------|--|
| 6 | Pilot valve assembly | Refer to "How to Order Pilot Valve Assemblies" on page 1.2-14. |
| 7 | Port block assembly | Refer to "How to Order Port Block Assemblies" on page 1.2-14. |

Bracket assembly part nos.

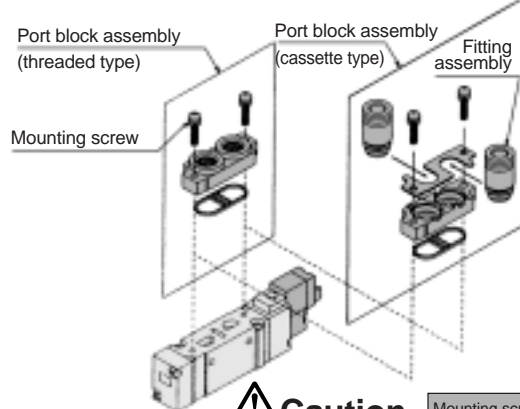
| Description | Part no. |
|-----------------------|--|
| Bracket (for F1 type) | SX ³ 000-16-2A (with mounting screws) |
| Bracket (for F2 type) | SX ³ 000-16-1A (with mounting screws) |

* Brackets are not available for SY9000.

How to Replace Port Block Assembly

With the body ported type, the A/B port size can be changed by replacing the port block assembly mounted on the body. Use appropriate tightening torque when replacing the port block assembly, as insufficient tightening of mounting screws will cause air leakage, etc.

● For SY5000 [SY5000-6A-01] [SY5000-6A-C6]



Caution Mounting screw tightening torques
 SY3000 (M2): 0.12N·m
 SY³000 (M3): 0.6N·m
 SY9000 (M4): 1.4N·m



* Refer to "How to Order Port Block Assemblies" on page 1.2-14 for part numbers.

- SV
- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7

- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Body Ported Type

How to Order Pilot Valve Assemblies

SY114—**5** **G** **□**—**Q**

Rated voltage

| | |
|---|-------|
| 5 | 24VDC |
| 6 | 12VDC |
| V | 6VDC |
| S | 5VDC |
| R | 3VDC |

Indicator light/Surge voltage suppressor

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

Note 2) "U" specifications are only available for DC.

Electrical entry

| | | |
|----|-----------------------------------|-------------------|
| G | Grommet (lead wire length: 300mm) | |
| H | Grommet (lead wire length: 600mm) | |
| L | L type plug connector | With lead wire |
| LN | L type plug connector | Without lead wire |
| LO | L type plug connector | Without connector |
| M | M type plug connector | With lead wire |
| MN | M type plug connector | Without lead wire |
| MO | M type plug connector | Without connector |

How to Order Connector Assemblies

DC: **SY100-30-4A**—**□**

Without lead wire: **SY100-30-A**
(Connector, socket x 2pcs. only)

Lead wire length

| | |
|-----|--------|
| Nil | 300mm |
| 6 | 600mm |
| 10 | 1000mm |
| 15 | 1500mm |
| 20 | 2000mm |
| 25 | 2500mm |
| 30 | 3000mm |
| 50 | 5000mm |

SY115—**5** **D** **□**—**Q**

Rated voltage

| | |
|---|------------------------------------|
| 5 | 24VDC |
| 6 | 12VDC |
| 1 | 100VAC 50/60Hz |
| 2 | 200VAC 50/60Hz |
| 3 | 110VAC 50/60Hz [115VAC 50/60Hz] |
| 4 | 220VAC 50/60Hz [230VAC 50/60Hz] |

Indicator light/Surge voltage suppressor

| | |
|-----|--|
| 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) |

Electrical entry

| | | |
|----|---------------------------|-------------------|
| D | DIN terminal | With connector |
| DO | DIN terminal | Without connector |
| Y | DIN terminal (DIN 43650C) | With connector |
| YO | DIN terminal (DIN 43650C) | Without connector |

Note 1) "DOZ" is not available.
Note 2) "S" specification is not available for AC since it is integrated with the rectifier.

Note) When replacing the pilot valve assembly alone, SY114 (G, H, L, and M) cannot be replaced with SY115 (DIN terminal), or vice versa.

How to Order Port Block Assemblies

SY **□** **000**—**6A**—**□** **□**

Series

| | |
|---|--------|
| 3 | SY3000 |
| 5 | SY5000 |
| 7 | SY7000 |
| 9 | SY9000 |

Thread

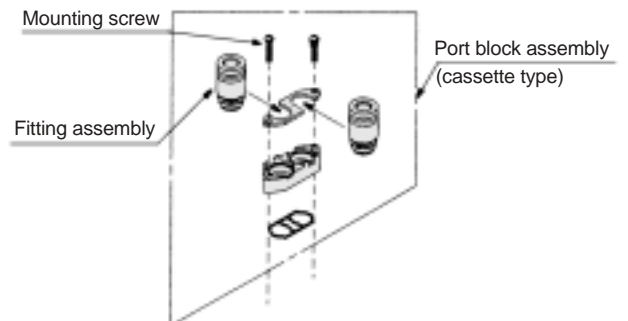
| | |
|---|---------|
| — | Rc (PT) |
| N | NPT |
| T | NPTF |
| F | G (PF) |

A/B port size

| Symbol | Port size | Applicable series |
|--------|-----------------------|-------------------|
| M5 | M5 | SY3000 |
| C4 | ø4 One-touch fitting | |
| C6 | ø6 One-touch fitting | |
| O1 | 1/8 | SY5000 |
| C4 | ø4 One-touch fitting | |
| C6 | ø6 One-touch fitting | |
| C8 | ø8 One-touch fitting | SY7000 |
| O2 | 1/4 | |
| C8 | ø8 One-touch fitting | |
| C10 | ø10 One-touch fitting | SY9000 |
| O2 | 1/4 | |
| O3 | 3/8 | |
| C8 | ø8 One-touch fitting | |
| C10 | ø10 One-touch fitting | |
| C12 | ø12 One-touch fitting | |

* Fitting assembly alone can be replaced also.

| Series | Fitting | Part Number |
|--------|-----------------------|-----------------|
| SY3000 | ø4 One-touch fitting | VVQ1000-50A-C4 |
| | ø6 One-touch fitting | VVQ1000-50A-C6 |
| SY5000 | ø4 One-touch fitting | VVQ1000-51A-C4 |
| | ø6 One-touch fitting | VVQ1000-51A-C6 |
| | ø8 One-touch fitting | VVQ1000-51A-C8 |
| SY7000 | ø8 One-touch fitting | VVQ2000-51A-C8 |
| | ø10 One-touch fitting | VVQ2000-51A-C10 |
| SY9000 | ø8 One-touch fitting | VVQ4000-50B-C8 |
| | ø10 One-touch fitting | VVQ4000-50B-C10 |
| | ø12 One-touch fitting | VVQ4000-50B-C12 |



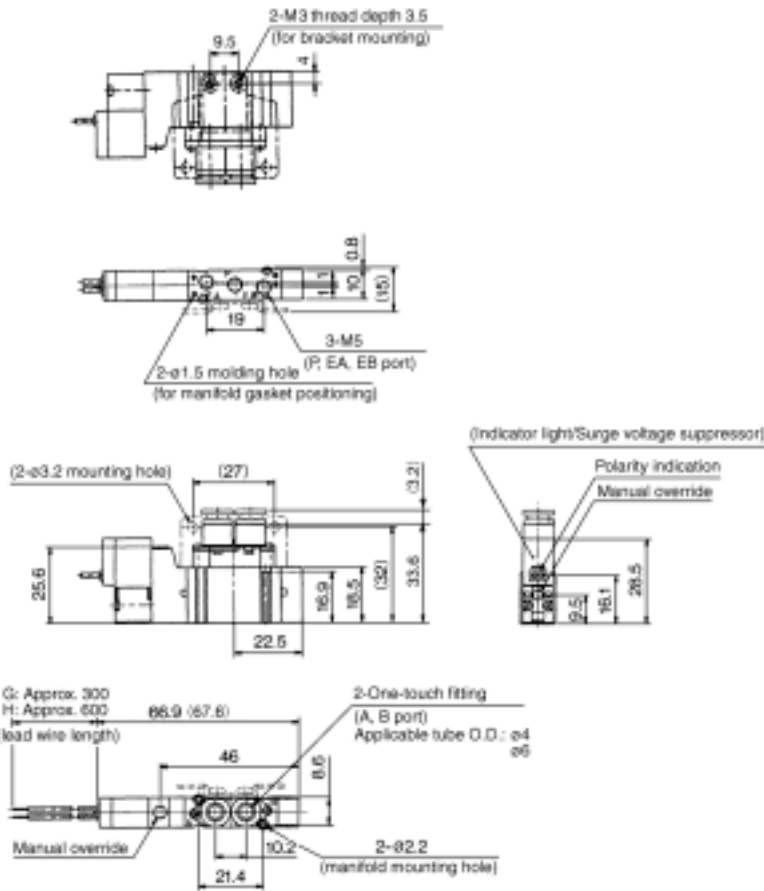


Note) < >: Values with surge voltage suppressor

Series SY3000 Dimensions

2 position single

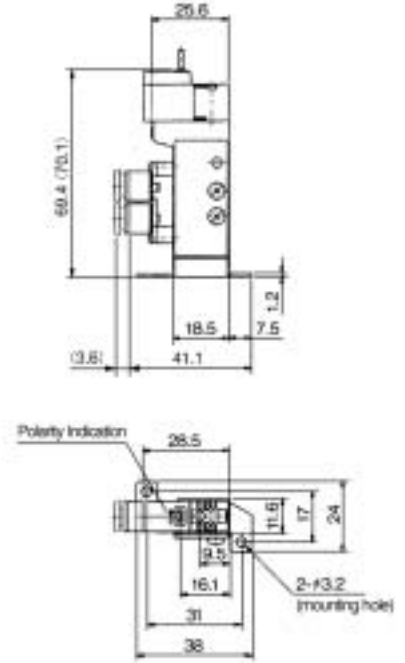
Grommet (G), (H): SY3120-□_H□□-C₆⁴(-F2)-Q



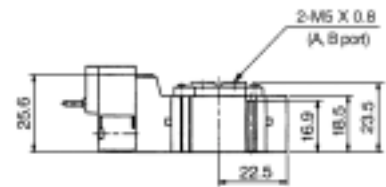
With foot bracket

SY3120-□_H□□-C₆⁴-F1-Q

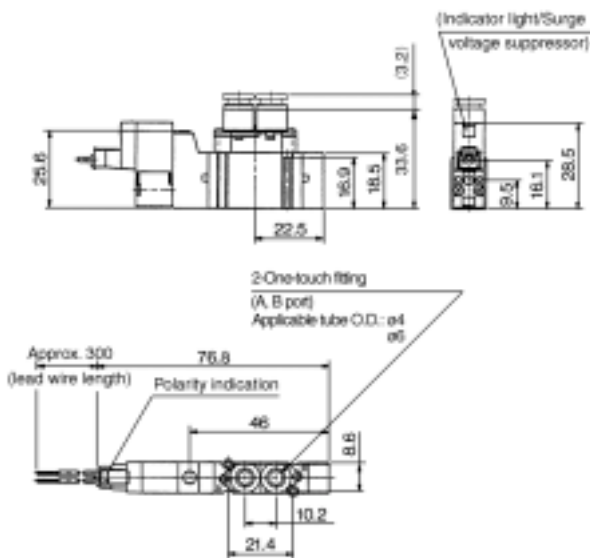
Scale: 40%



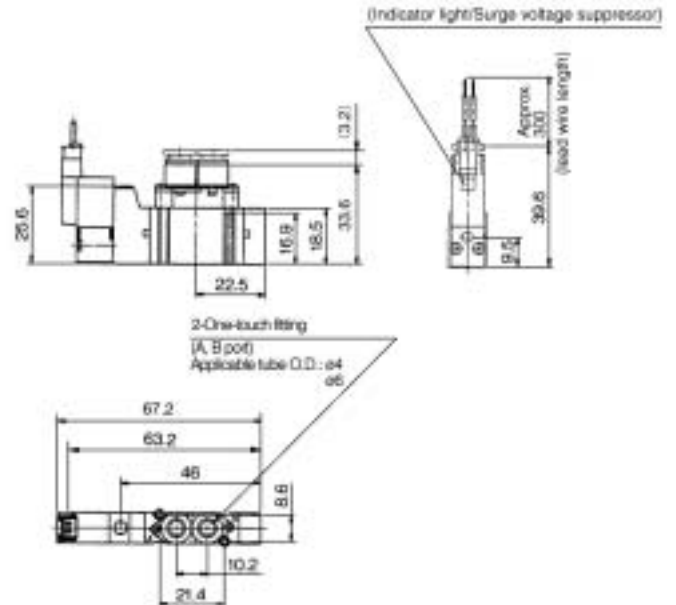
SY3120-□_H□□-M5-Q



L type plug connector (L): SY3120-□L□□-C₆⁴-Q



M type plug connector (M): SY3120-□M□□-C₆⁴-Q



- SV
- SY**
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Body Ported Type

Series SY3000 Dimensions



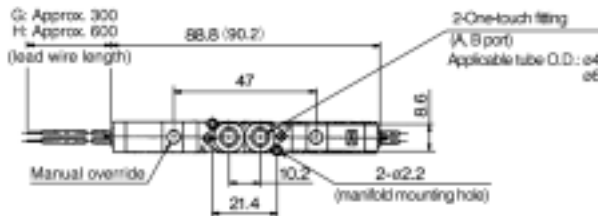
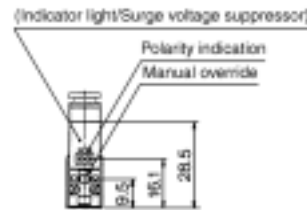
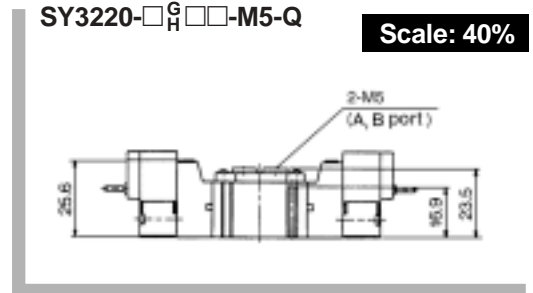
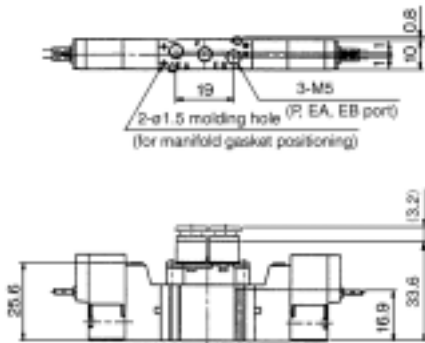
Note) < >: Values with surge voltage suppressor

2 position double

Grommet (G), (H): SY3220-□^G□□-C₄-Q

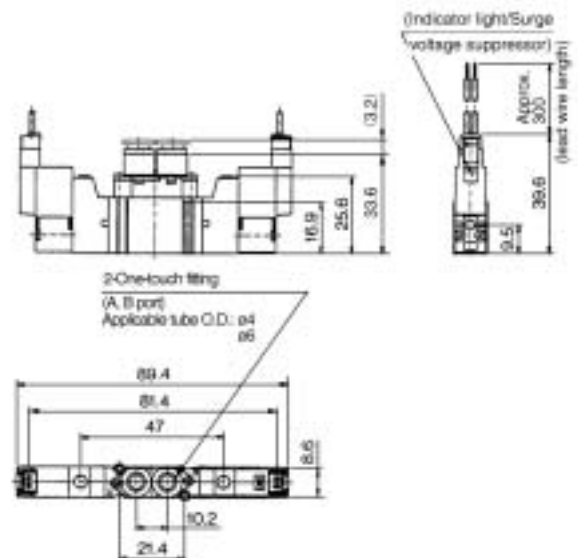
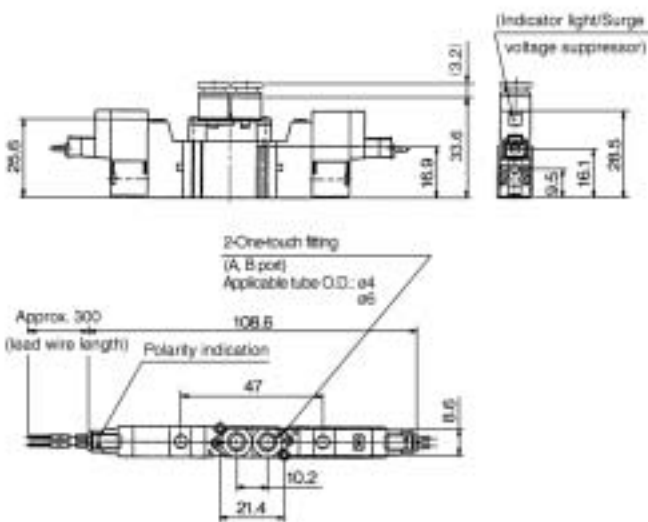
SY3220-□^G□□-M5-Q

Scale: 40%



L type plug connector (L): SY3220-□^L□□-C₄-Q

M type plug connector (M): SY3220-□^M□□-C₄-Q



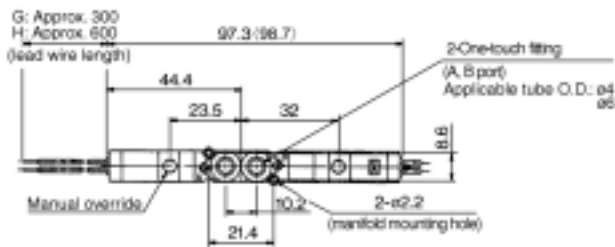
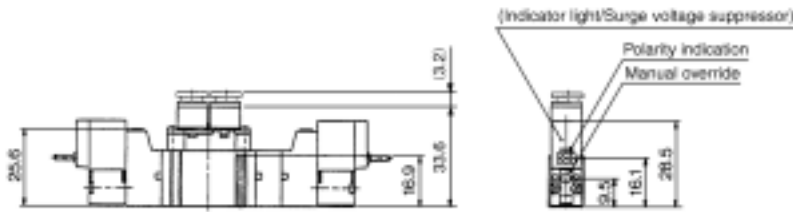
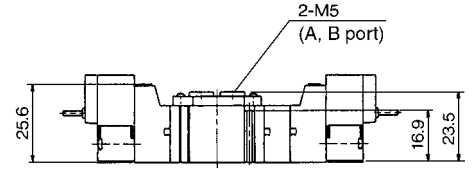
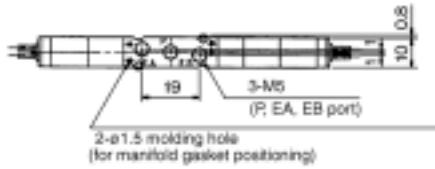


Note) < >: Values with surge voltage suppressor

3 position closed centre/exhaust centre/pressure centre
Grommet (G), (H): SY3³/₅20-□^G□□-C₆⁴-Q

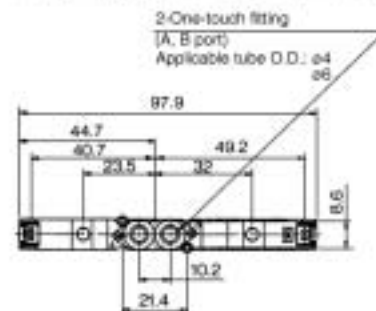
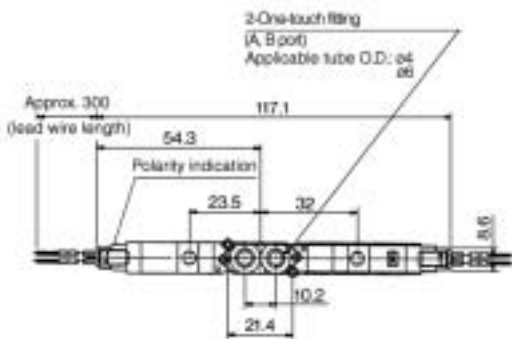
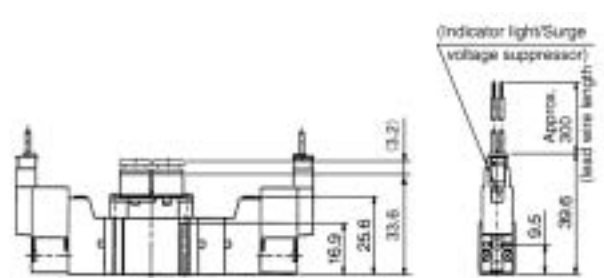
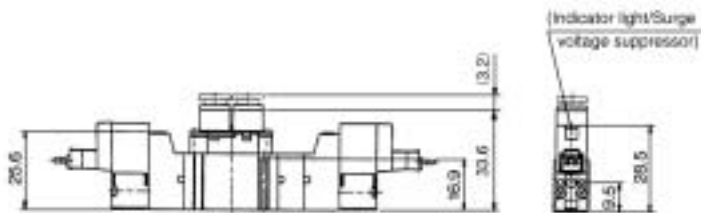
SY3³/₅20-□^G□□-M5-Q

Scale: 40%



L type plug connector (L): SY3³/₅20-□^L□□-C₆⁴-Q

M type plug connector (M): SY3³/₅20-□^M□□-C₆⁴-Q



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

Body Ported Type

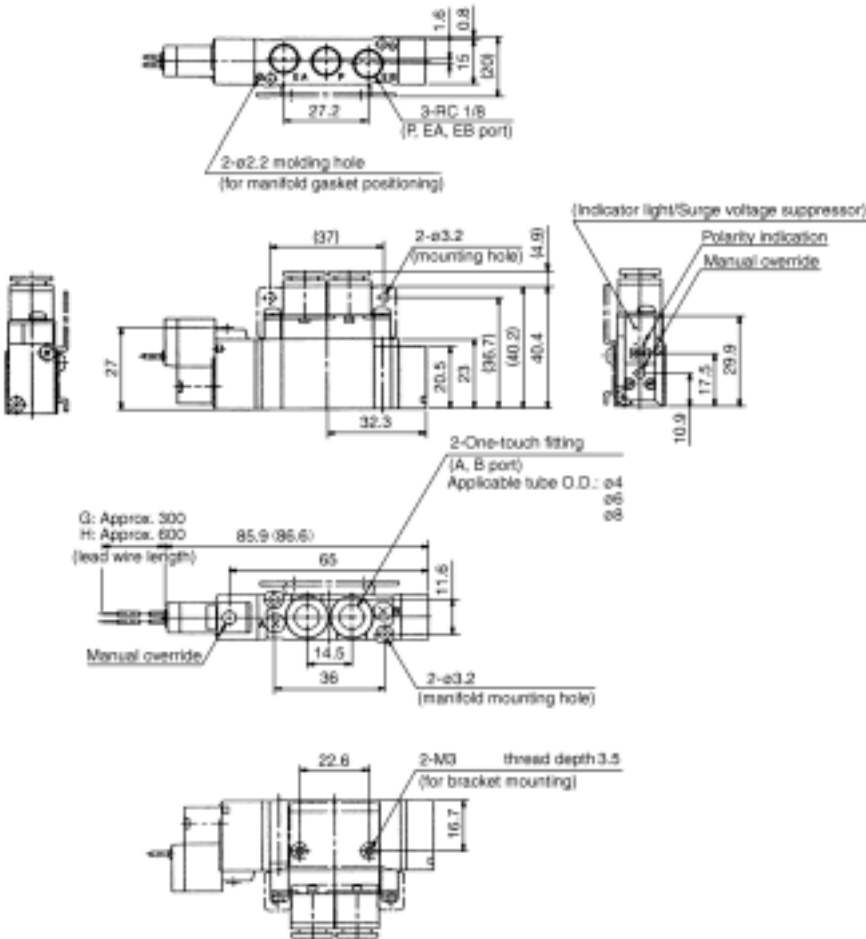
Series SY5000 Dimensions



Note) < >: Values with surge voltage suppressor

2 position single

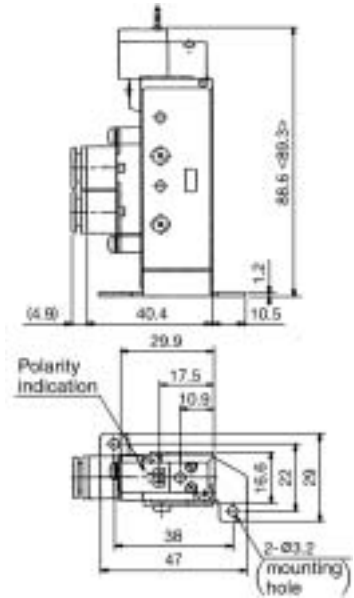
Grommet (G), (H): SY5120-□^G□□□-_{C4}_{C6}_{C8} (-F2)-Q



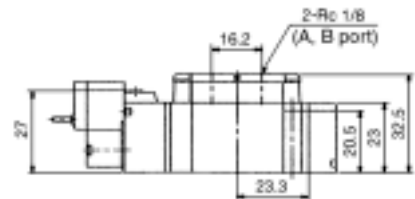
With foot bracket

SY5120-□^G□□□-_{C4}_{C6}_{C8} -F1-Q

Scale: 40%

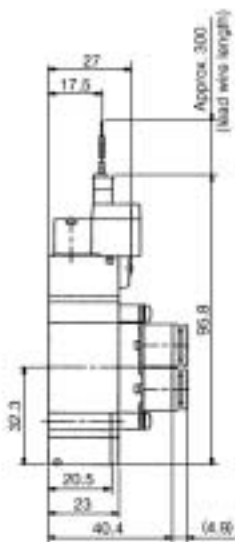


SY5120-□^G□□□-01□-Q



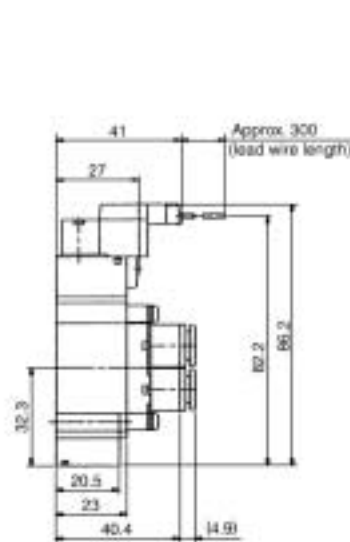
L type plug connector (L):

SY5120-□L□□-_{C4}_{C6}_{C8} -Q



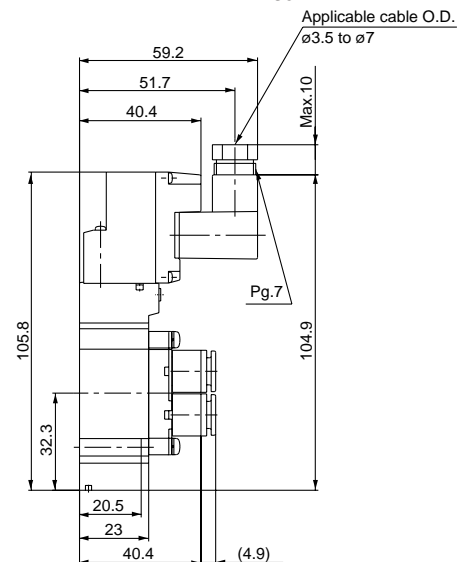
M type plug connector (M):

SY5120-□M□□-_{C4}_{C6}_{C8} -Q



DIN terminal (D):

SY5120-□D□□-_{C4}_{C6}_{C8} -Q

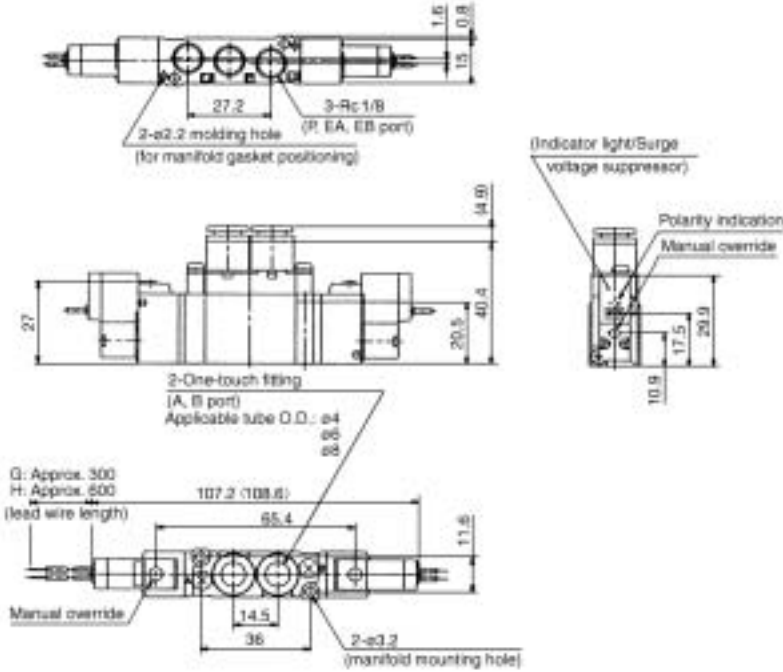




Note) < >: Values with surge voltage suppressor

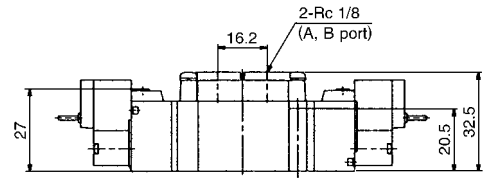
2 position double

Grommet (G), (H): SY5220-□^G□□□-C4
C6-C8-Q



SY5220-□^G□□□-01□-Q

Scale: 40%



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

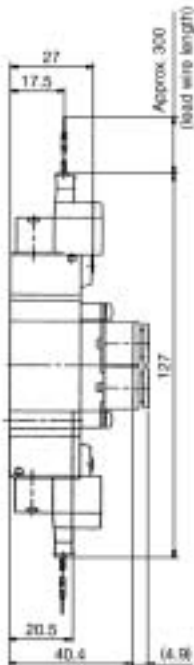
VS

VS7

VQ7

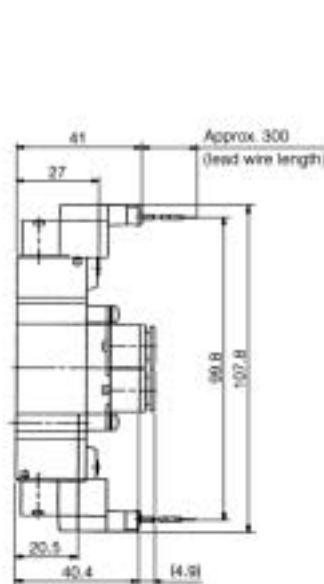
L type plug connector (L):

SY5220-□L□□□-C4
C6-C8-Q



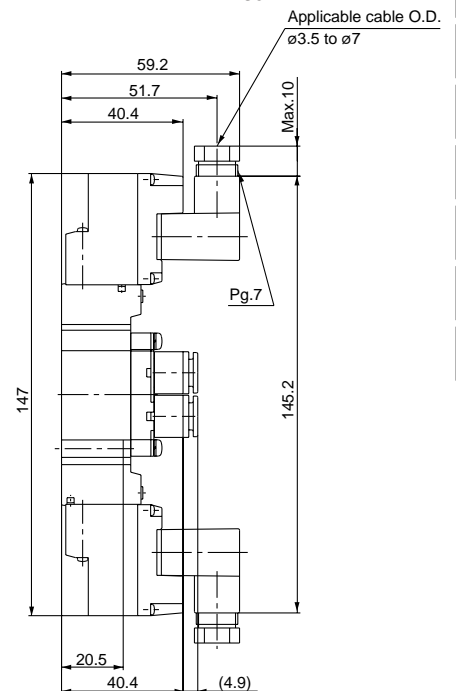
M type plug connector (M):

SY5220-□M□□□-C4
C6-C8-Q



DIN terminal (D):

SY5220-□D□□□-C4
C6-C8-Q



Body Ported Type

Series SY5000 Dimensions



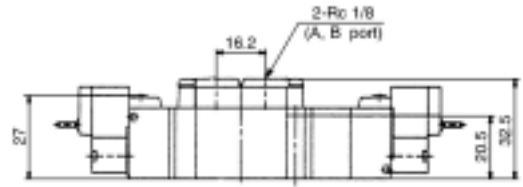
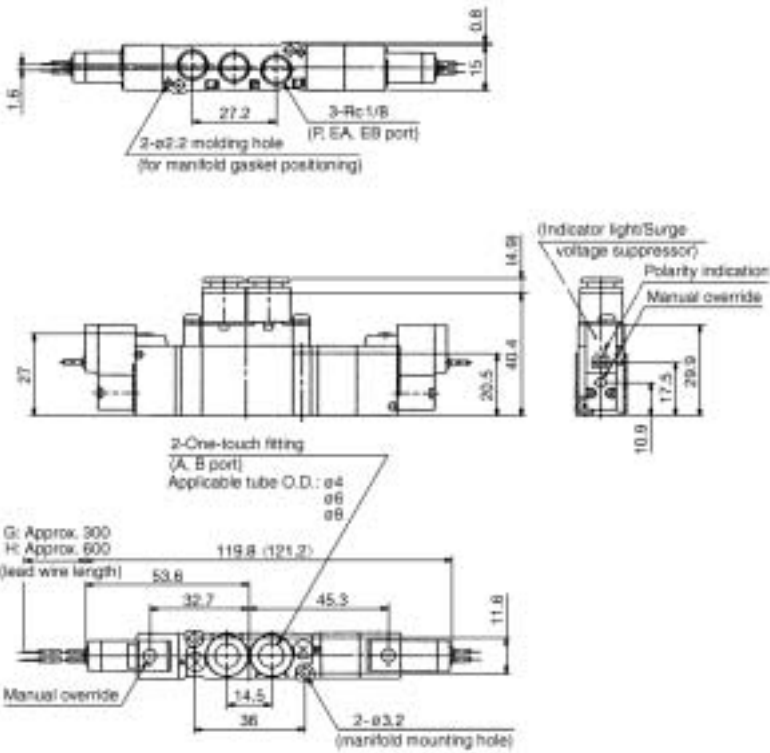
< >: Values with surge voltage suppressor

3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): SY5³/₅20-□^G□□-C₄-Q
C₆-Q
C₈-Q

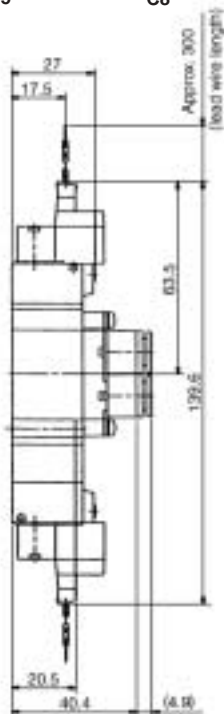
SY5³/₅20-□^G□□-01□-Q

Scale: 40%



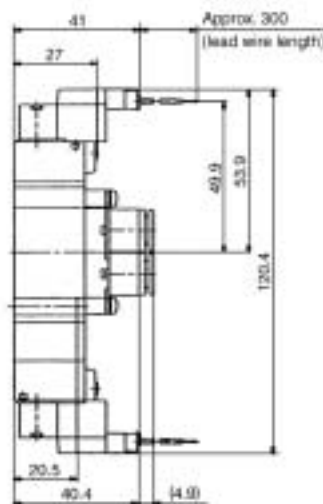
L type plug connector (L):

SY5³/₅20-□L□□-C₄-Q
C₆-Q
C₈-Q



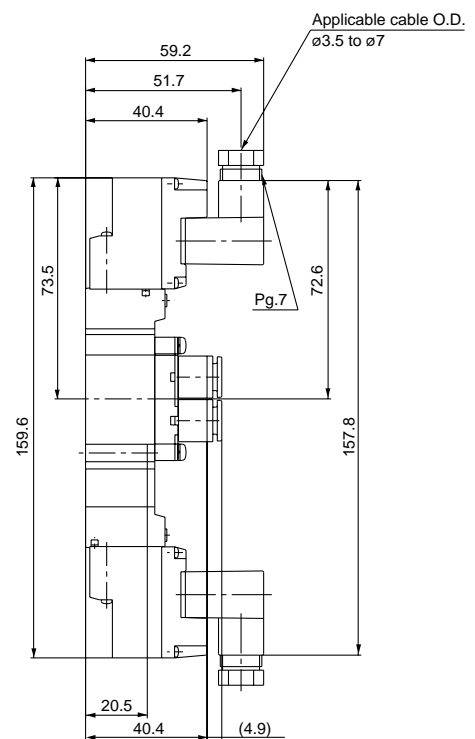
M type plug connector (M):

SY5³/₅20-□M□□-C₄-Q
C₆-Q
C₈-Q



DIN terminal (D):

SY5³/₅20-□D□□-C₄-Q
C₆-Q
C₈-Q



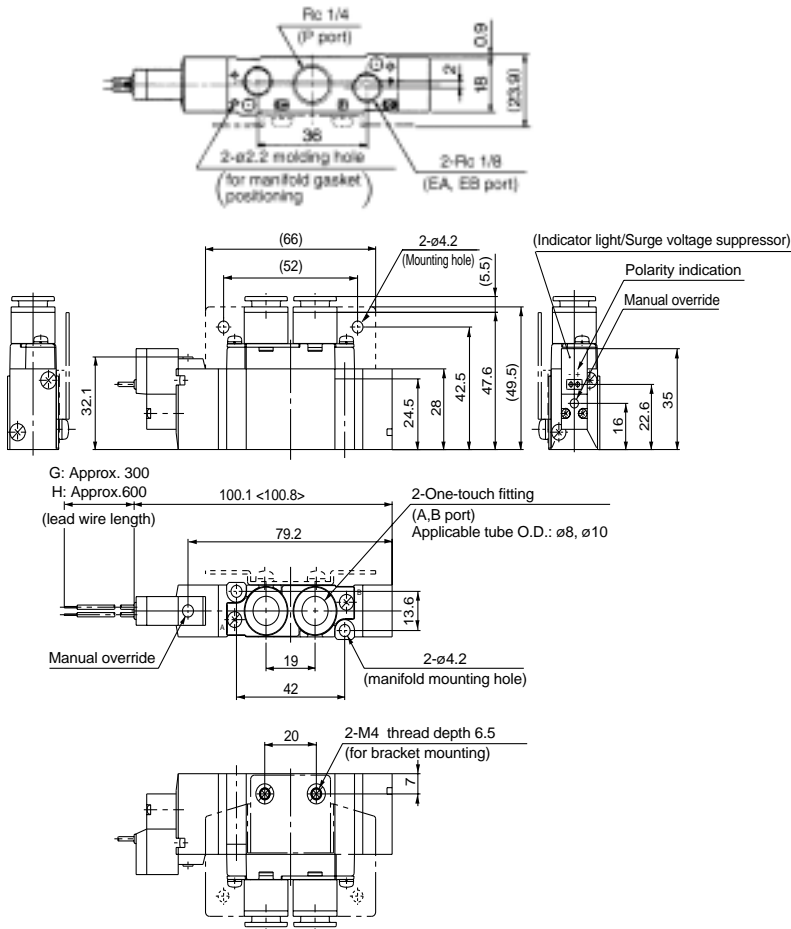


Note) < >: Values with surge voltage suppressor

Series SY7000 Dimensions

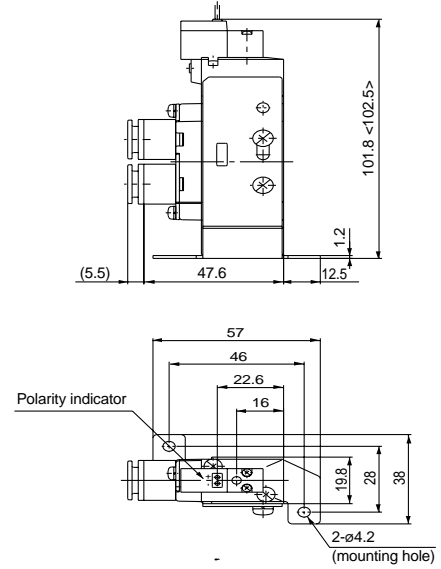
2 position single

Grommet (G), (H): SY7120-□^G□^H□-C⁸_{C10} (-F2)-Q

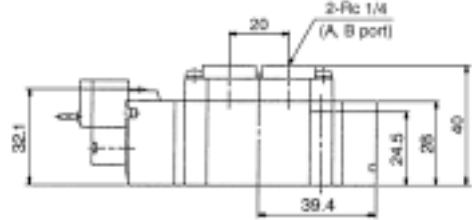


SY7120-□^G□^H□-C⁸_{C10} -F1-Q

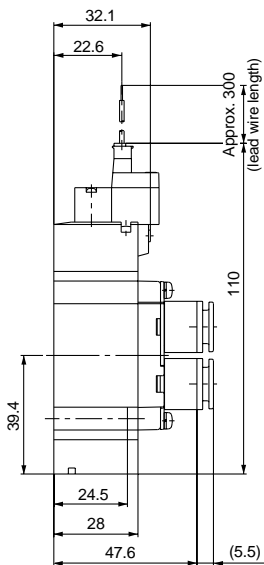
Scale: 40%



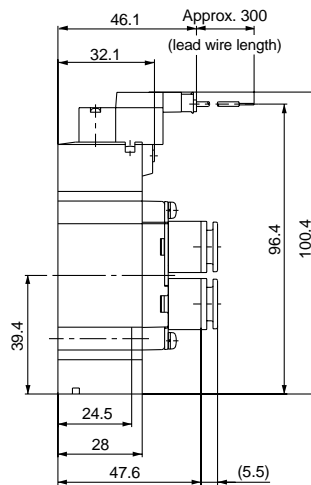
SY7120-□^G□^H□-02□-Q



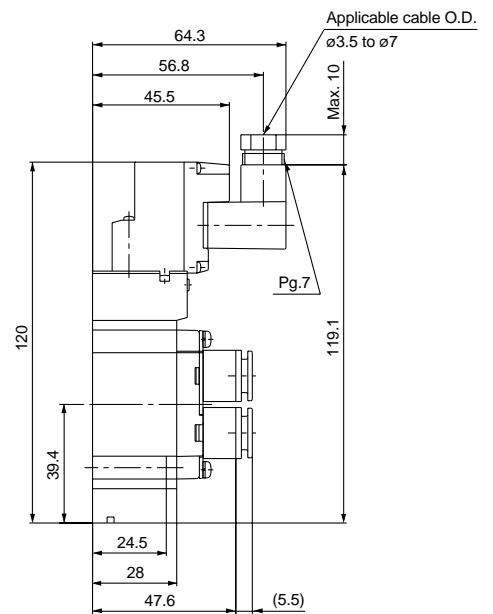
L type plug connector (L):
SY7120-□^L□□-C⁸_{C10}-Q



M type plug connector (M):
SY7120-□^M□□-C⁸_{C10}-Q




DIN terminal (D):
SY7120-□^D□□-C⁸_{C10}-Q



- SV
- SY**
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Body Ported Type

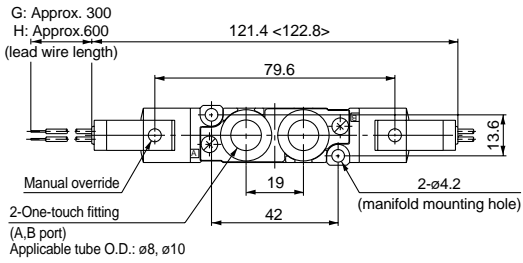
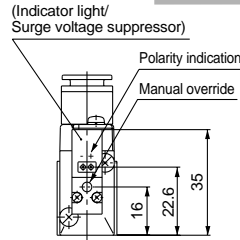
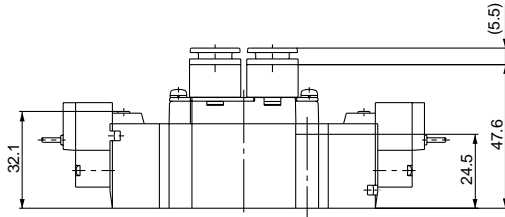
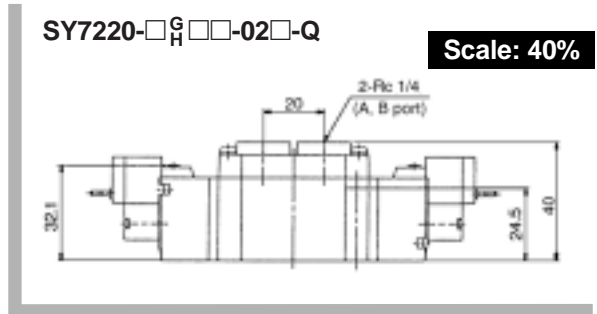
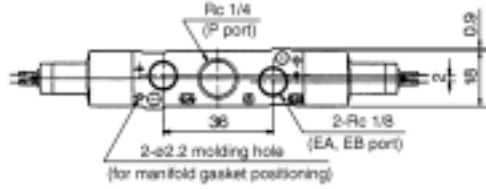
Series SY7000 Dimensions

 < >: Values with surge voltage suppressor

2 position double
Grommet (G), (H): SY7220-□^G_H □□-C⁸_{C10}-Q

SY7220-□^G_H □□-02□-Q

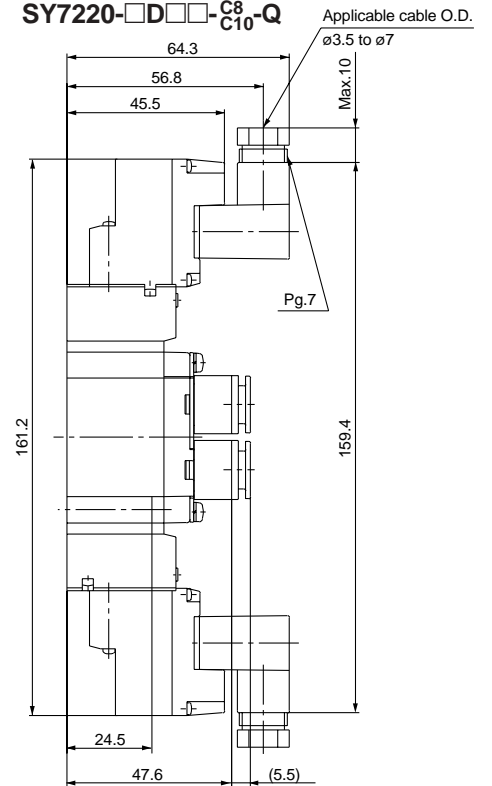
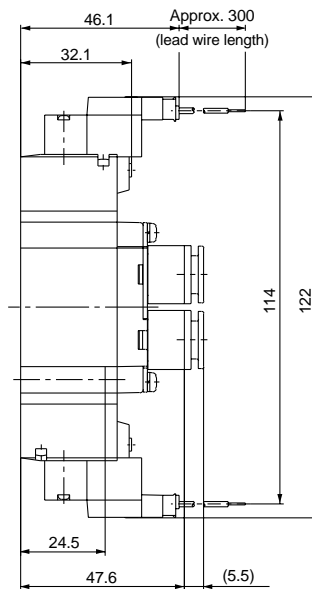
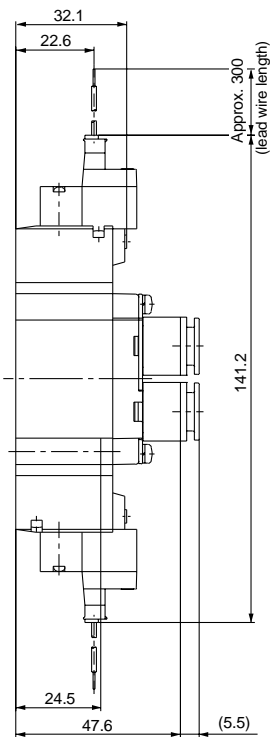
Scale: 40%



L type plug connector (L):
SY7220-□L□□-C⁸_{C10}-Q

M type plug connector (M):
SY7220-□M□□-C⁸_{C10}-Q

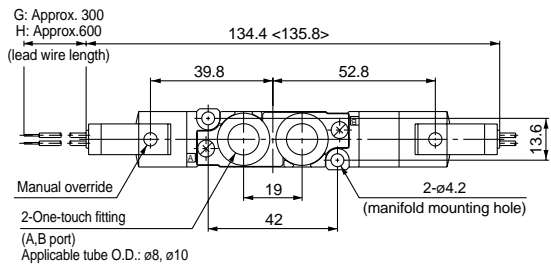
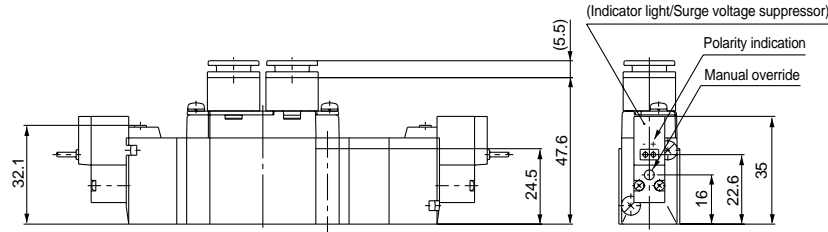
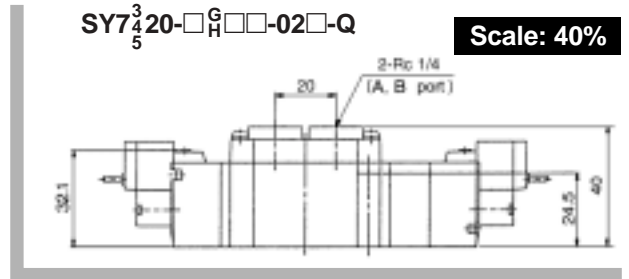
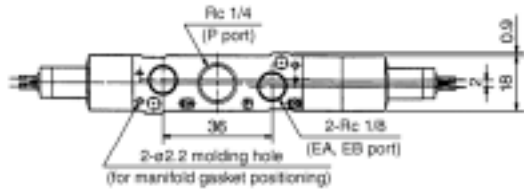
DIN terminal (D):
SY7220-□D□□-C⁸_{C10}-Q





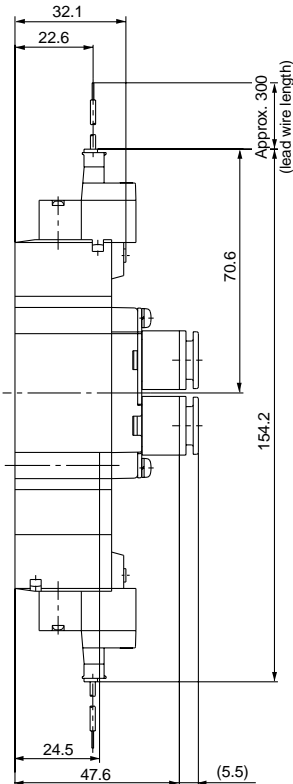
Note) < >: Values with surge voltage suppressor

3 position closed centre/exhaust centre/pressure centre
Grommet (G), (H): SY7³/₄20-□^G□□-C₈^{C10}-Q



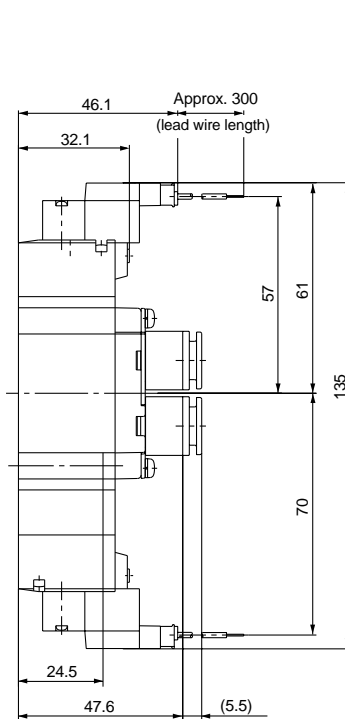
L type plug connector (L):

SY7³/₄20-□L□□-C₈^{C10}-Q



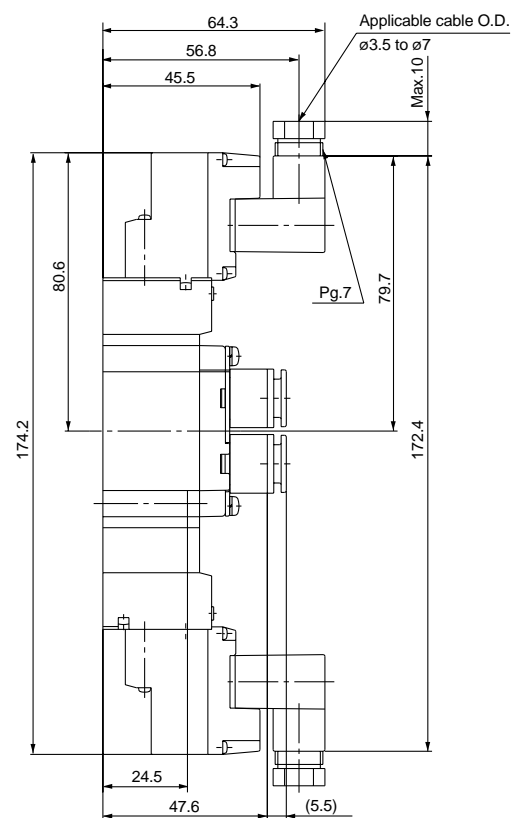
M type plug connector (M):

SY7³/₄20-□M□□-C₈^{C10}-Q



DIN terminal (D):

SY7³/₄20-□D□□-C₈^{C10}-Q



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7

Body Ported Type

Series SY9000 Dimensions



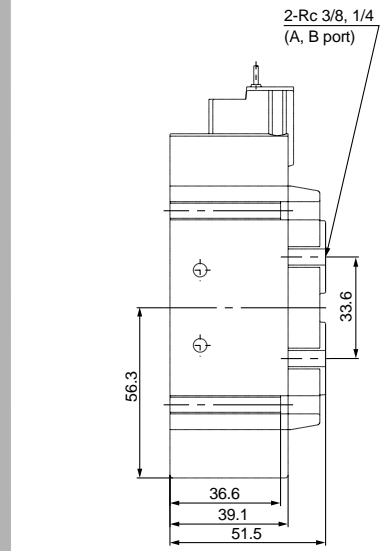
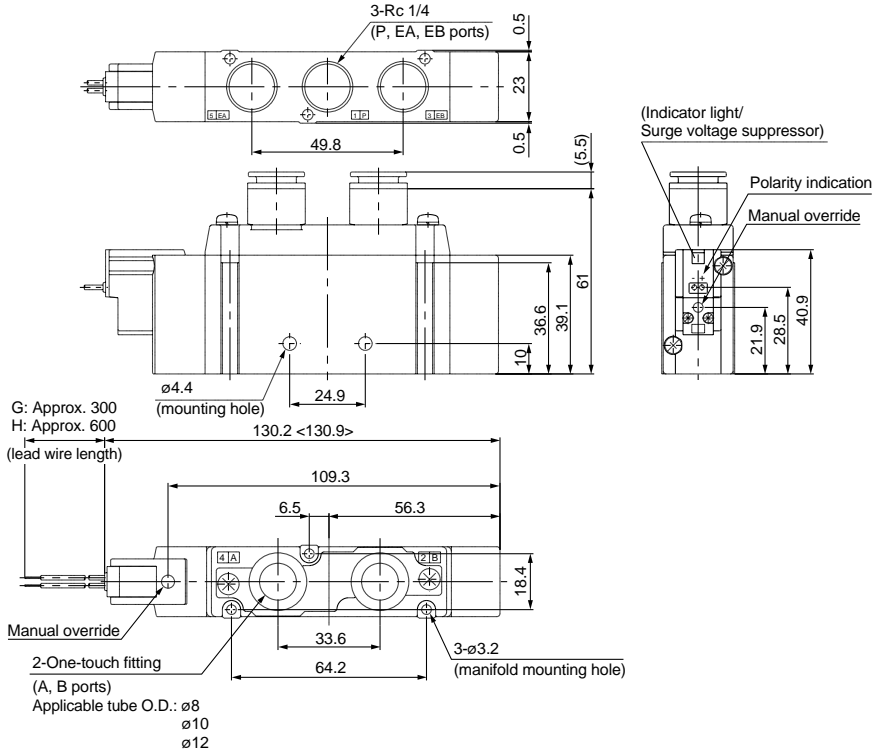
Note) < >: Values with surge voltage suppressor

2 position single

Grommet (G), (H): SY9120-□^G_H□□-^{C8}_{C12}-Q

SY9120-□^G_H□□-^{C8}_{C12}-Q

Scale: 40%



L type plug connector (L):

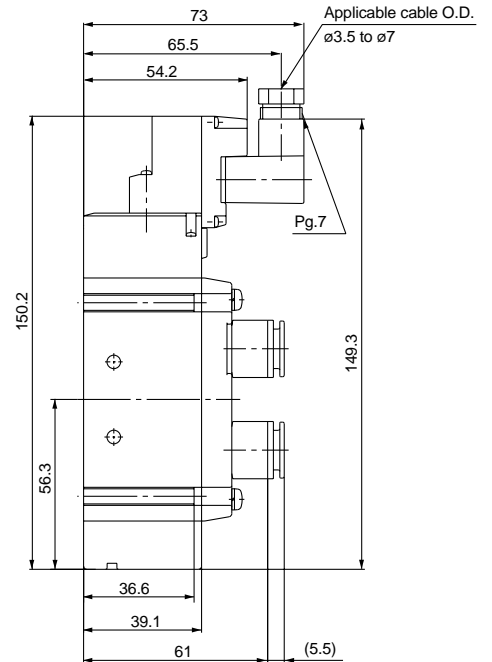
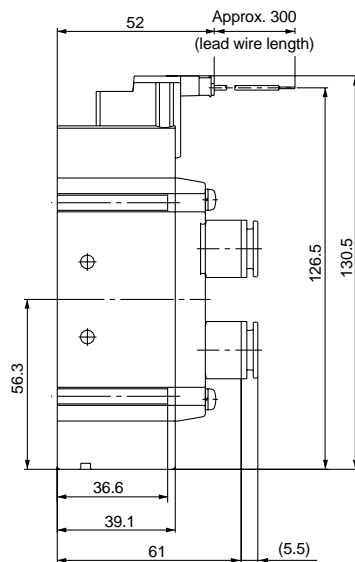
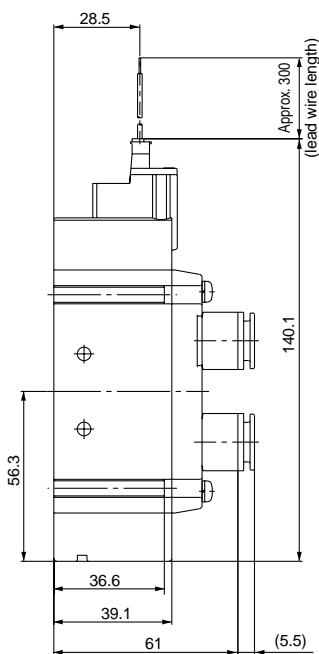
SY9120-□L□□-^{C8}_{C12}-Q

M type plug connector (M):

SY9120-□M□□-^{C8}_{C12}-Q

DIN terminal (D):

SY9120-□D□□-^{C8}_{C12}-Q



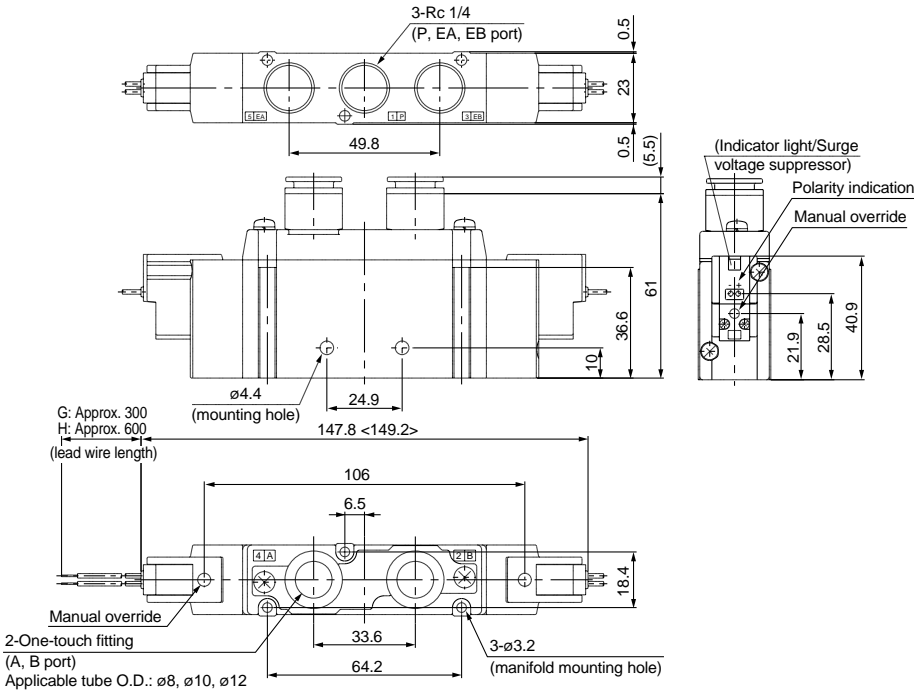


Note) < >: Values with surge voltage suppressor

Series SY9000 Dimensions

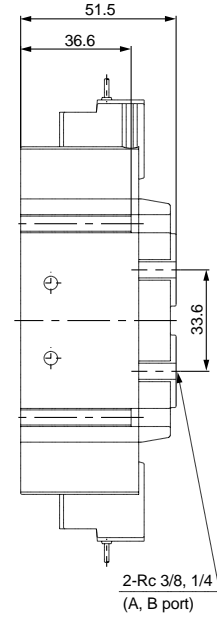
2 position double

Grommet (G), (H): SY9220-□^G□□-^{C8}_{C12}-Q



SY9220-□^G□□-^{C8}_{C12}-Q

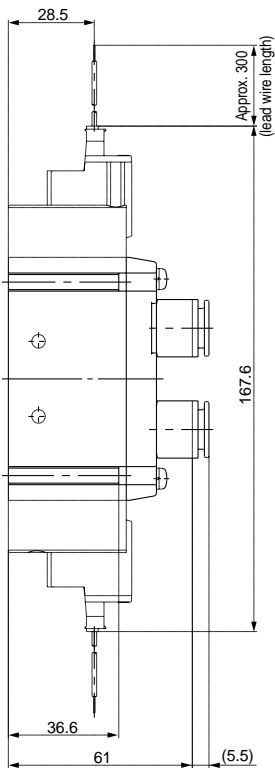
Scale: 40%



- SV
- SY**
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7

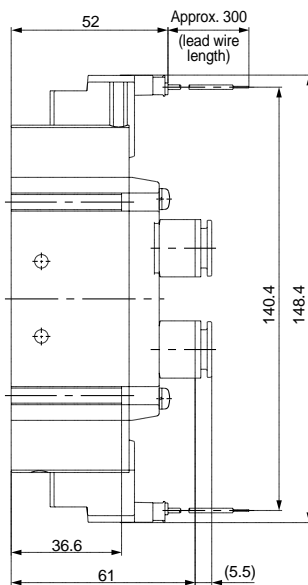
L type plug connector (L):

SY9220-□^L□□-^{C8}_{C12}-Q



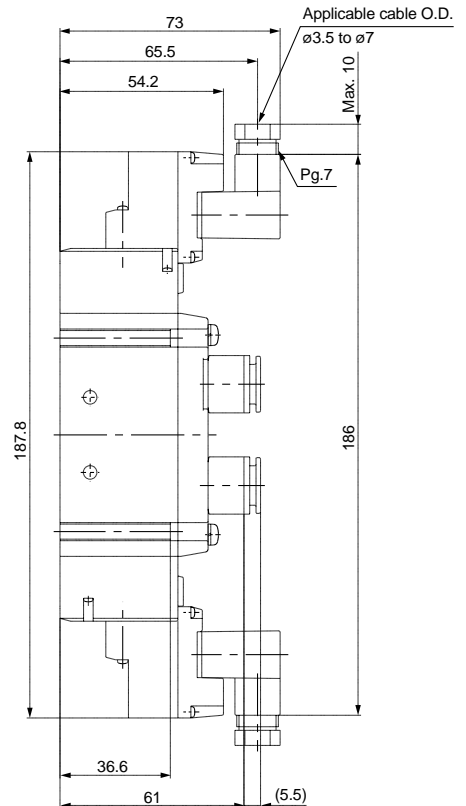
M type plug connector (M):

SY9220-□^M□□-^{C8}_{C12}-Q



DIN terminal (D):

SY9220-□^D□□-^{C8}_{C12}-Q



- VQC
- SQ
- VQ
- VQ4
- VQ5
- VQZ
- VQD
- VFS
- VS
- VS7
- VQ7

Body Ported Type

Series SY9000 Dimensions



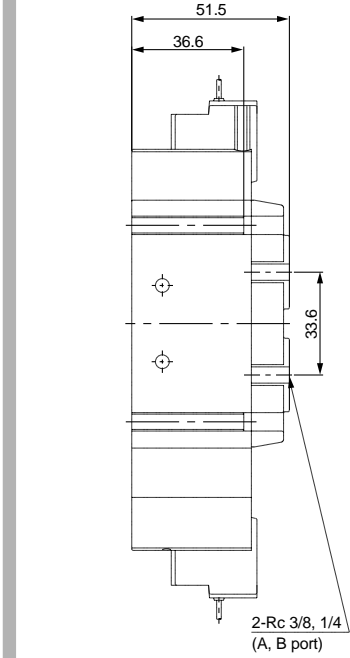
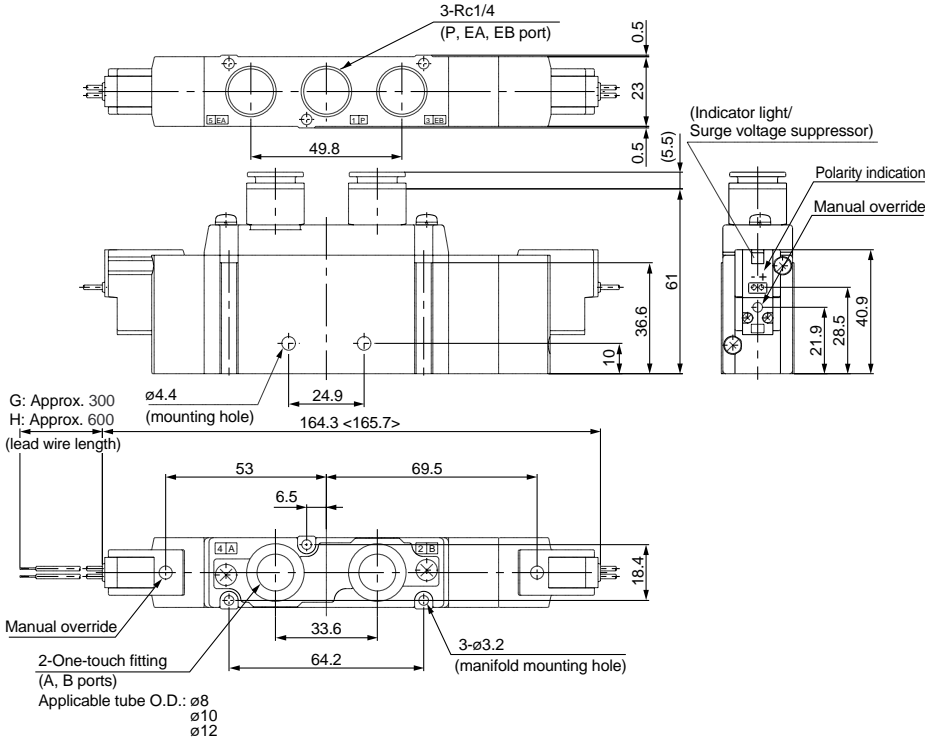
Note) < >: Values with surge voltage suppressor

3 position closed centre/exhaust centre/pressure centre

Grommet (G), (H): SY9³/₅20-□^G□□-^{C8}C10-Q
^{C12}

SY9³/₅20-□^G□□-^{C8}03-□-Q

Scale: 40%



L type plug connector (L):

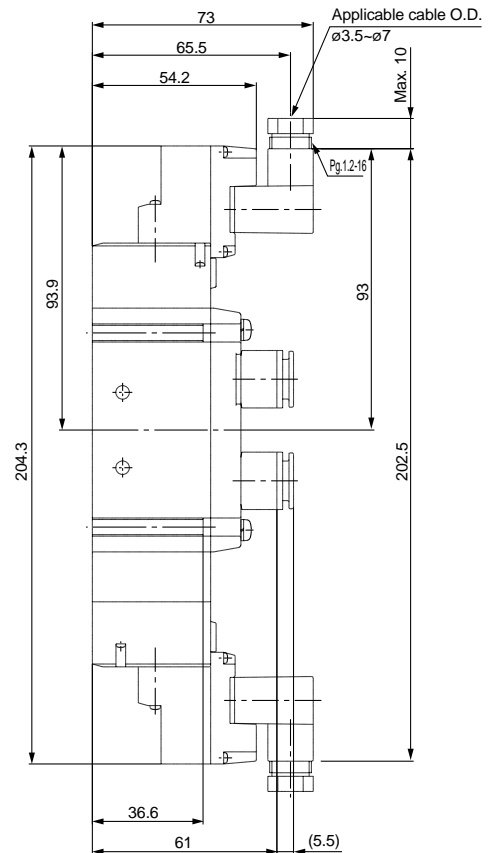
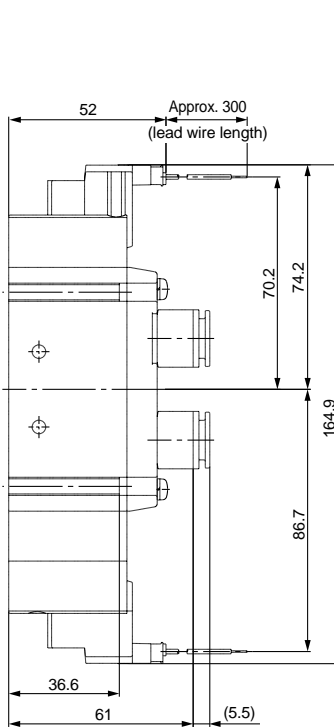
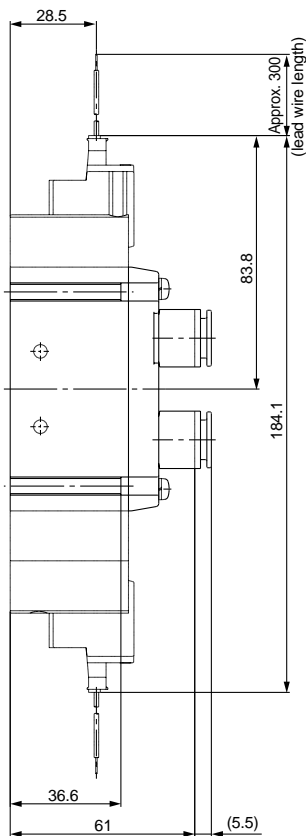
SY9³/₅20-□L□□-^{C8}C10-Q
^{C12}

M type plug connector (M):

SY9³/₅20-□M□□-^{C8}C10-Q
^{C12}

DIN terminal (D):

SY9³/₅20-□D□□-^{C8}C10-Q
^{C12}



SV

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VQC

SQ

VQ

VQ4

VQ5

VQZ

VQD

VFS

VS

VS7

VQ7