

5 Port Solenoid Valve Body Ported Manifold Bar Stock Type/Individual Wiring



Type **20**

SY3000/5000/7000 Series

How to Order Manifold

SS5Y 5 - 20 - 05 - [] - []

Manifold series

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

Stations

| | |
|----|-------------|
| 02 | 2 stations |
| ⋮ | ⋮ |
| 20 | 20 stations |

* This also includes the number of blanking plate assemblies.

Thread type

| | |
|-----|------|
| Nil | Rc |
| 00F | G |
| 00N | NPT |
| 00T | NPTF |

CE-compliant

| | |
|-----|--------------|
| Nil | — |
| Q | CE-compliant |

Note) AC-type models that are CE-compliant have DIN terminals only.

How to Order Manifold Assembly (Example)

Example

Cylinder port size
C6: With One-touch fitting for ø6

Example Assembly List:

- 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.

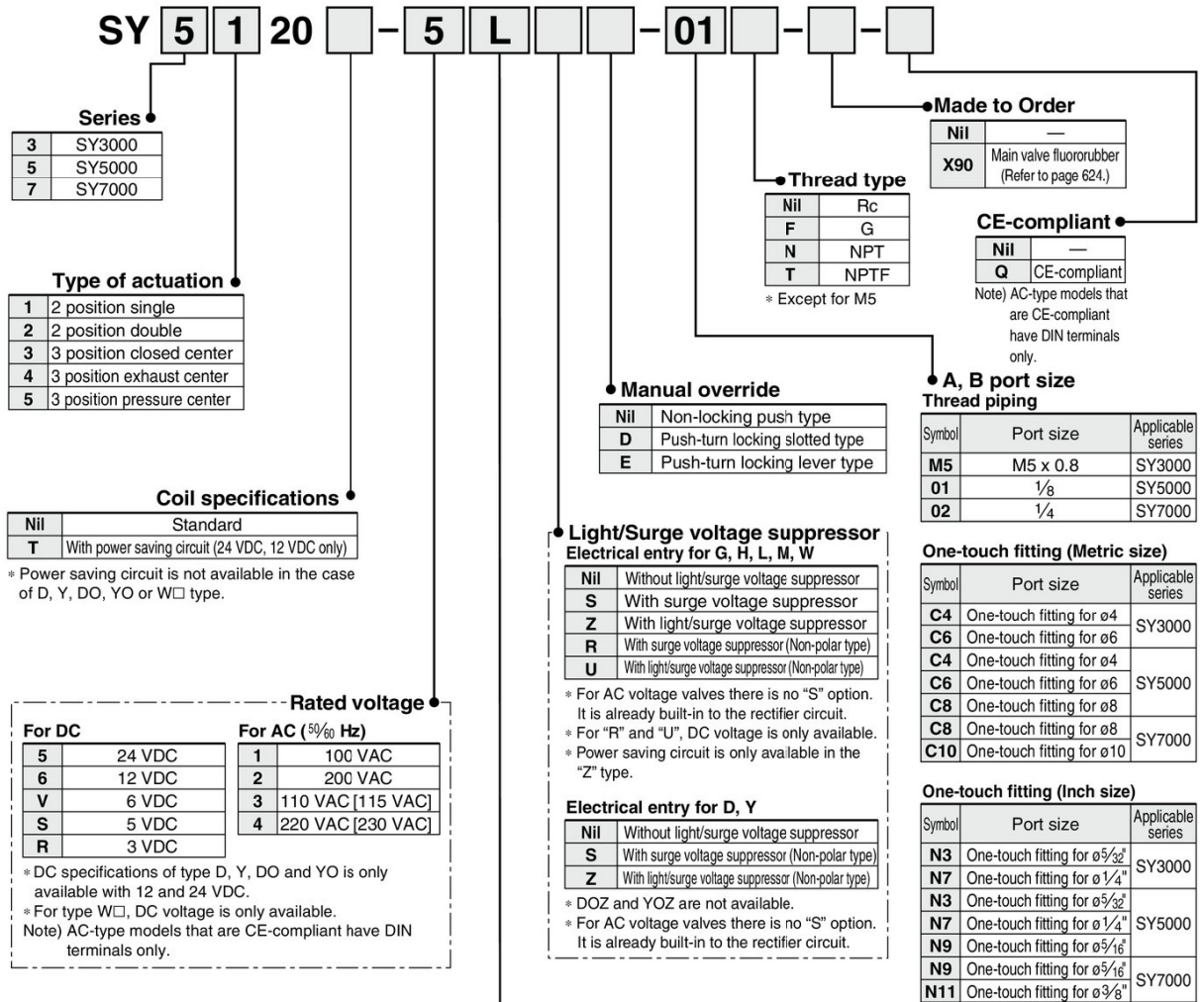


Body Ported SY3000/5000/7000 Series Type 20



How to Order Valve

Note) AC-type models that are CE-compliant have DIN terminals only.



- SJ
- SY
- SY
- S0700
- S0700

Electrical entry

| | | 24, 12, 6, 5, 3 VDC/ 100, 110, 200, 220 VAC | | | 24, 12 VDC/ 100, 110, 200, 220 VAC | 24, 12, 6, 5, 3 VDC |
|-------------------|--------|--|------------------|------------------|--|---------------------|
| | | Grommet | L plug connector | M plug connector | DIN terminal (SY5000/7000 only) | M8 connector |
| Manifold mounting | SY3000 | ● | ● | ● | ● | ● |
| | SY5000 | ● | ● | ● | ● | ● |
| | SY7000 | ● | ● | ● | ● | ● |
| CE-compliant | DC | ● | ● | ● | ● | ● |
| | AC | — | — | — | ● | — |

Legend:

| | | | | | | | | | |
|----|-------------------------|-----|--------------------------------|-----|--------------------------------|---------------------------------|-------------------|-------------------------|-------------------------------|
| G: | Lead wire length 300 mm | L: | With lead wire (Length 300 mm) | M: | With lead wire (Length 300 mm) | DIN terminal (SY5000/7000 only) | WO: | Without connector cable | |
| H: | Lead wire length 600 mm | LN: | Without lead wire | MN: | Without lead wire | D: | With connector | W□: | With connector cable (Note 2) |
| | | LO: | Without connector | MO: | Without connector | Y: | With connector | | |
| | | | | | | YO: | Without connector | | |

— Note 1)

Note 1) The DIN terminal of the SY3000 series cannot be mounted on a standard manifold. For details, refer to page 639.

Note 2) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 642.

* LN, MN type: with 2 sockets.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 638.

* For connector cable of M8 connector, refer to page 641.

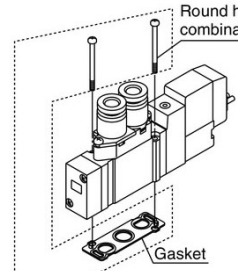
* M8 thread conforming to IEC60947-5-2 standard is also available. Refer to page 623 for details.

* Refer to page 638 for the lead wire length of L and M plug connectors.

* Refer to page 639 for the connector assembly with cover for L and M plug connectors.

Note) When placing an order for body ported solenoid valve as a single unit, mounting screw for manifold and gasket are not attached. Order them separately, if necessary.

Gasket assembly part no.



| Series | Gasket assembly part no. |
|--------|--------------------------|
| SY3000 | SY3000-GS-1 |
| SY5000 | SY5000-GS-1 |
| SY7000 | SY7000-GS-1 |

Note) The gasket assembly includes 10 sets of mounting screws and a gasket.



Type **20** SY3000/5000/7000 Series



Manifold Specifications

| Model | SS5Y3-20(-Q) | SS5Y5-20(-Q) | SS5Y7-20(-Q) | |
|---|------------------------------------|--|--|---|
| 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 ^{Note1)} | | | |
| A, B port location | Valve | | | |
| Port size | P, EA, EB port | 1/8 | 1/4 | 1/4 |
| | A, B port | M5 x 0.8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) | 1/8 C4 (One-touch fitting for ø4) C6 (One-touch fitting for ø6) C8 (One-touch fitting for ø8) | 1/4 C8 (One-touch fitting for ø8) C10 (One-touch fitting for ø10) |
| Manifold base weight W (g) n: Stations | W = 13n + 24 | W = 36n + 64 | W = 43n + 35 | |

Note 1) 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.

Note 2) Refer to "Manifold Option" on page 467.

Flow Rate Characteristics

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

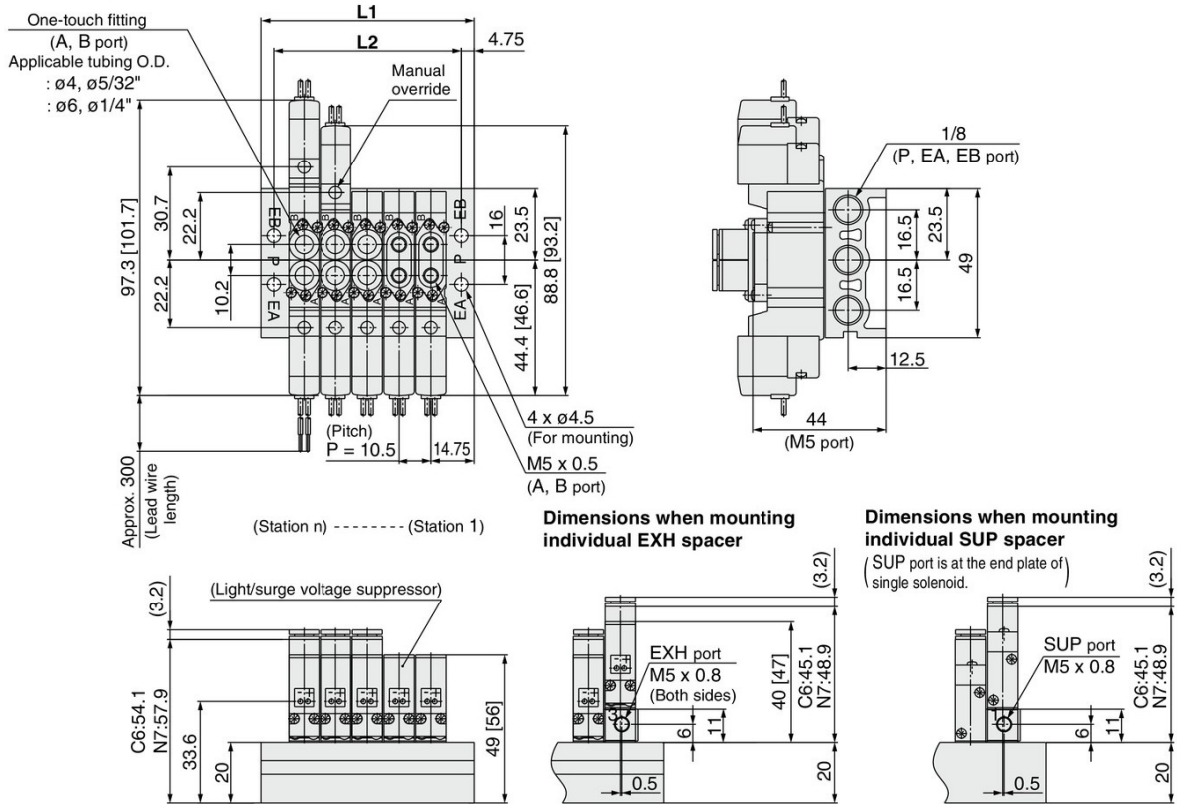
Note) The value is for manifold base with 5 stations and individually operated 2 position type.

Body Ported SY3000/5000/7000 Series Type 20

SY3000: SS5Y3-20-Stations -

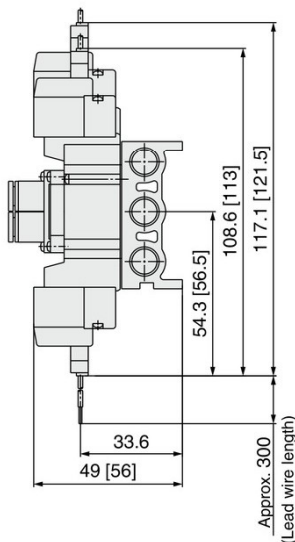
[]: AC

Grommet (G)

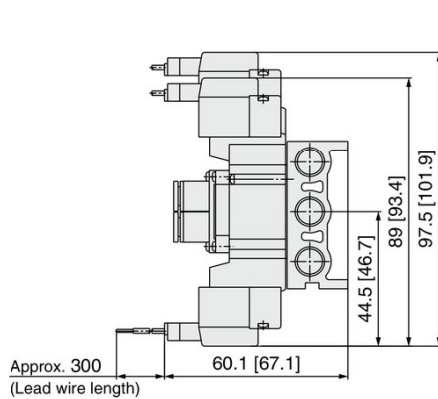


- SJ
- SY
- SY
- S0700
- S0700

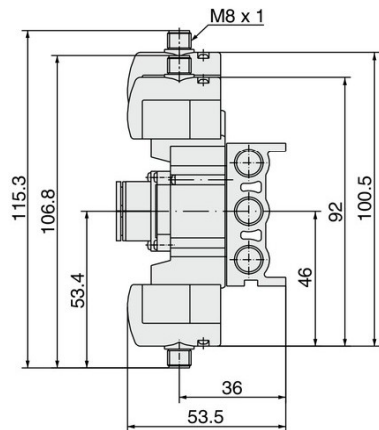
L plug connector (L)



M plug connector (M)



M8 connector (WO)



Note) Refer to page 642 for dimensions of connector types.

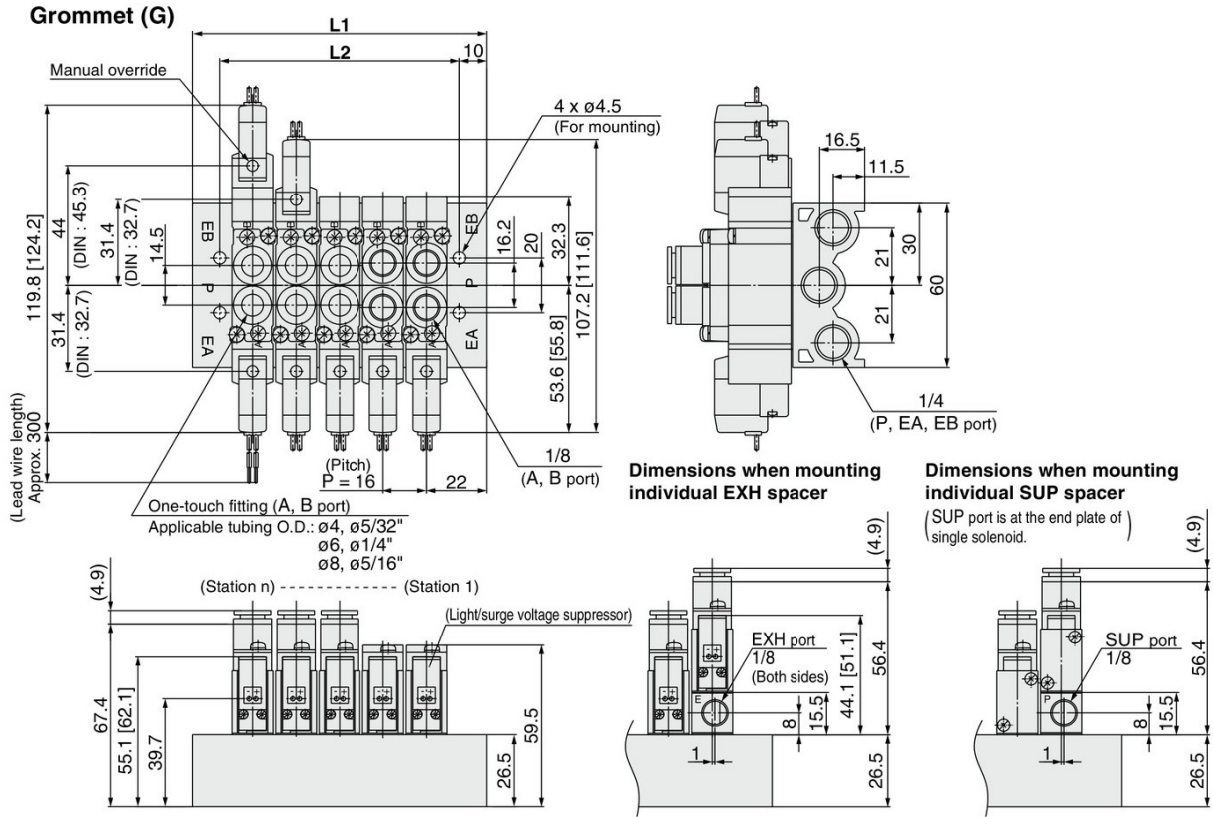
| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 stations |
|------------|------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|
| L1 | 40 | 50.5 | 61 | 71.5 | 82 | 92.5 | 103 | 113.5 | 124 | 134.5 | 145 | 155.5 | 166 | 176.5 | 187 | 197.5 | 208 | 218.5 | 229 |
| L2 | 30.5 | 41 | 51.5 | 62 | 72.5 | 83 | 93.5 | 104 | 114.5 | 125 | 135.5 | 146 | 156.5 | 167 | 177.5 | 188 | 198.5 | 209 | 219.5 |



Type 20 SY3000/5000/7000 Series

SY5000: SS5Y5-20- Stations -

[]: AC

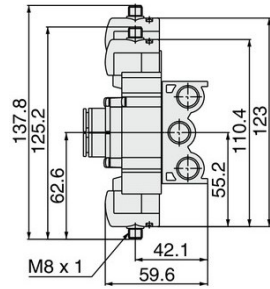
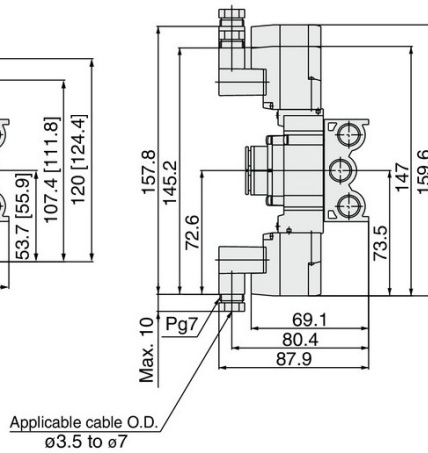
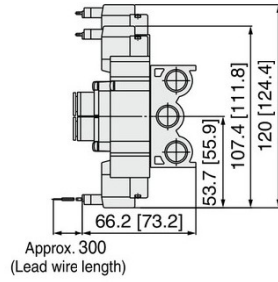
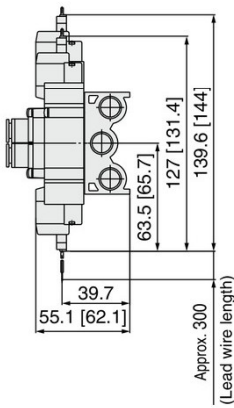


L plug connector (L)

M plug connector (M)

DIN terminal (D, Y)

M8 connector (WO)



Note) Refer to page 642 for dimensions of connector types.

| Stations n | 2 stations | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 stations |
|------------|------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| L1 | 60 | 76 | 92 | 108 | 124 | 140 | 156 | 172 | 188 | 204 | 220 | 236 | 252 | 268 | 284 | 300 | 316 | 332 | 348 |
| L2 | 40 | 56 | 72 | 88 | 104 | 120 | 136 | 152 | 168 | 184 | 200 | 216 | 232 | 248 | 264 | 280 | 296 | 312 | 328 |