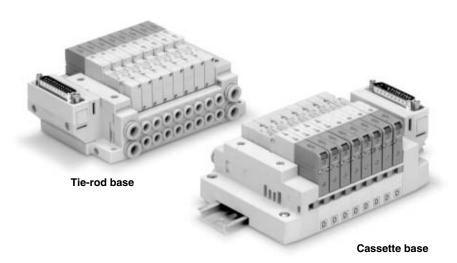
D-sub Connector



Cassette base manifold SV1000/SV2000

Applicable series

Tie-rod base manifold SV1000/SV2000/SV3000/SV4000

- Number of connectors: 25 pins
- MIL-C-24308

Conforming to JIS-X-5101

SV

SZ

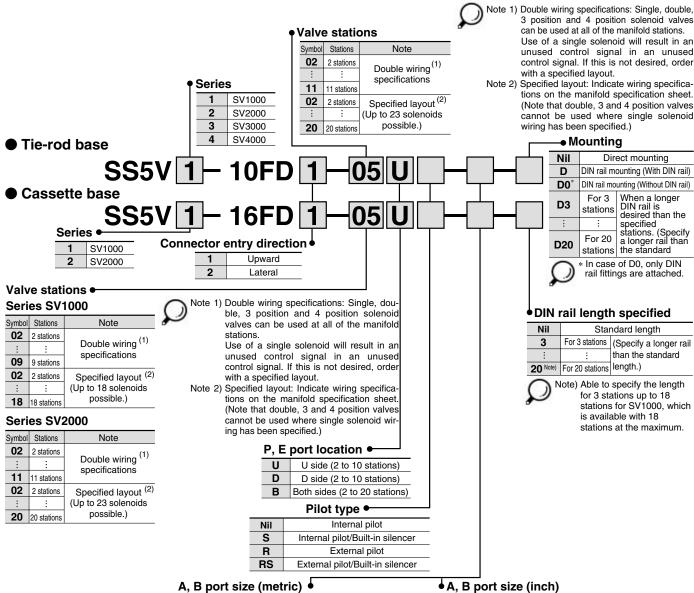
SY

SYJ

SX

D-sub Connector Series SV

How to Order



| A, B p | ort size (metric) • | | | | | | | |
|--------|----------------------------|-------------------|-------------------|--|--|--|--|--|
| Symbol | A, B port | P, E port | Applicable series | | | | | |
| C3 | One-touch fitting for ø3.2 | One touch | | | | | | |
| C4 | One-touch fitting for ø4 | One-touch | SV1000 | | | | | |
| C6 | One-touch fitting for ø6 | fitting for ø8 | | | | | | |
| C4 | One-touch fitting for ø4 | One-touch | | | | | | |
| C6 | One-touch fitting for ø6 | | SV2000 | | | | | |
| C8 | One-touch fitting for ø8 | fitting for ø10 | 1 | | | | | |
| C6 | One-touch fitting for ø6 | One-touch | | | | | | |
| C8 | One-touch fitting for ø8 | fitting for ø12 | SV3000 | | | | | |
| C10 | One-touch fitting for ø10 | Illulig lot b 12 | | | | | | |
| C8 | One-touch fitting for ø8 | One-touch | | | | | | |
| C10 | One-touch fitting for ø10 | fitting for ø12 | | | | | | |
| C12 | One-touch fitting for ø12 | Illuling for \$12 | | | | | | |
| 02 | Rc 1/4 | D- 0/0 | SV4000 | | | | | |
| 03 | Rc 3/8 | Rc 3/8 | | | | | | |
| 02F | G 1/4 | 0.0/0 | | | | | | |
| 03F | G 3/8 | G 3/8 | | | | | | |
| M | A, B ports mixed | | | | | | | |

| | ∳ A, | В | port | size | (inch) |
|---|---------------|---|------|------|--------|
| • | $\overline{}$ | | | | |

| _ | | | <u> </u> | | | | | | |
|---|-------------------|--------------------|------------------------------|--------------------|-------------------|--|--|--|--|
| | Applicable series | Symbol | A, B port | P, E port | Applicable series | | | | |
| | | N1 | One-touch fitting for ø1/8" | 0 | | | | | |
| | SV1000 | N3 | One-touch fitting for ø5/32" | One-touch | SV1000 | | | | |
| , | | N7 | One-touch fitting for ø1/4" | fitting for ø5/16" | | | | | |
| | | N3 | One-touch fitting for ø5/32" | 0 | | | | | |
| _ | SV2000 | N7 | One-touch fitting for ø1/4" | One-touch | SV2000 | | | | |
| 0 | | N9 | One-touch fitting for ø5/16" | fitting for ø3/8" | | | | | |
| | | N7 | One-touch fitting for ø1/4" | One-touch | | | | | |
| 2 | SV3000 | N9 | One-touch fitting for ø5/16" | fitting for ø3/8" | SV3000 | | | | |
| 4 | | N11 | One-touch fitting for ø3/8" | 1111111y 101 Ø3/6 | | | | | |
| | | N9 | One-touch fitting for ø5/16" | One-touch | | | | | |
| 2 | | N11 | One-touch fitting for ø3/8" | fitting for ø3/8" | | | | | |
| _ | | 02N | NPT 1/4 | NPT 3/8 | 0,,,,,, | | | | |
| | SV4000 | 03N | NPT 3/8 | INP I 3/8 | SV4000 | | | | |
| | | 02T | NPTF 1/4 | NDTE 0/0 | | | | | |
| | | 03T | NPTF 3/8 | NPTF 3/8 | | | | | |
| | | M A, B ports mixed | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

- * In the case of mixed specifications (M), indicate separately on the manifold specification sheet.
- * Port sizes of X, PE port for external pilot specifications (R, RS) are ø4 (metric), ø5/32" (inch) for SV1000/2000 and ø6 (metric) and ø1/4" (inch) for SV3000/4000.





Series SV

Cassette base manifold



Manifold Specifications

| App | olicable series | SV1000 | SV2000 | | | | |
|----------------|-------------------|--------------------------------------|-------------|--|--|--|--|
| Manifold type | | Stacking type cassette base manifold | | | | | |
| 1 (P: SUP)/3, | 5 (E: EXH) type |) type Common SUP, EXH | | | | | |
| Valve stations | s (maximum) | 18 stations | 20 stations | | | | |
| Max. number | of solenoids | 18 points | 26 points | | | | |
| | 1(P), 3/5(E) port | C8, N9 | C10, N11 | | | | |
| Port size | 4(A) 2(B) port | C3, C4, C6 | C4, C6, C8 | | | | |
| | 4(A), 2(B) port | N1, N3, N7 | N3, N7, N9 | | | | |

be easily done by lever operation.

Flow Characteristics Port size Flow characteristics Model 1, 5, 3 4.2 $1 \rightarrow 4/2 \ (P \rightarrow A/B)$ $4/2 \rightarrow 3/5 \text{ (A/B} \rightarrow \text{E)}$ C [dm3/(s·bar)] Cv C [dm3/(s·bar)] Cv (P, EA, EB) (A, B) b b SS5V1-16 0.22 C8 C6 0.89 0.22 0.98 0.21 0.23 SS5V2-16 C10 C8 2.3 0.28 0.50 2.7 0.18 0.56



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

Tie-rod base manifold



• 34 pins connector allows up to 16 stations with double solenoids.

Manifold Specifications

| App | licable series | SV1000 | SV1000 SV2000 SV3000 SV | | | | | | |
|--------------------|-------------------|------------|-------------------------|-----------------------|-----------------|--|--|--|--|
| Manifold type | | | Tie-rod bas | e manifold | | | | | |
| 1 (P: SUP)/3, 5 (E | E: EXH) type | | Common S | SUP, EXH | | | | | |
| Valve stations (ma | aximum) | | 20 stations | | | | | | |
| Max. number of s | olenoids | 32 points | | | | | | | |
| | 1(P), 3/5(E) port | C8, N9 | C10, N11 | C12, N11 | C12, N11, 03 | | | | |
| Port size | 4(A), 2(B) port | C3, C4, C6 | C4, C6, C8 | C6, C8 C6, C8, C10 C8 | | | | | |
| | 4(A), 2(B) port | N1, N3, N7 | N3, N7, N9 | N7, N9, N11 | N9, N11, 02, 03 | | | | |

Flow Characteristics

| | Port | size | Flow characteristics | | | | | | |
|----------|-------------|--------|------------------------------|--|------|--|------|------|--|
| Model | 1, 5, 3 | 4, 2 | | $1 \rightarrow 4/2(P \rightarrow A/B)$ | | $4/2 \rightarrow 3/5(A/B \rightarrow E)$ | | | |
| | (P, EA, EB) | (A, B) | C [dm ³ /(s·bar)] | b | Cv | C [dm ³ /(s·bar)] | b | Cv | |
| SS5V1-10 | C8 | C6 | 0.98 | 0.26 | 0.24 | 1.1 | 0.35 | 0.28 | |
| SS5V2-10 | C10 | C8 | 2.1 | 0.20 | 0.46 | 2.4 | 0.18 | 0.48 | |
| SS5V3-10 | C12 | C10 | 4.2 | 0.22 | 0.91 | 4.3 | 0.21 | 0.93 | |
| SS5V4-10 | C12 | C12 | 6.2 | 0.19 | 1.3 | 7.0 | 0.18 | 1.6 | |

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

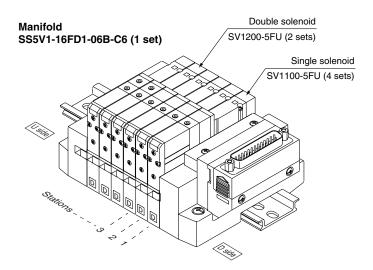
Enclosure of Manifold Variations (Common for cassette base and tie-rod base)

| Series | Enclosure (Based on IEC529) | | | | | | | |
|---|-----------------------------|--|--|--|--|--|--|--|
| Series EX500 Decentralized serial wiring | IP67 * | | | | | | | |
| Series EX250 Serial wiring with input/output onit | IP67 | | | | | | | |
| Series EX120 Dedicated output serial wiring | Dusttight (IP40) | | | | | | | |
| For circular connector | IP67 | | | | | | | |
| D-sub connector | Dusttight (IP40) | | | | | | | |
| Flat ribbon cable | Dusttight (IP40) | | | | | | | |

^{*} Enclosure of a gateway unit and input manifold is IP65.

How to Order Valve Manifold Assembly

Ordering example (SV1000)



SS5V1-16FD1-06B-C6-----1 set (manifold part no.) *SV1100-5FU-----4 sets (Single solenoid part no.) *SV1200-5FU······2 sets (Double solenoid part no.)

SV

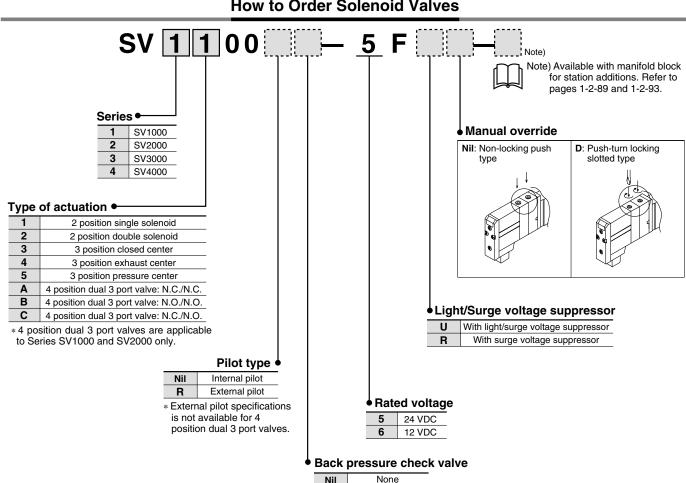
SZ

SY

SYJ

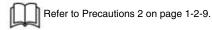
SX

How to Order Solenoid Valves



| Nil | None |
|-----|----------|
| K | Built-in |

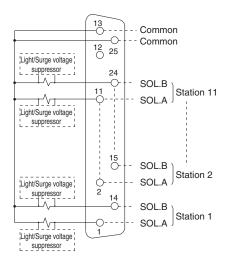
- *Built-in back pressure check valve type is applicable to series SV1000 only.
- * Back pressure check valve is not available for 3 position closed center and 3 position pressure





Manifold Electrical Wiring

10F/16F D-sub Connector Type (25 pins)



- This circuit has double wiring specifications for up to 11 stations. Since the usable number of solenoids differs depending on the manifold type, refer to the table below. In the case of single solenoids, connect to SOL.A. Furthermore, when wiring is specified on the manifold specification sheet, connections are made without skipping any connectors, and signals A for single and A, B for double are in order $1 \to 14 \to 2 \to 15$, etc.
- Stations are counted from D side (connector side) as the 1st.
 Since solenoid valves do not have polarity, either the +COM or -COM can be used.

Usable No. of Solenoids

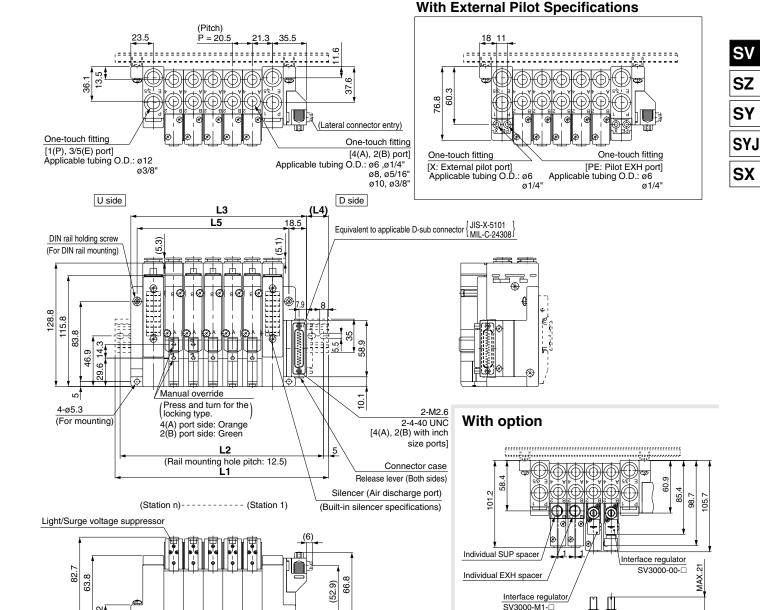
| Model | Max. no. of solenoids | |
|-----------------------|------------------------|----|
| Tie-rod base type 10 | SV1000 to SV4000 | 23 |
| Connette base type 16 | SV1000 | 18 |
| Cassette base type 16 | SV2000 | 23 |

Dimensions: Series SV3000 for D-sub Connector

● Tie-rod base manifold: SS5V3-10FD $_2^1$ - Stations $_{\rm B}^{\rm U}$ (S, R, RS)- $_{\rm C10,N11}^{\rm C6,N7}$ (-D)

• When P, E port outlets are indicated on the U side or D side, the P, E ports on the opposite side are plugged.

• External pilot port positions and silencer discharge port positions are the same as P, E port outlet positions.



L Dimension

14.7 (For DIN rail mounting)

| n: | Stations |
|----|----------|
|----|----------|

157.9

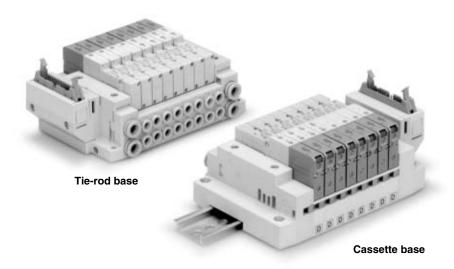
Φ.

⇎

| Ln | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L1 | 160.5 | 173 | 198 | 223 | 235.5 | 260.5 | 285.5 | 298 | 323 | 348 | 360.5 | 385.5 | 398 | 423 | 448 | 460.5 | 485.5 | 510.5 | 523 |
| L2 | 150 | 162.5 | 187.5 | 212.5 | 225 | 250 | 275 | 287.5 | 312.5 | 337.5 | 350 | 375 | 387.5 | 412.5 | 437.5 | 450 | 475 | 500 | 512.5 |
| L3 | 122 | 142.5 | 163 | 183.5 | 204 | 224.5 | 245 | 265.5 | 286 | 306.5 | 327 | 347.5 | 368 | 388.5 | 409 | 429.5 | 450 | 470.5 | 491 |
| L4 | 22.5 | 18.5 | 20.5 | 23 | 19 | 21 | 23.5 | 19.5 | 21.5 | 24 | 20 | 22 | 18 | 20.5 | 22.5 | 18.5 | 21 | 23 | 19 |
| L5 | 97 | 117.5 | 138 | 158.5 | 179 | 199.5 | 220 | 240.5 | 261 | 281.5 | 302 | 322.5 | 343 | 363.5 | 384 | 404.5 | 425 | 445.5 | 466 |

(10)

Flat Ribbon Cable Connector



Cassette base manifold SV1000/SV2000

Applicable series

Tie-rod base manifold SV1000/SV2000/SV3000/SV4000

• Number of connectors: 26, 20, 10 pins

• With strain relief Conforming to MIL-C-83503 SV

SZ

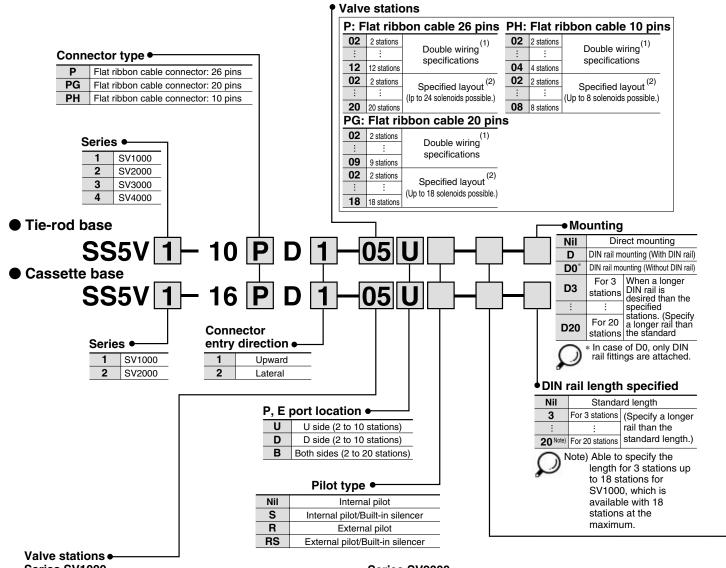
SY

SYJ

SX

Flat Ribbon Cable Connector Series SV

How to Order



Series SV1000 P: Flat ribbon cable 26 pins PH: Flat ribbon cable 10 pins

| 02 | 2 stations | (1) | 02 | 2 stations | Double wiring (1) | | | |
|----|-------------|--------------------------------|----|------------|---|--|--|--|
| : | : | Double wiring (1) | : | ; | specifications | | | |
| 09 | 9 stations | specifications | 04 | 4 stations | | | | |
| 02 | 2 stations | Specified layout (2) | 02 | 2 stations | Consisted layout (2) | | | |
| ÷ | : | (Up to 18 solenoids possible.) | : | : | Specified layout ⁽²⁾ (Up to 8 solenoids possible.) | | | |
| 18 | 18 stations | | 08 | 8 stations | (Op to 0 soleriolds possible.) | | | |

PG: Flat ribbon cable 20 pins

| | | <u> </u> | |
|----|-------------|--|--|
| 02 | 2 stations | D (1) | |
| : | : | Double wiring (1) | |
| 09 | 9 stations | specifications | |
| 02 | 2 stations | 0 ''' 11 (2) | |
| : | : | Specified layout (2) (Up to 18 solenoids possible. | |
| 18 | 18 stations | (Up to 16 soletiolds possible.) | |

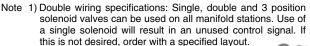
Series SV2000

| P: F | lat ribl | oon cable 26 pins | PH: Flat ribbon cable 10 pins | | | |
|------|-------------|--------------------------------|-------------------------------|------------|-------------------------------|--|
| 02 | 2 stations | - (1) | 02 | 2 stations | - (1) | |
| : | : | Double wiring (1) | : | : | Double wiring (1) | |
| 12 | 12 stations | specifications | 04 | 4 stations | specifications | |
| 02 | 2 stations | Specified layout (2) | 02 | 2 stations | Specified layout (2) | |
| : | : | (Up to 24 solenoids possible.) | : | : | (Up to 8 solenoids possible.) | |
| | | (Op to 24 solcholds possible.) | | | (Op to 0 solcholds possible.) | |

08 8 stations

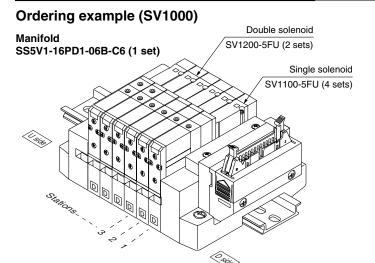
20 20 stations PG: Flat ribbon cable 20 pins

| 02 | 2 stations | D (1) |
|----|-------------|--|
| : | ÷ | Double wiring ⁽¹⁾ specifications |
| 09 | 9 stations | specifications |
| 02 | 2 stations | 0 (2) |
| : | : | Specified layout ⁽²⁾ (Up to 18 solenoids possible.) |
| 18 | 18 stations | (Op to 16 soleriolds possible.) |



Note 2) Specified layout: Indicate wiring specifications on a manifold specification sheet.

How to Order Valve Manifold Assembly



SS5V1-16PD1-06B-C6········1 set (manifold part no.) *SV1100-5FU······4 sets (Single solenoid part no.) *SV1200-5FU2 sets (Double solenoid part no.)

SV

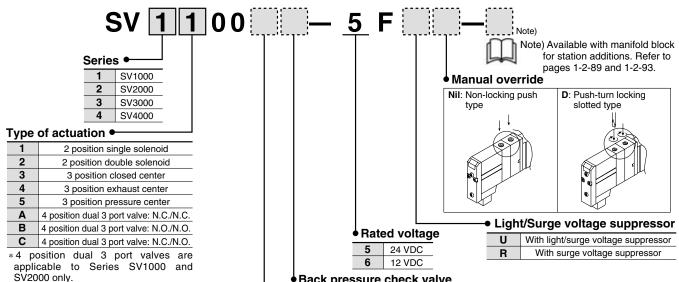
SZ

SY

SYJ

SX





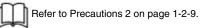
Pilot type ● Nil Internal pilot

R External pilot * External pilot specifications is not available for 4 position dual 3 port valves.

Back pressure check valve

| Nil | None |
|-----|----------|
| K | Built-in |
| | |

- * Built-in back pressure check valve type is applicable to series SV1000 only.
- * Back pressure check valve is not available for 3 position closed center and 3 position pressure center.



A, B port size (Metric)

A, B port size (Inch)

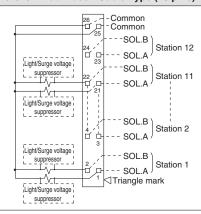
| | • | | | | | | | |
|--------|----------------------------|---|-------------------|--|--|--|--|--|
| Symbol | A, B port | P, E port | Applicable series | | | | | |
| C3 | One-touch fitting for ø3.2 | l <u>.</u> | | | | | | |
| C4 | One-touch fitting for ø4 | One-touch | SV1000 | | | | | |
| C6 | One-touch fitting for ø6 | fitting for ø8 | | | | | | |
| C4 | One-touch fitting for ø4 | | | | | | | |
| C6 | One-touch fitting for ø6 | One-touch fitting for ø10 | SV2000 | | | | | |
| C8 | One-touch fitting for ø8 | Illuling for \$10 | | | | | | |
| C6 | One-touch fitting for ø6 | | | | | | | |
| C8 | One-touch fitting for ø8 | One-touch fitting for ø12 | SV3000 | | | | | |
| C10 | One-touch fitting for ø10 | 111111111111111111111111111111111111111 | | | | | | |
| C8 | One-touch fitting for ø8 | | | | | | | |
| C10 | One-touch fitting for ø10 | One-touch fitting for ø12 | | | | | | |
| C12 | One-touch fitting for ø12 | 111111111111111111111111111111111111111 | SV4000 | | | | | |
| 02 | Rc 1/4 | D 0/0 | | | | | | |
| 03 | Rc 3/8 | Rc 3/8 | | | | | | |
| 02F | G 1/4 | 0.0/0 | | | | | | |
| 03F | G 3/8 | G 3/8 | | | | | | |
| M | A, B ports mixed | | | | | | | |

| Symbol | A, B port | P, E port | Applicable series | | |
|--------|------------------------------|-----------------------------|-------------------|--|--|
| N1 | One-touch fitting for ø1/8" | | | | |
| N3 | One-touch fitting for ø5/32" | One-touch | SV1000 | | |
| N7 | One-touch fitting for ø1/4" | fitting for ø5/16" | | | |
| N3 | One-touch fitting for ø5/32" | | | | |
| N7 | One-touch fitting for ø1/4" | One-touch fitting for ø3/8" | SV2000 | | |
| N9 | One-touch fitting for ø5/16" | IIIIIIII IOI 103/0 | | | |
| N7 | One-touch fitting for ø1/4" | | | | |
| N9 | One-touch fitting for ø5/16" | One-touch fitting for ø3/8" | SV3000 | | |
| N11 | One-touch fitting for ø3/8" | IIIIIIII IOI 103/0 | | | |
| N9 | One-touch fitting for ø5/16" | One-touch | | | |
| N11 | One-touch fitting for ø3/8" | fitting for ø3/8" | | | |
| 02N | NPT 1/4 | NPT 3/8 | SV4000 | | |
| 03N | NPT 3/8 | NF1 3/6 | 374000 | | |
| 02T | NPTF 1/4 | NDTE 0/0 | | | |
| 03T | NPTF 3/8 | NPTF 3/8 | | | |
| M | A, B ports | mixed | | | |

- * In the case of mixed specifications (M), indicate separately on the manifold specification sheet.
- * Port sizes of X, PE port for external pilot specification (R, RS) are ø4 (metric), ø5/32" (inch) for SV1000/2000 and ø6(metric) and ø1/4" (inch) for SV3000/4000.

Manifold Electrical Wiring

10P/16P Flat Ribbon Cable Type (26 pins)

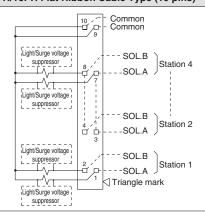


- This circuit has double wiring specifications for up to 12 stations. Since the usable number of solenoids differs depending on the manifold type, refer to the table below. In the case of single solenoids, connect to SOL. A. Furthermore, when wiring is specified on a manifold specification sheet, connections are made without skipping any connectors, and connections are made without skipping any connectors, and signals A for single and A, B for double are in order $1 \rightarrow 2 \rightarrow 3 \rightarrow 4$, etc.
 • Stations are counted from D side (connector side) as the 1st one.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference for wiring.
- Since solenoid valves do not have polarity, either the +COM or -COM can

Usable No. of Solenoids

| Model | Max. no. of solenoids | |
|-----------------------|------------------------|----|
| Tie-rod base type 10 | SV1000 to SV4000 | 24 |
| Cassette base type 16 | SV1000 | 18 |
| Casselle base type 16 | SV2000 | 24 |

10PH/16PH Flat Ribbon Cable Type (10 pins)

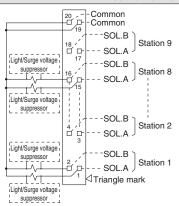


- This circuit has double wiring specifications for up to 4 stations. Since the usable number of solenoids differs depending on the manifold type, refer to the table below. In the case of single solenoids, connect to SOL. A. Furthermore, when wiring is specified on a manifold specification sheet, connections are made without skipping any connectors, connections are made without skipping any connectors, and signals A for single and A, B for double are in order 1 \rightarrow 2 \rightarrow 3 \rightarrow 4, etc.
- Stations are counted from D side (connector side) as the 1st one.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference for wiring.
- Since solenoid valves do not have polarity, either the +COM or -COM can

Usable No. of Solenoids

| Model | Max. no. of solenoids | |
|-----------------------|-----------------------|---|
| | SV1000 | |
| Tie-rod base type 10 | to | |
| | SV4000 | 8 |
| Cassette base type 16 | SV1000 | |
| Casselle base type 10 | SV2000 | |

10PG/16PG Flat Ribbon Cable Type (20 pins)



- This circuit has double wiring specifications for up to 9 stations. Since the usable number of solenoids differs depending on the manifold type, refer to the table below. In the case of single solenoids, connect to SOL. A. Furthermore, when wiring is specified on a manifold specification sheet, connections are made without skipping any connectors, and connections are made without skipping any connectors, and signals A for single and A, B for double are in order $1 \rightarrow 2 \rightarrow 3 \rightarrow 4$, etc.
 • Stations are counted from D side (connector side) as the 1st one.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference for wiring.
- Since solenoid valves do not have polarity, either the +COM or -COM can

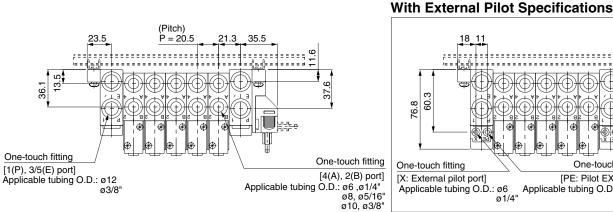
Usable No. of Solenoids

| Couple Not of Colonello | | | | | | | |
|-------------------------|-----------------------|----|--|--|--|--|--|
| Model | Max. no. of solenoids | | | | | | |
| | SV1000 | | | | | | |
| Tie-rod base type 10 | to | | | | | | |
| | SV4000 | 18 | | | | | |
| Cassette base type 16 | SV1000 | | | | | | |
| Casselle base type 10 | SV2000 | | | | | | |

Flat Ribbon Cable Connector Series SV

Dimensions: Series SV3000 for Flat Ribbon Cable

- Tie-rod manifold: SS5V3-10 PGD 1 Stations BU(S, R, RS) C6, N7 (-D)
 - When P, E port outlets are indicated on the U side or D side, the P, E ports on the opposite side are plugged.
 - External pilot port positions and silencer discharge port positions are the same as P, E port outlet positions.



60.3 76.8 One-touch fitting One-touch fitting [X: External pilot port] [PE: Pilot EXH port] Applicable tubing O.D.: ø6 Applicable tubing O.D.: ø6 ø 1/4"

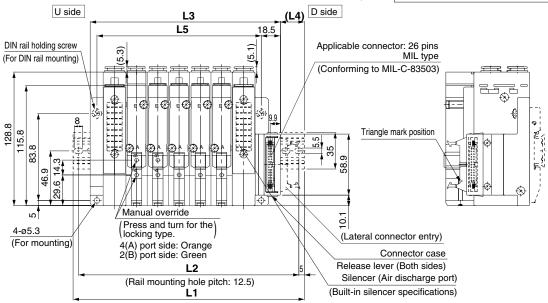
SV

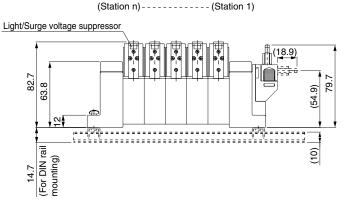
SZ

SY

SYJ

SX





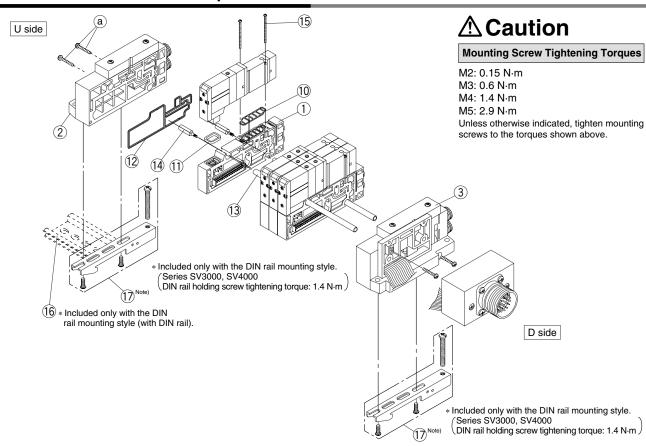
Applicable connector: 20 pins MIL type Applicable connector: 10 pins MIL type (Conforming to MIL-C-83503) (Conforming to MIL-C-83503) Triangle mark position Triangle mark position 10PG (20 pins) 10PH (10 pins)

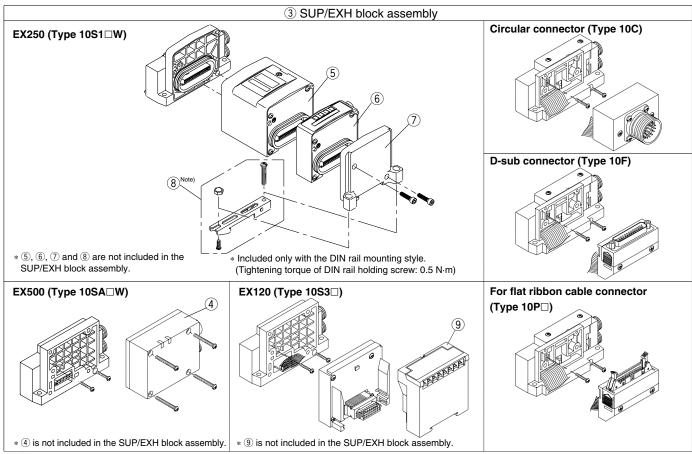
> Refer to page 1-2-73 (compliant for D-sub connector) for dimensions with interface regulator and individual SUP/EXH spacer.

| L DI | Dimension n: Stations | | | | | | | | | | | | | | | | | | |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <u>l</u> | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| L1 | 160.5 | 173 | 198 | 223 | 235.5 | 260.5 | 285.5 | 298 | 323 | 348 | 360.5 | 385.5 | 398 | 423 | 448 | 460.5 | 485.5 | 510.5 | 523 |
| L2 | 150 | 162.5 | 187.5 | 212.5 | 225 | 250 | 275 | 287.5 | 312.5 | 337.5 | 350 | 375 | 387.5 | 412.5 | 437.5 | 450 | 475 | 500 | 512.5 |
| L3 | 122 | 142.5 | 163 | 183.5 | 204 | 224.5 | 245 | 265.5 | 286 | 306.5 | 327 | 347.5 | 368 | 388.5 | 409 | 429.5 | 450 | 470.5 | 491 |
| L4 | 22.5 | 18.5 | 21 | 23 | 19 | 21.5 | 23.5 | 19.5 | 22 | 24 | 20 | 22.5 | 18.5 | 20.5 | 23 | 19 | 21 | 23.5 | 19.5 |
| L5 | 97 | 117.5 | 138 | 158.5 | 179 | 199.5 | 220 | 240.5 | 261 | 281.5 | 302 | 322.5 | 343 | 363.5 | 384 | 404.5 | 425 | 445.5 | 466 |

Series SV

Type 10: Tie-rod Base Manifold Exploded View





 $\$ Note) $\$ and $\$ are for SV2000. Mounting orientation onto DIN rail gets reversed.



1) Manifold Block Assembly Part No.

| Series | Wiring specifications | Manifold block ass'y part no. | Note | | | | |
|-------------|------------------------|-------------------------------|--|--|--|--|--|
| SV1000 | Single | SV1000-50-1A-□□ | C3: With One-touch fitting for ø3.2 N1: One-touch fitting for ø1/8" C4: With One-touch fitting for ø4 N3: One-touch fitting for ø5/32" | | | | |
| 34 1000 | Double | SV1000-50-2A-□□ | C6: With One-touch fitting for ø6 N7: One-touch fitting for ø1/4" (Tie-rod for station additions (4) and gaskets (1), (1), and (2) are included.) | | | | |
| SV2000 | Single | SV2000-50-1A-□□ | C4: With One-touch fitting for ø4 N3: One-touch fitting for ø5/32" C6: With One-touch fitting for ø6 N7: One-touch fitting for ø1/4" | | | | |
| 372000 | Double | SV2000-50-2A-□□ | C8: With One-touch fitting for ø8 N9: One-touch fitting for ø5/16" (Tie-rod for station additions $\textcircled{1}$ and gaskets $\textcircled{1}$, $\textcircled{1}$, and $\textcircled{2}$ are included | | | | |
| SV3000 | Single | SV3000-50-1A-□□ | C6: With One-touch fitting for ø6 N7: One-touch fitting for ø1/4" C8: With One-touch fitting for ø8 N9: One-touch fitting for ø5/16" | | | | |
| 3 4 3 0 0 0 | Double | SV3000-50-2A-□□ | C10: With One-touch fitting for Ø10 N11: One-touch fitting for Ø3/8" (Tie-rod for station additions (4) and gaskets (10), (11), and (12) are included.) | | | | |
| SV4000 | Single SV4000-50-1A-□□ | | C8: With One-touch fitting for ø8 N9: One-touch fitting for ø5/16" C10: With One-touch fitting for ø10 N11: One-touch fitting for ø3/8" C12: With One-touch fitting for ø12 02: Rc 1/4 02N: NPT 1/4 | | | | |
| 014000 | Double | SV4000-50-2A-□□ | 03: Rc 3/8 03N: NPT 3/8 02F: G1/4 02T: NPTF1/4 03F: G3/8 03T: NPTF 3/8 (Tie-rod for station additions [®] and gaskets [®] , [®] , and [®] are included.) | | | | |

R

RS

② SUP/EXH end block assembly SV 000 - 52U 000 - 51D3 SUP/EXH block assembly SV Connector entry direction (D-sub, flat types only) Series • SV1000 Upward Mounting 1 2 Direct mounting 2 SV2000 Lateral Nil 3 SV3000 D0 DIN rail mounting SUP/EXH block assembly **4** SV4000 specifications 10 For EX500 (SI unit) 11 For EX250 (SI unit) C8 One-touch fitting for ø8 SV1000 12 N9 One-touch fitting for ø5/16" For circular connector C10 One-touch fitting for ø10 13 D-sub connector SV2000 14 For flat ribbon cable connector (26 pins) N11 One-touch fitting for ø3/8" For Flat ribbon cable connector (20 pins) C12 One-touch fitting for ø12 15 SV3000 SV4000 For Flat ribbon cable connector (10 pins) N11 One-touch fitting for ø3/8" For EX120 (dedicated output serial) **03** Rc 3/8 * Since EX500 and EX120 type SI units are **03F** G 3/8 SV4000 not included, order them separately. **03N** NPT 3/8 **03T** NPTF 3/8 Pilot type 00 Plug All series Nil Internal pilot * "00" (Plug) is not available for S, R and S Internal pilot/Built-in silencer

| NIa | Description | | Note | | | | | | |
|----------|---------------------------------|----------------|-----------------------|----------------|---------------|--|--|--|--|
| No. | Description | SV1000 | SV2000 | SV3000 | SV4000 | Note | | | |
| 4 | Series EX500 SI unit | | Refer to pa | age 1-2-26. | | | | | |
| (5) | Series EX250 SI unit | | EX250 | -SDN1 | | For DeviceNet | | | |
| | | | EX25 | 60-IE1 | | M12, 2 inputs | | | |
| 6 | Series EX250 input block | | EX25 | 0-IE2 | | M12, 4 inputs | | | |
| | | | M8, 4 inputs (3 pins) | | | | | | |
| 7 | Series EX250 end plate assembly | | EX25 | 0-EA1 | | With mounting screws (M3 x 10, 2 pcs.) | | | |
| 8 | EX250 clamp assembly | | SV100 | 00-78A | | | | | |
| 9 | Series EX120 SI unit | | Refer to page 1-2-44. | | | | | | |
| 10 | Gasket | SX3000-57-4 | SX5000-57-6 | SX7000-57-5 | SY9000-11-2 | | | | |
| 11) | Connector gasket | SX3000-146-2 | SX3000-146-2 | SX3000-146-2 | SX3000-146-2 | | | | |
| 12 | Manifold block gasket | SX3000-181-1 | SX5000-138-1 | SV3000-65-1 | SV4000-65-1 | | | | |
| 13 | Tie-rod | SV1000-55-1-□□ | VZ1000-11-1-□ | SV3000-55-1-□□ | VZ1000-11-4-□ | □□: Manifold stations | | | |
| 14) | Tie-rod for station addition | SV1000-55-2-1 | SV2000-55-2A | SV3000-55-2A | SV4000-55-2A | | | | |
| (15) | Round head combination screw | SX3000-22-2 | SV2000-21-1 | SV3000-21-1 | SV2000-21-2 | | | | |
| (13) | (Valve mounting screw) | (M2 x 24) | (M3 x 30) | (M4 x 35) | (M3 x 40) | | | | |
| 16 | DIN rail | SV4000-55-1-□□ | SV4000-55-1-□□ | VZ1000-11-4-□ | VZ1000-11-4-□ | Refer to DIN rail dimension tables on page 1-2-97. | | | |
| 17 | Clamp assembly | SV1000-69A | SV1000-69A | SV3000-69A | SV3000-69A | | | | |

External pilot

External pilot/Built-in silencer

RS types.

Note) Two pieces of 🕄 and 🖟 (tie-rod) are required for Series SV1000, and three pieces are required for Series SV2000, 3000 and 4000. Two pieces of 🗓 (valve mounting screw) are required for Series SV1000, 2000 and 3000, and three pieces are required for Series SV4000.

SZ

SY

SYJ

SX

Type 10: Tie-rod Base Manifold

How to increase manifold bases (Type 10)

(1) Loosen the U side screws (a), and remove the SUP/EXH end block assembly (2).

(2) Screw in the tie-rods for station addition.

(Screw them in until there is no gap between the tie-rods.)

Tie-rod for station addition

(3) Connect the manifold assembly ① and supply/exhaust end block assembly ② to be added, and tighten the screws ⓐ.

▲ Caution Tightening torques ⓐ

SV1000, SV2000 0.6 N·m SV3000 1.4 N·m SV4000 2.9 N·m

Note) When eliminating manifold stations, the appropriate tie-rods (3) for the desired change should be ordered separately. (When equipped with a DIN rail, be sure to tighten the DIN rail holding screws after tightening the tension bolts.)

⚠ Caution

Fitting Assembly Replacement

By replacing manifold fitting assemblies, it is possible to change the size of the A, B ports and P, E ports. To replace them, remove the clip with a flat head screwdriver, etc., and pull out the fitting assembly.

Mount the new fitting assembly by inserting it and then replacing the clip to its fully inserted position.

Fitting Assembly Part No.

| | Port size | SV1000 | SV2000 | SV3000 | SV4000 |
|---------|---------------------------------------|----------------|-----------------|-----------------|-----------------|
| | One-touch fitting for ø3.2 | VVQ1000-50A-C3 | _ | _ | _ |
| | One-touch fitting for ø4 | VVQ1000-50A-C4 | VVQ1000-51A-C4 | _ | _ |
| | One-touch fitting for ø6 | VVQ1000-50A-C6 | VVQ1000-51A-C6 | VVQ2000-51A-C6 | _ |
| | One-touch fitting for ø8 | _ | VVQ1000-51A-C8 | VVQ2000-51A-C8 | VVQ4000-50B-C8 |
| | One-touch fitting for ø10 | _ | _ | VVQ2000-51A-C10 | VVQ4000-50B-C10 |
| Port | One-touch fitting for ø12 | _ | _ | _ | VVQ4000-50B-C12 |
| В | One-touch fitting for ø1/8" | VVQ1000-50A-N1 | _ | _ | _ |
| Ą | One-touch fitting for ø5/32" | VVQ1000-50A-N3 | VVQ1000-51A-N3 | _ | _ |
| | One-touch fitting for ø1/4" | VVQ1000-50A-N7 | VVQ1000-51A-N7 | VVQ2000-51A-N7 | _ |
| | One-touch fitting for ø5/16" | _ | VVQ1000-51A-N9 | VVQ2000-51A-N9 | VVQ4000-50B-N9 |
| | One-touch fitting for ø3/8" | _ | _ | VVQ2000-51A-N11 | VVQ4000-50B-N11 |
| | 1/4 threaded type port block assembly | _ | _ | _ | SY9000-58A-02□ |
| | 3/8 threaded type port block assembly | _ | _ | _ | SY9000-58A-03□ |
| | One-touch fitting for ø8 | VVQ1000-51A-C8 | _ | _ | _ |
| Port | One-touch fitting for ø10 | _ | VVQ2000-51A-C10 | _ | _ |
| | One-touch fitting for ø12 | _ | _ | VVQ4000-50B-C12 | VVQ4000-50B-C12 |
| ъ, Ш | One-touch fitting for ø5/16" | VVQ1000-51A-N9 | _ | _ | _ |
| т. | One-touch fitting for ø3/8" | _ | VVQ2000-51A-N11 | VVQ4000-50B-N11 | VVQ4000-50B-N11 |
| | 3/8 threaded type port block assembly | _ | _ | _ | SY9000-58B-03□ |

■ 1/4, 3/8 thread type port block assembly

For A, B port

 $SY9000 - 58A - {02}_{03}$

For P, E port

SY9000 - 58B - 03





Note 1) Be careful to avoid damage or contamination of O-rings, as this can cause air leakage.

Note 2) When removing a fitting assembly from a valve, after removing the clip, attach tubing or a plug (KQP-□□) to the One-touch fitting, and pull it out while holding the tubing (or plug). If it is pulled out while holding the release button of the fitting assembly (resin part), the release button may be damaged. However, 02 and 03 port block assemblies should be pulled out as they are.

Thread type

Rc

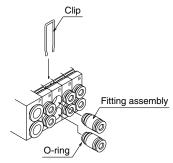
G

NPT NPTF

Nil

F

Note 3) Be sure to shut off the power and air supplies before disassembly. Furthermore, since air may remain inside the actuator, piping and manifold, confirm that the air is completely exhausted before performing any work



sv

SZ

SY

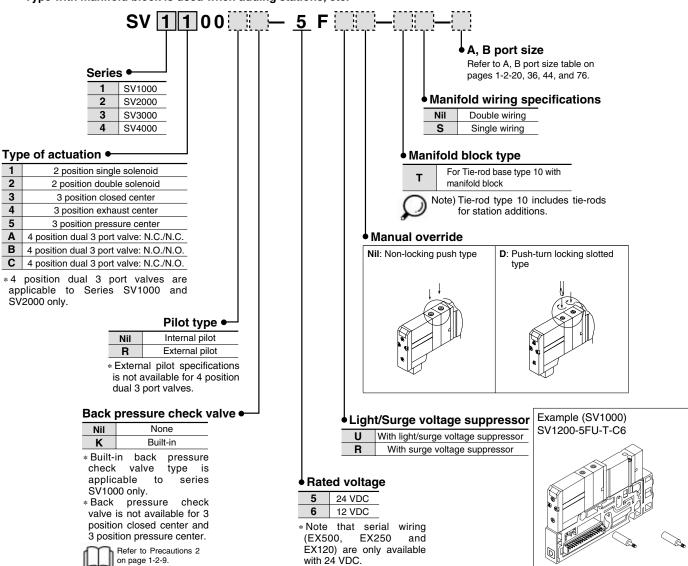
SYJ

SX

■ How to order tie-rod type 10 solenoid valves with manifold block

[Series SV1000 to SV4000]

• Type with manifold block is used when adding stations, etc.

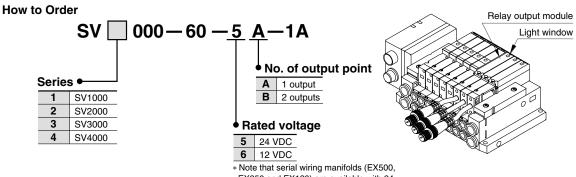


Series SV

Manifold Option (Common for Type 16 and 10)

■ Relay output module

By adding a relay output module to a series SV manifold, devices up to 110 VAC, 3 A (large type solenoid valves, etc.) can be controlled together with Series SV valves.



* Note that serial wiring manifolds (EX500, EX250 and EX120) are available with 24 VDC only.

Relay Output Module Specifications

| Item | Specifications | | | | |
|----------------------|--------------------------------------|--|---|---|--|
| No. of output points | 1 output [connector | with lead wire (M12)] | 2 outputs [connector with lead wire (M12)] | | |
| | 4 pins connector (M12) plug | | 4 pins connector (M12) plug | | |
| Output type | 1. — 2. Output A 3. — 4. Output A | 2 1 | 1. Output B 2. Output A 3. Output B 4. Output A | 2 1 0 3 3 4 | |
| | Contact type ("a" contact) | Relay output module side pin arrangement | Contact type ("a" contact) | Relay output module side pin arrangement | |
| Load voltage | 110 VAC | 30 VDC | 110 VAC | 30 VDC | |
| Load current | 3 A | 3 A | 0.3 A | 1 A | |
| Indicator light | Orange A side: Orange B side: Green | | | e B side: Green | |
| Enclosure | Based on IP67 (IEC529) 20 mA or less | | | | |
| Current consumption | | | | | |
| Polarity | Non-polar Non-polar | | | | |
| weight (g) | | 4 | 8 | | |

■ Y type connector

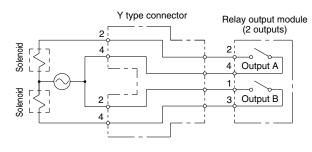
Used to branch a two output relay output module to two separate systems.

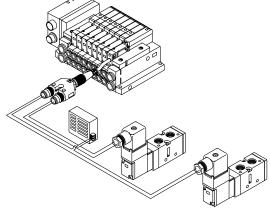
How to Order

EX500 - ACY00 - S



Relay output module and Y type connector wiring example

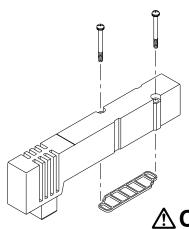




Manifold Option

■ Blanking plate assembly

Used in situations where valves will be added in the future.



| Series | - January part and a second part and | |
|--------|--------------------------------------|--|
| SV1000 | | |
| SV2000 | SV2000-67-1A | |
| SV3000 | SV3000-67-1A | |
| SV4000 | SV4000-67-1A | |

Caution

Mounting screw tightening torques

M2: 0.15 N·m M3: 0.6 N·m M4: 1.4 N·m

■ SUP/EXH block disk

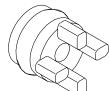
[SUP block disk]

By placing a SUP block disk in a manifold valve's pressure supply passage, two different high and low pressures can be supplied to one manifold.

[EXH block disk]

By installing an EXH block disk in a manifold valve's exhaust passage, the valve's exhaust can be separated so that it will not affect other valves. It can also be used on a manifold with mixed positive pressure and vacuum.

(Two pieces are required to block EXH on both sides. However, Series SV1000 and 2000 type 10 manifolds require only one piece.)





Cassette base type 16



Tie-rod base type 10

| Series | Manifold Model | SUP block disk | EXH block disk |
|--------|-------------------|----------------|----------------|
| SV1000 | 10 | SV1000-59-1A | SV1000-59-2A |
| 571000 | 16 | SX3000-77-1A | SX3000-77-1A |
| SV2000 | 10 | SV2000-59-1A | SV2000-59-2A |
| 372000 | 16 | SV2000-59-3A | SV2000-59-3A |
| SV3000 | 10 | SV3000-59-1A | SV3000-59-1A |
| SV4000 | 10 | SY9000-57-1A | SY9000-57-1A |

■ Label for block disk

These labels are attached to manifolds in which SUP and EXH block disks have been installed, in order to identify the installed locations. (Three sheets each included.)

SV1000 - 74 - 1A

Label for SUP block disk



block disk

 $\mathsf{E} \mid \mathsf{E}$

Label for EXH

Label for SUP/EXH block disk



SV

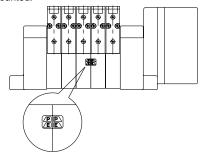
SZ

SY

SYJ

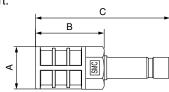
SX

* When a block disk is concurrently ordered by specifying on the manifold specification sheet, etc., a label will be stuck on the position where block disk is mounted.



■ Silencer with One-touch fitting

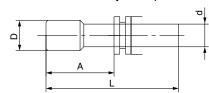
This silencer can be quickly mounted on the manifold's E (exhaust) port.



| Series | Model | Effective area | Α | В | С |
|--------------------------------|------------|--------------------|-----|------|------|
| SV1000 (For Ø8) | AN203-KM8 | 14 mm ² | ø16 | 26 | 51 |
| OV(0000 (F10) | AN200-KM10 | 26 m ² | ø22 | 53.8 | 80.8 |
| SV2000 (For ø10) | AN300-KM10 | 30 mm ² | ø25 | 70 | 97 |
| SV3000 SV4000 (For Ø12) | AN300-KM12 | 41 mm ² | ø25 | 70 | 98 |

■ Plug (White)

These are inserted in unused cylinder ports and P, E ports.



| Applicable fitting size d | Model | Α | L | D |
|---------------------------|---------|------|------|-------|
| ø4 | KQP-04 | 16 | 32 | ø6 |
| ø6 | KQP-06 | 18 | 35 | ø8 |
| ø8 | KQP-08 | 20.5 | 39 | ø10 |
| ø10 | KQ2P-10 | 22 | 43 | ø12 |
| ø12 | KQ2P-12 | 24 | 44.5 | ø14 |
| ø1/8" | KQ2P-01 | 16 | 31.5 | ø5 |
| ø5/32" | KQ2P-03 | 16 | 32 | ø6 |
| ø1/4" | KQ2P-07 | 18 | 35 | ø8.5 |
| ø5/16" | KQ2P-09 | 20.5 | 39 | ø10 |
| ø3/8" | KQ2P-11 | 22 | 43 | ø11.5 |

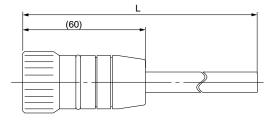
Manifold Option

■ Circular connector/Cable assembly (26 pins)

AXT100 – MC26 – □

Lead Wire Length

| Part no. | L dimension |
|-----------------|-------------|
| AXT100-MC26-015 | 1.5 m |
| AXT100-MC26-030 | 3 m |
| AXT100-MC26-050 | 5 m |



Plug terminal no. (arrangement as seen from lead wire side)



Circular Connector Cable Assembly Terminal No.

| ① Black None ② Brown None ③ Red None ④ Orange None ⑤ Yellow None ⑥ Pink None ⑥ Pink None ⑦ Blue None ⑧ Gray Black ⑩ White Black ⑪ White Red ⑫ Yellow Red ⑪ Yellow Black ⑪ Yellow Black ⑪ Pink Black ⑪ Pink Black ⑩ Purple None ⑩ Orange Black ⑩ Pink Red ⑩ Pink Red ⑩ Pink Red ⑩ Red White ② Pink Red ② Black White ② Black | Terminal no. | Lead wire color | Dot marking |
|---|--------------|-----------------|-------------|
| ③ Red None ④ Orange None ⑤ Yellow None ⑥ Pink None ⑦ Blue None ⑧ Purple White ⑨ Gray Black ⑩ White Black ⑪ White Red ⑫ Yellow Red ⑪ Yellow Black ⑬ Pink Black ⑬ Pink Black ⑪ Purple None ⑬ Gray None ⑫ Red White ② Red White ② Pink Red ② Pink Red ② Pink Red ② Black White | 1) | Black | None |
| 4 Orange None 5 Yellow None 6 Pink None 7 Blue None 8 Purple White 9 Gray Black 10 White Black 11 White Red 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 2 | Brown | None |
| ⑤ Yellow None ⑥ Pink None ⑦ Blue None ⑧ Purple White ⑨ Gray Black ⑩ White Black ⑪ White Red ⑫ Yellow Red ⑬ Yellow Black ⑮ Pink Black ⑯ Blue White ⑰ Purple None ⑱ Orange Black ⑳ Red White ② Red White ② Pink Red ② Gray Red ② Gray Red ② Black White | 3 | Red | None |
| 6 Pink None 7 Blue None 8 Purple White 9 Gray Black 10 White Black 11 White Red 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 4 | Orange | None |
| Tolerance Blue None 8 Purple White 9 Gray Black 10 White Black 11 White Red 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | (5) | Yellow | None |
| ® Purple White 9 Gray Black 10 White Black 11 White Red 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 6 | Pink | None |
| ⑤ Gray Black ⑥ White Black ⑥ White Red ⑥ Yellow Red ⑥ Pack Black ⑥ Blue White ⑥ Blue White ⑦ Purple None ⑥ Gray None ⑨ Orange Black ② Red White ② Pink Red ② Gray Red ② Black White | 7 | Blue | None |
| 10 White Black 11 White Red 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 8 | Purple | White |
| (1) White Red (12) Yellow Red (13) Orange Red (14) Yellow Black (15) Pink Black (16) Blue White (17) Purple None (18) Gray None (19) Orange Black (20) Red White (21) Brown White (22) Pink Red (23) Gray Red (24) Black White | 9 | Gray | Black |
| 12 Yellow Red 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 10 | White | Black |
| 13 Orange Red 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 11) | White | Red |
| 14 Yellow Black 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 12 | Yellow | Red |
| 15 Pink Black 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 13 | Orange | Red |
| 16 Blue White 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 14 | Yellow | Black |
| 17 Purple None 18 Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 15 | | Black |
| ® Gray None 19 Orange Black 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 16 | Blue | White |
| (9) Orange Black 20) Red White 21) Brown White 22) Pink Red 23 Gray Red 24 Black White | 17 | Purple | None |
| 20 Red White 21 Brown White 22 Pink Red 23 Gray Red 24 Black White | 18 | Gray | None |
| ②1 Brown White ②2 Pink Red ②3 Gray Red ②4 Black White | 19 | Orange | Black |
| Ø Pink Red Ø Gray Red Ø Black White | 20 | Red | White |
| 23 Gray Red 24 Black White | 21) | Brown | White |
| 24 Black White | 22 | Pink | Red |
| <u> </u> | 23 | Gray | Red |
| ②5 White None | 24 | Black | White |
| | 25 | White | None |

Note) Terminal no. 26 is connected to 25 inside the connector.

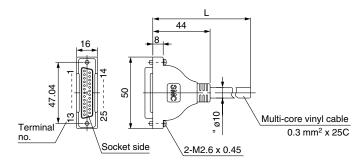
■ D-sub connector/Cable assembly (25 pins)

AXT100 - DS25 - □

Lead Wire Length

| Part no. | L dimension |
|-----------------|-------------|
| AXT100-DS25-015 | 1.5 m |
| AXT100-DS25-030 | 3 m |
| AXT100-DS25-050 | 5 m |

When a commercially available connector is required, use a 25 pin female connector conforming to MIL-C24308.



D-sub Connector Cable Assembly Terminal No.

| Terminal no. | Lead wire color | Dot marking |
|--------------|-----------------|-------------|
| 1 | Black | None |
| 2 | Brown | None |
| 3 | Red | None |
| 4 | Orange | None |
| 5 | Yellow | None |
| 6 | Pink | None |
| 7 | Blue | None |
| 8 | Purple | White |
| 9 | Gray | Black |
| 10 | White | Black |
| 11) | White | Red |
| 12 | Yellow | Red |
| 13 | Orange | Red |
| 14 | Yellow | Black |
| 15 | Pink | Black |
| 16 | Blue | White |
| 17) | Purple | None |
| 18 | Gray | None |
| 19 | Orange | Black |
| 20 | Red | White |
| 21) | Brown | White |
| 22 | Pink | Red |
| 23 | Gray | Red |
| 24) | Black | White |
| 25 | White | None |

Circular Connector, D-sub Connector Cable Assembly Electric Characteristics

| Item | Characteristics |
|-----------------------------------|-----------------|
| Conductor resistance W/km, 20°C | 65 or less |
| Withstand voltage VAC, 1 min. | 1000 |
| Insulation resistance, M/km, 20°C | 5 or less |

Note) The minimum inside bending radius for each cable is 20 mm.

SV

SZ

SY

SYJ

SX

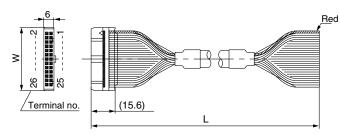
Manifold Option

■ Flat ribbon cable/Cable assembly

AXT100 – FC □ **–** □

| Cable length L | 10 pins | 20 pins | 26 pins |
|---------------------|---------------|---------------|---------------|
| 1.5 m | AXT100-FC10-1 | AXT100-FC20-1 | AXT100-FC26-1 |
| 3 m | AXT100-FC10-2 | AXT100-FC20-2 | AXT100-FC26-2 |
| 5 m | AXT100-FC10-3 | AXT100-FC20-3 | AXT100-FC26-3 |
| Connector width (W) | 17.2 | 30 | 37.5 |

* For other commercial connectors, use a type with strain relief conforming to MIL-C-83503.



Connector manufacturers' example

- · Hirose Electric Co., Ltd.
- · Sumitomo 3M Limited
- · Fujitsu Limited

Weight (g) 224

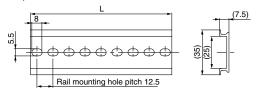
227.2 230.4 233.5 236.7 239.8 243

- · Japan Aviation Electronics Industry, Ltd.
- \cdot J.S.T. Mfg. Co., Ltd.

■ SV1000/2000 and Series EX500 input unit DIN rail dimensions and weights

VZ1000 − 11 − 1 − □

 \ast As for $\square,$ enter the number from the DIN rail dimensions table.

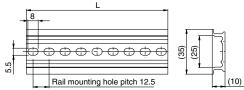


| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|--|--|---|---|---|---|---|---|---|---|
| L dimension | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 |
| Weight (g) | 17.6 | 19.9 | 22.1 | 24.4 | 26.6 | 28.9 | 31.1 | 33.4 | 35.6 | 37.9 |
| No. | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| L dimension | 223 | 235.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 |
| Weight (g) | 40.1 | 42.4 | 44.6 | 46.9 | 49.1 | 51.4 | 53.6 | 55.9 | 58.1 | 60.4 |
| No. | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| L dimension | 348 | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 |
| Weight (g) | 62.5 | 64.9 | 67.1 | 69.4 | 71.6 | 73.9 | 76.1 | 78.4 | 80.6 | 82.9 |
| No. | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| L dimension | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 |
| Weight (g) | 85.1 | 87.4 | 89.6 | 91.9 | 94.1 | 96.4 | 98.6 | 100.9 | 103.1 | 105.4 |
| Na | | | 40 | 40 | 44 | 45 | 40 | 47 | 40 | 49 |
| No. | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| L dimension | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 |
| | - | | | - | | _ | - | | - | |
| L dimension | 598 | 610.5 | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 |
| L dimension Weight (g) | 598 107.6 | 610.5 109.9 | 623 112.1 | 635.5 114.4 | 648 116.6 | 660.5 118.9 | 673 121.1 | 685.5 123.4 | 698 125.6 | 710.5 127.9 |
| L dimension Weight (g) No. | 598 107.6 50 | 610.5 109.9 51 | 623 112.1 52 | 635.5 114.4 53 | 648 116.6 547 | 660.5 118.9 55 | 673 121.1 56 | 685.5 123.4 57 | 698 125.6 58 | 710.5 127.9 59 |
| L dimension Weight (g) No. L dimension | 598 107.6 50 723 | 610.5 109.9 51 735.5 | 623 112.1 52 748 | 635.5 114.4 53 760.5 | 648 116.6 547 731 | 660.5 118.9 55 785.5 | 673 121.1 56 798 | 685.5 123.4 57 810.5 | 698 125.6 58 823 | 710.5 127.9 59 835.5 |
| L dimension Weight (g) No. L dimension Weight (g) | 598 107.6 50 723 130.1 | 610.5 109.9 51 735.5 132.4 | 623 112.1 52 748 134.6 | 635.5 114.4 53 760.5 136.9 | 648 116.6 547 731 39.1 | 660.5 118.9 55 785.5 141.4 | 673 121.1 56 798 143.6 | 685.5 123.4 57 810.5 145.9 | 698 125.6 58 823 148.1 | 710.5 127.9 59 835.5 150.4 |
| L dimension Weight (g) No. L dimension Weight (g) No. | 598 107.6 50 723 130.1 | 610.5 109.9 51 735.5 132.4 | 623 112.1 52 748 134.6 | 635.5 114.4 53 760.5 136.9 | 648 116.6 547 731 39.1 64 | 660.5 118.9 55 785.5 141.4 65 | 673 121.1 56 798 143.6 | 685.5 123.4 57 810.5 145.9 | 698 125.6 58 823 148.1 | 710.5 127.9 59 835.5 150.4 |
| L dimension Weight (g) No. L dimension Weight (g) No. L dimension | 598 107.6 50 723 130.1 60 848 | 610.5 109.9 51 735.5 132.4 61 860.5 | 623 112.1 52 748 134.6 62 873 | 635.5 114.4 53 760.5 136.9 63 885.5 | 648 116.6 547 731 39.1 64 898 | 660.5 118.9 55 785.5 141.4 65 910.5 | 673 121.1 56 798 143.6 66 923 | 685.5 123.4 57 810.5 145.9 67 935.5 | 698 125.6 58 823 148.1 68 948 | 710.5 127.9 59 835.5 150.4 69 960.5 |
| L dimension Weight (g) No. L dimension Weight (g) No. L dimension Weight (g) | 598 107.6 50 723 130.1 60 848 152.6 | 610.5 109.9 51 735.5 132.4 61 860.5 154.9 | 623 112.1 52 748 134.6 62 873 | 635.5 114.4 53 760.5 136.9 63 885.5 | 648 116.6 547 731 39.1 64 898 | 660.5 118.9 55 785.5 141.4 65 910.5 | 673 121.1 56 798 143.6 66 923 | 685.5 123.4 57 810.5 145.9 67 935.5 | 698 125.6 58 823 148.1 68 948 | 710.5 127.9 59 835.5 150.4 69 960.5 |

■ SV3000 and 4000 DIN rail dimensions and weights

VZ1000 − 11 − 4 − □

* As for \square , enter the number from the DIN rail dimensions table.



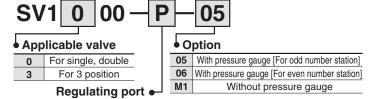
| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L dimension | 98 | 110.5 | 123 | 135.5 | 148 | 160.5 | 173 | 185.5 | 198 | 210.5 | 223 | 233.5 | 248 | 260.5 | 273 | 285.5 | 298 | 310.5 | 323 | 335.5 | 348 |
| Weight (g) | 24.8 | 28 | 31.1 | 34.3 | 37.4 | 40.6 | 43.8 | 46.9 | 50.1 | 53.3 | 56.4 | 59.6 | 62.7 | 65.9 | 69.1 | 72.2 | 75.4 | 78.6 | 81.7 | 84.9 | 88 |
| No. | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| L dimension | 360.5 | 373 | 385.5 | 398 | 410.5 | 423 | 435.5 | 448 | 460.5 | 473 | 485.5 | 498 | 510.5 | 523 | 535.5 | 548 | 560.5 | 573 | 585.5 | 598 | 610.5 |
| Weight (g) | 91.2 | 94.4 | 97.5 | 100.7 | 103.9 | 107 | 110.2 | 113.3 | 116.5 | 119.7 | 122.8 | 126 | 129.2 | 132.3 | 135.5 | 138.6 | 141.8 | 145 | 148.1 | 151.3 | 154.5 |
| No. | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 |
| L dimension | 623 | 635.5 | 648 | 660.5 | 673 | 685.5 | 698 | 710.5 | 723 | 735.5 | 748 | 760.5 | 773 | 785.5 | 798 | 810.5 | 823 | 835.5 | 848 | 860.5 | 873 |
| Weight (g) | 157.6 | 160.8 | 163.9 | 167.1 | 170.3 | 173.4 | 176.6 | 179.8 | 182.9 | 186.1 | 189.2 | 192.4 | 195.6 | 198.7 | 201.9 | 205.1 | 208.2 | 211.4 | 214.5 | 217.7 | 220.9 |
| No. | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | | | | | | | | | | | | |
| L dimension | 885.5 | 898 | 910.5 | 923 | 935.5 | 948 | 960.5 | 973 | 985.5 | | | | | | | | | | | | |

Series SV

Manifold Option

■ Interface regulator How to order interface regulator

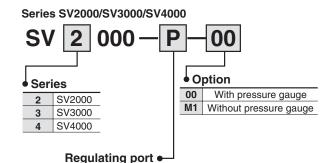




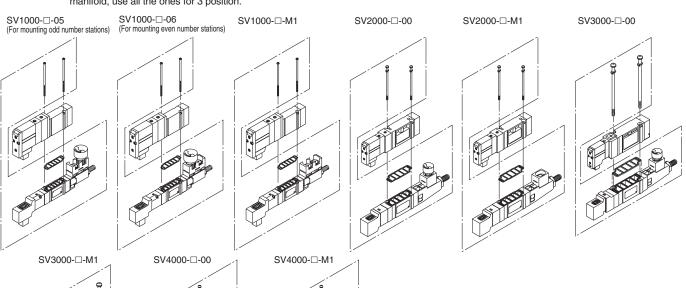
| Р | P port |
|----|---|
| A1 | A port (P controlled type, A port regulation) |
| B1 | B port (P controlled type, B port regulation) |

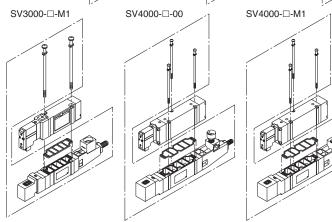
Note) In the case of Series SV1000 with a pressure gauge when mounting on the manifold, use caution that the part numbers are different between the odd no. stations and the even no. stations to avoid pressure gauges from interfering from each others.

Note) Use caution that the part numbers will be differed depending on the one for single/double and 3 position due to the different length of solenoid valves. Also, when at least the one for 3 position is included in the same manifold, use all the ones for 3 position.

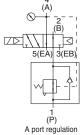


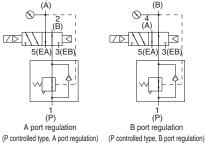
| | 3111 |
|----|---|
| Р | P port |
| A1 | A port (P controlled type, A port regulation) |
| B1 | B port (P controlled type, B port regulation) |

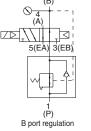




| JIS Symbol | 4 2 (A) (B) |
|------------|-----------------------|
| | 5(EA) 3(EB) |
| | |
| | (P) P port regulation |







Accessory

| Series | Round head combination screw | Gasket |
|--------|------------------------------|-------------|
| SV1000 | SX3000-22-9 (M2 x 39.5) | SX3000-57-4 |
| SV2000 | SV2000-21-7 (M3 x 53) | SX5000-57-6 |
| SV3000 | SV3000-21-4 (M4 x 57) | SX7000-57-5 |
| SV4000 | SV2000-21-8 (M3 x 69.5) | SY9000-11-2 |

⚠ Caution

Mounting Screw Tightening Torques

M2: 0.15 N·m M3: 0.6 N·m M4: 1.4 N·m

SV

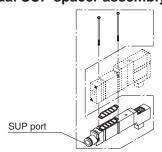
SZ

SY

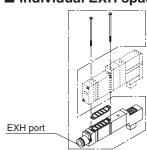
SYJ

Manifold Option

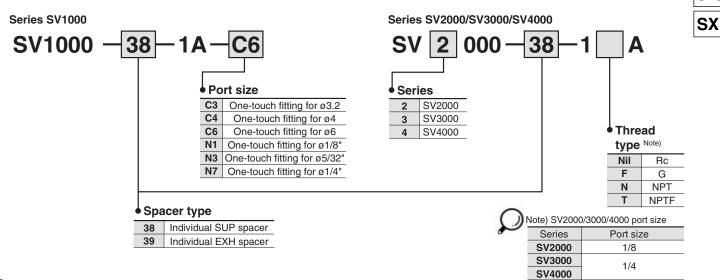
■ Individual SUP spacer assembly



■ Individual EXH spacer assembly



How to order individual SUP/EXH spacer assembly



Accessory

| Series | Round head combination screw | Gasket | | |
|--------|------------------------------|--------------|--|--|
| SV1000 | SX3000-22-9 | CV0000 F7 4 | | |
| 371000 | (M2 x 39.5) | SX3000-57-4 | | |
| SV2000 | SV2000-21-6 | CVE000 11 1E | | |
| SV2000 | (M3 x 46) | SY5000-11-15 | | |
| SV3000 | SV3000-21-3 | SY7000-11-11 | | |
| 573000 | (M4 x 53) | 517000-11-11 | | |
| SV4000 | SV2000-21-5 | SY9000-11-2 | | |
| 374000 | (M3 x 60) | 319000-11-2 | | |