

5 Port Solenoid Valve Body Ported/Single Unit

SY3000/5000/7000/9000 Series



[Option]

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

How to Order

SY 5 1 20 - 5 L - 01 - - - -

Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

Type of actuation

1	2 position single (A) 4 2 (B) (EA) 5 1 3 (EB) (P)
2	2 position double (A) 4 2 (B) (EA) 5 1 3 (EB) (P)
3	3 position closed center (A) 4 2 (B) (EA) 5 1 3 (EB) (P)
4	3 position exhaust center (A) 4 2 (B) (EA) 5 1 3 (EB) (P)
5	3 position pressure center (A) 4 2 (B) (EA) 5 1 3 (EB) (P)

Note) For details about Symbol of the 3 position type of the SY9000 series, refer to page 735.

Coil specifications

NII	Standard
T	With power saving circuit (24, 12 VDC only)

* Power saving circuit is not available in the case of D, DO, Y, YO or WC type.

For DC

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

Rated voltage

For AC (% Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.

* For type WC, DC voltage is only available.

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

Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC				24, 12 VDC/ 100, 110, 200, 220 VAC
Grommet	L plug connector	M plug connector		DIN terminal
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	MN: Without lead wire	D, Y: With connector
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	DO, YO: Without connector

CE/UKCA compliant

24, 12 VDC
6, 5, 3 VDC

M8 connector

WC: Without connector cable

WC: With connector cable

Note)

Note)

Note)

Note)

Note)

* LN, MN type: with 2 sockets.

* For DIN terminal of SY3000 series, refer to page 958.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.

* For connector cable of M8 connector, refer to page 960.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000
02	1/4	SY9000
03	3/8	SY9000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	SY7000
C8	One-touch fitting for ø8	SY9000
C10	One-touch fitting for ø10	SY9000
C12	One-touch fitting for ø12	SY9000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/32	SY3000
N7	One-touch fitting for ø 1/4"	SY3000
N3	One-touch fitting for ø 5/32	SY5000
N7	One-touch fitting for ø 1/4"	SY5000
N9	One-touch fitting for ø 5/16	SY5000
N9	One-touch fitting for ø 5/16	SY7000
N11	One-touch fitting for ø 3/8"	SY7000
N9	One-touch fitting for ø 5/16	SY9000
N11	One-touch fitting for ø 3/8"	SY9000

Manual override

NII: Non-locking push type	D: Push-turn locking slotted type	E: Push-turn locking lever type
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Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

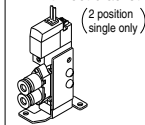
Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

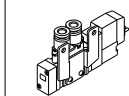
* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Bracket

NII: Without bracket
F1: With foot bracket



F2: With side bracket



* SY9000 has no bracket.

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Made to Order

NII	—
X20	Body ported external pilot (Refer to page 942.)
X90	Main valve fluoro rubber (Refer to page 942.)
X701	4-position dual 3-port valve (Refer to page 942-1.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

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. (For details, refer to page 795.)

5 Port Solenoid Valve

Base Mounted/Single Unit



[Option]

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

SY3000/5000/7000/9000 Series

How to Order

SY 5 2 40 - 5 L - - - -

Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

Type of actuation

1	2 position single (A)4 2(B) (EA)5 1 3(EB) (P)
2	2 position double (A)4 2(B) (EA)5 1 3(EB) (P)
3	3 position closed center (A)4 2(B) (EA)5 1 3(EB) (P)
4	3 position exhaust center (A)4 2(B) (EA)5 1 3(EB) (P)
5	3 position pressure center (A)4 2(B) (EA)5 1 3(EB) (P)

Note) For details about Symbol of the 3 position type of SY9000 series, refer to page 751.

Pilot type

NII	Internal pilot
R	External pilot*

* External pilot specifications for SY3000 DIN terminal are not available.

Coil specifications

NII	Standard
T	With power saving circuit (24, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC	
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

For AC (%Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.

* For type W□, DC voltage is only available.

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

Port size

Symbol	Port size	Applicable series
NII	Without sub-plate	
01	1/8 With sub-plate	SY3000
02	1/4 With sub-plate	SY5000 SY7000
03	3/8 With sub-plate	SY7000 SY9000
04	1/2 With sub-plate	SY9000

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

Made to Order

NII	
X90	Main valve fluororubber (Refer to page 942.)
X701	4-position dual 3-port valve (Refer to page 942-1.)

Manual override

NII: Non-locking push type



D: Push-turn locking slotted type



E: Push-turn locking lever type



CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

- * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
- * For "R" and "U", DC voltage is only available.
- * Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

- * DOZ and YOZ are not available.
- * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

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	D, Y, Y□ With connector	WO: Without connector cable
G: Lead wire length 300 mm 	L: With lead wire (Length 300 mm) 	M: With lead wire (Length 300 mm) 	MM: Without lead wire 	DO, YO: Without connector 	W□: With connector cable (Note)
H: Lead wire length 600 mm 	LN: Without lead wire 	LO: Without connector 	MO: Without connector 		
CE/UKCA-compliant	DC	—	—	—	—
AC	—	—	—	—	—

* LN, MN type: with 2 sockets.

* The DIN terminal of SY3000 series cannot be mounted on the standard sub-plate. For details, refer to page 958.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.

* For connector cable of M8 connector, refer to page 960.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

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
i	i
20	20 stations

* This also includes the number of blanking plate assemblies.

Thread type •

Nll	Rc
00F	G
00N	NPT
00T	NPTF

CE/UKCA-compliant •

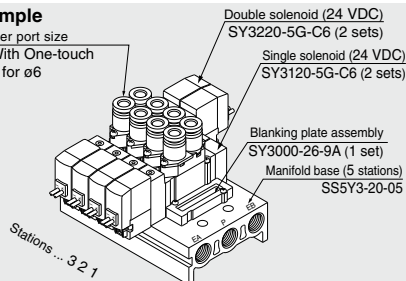
Nll	—
Q	CE/UKCA-compliant

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

How to Order Manifold Assembly (Example)

Example

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



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.)

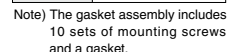
* SY3220-5G-C6 ... 2 sets (Double solenoid part no.)

→ 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.

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



* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Type **23**

5 Port Solenoid Valve Body Ported Manifold Stacking Type/Individual Wiring **SY9000 Series**

CE UK
CA
[Option]

How to Order Manifold

Type 23/External pilot capable

SS5Y9-23-05 - [] - [] - []

Manifold series
9 SY9000

Valve stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

* This also includes the number of blanking plate assemblies.

Thread type

	Rc
00F	G
00N	NPT
00T	NPTF

Option

Symbol	Mounting
NII	Direct mounting
D	DIN rail mounting (with DIN rail)
DO	DIN rail mounting (without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

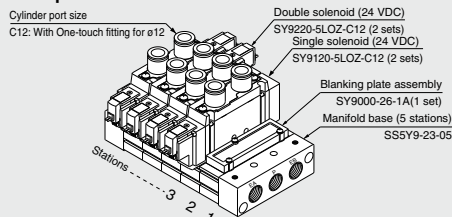
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

How to Order Manifold Assembly (Example)

Example



- SS5Y9-23-05** 1 set (Type 23, 5-station manifold base part no.)
 * **SY9000-26-1A** 1 set (Blanking plate assembly part no.)
 * **SY9120-5LOZ-C12** ... 2 sets (Single solenoid part no.)
 * **SY9220-5LOZ-C12** ... 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.



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

How to Order Valve

SY 9 1 20 - 5 L - 02 - -

Series

9	SY9000
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Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot specifications

NII	Internal pilot
R	External pilot

* In the case of external pilot specifications, it cannot be used as a single unit.

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC

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

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.
Note) AC-type models that are CE/UKCA-compliant have DIN terminals only.

For AC (%/50 Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

A, B port size

Thread piping

Symbol	Port size
02	1/4
03	3/8

One-touch fitting (Metric size)

Symbol	Port size
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12

One-touch fitting (Inch size)

Symbol	Port size
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

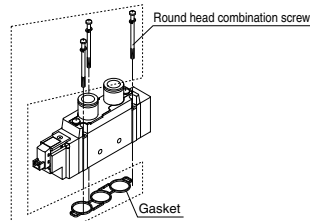
Electrical entry

	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	M8 connector
G: Lead wire length 300 mm	—	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	D: With connector DO: Without connector	WO: Without connector cable
H: Lead wire length 600 mm	—	LN: Without lead wire LO: Without connector	MN: Without lead wire MO: Without connector	Y: With connector YO: Without connector	W: With connector cable (Note)
CE/UKCA-compliant	DC AC	— —	— —	— —	— —

- * LN, MN type: with 2 sockets.
- * "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.
- * For connector cable of M8 connector, refer to page 960.
- * M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.
- * Refer to page 957 for the lead wire length of L and M plug connectors.
- * Refer to page 958 for the connector assembly with cover for L and M plug connectors.
- Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

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.
SY9000	SY9000-GS-1

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

Type **20P**

5 Port Solenoid Valve Body Ported Manifold Bar Stock Type/Flat Ribbon Cable **SY3000/5000/7000 Series**



How to Order Manifold

Note) CE/UKCA-compliant:
For DC only.

[Option]

SS5Y 5 - 20P - 05 -

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

03	3 stations
12	12 stations

Note) SS5Y3 has 4 to 12 stations.

Thread type

NII	Rc
00F	G
00N	NPT
00T	NPTF

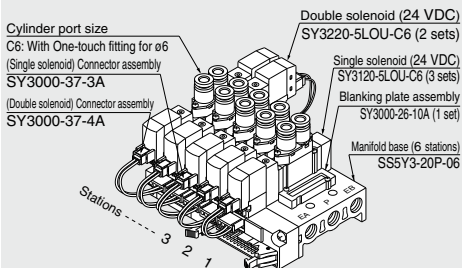
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

How to Order Manifold Assembly (Example)

Example



SS5Y3-20P-06 1 set (Type 20P, 6-station manifold part no.)
 * SY3000-26-10A 1 set (Blanking plate assembly part no.)
 * SY3120-5LOU-C6 3 sets (Single solenoid part no.)
 * SY3220-5LOU-C6 2 sets (Double solenoid part no.)
 * SY3000-37-3A 3 sets (Connector assembly part no.)
 * SY3000-37-4A 2 sets (Connector assembly 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.

Note) Please indicate the connector assembly part no. below that connects the valve and the manifold.

Connector Assembly

For 12, 24 VDC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-3A	SY5000-37-3A
Double solenoid, 3 position type	SY3000-37-4A	SY5000-37-4A
Single with spacer assembly	SY5000-37-3A	SY5000-37-5A
Double, 3 position with spacer assembly	SY3000-37-6A	SY5000-37-6A

Note) Spacer assembly indicates Individual SUP/EXH.

For 100 VAC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-32A	SY5000-37-15A
Double solenoid, 3 position type	SY3000-37-33A	SY5000-37-16A
Single with spacer assembly	SY5000-37-15A	SY5000-37-17A
Double, 3 position with spacer assembly	SY3000-37-34A	SY5000-37-18A

For 100 VAC (115 VAC)

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-35A	SY5000-37-19A
Double solenoid, 3 position type	SY3000-37-36A	SY5000-37-20A
Single with spacer assembly	SY5000-37-19A	SY5000-37-21A
Double, 3 position with spacer assembly	SY3000-37-37A	SY5000-37-22A

⚠ Caution

- For non-polar (U) valves, the electrical DC connections can be used with either positive and negative COM. For type (Z), only use with positive COM as the valve does not operate correctly when used with negative COM.

How to Order Valve

Note) CE/UKCA-compliant:
For DC only.

Note) In the case of flat cable type, "U" and "Z" types are for DC specifications and "Z" type is for AC specifications. "Z" for DC is positive common specifications only.

Coil specifications

Nil	Standard
T	With power saving circuit

Rated voltage

5	24 VDC	CE/UKCA-compliant
6	12 VDC	•

Light/surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.
* Power saving circuit is only available in the "Z" type.

For DC: SY **5** **1** 20 **5** LO **Z** **01**

For AC: SY **5** **1** 20 **1** LO **Z** **01**

Series

3	SY3000
5	SY5000
7	SY7000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Rated voltage

1	100 VAC	CE/UKCA-compliant
3	110 VAC (115 VAC)	—

Note) CE/UKCA-compliant: For DC only.

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

A, B port size

Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY5000
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY7000
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	SY7000

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

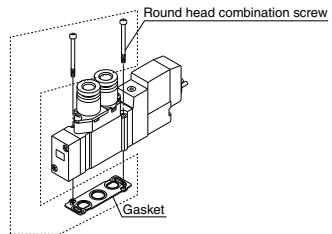
One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/8"	SY3000
N7	One-touch fitting for ø 1/4"	SY3000
N3	One-touch fitting for ø 5/8"	SY5000
N7	One-touch fitting for ø 1/4"	SY5000
N9	One-touch fitting for ø 3/16"	SY7000
N9	One-touch fitting for ø 3/16"	SY7000
N11	One-touch fitting for ø 3/8"	SY7000

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.

Note) Since the electrical entry is "LO", select a connector assembly part no. from those stated on page 776.

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 **23P**

5 Port Solenoid Valve Body Ported Manifold Stacking Type/Flat Ribbon Cable **SY9000 Series**

CE UK
CA

[Option]
Note) CE/UKCA-compliant: For DC only.

How to Order Manifold

Type 23P/Common external pilot capable

SS5Y 9 - 23P - 05 - [] - [] - []

Manifold series
9 SY9000

Valve stations

Symbol	Stations
04	4 stations
:	:
12	12 stations

* This also includes the number of blanking plate assemblies.

Thread type

NII	Rc
00F	G
00N	NPT
00T	NPTF

Option

Symbol	Mounting
NII	Direct mounting
D	DIN rail mounting (with DIN rail)
D0	DIN rail mounting (without DIN rail)
D *	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

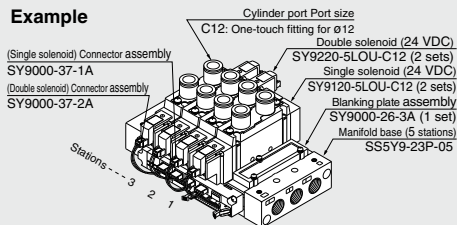
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

How to Order Manifold Assembly (Example)

Example



SS5Y9-23P-05 1 set (Type 23, 5-station manifold base part no.)
 * SY9000-26-3A 1 set (Blanking plate assembly part no.)
 * SY9120-5LOU-C12 ... 2 sets (Single solenoid part no.)
 * SY9220-5LOU-C12 ... 2 sets (Double solenoid part no.)
 * SY9000-37-1A 2 sets (Connector assembly part no.)
 * SY9000-37-2A 2 sets (Connector assembly 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.

Note) Please indicate the connector assembly part no. (page 783) that connects the valve and the manifold.

How to Order Valve

Coil specifications

NII	Standard
T	With power saving circuit

Rated voltage

Rated voltage	CE/UKCA-compliant
5	24 VDC
6	12 VDC

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.
 * Power saving circuit is only available in the "Z" type.

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

For DC: SY 9 1 20 [] - 5 LO Z [] - 02 [] - []

For AC: SY 9 1 20 [] - 1 LO Z [] - 02 [] - []

Series

9	SY9000
---	--------

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot specifications

NII	Internal pilot
R	External pilot

* Type 23P manifolds can be used for both internal and external pilots.

Rated voltage

Rated voltage	CE/UKCA-compliant
1	100 VAC
3	110 VAC (115 VAC)

Note) CE/UKCA-compliant: For DC only.

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

A, B port size Thread piping

Symbol	Port size
02	1/4
03	3/8

One-touch fitting (Metric size)

Symbol	Port size
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12

One-touch fitting (Inch size)

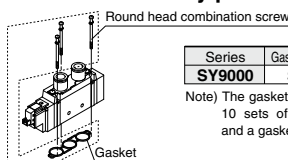
Symbol	Port size
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

Note) In the case of flat cable type, "U" and "Z" types are for DC specifications and "Z" type is for AC specifications. "Z" type for DC is positive common specification only.

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.

Note) Since the electrical entry is "LO", select a connector assembly part no. from those stated on page 783.

Gasket assembly part no.



Series	Gasket assembly part no.
--------	--------------------------

SY9000 SY9000-GS-1
 Note) The gasket assembly includes 10 sets of mounting screws and a gasket.

Type **20SA**

EX510 Gateway-type Serial Transmission System Body Ported Manifold/Integrated Base **SY3000/5000/7000 Series**

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

**CE UK
CA**
[Option]

How to Order Manifold

SS5Y 3 - 20SA - 04 - - -

Manifold series

3	SY3000
5	SY5000
7	SY7000

SI unit

Nil	NPN output (+COM.)
N	PNP output (-COM.)

SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
Nil	NPN output (+COM.)	EX510-S001	P.1490
N	PNP output (-COM.)	EX510-S101	

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

P, R port thread type

Nil	Rc
00F	G
00N	NPT
00T	NPTF

Valve stations

Symbol	Stations	Note
03	3 stations	Double wiring ^{Note 1)}
:	:	
08	8 stations	Specified layout ^{Note 2)} (Compatible with 16 solenoid valves)
03	3 stations	
:	:	
16	16 stations	

• SS5Y3 can be set from 4 stations.

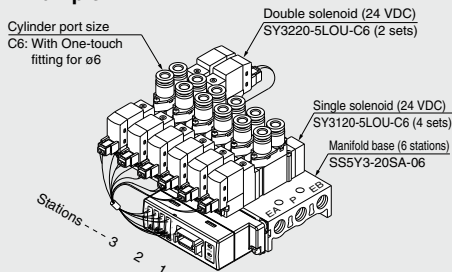
• The number of the blanking plate assembly is also included.

Note 1) Double wiring: Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

How to Order Manifold Assembly (Example)

Example



SS5Y3-20SA-06 1 set (20SA type 6-station manifold part no.)
 * SY3120-SLOU-C6 ... 4 sets (Single solenoid part no.)
 * SY3220-SLOU-C6 ... 2 sets (Double solenoid part no.)

—The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

Add the valve and option part number under the manifold base part number.
 When entry of part numbers becomes complicated, indicate by the manifold specification sheet. For a manifold for an EX510, the length of the lead wire for a connector assembly depends on the number of stations. Therefore, the manifold assembly is shipped with the valves (including blanking plates) and connector assembly mounted on it, as the standard specification. Be sure to specify the part nos. of the solenoid valves to be mounted.

How to Order Valves

SY 3 1 20 - 5 LO Z - M5 -

Series

3	SY3000
5	SY5000
7	SY7000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Coil specifications

Nil	Standard
T	With power saving circuit

Rated voltage: 24 VDC

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (non-polar type)

Note 1) Power saving circuit is only available in the "Z" type.

Note 2) When the SI unit is the PNP output (-COM.), only the "U" type is available.

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

A, B port size

Thread piping

M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000

One-touch fitting (Metric size)

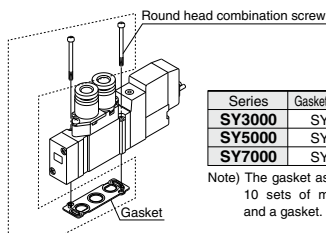
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	SY7000
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	

One-touch fitting (Inch size)

N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
N3	One-touch fitting for ø5/32"	SY5000
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	SY7000
N9	One-touch fitting for ø5/16"	
N11	One-touch fitting for ø3/8"	

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 **23SA**

EX510 Gateway-type Serial Transmission System Body Ported Manifold/Stacking Type **SY9000 Series** **CE UK CA**

[Option]

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

How to Order Manifold

SS5Y9-23SA - 03 - - -

SI unit

NII	NPN output (+COM.)
N	PNP output (-COM.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Valve stations

Symbol	Stations	Note
03	3 stations	Double wiring ^{Note 1)}
⋮	⋮	
08	8 stations	
03	3 stations	Specified layout ^{Note 2)} (Compatible with 16 solenoid valves)
⋮	⋮	
16	16 stations	

• The number of the blanking plate assembly is also included.

Note 1) Double wiring: Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

Option

NII	Direct mounting
D	DIN rail mounting (With DIN rail)
DO	DIN rail mounting (Without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

P, R port thread type

NII	Rc
00F	G
00N	NPT
00T	NPTF

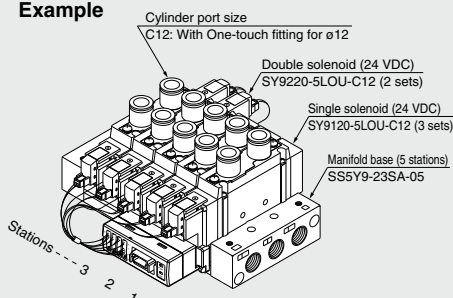
SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
NII	NPN output (+COM.)	EX510-S001	P.1490
N	PNP output (-COM.)	EX510-S101	

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Manifold Assembly (Example)

Example



SS5Y9-23SA-05 1 set (23SA type 5-station manifold part no.)
 * **SY9120-5LOU-C12** ... 3 sets (Single solenoid part no.)
 * **SY9220-5LOU-C12** ... 2 sets (Double solenoid part no.)

—The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet. For a manifold for an EX510, the length of the lead wire for a connector assembly depends on the number of stations. Therefore, the manifold assembly is shipped with the valves (including blanking plates) and connector assembly mounted on it, as the standard specification. Be sure to specify the part nos. of the solenoid valves to be mounted.

How to Order Valves

SY9 **1** **20** **-** **5** **LO** **Z** **-** **02** **-**

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot specifications

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit

Rated voltage: 24 VDC

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (non-polar type)

Note 1) Power saving circuit is only available in the "Z" type.

Note 2) When the SI unit is the PNP output (-COM.), only the "U" type is available.

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

A, B port size

Thread piping

02	1/4
03	3/8

One-touch fitting (Metric size)

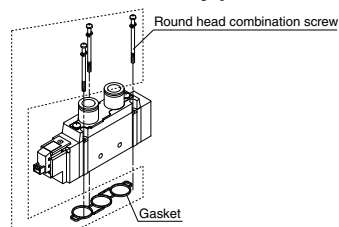
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12

One-touch fitting (Inch size)

N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"

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.
SY9000	SY9000-GS-1

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

5 Port Solenoid Valve Body Ported Manifold Cassette Type

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



Type **60**

SY3000/5000/7000 Series



How to Order

SS5Y **3** - **60** - **05** **D** - **□** - **□**

Series

3	SY3000
5	SY5000
7	SY7000

Valve stations

02	2 stations
⋮	⋮
20	20 stations

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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

Option

When a DIN rail longer than standard is required,
enter the number of manifold stations that
corresponds with the length of DIN rail needed.
Max. 20 stations

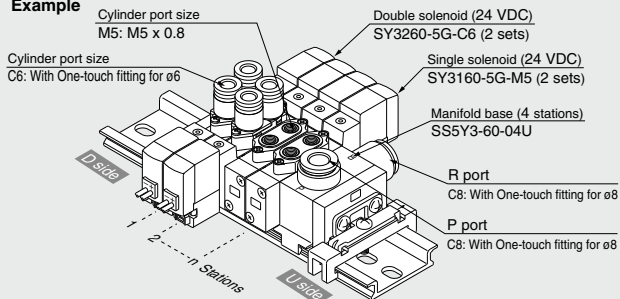
SUP/EXH block assembly mounting position

Symbol	Mounting position	Applicable stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 20 stations
M	Special location	

* For special specifications, indicate separately
by the manifold specification sheet.

How to Order Manifold Assembly (Example)

Example



SS5Y3-60-04U 1 set (Type 60, 4-station manifold base part no.)
 * SY3260-5G-C6 2 sets (Double solenoid part no.)
 * SY3160-5G-M5 2 sets (Single 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.

Type **41**
Type **42**

5 Port Solenoid Valve Base Mounted Manifold Bar Stock Type/Individual Wiring **SY3000/5000/7000 Series**



[Option]

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

How to Order Manifold

Type 41/Compact type

SS5Y **5** - **41** - **05** - **C8** - -

Manifold series

3	SY3000
5	SY5000

Stations

02	2 stations
:	:
20	20 stations

* This also includes the number of blanking plate assemblies.

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

* Except for M5

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

A, B port size

Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø3/8"	SY3000
N7	One-touch fitting for ø1/4"	SY3000
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø3/8"	SY5000

Type 42/External pilot capable

SS5Y **5** - **42** - **05** - **C8** - -

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

NII	Rc
F	G
N	NPT
T	NPTF

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

A, B port size

Thread piping

Symbol	Port size	Applicable series
01	1/8	SY3000
02	1/4	SY5000
02	1/4	SY7000

One-touch fitting (Metric size)

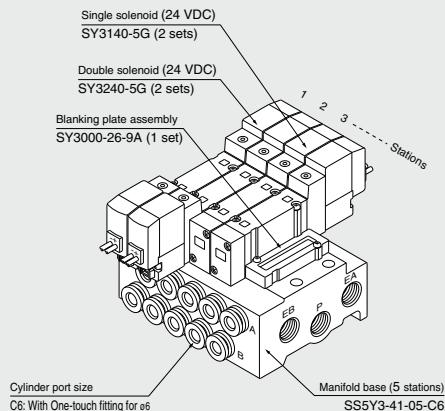
Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C10	One-touch fitting for ø10	SY7000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø3/8"	SY3000
N7	One-touch fitting for ø1/4"	SY3000
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø3/8"	SY5000
N11	One-touch fitting for ø3/8"	SY7000

How to Order Manifold Assembly (Example)

Example



SS5Y3-41-05-C6... 1 set (Type 41, 5-station manifold base part no.)

* **SY3240-5G**..... 2 sets (Double solenoid part no.)

* **SY3140-5G**..... 2 sets (Single solenoid part no.)

* **SY3000-26-9A**..... 1 set (Blanking plate assembly 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.

How to Order Valve

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

SY **5** **2** **40** **—** **—** **—** **5** **L** **—** **—** **—** **—** **—**

Series

3	SY3000
5	SY5000
7	SY7000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot type

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC

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

For AC (%₅₀ Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

* DC specifications of Type D, Y, DO and YO is only available with 12 and 24 VDC.

* For type W□, DC voltage is only available.
Note) AC-type models that are CE/UKCA-compliant have DIN terminals only.

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

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	M8 connector
Manifold mounting	SY3000	G: Lead wire length 300 mm lead	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	(SY5000/7000 only) D: With connector DO: Without connector Y: With connector YO: Without connector	WO: Without connector cable W□: With connector cable ^{Note 2)}
	SY5000	H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	— ^{Note 1)}	●
	SY7000		LO: Without connector	MO: Without connector	●	●
	DC				●	●
	CE/UKCA-compliant				●	●

Note 1) The DIN terminal of the SY3000 series cannot be mounted on a standard manifold. For details, refer to page 958.
Note 2) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

* LN, MN type: with 2 sockets.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.
* For connector cable of M8 connector, refer to page 960.
* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.
* Refer to page 957 for the lead wire length of L and M plug connectors.
* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Type **43**

5 Port Solenoid Valve Base Mounted Manifold Stacking Type/Individual Wiring **SY9000 Series**

CE UK CA
[Option]
Note) AC-type models that are
CE/UKCA-compliant
have DIN terminals only.

How to Order Manifold

SS5Y9 - 43 - 05 U - C8

• **Manifold series**
9 SY9000

Valve stations

Symbol	Stations
02	2 stations
⋮	⋮
20	20 stations

* This also includes the number of blanking plate assemblies.

P, R port outlets

Symbol	Port outlet	Applicable stations
U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 20 stations

SUP/EXH block assembly specifications

Symbol	Specifications
NII	Standard/Internal pilot specification
R	External pilot specification
S	Internal pilot/Built-in silencer
RS	External pilot/Built-in silencer

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

* When One-touch fittings are selected for "A, B port size", the symbol is nil.

Option

Symbol	Mounting
NII	Direct mounting
D	DIN rail mounting (with DIN rail)
DO	DIN rail mounting (without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into "mark."

A, B port size

Thread piping

Symbol	Port size
02	1/4
03	3/8

One-touch fitting (Metric size)

Symbol	Port size
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12
M	Mixed

One-touch fitting (Inch size)

Symbol	Port size
N9	One-touch fitting for ø $\frac{9}{16}$ "
N11	One-touch fitting for ø $\frac{11}{16}$ "
M	Mixed

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

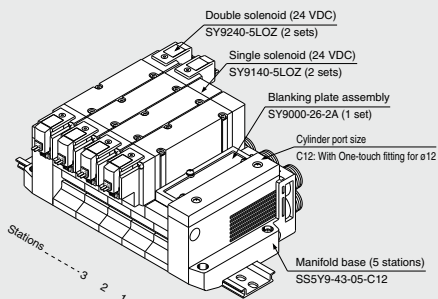
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

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

How to Order Manifold Assembly (Example)

Example



SS5Y9-43-05B-C12 ... 1 set (Type 43, 5-station manifold base part no.)
 * **SY9000-26-2A ... 1 set (Blanking plate assembly part no.)**
 * **SY9140-5LOZ ... 2 sets (Single solenoid part no.)**
 * **SY9220-5LOZ ... 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.

How to Order Valve

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

SY 9 2 40 **5 L**

Series

9	SY9000
---	--------

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot type

Nil	Internal pilot
R	External pilot

Coil specifications

Nil	Standard
T	With power saving circuit (24, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC

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

For AC (% Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

* DC specifications of Type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.

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

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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

Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

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	M8 connector
G: Lead wire length 300 mm		L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	D: With connector	W□: Without connector cable
H: Lead wire length 600 mm		LN: Without lead wire	MN: Without lead wire	DO: Without connector	Y: With connector
		LO: Without connector	MO: Without connector	YO: Without connector	W□: With connector cable (Note)
CE/UKCA-compliant	●	●	●	●	●
DC	—	—	—	—	—
AC	—	—	—	●	—

* LN, MN type: with 2 sockets.
* DIN terminal type "Y" which conforms to EN-175301-803C (former DIN43650C) is also available. For details, refer to page 957.
* For connector cable of M8 connector, refer to page 960.
* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.
* Refer to page 957 for the lead wire length of L and M plug connectors.
* Refer to page 958 for the connector assembly with cover for L and M plug connectors.
Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

Type **41P**
Type **42P**

5 Port Solenoid Valve Base Mounted Manifold Bar Stock Type/Flat Ribbon Cable **SY3000/5000/7000 Series**

Note) CE/UKCA-compliant:
For DC only.

CE UK
CA CA
[Option]

How to Order Manifold

Type 41P/Compact type

SS5Y 5 - 41P - 05 - C8 - -

Manifold series

3	SY3000
5	SY5000

Stations

03	3 stations
:	:
12	12 stations

* SS5Y3 has 4 to 12 stations.
* This also includes the number of blanking plate assemblies.

• A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000

Thread type

Nil	Rc	CE/UKCA-compliant
F	G	Nil
N	NPT	Q
T	NPTF	

Note) CE/UKCA-compliant:
* Except for M5 For DC only.

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32	SY3000
N7	One-touch fitting for ø1/4"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16	

Type 42P/Common external pilot capable

SS5Y 5 - 42P - 05 - C8 - -

Manifold series

3	SY3000
5	SY5000
7	SY7000

Stations

03	3 stations
:	:
12	12 stations

* SS5Y3 has 4 to 12 stations.
* This also includes the number of blanking plate assemblies.

• A, B port size Thread piping

Symbol	Port size	Applicable series
01	1/8	SY3000
02	1/4	SY5000
02	1/4	SY7000

Thread type

Nil	Rc	CE/UKCA-compliant
F	G	Nil
N	NPT	Q
T	NPTF	

Note) CE/UKCA-compliant:
For-DC only.

One-touch fitting (Metric size)

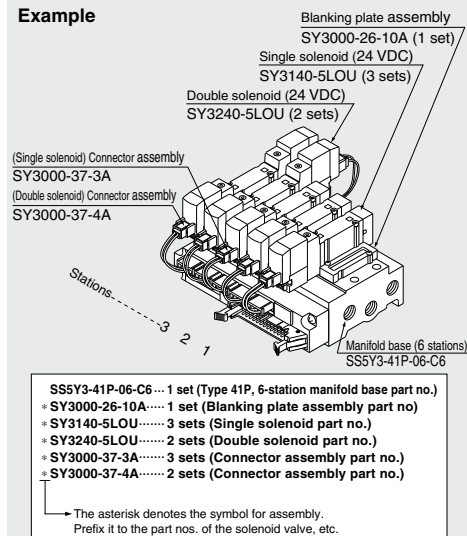
Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	SY7000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32	SY3000
N7	One-touch fitting for ø1/4"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16	
N11	One-touch fitting for ø3/8"	SY7000

How to Order Manifold Assembly (Example)

Example

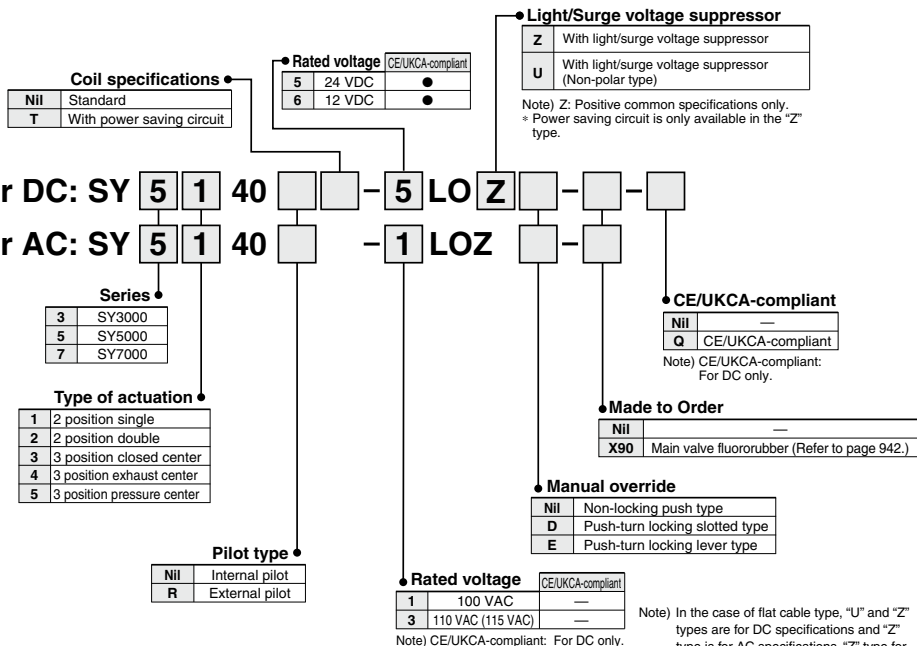


Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

Note) Please indicate the connector assembly part no. (page 835) that connects the valve and the manifold.

How to Order Valve

Note) CE/UKCA-compliant:
For DC only.



Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

Note) In the case of flat cable type, "U" and "Z" types are for DC specifications and "Z" type is for AC specifications. "Z" type for DC is positive common specification only. For the other combination, please contact SMC.

Note) Since the electrical entry is "LO", select an appropriate connector assembly part no.

Connector Assembly

For 12, 24 VDC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-3A	SY5000-37-3A
Double solenoid, 3 position type	SY3000-37-4A	SY5000-37-4A
Single with spacer assembly	SY5000-37-3A	SY5000-37-5A
Double, 3 position with spacer assembly	SY3000-37-6A	SY5000-37-6A

Note) Spacer assembly indicates Individual SUP/EXH spacer.

For 100 VAC

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-32A	SY5000-37-15A
Double solenoid, 3 position type	SY3000-37-33A	SY5000-37-16A
Single with spacer assembly	SY5000-37-15A	SY5000-37-17A
Double, 3 position with spacer assembly	SY3000-37-34A	SY5000-37-18A

For 100 VAC (115 VAC)

Specifications	For SY3000	For SY5000/7000
For single solenoid	SY3000-37-35A	SY5000-37-19A
Double solenoid, 3 position type	SY3000-37-36A	SY5000-37-20A
Single with spacer assembly	SY5000-37-19A	SY5000-37-21A
Double, 3 position with spacer assembly	SY3000-37-37A	SY5000-37-22A

Type **43P**

5 Port Solenoid Valve Base Mounted Manifold Stacking Type/Flat Ribbon Cable

SY9000 Series

(Option)
Note) CE/UKCA-compliant:
For DC only.

How to Order Manifold

SS5Y9-43P-05 U -C8

Manifold series
9 SY9000

Valve stations

Symbol	Stations
04	4 stations
:	:
12	12 stations

* This also includes the number of blanking plate assemblies.

P, R port outlets

Symbol	Port outlet	Applicable stations
U	U side	4 to 10 stations
D	D side	
B	Both sides	4 to 12 stations

SUP/EXH block assembly specifications

Symbol	Specifications
NII	Standard/Internal pilot specification
R	External pilot specification
S	Internal pilot/Built-in silencer
RS	External pilot/Built-in silencer

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

Option

Symbol	Mounting
NII	Direct mounting
D	DIN rail mounting (with DIN rail)
D0	DIN rail mounting (without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

A, B port size

Symbol	Port size
02	1/4
03	3/8

One-touch fitting (Metric size)

Symbol	Port size
C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12
M	Mixed

One-touch fitting (Inch size)

Symbol	Port size
N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"
M	Mixed

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

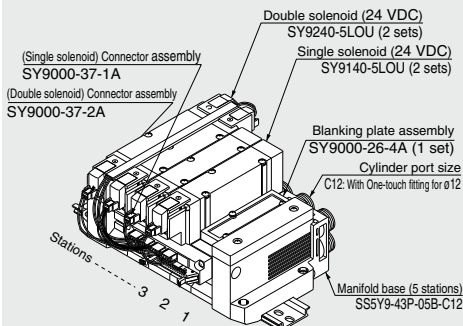
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

How to Order Manifold Assembly (Example)

Example



SS5Y9-43P-05B-C12... 1 set (Type 43P, 5-station manifold base part no.)

- * SY9000-26-4A 1 set (Blanking plate assembly part no.)
- * SY9140-5LOU 2 sets (Single solenoid part no.)
- * SY9240-5LOU 2 sets (Double solenoid part no.)
- * SY9000-37-1A 2 sets (Connector assembly part no.)
- * SY9000-37-2A 2 sets (Connector assembly part no.)

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

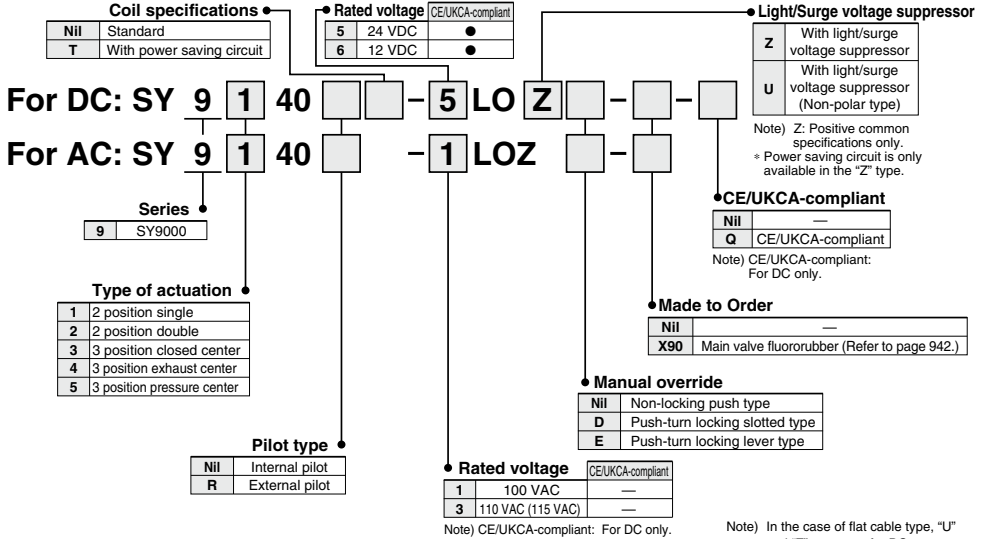
Add the valve and option part number under the manifold base part number. In the case of complex arrangement, specify them on the manifold specification sheet.

Note) Please indicate the connector assembly part no. (page 843) that connects the valve and the manifold.

Note) CE/UKCA-compliant:
For DC only.



How to Order Valve



Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

Note) In the case of flat cable type, "U" and "Z" types are for DC specifications and "Z" type is for AC specifications. "Z" type for DC is positive common specification only.

Note) Since the electrical entry is "LO", select an appropriate connector assembly part no.

Connector Assembly

For 12, 24 VDC

Specifications	For SY9000
For single solenoid	SY9000-37-1A
Double solenoid, 3 position type	SY9000-37-2A
Single with spacer assembly	SY9000-37-3A
Double, 3 position with spacer assembly	SY9000-37-4A

Note) Spacer indicates Individual SUP/EXH spacer.

For 100 VAC

Specifications	For SY9000
For single solenoid	SY9000-37-1B
Double solenoid, 3 position type	SY9000-37-2B
Single with spacer assembly	SY9000-37-3B
Double, 3 position with spacer assembly	SY9000-37-4B

For 110 VAC (115 VAC)

Specifications	For SY9000
For single solenoid	SY9000-37-1C
Double solenoid, 3 position type	SY9000-37-2C
Single with spacer assembly	SY9000-37-3C
Double, 3 position with spacer assembly	SY9000-37-4C

Type **42SA**

EX510 Gateway-type Serial Transmission System Base Mounted Manifold/Integrated Type **SY3000/5000/7000 Series**

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

**CE UK
CA**
[Option]

How to Order Manifold

SS5Y 3 - 42SA - 03 - 01 - -

Manifold series

3	SY3000
5	SY5000
7	SY7000

SI unit

Nil	NPN output (+COM.)
N	PNP output (-COM.)

Valve stations

Symbol	Stations	Note
03	3 stations	Double wiring ^{Note 1)}
:	:	
08	8 stations	
03	3 stations	Specified layout ^{Note 2)} (Compatible with 16 solenoid valves)
:	:	
16	16 stations	

• SS5Y3 can be set from 4 stations.

• The number of the blanking plate assembly is also included.

Note 1) Double wiring: Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

A, B port size

Thread piping

01	1/8	SY3000
02	1/4	SY5000/7000

One-touch fitting (Metric size)

C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	SY7000

One-touch fitting (Inch size)

N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
N7	One-touch fitting for ø1/4"	SY5000
N9	One-touch fitting for ø5/16"	
N11	One-touch fitting for ø3/8"	SY7000

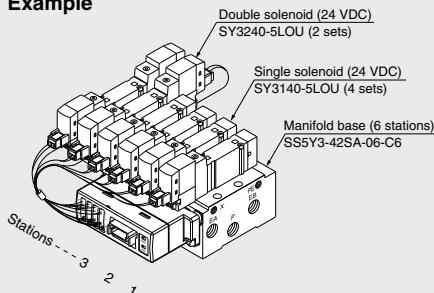
SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
Nil	NPN output (+COM.)	EX510-S001	P.1490
N	PNP output (-COM.)	EX510-S101	

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Manifold Assembly (Example)

Example



SS5Y3-42SA-06-C6 1 set (42SA type 6-station manifold part no.)
 * SY3140-5LOU 4 sets (Single solenoid part no.)
 * SY3240-5LOU 2 sets (Double solenoid part no.)

→The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet. For a manifold for an EX510, the length of the lead wire for a connector assembly depends on the number of stations. Therefore, the manifold assembly is shipped with the valves (including blanking plates) and connector assembly mounted on it, as the standard specification. Be sure to specify the part nos. of the solenoid valves to be mounted.

How to Order Valves

SY **3** **1** **40** **-** **5** **LO** **Z** **-** **-** **-**

Series

3	SY3000
5	SY5000
7	SY7000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot specifications

Nil	Internal pilot
R	External pilot

Coil specifications

Nil	Standard
T	With power saving circuit

Rated voltage: 24 VDC

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (non-polar type)

Note 1) Power saving circuit is only available in the "Z" type.

Note 2) When the SI unit is the PNP output (-COM.), only the "U" type is available.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

Type **43SA**

EX510 Gateway-type Serial Transmission System Base Mounted Manifold/Stacking Type **SY9000 Series** (€ UK CA)

[Option]

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

How to Order Manifold

SS5Y9 - 43SA ☐ - **03** **U** ☐ - **02** ☐ - ☐ - ☐

SI unit

NII	NPN output (+COM.)
N	PNP output (-COM.)

Valve stations

Symbol	Stations	Note
03	3 stations	Double wiring ^{Note 1)}
:	:	
08	8 stations	Specified layout ^{Note 2)} (Compatible with 16 solenoid valves)
03	3 stations	
:	:	
16	16 stations	

• The number of the blanking plate assembly is also included.
Note 1) Double wiring: Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Option

NII	Direct mounting
D	DIN rail mounting (With DIN rail)
DO	DIN rail mounting (Without DIN rail)
D*	When a longer DIN rail is desired than the specified stations, specify the station number to be required into * mark.

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

A, B port size

Thread piping

02	1/4
03	3/8

One-touch fitting (Metric size)

C8	One-touch fitting for ø8
C10	One-touch fitting for ø10
C12	One-touch fitting for ø12
M	Mixed

One-touch fitting (Inch size)

N9	One-touch fitting for ø5/16"
N11	One-touch fitting for ø3/8"
M	Mixed

• For the mixed specification, indicate separately on a manifold specification sheet.

SUP/EXH block assembly specifications

NII	Standard/Internal pilot
R	External pilot
S	Internal pilot, Built-in silencer
RS	External pilot, Built-in silencer

P, R port outlets

U	U side	3 to 10 stations
D	D side	
B	Both sides	3 to 16 stations

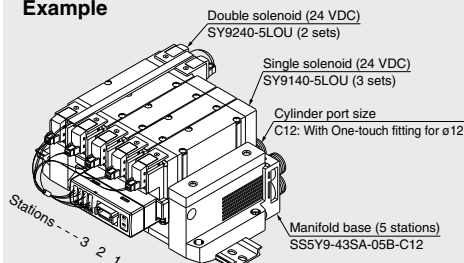
SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
NII	NPN output (+COM.)	EX510-S001	P.1490
N	PNP output (-COM.)	EX510-S101	

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Manifold Assembly (Order Example)

Example



SS5Y9-43SA-05B-C12 ... 1 set (43SA type 5-station manifold part no.)
SY9140-5LOU 3 sets (Single solenoid part no.)
SY9240-5LOU 2 sets (Double solenoid part no.)

• The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet. For a manifold for an EX510, the length of the lead wire for a connector assembly depends on the number of stations. Therefore, the manifold assembly is shipped with the valves (including blanking plates) and connector assembly mounted on it, as the standard specification. Be sure to specify the part nos. of the solenoid valves to be mounted.

How to Order Valves

SY9 **1** **40** **-** **5** **LO** **Z** **-** **-** **-**

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot specifications

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit

Rated voltage: 24 VDC

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (non-polar type)

Note 1) Power saving circuit is only available in the "Z" type.

Note 2) When the SI unit is the PNP output (-COM.), only the "U" type is available.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

5 Port Solenoid Valve Base Mounted Manifold

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



Type **45**

Stacking Type/DIN Rail Mounted/Individual Wiring SY3000/5000 Series

How to Order Manifold

SS5Y **3** - 45 - **05** **U** - **C6** - [] - []

Series

3	SY3000
5	SY5000

Valve stations

02	2 stations
:	:
20	20 stations

SUP/EXH block assembly mounting position

Symbol	Mounting position	Applicable no. of stations
U	U side	2 to 10 stations
D	D side	
B	(Both sides)	2 to 20 stations
M*	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

One-touch fitting (Inch size)

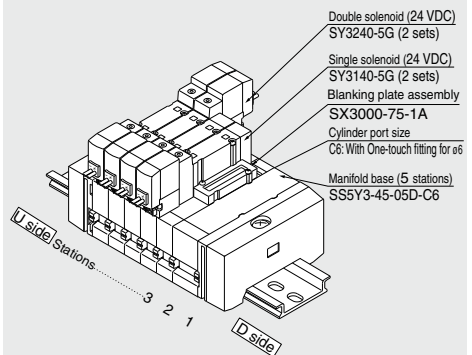
Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/32"	SY3000
N7	One-touch fitting for ø 1/4"	
M	Mixed	
N3	One-touch fitting for ø 5/32"	SY5000
N7	One-touch fitting for ø 1/4"	
N9	One-touch fitting for ø 5/16"	
M	Mixed	

* In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

* Refer to pages 934 to 938 for external pilot specifications and built-in silencer.

How to Order Manifold Assembly (Example)

Example



SS5Y3-45-05D-C6.... 1 set (Type 45, 5-station manifold base part no.)

* SX3000-75-1A 1 set (Blanking plate assembly part no.)

* SY3140-5G 2 sets (Single solenoid part no.)

* SY3240-5G 2 sets (Double solenoid part no.)

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

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the manifold specification sheet to instruct us.



How to Order Valve

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

SY 5 2 40 **5 L** **—** **—** **—**

Series

3	SY3000
5	SY5000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Coil specifications

NIL	Standard
T	With power saving circuit (24, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC

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

AC (Hz) ^{50/60}

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

- * DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
- * For type W□, DC voltage is only available.
- * D and DO only available for SY5000.

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

CE/UKCA-compliant

NIL	—
Q	CE/UKCA-compliant

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

Made to Order

NIL	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

NIL	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NIL	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light and surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

- * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
- * For "R" and "U", DC voltage is only available.
- * Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

NIL	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

- * DOZ and YOZ are not available.
- * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC			24, 12 VDC 100, 110, 200, 220 VAC	24, 12 VDC 6, 5, 3 VDC
Grommet	L plug connector	M plug connector	DIN terminal	M8 connector
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	(SY5000) D: With connector	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	DO: Without connector	W□: With connector cable ^{Note 2)}
	LO: Without connector	MO: Without connector	Y: With connector	
			YO: Without connector	
Manifold mounting	SY3000	●	— Note 1)	●
	SY5000	●	●	●
CE/UKCA-compliant	DC	●	●	●
	AC	—	●	—

Note 1) The DIN terminal of the SY3000 series cannot be mounted on a standard manifold. For details, refer to page 958.

Note 2) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

* LN, MN type: with 2 sockets.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).

* Refer to page 957 for details.

* Refer to page 960 for connector cable of M8 connector.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

* When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the integrated manifold are supplied with the solenoid valve, but the stacking type gaskets are not included. When the stacking type gaskets are required, order them separately.

5 Port Solenoid Valve Base Mounted Manifold Stacking Type/DIN Rail Mounted/Connector Box



Type **45-A-NA**

SY3000/5000 Series

How to Order Manifold

SS5Y **3** -45- **A** **U** -05 **D** -C6 - -

Series

3	SY3000
5	SY5000

Specifications

Symbol	Specifications
A	With connector box (+COM spec.)
NA	With connector box (-COM spec.)

* The type of attached lead wire assembly is different.

Connector box mounting position

Symbol	Mounting position
U	U side
D	D side

Valve stations

Symbol	Stations	Note
02	2 stations	Applicable up to 16 solenoid valves.
:	:	
16	16 stations	

SUP/EXH block assembly mounting position

Symbol	Mounting position	Applicable stations
U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 16 stations
M *	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (Max. 20 stations)

A/B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø ⁵ / ₃₂ "	SY3000
N7	One-touch fitting for ø ¹ / ₄ "	
M	Mixed	
N3	One-touch fitting for ø ⁵ / ₃₂ "	SY5000
N7	One-touch fitting for ø ¹ / ₄ "	
N9	One-touch fitting for ø ⁹ / ₁₆ "	
M	Mixed	

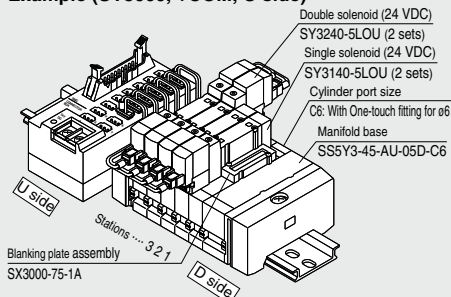
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

* Refer to pages 934 to 938 for external pilot specifications and built-in silencer.

How to Order Manifold Assembly (Example)

Example (SY3000, +COM, U side)



SS5Y3-45-AU-05D-C6 ... 1 set (Type 45, 5-station manifold base part no.)

* SX3000-75-1A 1 set (Blanking plate assembly part no.)

* SY3140-5LOU 2 sets (Single solenoid part no.)

* SY3240-5LOU 2 sets (Double solenoid part no.)

└ The asterisk denotes the symbol for assembly.

Prefix it to the part nos. of the solenoid valve, etc.

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of connector box. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the manifold specification sheet to instruct us.

SS5Y3-45-AU-05D-C6 is assembled with solenoid valve and lead wire assembly when shipping. When ordering manifold only (without valves/wires/options), refer to how to order on page 864 and list the connector box (VZ3000-106-1A) and the rail stopper (TXE1-SMC) below the manifold to allow for the connector box mounting at U side. (Be sure to order DIN rail 3 station longer than number of the manifold stations.) In this case, please note that dimensions, L1 and L2 on pages 880 and 881 may vary slightly.) For other components, refer to page 882.

How to Order Valve

SY **5** **2** **40** -5 LOU - -

Series

3	SY3000
5	SY5000

Rated voltage

5	24 VDC
---	--------

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Made to Order

NII	—
X90	Main valve fluoro rubber (Refer to page 942.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

* When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the integrated manifold are supplied with the solenoid valve, but the stacking type gaskets are not included. When the stacking type gaskets are required, order them separately.

EX510 Gateway-type Serial Transmission System Base Mounted Manifold/Stacking Type



Type **45S6A**

SY3000/5000 Series

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

How to Order Manifold

SS5Y 3 - 45S6A [] U - 02 U [] - C4 - [] - []

Manifold series

3	SY3000
5	SY5000

SI unit

NII	NPN output (+COM.)
N	PNP output (-COM.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

SI unit mounting position

U	U side
D	D side

Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring ^{Note 1)}
:	:	
08	8 stations	Specified layout ^{Note 2)} (Compatible with 16 solenoid valves)
02	2 stations	
:	:	
16	16 stations	

• The number of the blanking plate assembly is also included.
Note 1) Double wiring: Use of a single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate wiring specifications on the manifold specification sheet. (Note that double and 3 position valves cannot be used where single solenoid wiring has been specified.)

Option

When a DIN rail that is longer than the specified stations is desired, specify the required station number. (Max. 20 stations)

A, B port size

One-touch fitting (Metric size)

C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	SY5000
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

One-touch fitting (Inch size)

N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
M	Mixed	SY5000
N3	One-touch fitting for ø5/32"	
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	
M	Mixed	

• For the mixed specification, indicate separately on a manifold specification sheet.

Pilot specifications

NII	Internal pilot
S	Internal pilot/built-in silencer
R	External pilot
RS	External pilot/built-in silencer

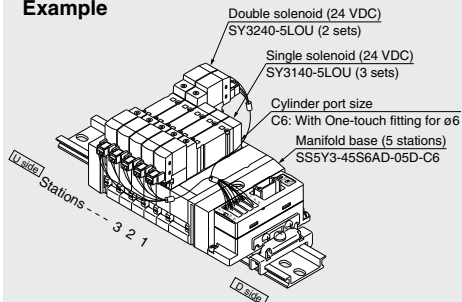
SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 16 stations
M	Special specifications*	

*For the special specifications, indicate separately on a manifold specification sheet.

How to Order Manifold Assembly (Order Example)

Example



SS5Y3-45S6A-05D-C6-... 1 set (45S6A type 5-station manifold part no.)
SY3140-5LOU 3 sets (Single solenoid part no.)
SY3240-5LOU 2 sets (Double solenoid part no.)

—The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

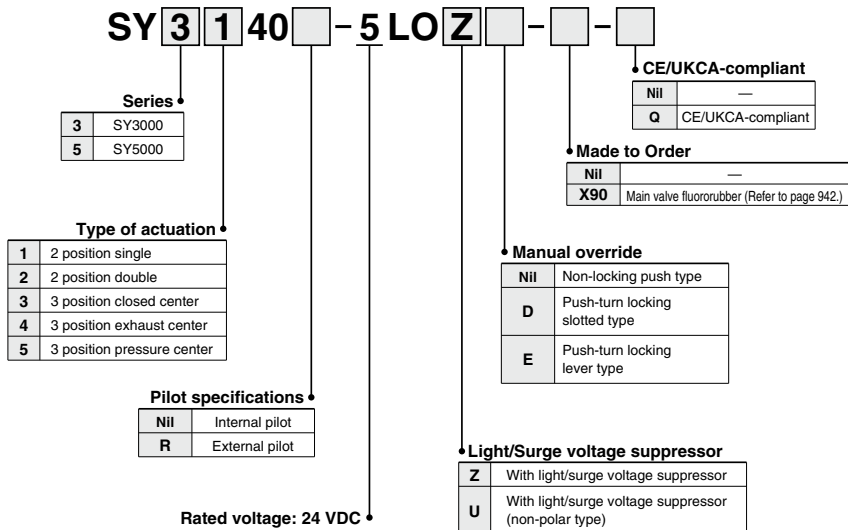
Add the valve and option part number under the manifold base part number. When entry of part numbers becomes complicated, indicate by the manifold specification sheet. For a manifold for an EX510, the length of the lead wire for a connector assembly depends on the number of stations. Therefore, the manifold assembly is shipped with the valves (including blanking plates) and connector assembly mounted on it, as the standard specification. Be sure to specify the part nos. of the solenoid valves to be mounted.

SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
NII	NPN output (+COM.)	EX510-S001	P.1490
N	PNP output (-COM.)	EX510-S101	

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Valves



* When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the integrated manifold are supplied with the solenoid valve, but the stacking type gaskets are not included. When the stacking type gaskets are required, order them separately.

5 Port Solenoid Valve Base Mounted Manifold Stacking Type/DIN Rail Mounted/Plug-in



Type **45**

SY3000/5000 Series

How to Order Manifold

Type 45F (D-sub connector, 25 pins)

SS5Y3-45FD-05U-C4

Series

3	SY3000
5	SY5000

Common specifications

NII	Positive common
N	Negative common

Connector mounting position

Symbol	Mounting position
U	U side
D	D side

Voltage

NII	24 VDC
12V	12 VDC

Valve stations

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 20 solenoid valves.)
:	:	
20	20 stations	

- * This also includes the number of blanking plate assemblies.
- * Two stations are necessary for the double, 3 position (Dual body type).

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	(Both sides)	2 to 20 stations
M	Special specifications	

- * For special specifications, indicate separately by the manifold specification sheet.

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø $\frac{5}{32}$ "	SY3000
N7	One-touch fitting for ø $\frac{1}{4}$ "	
M	Mixed	
N3	One-touch fitting for ø $\frac{5}{32}$ "	SY5000
N7	One-touch fitting for ø $\frac{1}{4}$ "	
N9	One-touch fitting for ø $\frac{5}{16}$ "	
M	Mixed	

- * In the case of mixed specifications (M), indicate separately on the manifold specification sheet.

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required.
(20 stations at maximum)

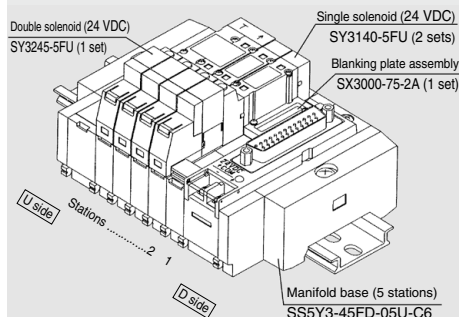
CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

- * Refer to pages 934 to 938 for external pilot specifications and built-in silencer.

How to Order Manifold Assembly (Example)

Example (Type 45F/D-sub connector (25 pin))



SS5Y3-45FD-05U-C6 ... 1 set (Type 45F, D-sub connector 5-station manifold base part no.)
 * SX3000-75-2A ... 1 set (Blanking plate assembly part no.)
 * SY3140-5FU ... 2 sets (Single solenoid part no.)
 * SY3245-5FU ... 1 set (Double solenoid part no.)

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

- * The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of connector box.
- * When ordering double solenoid valves/3 position (Dual body type), please keep in mind that they require two manifold stations.

How to Order Valve

(Type 45F, 45P□, 45T, 45T1)

2 position single **SY3 1 40-5 FU**

Double, 3 position **SY3 2 45-5 FU**

Series

3	SY3000
5	SY5000

Type of actuation

2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Rated voltage

5	24 VDC
6	12 VDC

Dual body type

(Double, 3 position)

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

- * When ordering plug-in type solenoid valve as a single unit, gaskets are not included. Order them separately, if necessary. (Refer to page 908 for details.)
- * With light/surge voltage suppressor (Non-polar type)

How to Order Manifold

Type 45P (Flat ribbon cable)

SS5Y **3** -45 **P** **D** -05 **U** -C4 - - -

Series

3	SY3000
5	SY5000

Common specifications

Nil	Positive common
N	Negative common

Connector poles

Symbol	Poles	Stations
Nil	26	2 to 20 stations
G	20	2 to 16 stations
H	10	2 to 8 stations

Connector mounting position

Symbol	Mounting position
U	U side
D	D side

Voltage

Nil	24 VDC
12V	12 VDC

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
M	Mixed	
N3	One-touch fitting for ø5/32"	SY5000
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	
M	Mixed	

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 20 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Valve stations (Blanking plate assemblies are included.)

26 pins (P) connector

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 20 solenoid valves.)
:	:	
20	20 stations	

20 pins (PG) connector

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 16 solenoid valves.)
:	:	
16	16 stations	

10 pins (PH) connector

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 8 solenoid valves)
:	:	
08	8 stations	

* Two stations are necessary for the double, 3 position (Dual body type).

Type **45S**

SY3000/5000 Base Mounted Manifold Stacking Type/DIN Rail Mounted EX122 Integrated-type (For Output) Serial Transmission System



How to Order Manifold

SS5Y 3-45S V-05 U-C6

Series

3	SY3000
5	SY5000

SI unit specifications

Symbol	Protocol type
0	Without SI unit
Q	DeviceNet®
V	CC-LINK
ZB	CompoNet® (Positive common)
ZBN	CompoNet® (Negative common)

* Even though when it is not equipped with SI unit, DIN rail length is long enough for future expectancy of mounting SI unit.

Valve stations

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 16 solenoid valves.)
:	:	
16	16 stations	

* This also includes the number of blanking plate assemblies.
* Two stations are necessary for the double, 3 position (Dual body type).

CE/UKCA-compliant

NII	
Q	CE/UKCA-compliant

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (Max. 16 stations)

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	(Both sides)	2 to 16 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32	SY3000
N7	One-touch fitting for ø1/4	
M	Mixed	
N3	One-touch fitting for ø5/32	SY5000
N7	One-touch fitting for ø1/4	
N9	One-touch fitting for ø9/16	
M	Mixed	

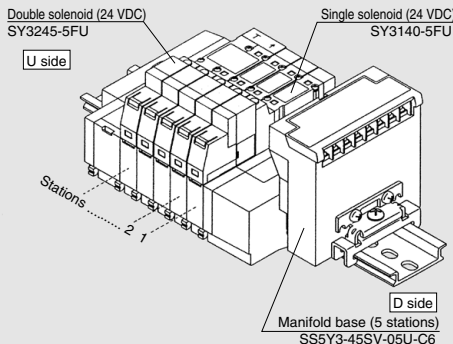
SI Unit Part No.

Symbol	Protocol type	SI Unit No.
Q	DeviceNet®	EX122-SDN1
V	CC-LINK	EX122-SMJ1
ZB	CompoNet® (Positive common)	EX122-SCM1
ZBN	CompoNet® (Negative common)	EX122-SCM3

Refer to pages 1287 to 1294 and the Operation Manual for the details of EX122 Integrated-type (For Output) Serial Transmission System.
Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Manifold Assembly (Example)

Example



SS5Y3-45SV-05U-C6 ... 1 set (45S with SI unit 5-station manifold base part number)

* SY3140-5FU 3 sets (Single solenoid part no.)
* SY3245-5FU 1 set (Double solenoid part no.)

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

* The valve arrangement is numbered as the 1st. station from D side.
* When ordering double solenoid valves/3 position (Dual body type), please keep in mind that they require two manifold stations.
* SI unit is available only for the D-side mounting type.

How to Order Valve

2 position single **SY 3 1 4 0 - 5 FU**

Double, 3 position **SY 3 2 4 5 - 5 FU**

Series

3	SY3000
5	SY5000

Type of actuation

2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Dual body type (Double, 3 position)

Rated voltage

5	24 VDC
---	--------

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Made to Order

NII	
X90	Main valve fluororubber (Refer to page 942.)

CE/UKCA-compliant

NII	
Q	CE/UKCA-compliant

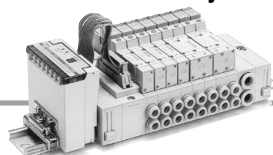
* When ordering plug-in type solenoid valve as a single unit, gaskets are not included. Order them separately, if necessary. (Refer to page 908 for details.)
* With light/surge voltage suppressor (Non-polar type)

Type **45S1**

SY3000/5000 Base Mounted Manifold

Stacking Type/DIN Rail Mounted

EX 121 Separate Type (For Output) Serial Transmission System



How to Order Manifold

SS5Y 3 - 45S1 V D - 05 U - C4 - - -

Series

3	SY3000
5	SY5000

SI unit specifications

Symbol	Protocol type
0	Without SI unit
Q	DeviceNet®
V	CC-LINK
ZB	CompoNet® (Positive common)
ZBN	CompoNet® (Negative common)

- Even though when it is not equipped with SI unit, DIN rail length is long enough for future expectancy of mounting SI unit. When a shorter rail is required (same as type 45□), suffix "0" in the optional blank at the end of part number.

SI unit mounting position

Symbol	Mounting position
U	U side
D	D side

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (Max. 16 stations)

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/32"	SY3000
N7	One-touch fitting for ø 1/4"	
M	Mixed	
N3	One-touch fitting for ø 5/32"	SY5000
N7	One-touch fitting for ø 1/4"	
N9	One-touch fitting for ø 9/16"	
M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 16 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

Valve stations

Symbol	Stations	Note
02	2 stations	Single wiring spec. (Applicable up to 16 solenoid valves.)
:	:	
16	16 stations	

* This also includes the number of blanking plate assemblies.

* Two stations are necessary for the double, 3 position (Dual body type).

SI Unit Part No.

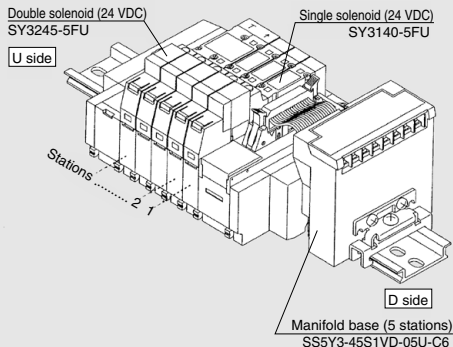
Symbol	Protocol type	SI unit No.
Q	DeviceNet®	EX121-SDN1
V	CC-LINK	EX121-SMJ1
ZB	CompoNet® (Positive common)	EX121-SCM1
ZBN	CompoNet® (Negative common)	EX121-SCM3

* For external pilot specifications and built-in silencer, refer to pages 934 to 938.

Refer to pages 1287 to 1294 and the Operation Manual for the details of EX121 Separate Type (For Output) Serial Transmission System.
Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Valve Manifold Assembly (Example)

Example



SS5Y3-45S1VD-05U-C6... 1 set (Type 45S1 with serial unit
5-station manifold base part no.)
* SY3140-5FU..... 3 sets (Single solenoid part no.)
* SY3245-5FU..... 1 set (Double solenoid part no.)

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

- The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SI unit.
- When ordering double solenoid valves/3 position (Dual body type), please keep in mind that they require two manifold stations.

How to Order Valve



2 position single **SY** **3** **1** **40-5 FU** ☐ - ☐

Double, 3 position **SY** **3** **2** **45-5 FU** ☐ - ☐

Series •

3	SY3000
5	SY5000

Type of actuation •

2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Dual body type (Double, 3 position) •

Rated voltage •

5	24 VDC
---	--------

Manual override •

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

CE/UKCA-compliant •

NII	-
Q	CE/UKCA-compliant

- * When ordering plug-in type solenoid valve as a single unit, gaskets are not included. Order them separately, if necessary. (Refer to page 908 for details.)
- * With light/surge voltage suppressor (Non-polar type)

EX510 Gateway-type Serial Transmission System

Base Mounted Manifold/Stacking Type/Plug-in Type



Type **45S6B**

SY3000/5000 Series

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

How to Order Manifold

SS5Y 3 - 45S6B - U - 02 U - C4 - -

Manifold series

3	SY3000
5	SY5000

SI unit

Nil	NPN output (+COM.)
N	PNP output (-COM.)

SI unit mounting position

U	U side
D	D side

Valve stations

Symbol	Stations	Note
02	2 stations	Compatible with 16 solenoid valves
⋮	⋮	
16	16 stations	

*The number of the blanking plate assembly is also included.

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Option
When a DIN rail that is longer than the specified stations is desired, specify the required station number. (Max. 20 stations)

A, B port size
One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32"	SY3000
N7	One-touch fitting for ø1/4"	
M	Mixed	
N3	One-touch fitting for ø5/32"	SY5000
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	
M	Mixed	

* For the mixed specification, indicate separately on a manifold specification sheet.

SI unit part no.

Symbol	SI unit specifications	SI unit part no.	Page
Nil	NPN output (+COM.)	EX510-S002A	P.1490
N	PNP output (-COM.)	EX510-S102A	

How to Order Manifold Assembly (Example)

Example

SS5Y3-45S6BD-05U-C6...1 set (45S6B type 5-station manifold part no.)
SY3140-5FU.....3 sets (Single solenoid part no.)
SY3245-5FU.....1 set (Double solenoid part no.)

The asterisk denotes the symbol for assembly. Prefix to the part no. of the solenoid valve, etc.

* They will be assembled in the order listed starting at the first station at the D side whether the connector box is located at either end.
 * When ordering double solenoid valves/3 position (dual body type), please keep in mind that they require two manifold stations.

Pilot specifications

Nil	Internal pilot
S	Internal pilot/built-in silencer
R	External pilot
RS	External pilot/built-in silencer

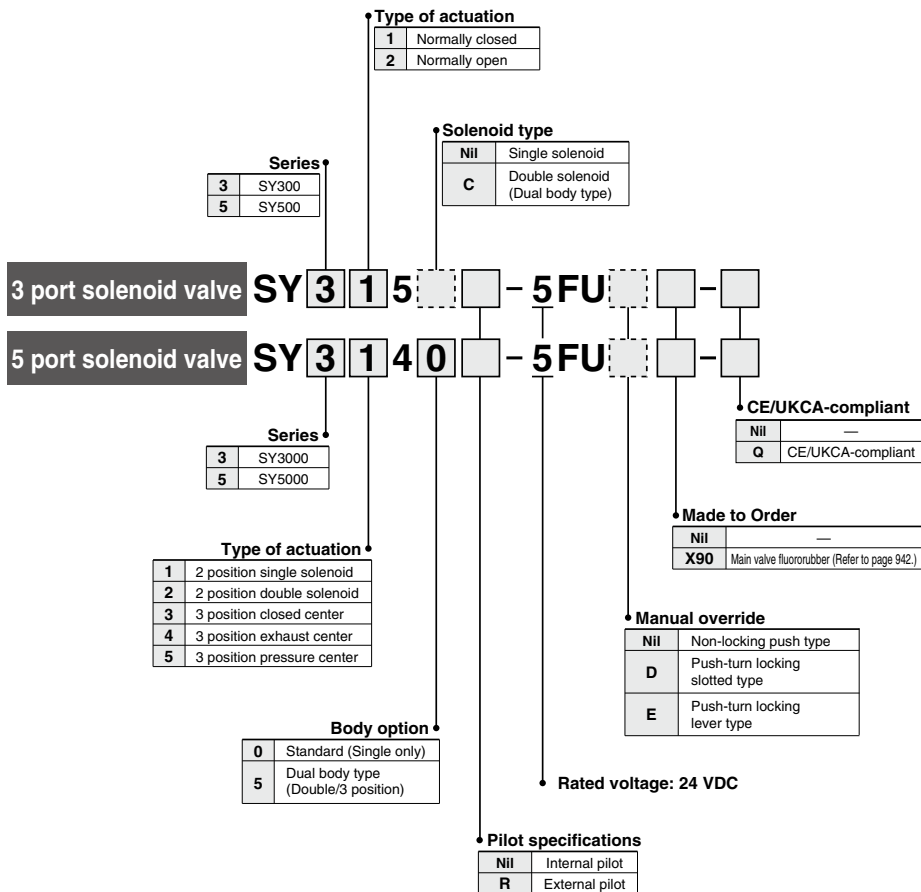
SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 16 stations
M	Special specifications*	

*For the special specifications, indicate separately on a manifold specification sheet.

Refer to pages 1478 to 1504 and the Operation Manual for the details of EX510 Gateway-type Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

How to Order Valves



- * When ordering plug-in type solenoid valve as a single unit, gaskets are not included. Order them separately, if necessary. (Refer to page 908 for details.)
- * With light/surge voltage suppressor (Non-polar type)

3 Port Valve Mixed Mounting Type on 5 Port Valve Manifold **SY300/500 Series**

3 port valve can be mounted on manifold for 5 port valve.



Single Unit

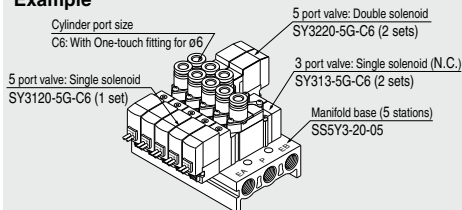
Brackets and sub-plates are the same as the SY3000/5000 series.

Applications

Possible to be mounted on all kinds of manifolds for the SY3000/5000 series.
Refer to "How to Order Manifold" for the details.

How to Order Manifold Assembly (Example)

Example



SS5Y3-20-05 1 set (Type 20, 5-station manifold base part no.)
 * SY313-5G-C6 2 sets (3 port valve, type NC part no.)
 * SY3120-5G-C6 ... 1 set (5 port valve, single solenoid part no.)
 * SY3220-5G-C6 ... 2 sets (5 port valve, 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.

Specifications

Dimensions, specifications, solenoid specifications, response time and effective area are the same as 5 port valve.

3 Port Valve **SY300/500 Series**



Body Ported/How to Order Valve

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

For single and individual wiring: For SS5Y³-20

SY **5** **1** **3** **-** **5** **L** **-** **01** **-** **-** **-** **-**

Series

3	SY300
5	SY500

Type of actuation

1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type

Nil	Single solenoid
D	Double solenoid

Coil specifications

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC		For AC	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
V	6 VDC	3	110 VAC [115 VAC]
S	5 VDC	4	220 VAC [230 VAC]
R	3 VDC		

* DC specifications of Type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.
Note) AC-type models that are CE/UKCA-compliant have DIN terminals only.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Made to Order

Nil	—
X20	Body ported external pilot (Refer to page 942.)
X90	Main valve fluororubber (Refer to page 942.)

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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

Bracket

Nil	Without bracket
F1	With foot bracket (Single solenoid type only)
F2	With side bracket

* Brackets are the same as the SY3000/5000 series.
* For bracket pin number, refer to page 735.

A port size

Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY300
01	1/8	SY500

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY300
C6	One-touch fitting for ø6	SY300
C4	One-touch fitting for ø4	SY500
C6	One-touch fitting for ø6	SY500
C8	One-touch fitting for ø8	SY500

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 9/32	SY300
N7	One-touch fitting for ø 1/4	SY300
N3	One-touch fitting for ø 9/32	SY500
N7	One-touch fitting for ø 1/4	SY500
N9	One-touch fitting for ø 5/16	SY500

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y (SY500 only)

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Electrical entry

	24, 12, 6, 5, 3 VDC 100, 110, 200, 220 VAC	24, 12 VDC 100, 110, 200, 220 VAC	24, 12 VDC 6, 5, 3 VDC
Grommet	L plug connector	M plug connector	DIN terminal
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	(SY500 only)
H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	D: With connector
	LO: Without connector	MO: Without connector	DO: Without connector
			Y: With connector
			YO: Without connector
CE/UKCA-compliant	AC		

* LN, MN type: with 2 sockets.
* Refer to page 958 for DIN terminal type of the SY3000 series.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.
* For connector cable of M8 connector, refer to page 960.
* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.
* Refer to page 957 for the lead wire length of L and M plug connectors.
* Refer to page 958 for the connector assembly with cover for L and M plug connectors.
Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

Gasket assembly part no.

Round head combination screw

Gasket

Series	Gasket assembly part no.
SY300	SY3000-GS-1
SY500	SY5000-GS-1

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

SY300/500 Series

The EX510 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

Note) CE/UKCA-compliant:
For DC only.



Body Ported/How to Order Valve

Flat ribbon cable

EX510 Gateway-type serial transmission system:

SS5Y₅³-20P/20SA

Light/Surge voltage suppressor

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.
* Power saving circuit is only available in the "Z" type.

Rated voltage

5	24 VDC
6	12 VDC

Coil specifications

Nil	Standard
T	With power saving circuit

A port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY300
01	1/8"	SY500

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY300
C6	One-touch fitting for ø6	SY300
C6	One-touch fitting for ø6	SY500
C8	One-touch fitting for ø8	SY500

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø9/32"	SY300
N7	One-touch fitting for ø1/4"	SY300
N7	One-touch fitting for ø1/4"	SY500
N9	One-touch fitting for ø9/16"	SY500

20P/20SA
For DC

SY 5 1 3 - 5 LO Z

20P
For AC

SY 5 1 3 - 1 LO Z

Series

3	SY300
5	SY500

Type of actuation

1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type

Nil	Single solenoid
D	Double solenoid

Rated voltage

1	100 VAC
3	110 VAC [115 VAC]

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

Made to Order

Nil	—
X20	Body ported external pilot (Refer to page 942.)
X90	Main valve fluororubber (Refer to page 942.)

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Base Mounted/How to Order Valve

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

[Option]

For single and individual wiring: ForSS5Y³-41/42/45

SY 5 1 5 - 5 L - - - - -

Series

3	SY300
5	SY500

Type of actuation

1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type

Nil	Single solenoid
D	Double solenoid

Pilot type

Nil	Internal pilot
R	External pilot

* External pilot is not available for Type 41 manifold.

Coil specifications

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or WCI type.

Rated voltage

For DC	AC
5 24 VDC	1 100 VAC
6 12 VDC	2 200 VAC
V 6 VDC	3 110 VAC
S 5 VDC	115 VAC
R 3 VDC	220 VAC
	230 VAC

* DC specifications of Type D, Y, DO and YO is only available with 12 and 24 VDC.

* For type WCI, DC voltage is only available.

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

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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

Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

Tread type

Nil	Rc
F	G
N	NPT
T	NPTF

Note) With sub-plate only

Port size

Symbol	Applicable series
Nil	Without sub-plate
01	With 1/8 sub-plate SY300
02	With 1/4 sub-plate SY500

* Sub-plates are the same as the SY3000/5000 series.

* For sub-plate pin number, refer to page 751.

Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

* For "R" and "U", DC voltage is only available.

* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y (SY500 only)

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* DOZ and YOZ are not available.

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Electrical entry

	24, 12, 6, 5, 3 VDC 100, 110, 200, 220 VAC	24, 12 VDC 100, 110, 200, 220 VAC	24, 12 VDC 6, 5, 3 VDC
	Grommet	L plug connector	M plug connector
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	DIN terminal
H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	M8 connector
	LO: Without connector	MO: Without connector	
CE/UKCA-compliant	DC		
	AC		

* LN, MN type: with 2 sockets.

* Refer to page 958 for DIN terminal type of the SY300 series.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.

* Refer to page 960 for connector cable of M8 connector.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Note) Enter the cable length symbols in □.

Please be sure to fill in the blank referring to page 961.

Base Mounted/How to Order Valve



Note) CE/UKCA-compliant:
For DC only.

Flat ribbon cable: **For SS5Y₅³-41P/42P/45-A**
Connector box type:

Nil	Standard
T	With power saving circuit

● Rated voltage		CE/UKCA-compliant
5	24 VDC	●
6	12 VDC	●

Z	With light/surge voltage suppressor
U	With light/surge voltage suppressor (Non-polar type)

Note) Z: Positive common specifications only.
* Power saving circuit is only available in the "Z" type.

41P/42P For AC: SY 5 1 5 - 1 LOZ -

Series	
3	SY300
5	SY500

Type of actuation	
1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type	
Nil	Single solenoid
D	Double solenoid

Pilot type	
Nil	Internal pilot
R	External pilot

* External pilot is not available for Type 41P manifold.

Rated voltage		CE/UKCA-compliant
1	100 VAC	—
3	110 VAC [115 VAC]	—

Note) CE/UKCA-compliant: For DC only.

Nil	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

- **Manual override**

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Plug-in: For SS5Y³₅-45□

Double solenoid: SY 5 1 5C - 5 FU -

Series	
3	SY300
5	SY500

Type of actuation	
1	Normally closed (N.C.)
2	Normally open (N.O.)

Nil	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant:
For DC only.

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override	
Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

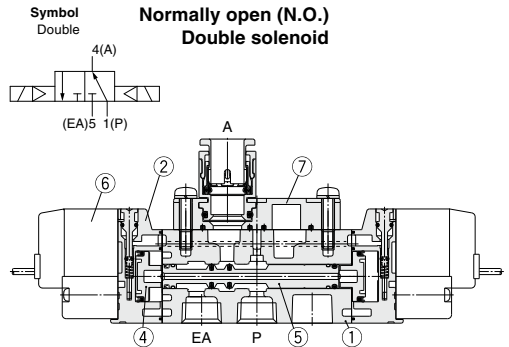
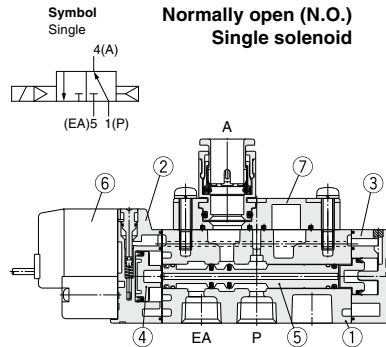
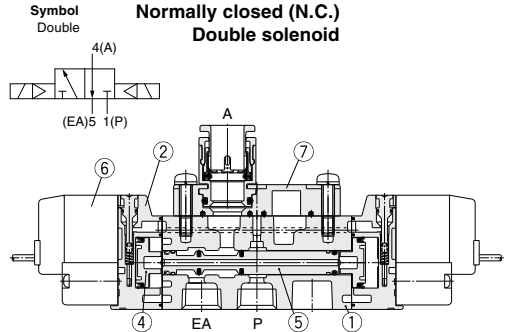
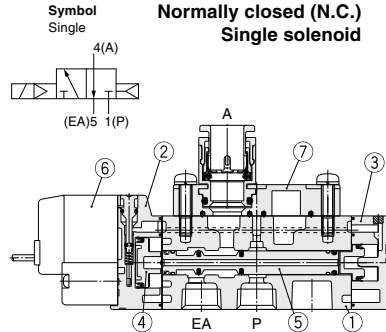
● **Rated voltage**

For DC	
5	24 VDC
6	12 VDC

* When ordering double solenoid valves (Dual body type), please keep in mind that they require two manifold stations.

Pilot type	
Nil	Internal pilot
B	External pilot

Construction: Body Ported



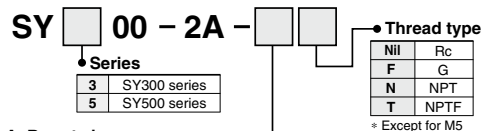
Component Parts

No.	Description	Material	Note
1	Body	Aluminum die-casted (SY3000: Zinc die-casted)	White
2	Adapter plate	Resin	White
3	End plate	Resin	White
4	Piston	Resin	—
5	Spool valve assembly	Aluminum, H-NBR	—

Replacement Parts

No.	Description	No.
6	Pilot valve assembly	Refer to "How to Order Pilot Valve Assembly" on page 948.
7	M5 port block assembly	Refer to "How to Order Port Block Assembly" below.

How to Order M5 Port Block Assembly



A, B port size

Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY300
O1	1/8	SY500

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY300
C6	One-touch fitting for ø6	SY300
C4	One-touch fitting for ø4	SY500
C6	One-touch fitting for ø6	SY500
C8	One-touch fitting for ø8	SY500

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø3/32	SY300
N7	One-touch fitting for ø1/4	SY300
N3	One-touch fitting for ø3/32	SY500
N7	One-touch fitting for ø1/4	SY500
N9	One-touch fitting for ø9/16	SY500

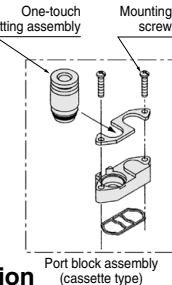


Caution

Mounting screw tightening torques

SY300 (M2) : 0.12 N·m

SY500 (M3) : 0.6 N·m



* Only replacement of the fittings assembly is possible.

Metric size

SY300	One-touch fitting for ø4	VVQ1000-50A-C4
	One-touch fitting for ø6	VVQ1000-50A-C6
	One-touch fitting for ø4	VVQ1000-51A-C4
SY500	One-touch fitting for ø6	VVQ1000-51A-C6
	One-touch fitting for ø8	VVQ1000-51A-C8

Inch size

SY300	One-touch fitting for ø3/32	VVQ1000-50A-N3
	One-touch fitting for ø1/4	VVQ1000-50A-N7
	One-touch fitting for ø3/32	VVQ1000-51A-N3
SY500	One-touch fitting for ø1/4	VVQ1000-51A-N7
	One-touch fitting for ø9/16	VVQ1000-51A-N9

SY3000/5000

Made to Order

External Pilot/Built-in Silencer



Type 45

External pilot manifold bases for low-pressure/vacuum use are added to split type/
DIN rail manifolds. The built-in silencer has materialized a clear-cut appearance.

(Option)
Note) AC-type models that are
CE/UKCA-compliant
have DIN terminals only.

Individual Wiring/Connector Box Type

How to Order Manifold

Type 45

SS5Y³₅

Series

3	SY3000
5	SY5000

Valve stations

Symbol	Stations
02	2 stations
:	:
20	20 stations

* The number of blanking plate assembly is included.

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 20 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

SUP/EXH block assembly specifications

Symbol	Specifications
R	External pilot specifications
S	Internal pilot/Built-in silencer
RS	External pilot/Built-in silencer

A, B port size

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
M	Mixed	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø ⁵ / ₃₂ "	SY3000
N7	One-touch fitting for ø ¹ / ₄ "	
M	Mixed	
N3	One-touch fitting for ø ⁵ / ₃₂ "	SY5000
N7	One-touch fitting for ø ¹ / ₄ "	
N9	One-touch fitting for ø ⁹ / ₁₆ "	
M	Mixed	

CE/UKCA-compliant

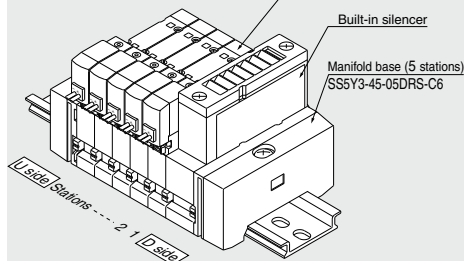
NII	—
Q	CE/UKCA-compliant

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

How to Order Manifold Assembly (Example)

Example

Single solenoid (external pilot specifications)
SY3140R-5G (5 sets)



SS5Y3-45-05DRS-C6... 1 set (External pilot specification with
built-in silencer part no.)

* SY3140R-5G 5 sets (Single solenoid part no.)

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

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the manifold specification sheet to instruct us.
For manifolds with SUP/EXH block assembly at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold.
The SUP/EXH block assembly (SX3/5000-51-1A), for special specifications as shown on page 874, can also be mounted. Please specify the mounting position, by correctly filling in the blank space on the manifold specification sheet.



How to Order Valve

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

SY **5** **2** **40** **-** **5** **L** **-** **-** **-**

Series

3	SY3000
5	SY5000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Pilot type

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

For DC

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

For AC (%Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

* DC specifications of Type D, Y, DO and YO is only available with 12 and 24 VDC.
 * For type W□, DC voltage is only available.
 * D, Y, DO and YO only available for SY5000.
 Note) AC-type models that are CE/UKCA-compliant have DIN terminals only.

CE/UKCA-compliant

NII	—
O	CE/UKCA-compliant

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

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
 * For "R" and "U", DC voltage is only available.
 * Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y (SY5000 only)

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* DOZ and YOZ are not available.
 * For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Electrical entry

	24, 12, 6, 5, 3 VDC 100, 110, 200, 220 VAC	24, 12 VDC 100, 110, 200, 220 VAC	24, 12 VDC 6, 5, 3 VDC
	Grommet	L plug connector	M plug connector
G:	Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)
H:	Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire
		LO: Without connector	MO: Without connector
			DIN terminal
			(SY5000 only)
			D: With connector
			DO: Without connector
			Y: With connector
			YO: Without connector
			M8 connector
			WO: Without connector cable
			W□: With connector cable ^{Note)}
CE/UKCA-compliant	DC	●	●
AC	—	—	—

* LN, MN type: with 2 sockets.

* D, Y, DO and YO only available for SY5000.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). Refer to page 957 for details.

* Setting "SLOU" is available only for connector box type.

* Refer to page 960 for connector cable of M8 connector.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

* When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the integrated manifold are supplied with the solenoid valve, but the stacking type gaskets are not included. When the stacking type gaskets are required, order them separately.

The SS5Y3-45/T1□ type plug-in terminal block manifold is to be discontinued as of December 2019. Therefore, we recommend considering the SY3000/5000/7000 plug-in connector connecting base terminal block box type manifold as a substitute. ([Click here](#) for details.)
However, keep in mind that there is no specification or mounting compatibility between the two products.

Plug-in

How to Order Manifold

Type 45□

SS5Y³₅-45-**F**U-05**U**R-□-□-□-□

Series

3	SY3000
5	SY5000

Common specifications

NII	Positive common
N	Negative common

* No symbol is used for T, T1, S□ types.

Connector type

Symbol	Mounting position
F	D-sub connector
P	Flat ribbon cable 26 pins
PG	Flat ribbon cable 20 pins
PH	Flat ribbon cable 10 pins
T	Terminal block 9 pins
T1	Terminal block 18 pins
S□	Serial Transmission Type

* For details, refer to pages from 892.

Connector mounting position

Symbol	Mounting position
U	U side
D	D side

Valve stations

Symbol	Stations	Note
02	2 stations	Single wiring spec.
□	□	
20	20 stations	

* This also includes the number of blanking plate assemblies.

* Depending on the connector, the number of stations is limited. Refer to page 894.

* Two stations are necessary for the double, 3 position (Dual body type).

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 20 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

SUP/EXH block assembly specifications

Symbol	Specifications
R	External pilot specifications
S	Internal pilot/Built-in silencer
RS	External pilot/Built-in silencer

A, B port size

One-touch fitting (Metric size)			One-touch fitting (Inch size)		
Symbol	Port size	Applicable series	Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000	N3	One-touch fitting for ø $\frac{5}{32}$ "	SY3000
C6	One-touch fitting for ø6		N7	One-touch fitting for ø $\frac{1}{4}$ "	
M	Mixed		M	Mixed	
C4	One-touch fitting for ø4	SY5000	N3	One-touch fitting for ø $\frac{5}{32}$ "	SY5000
C6	One-touch fitting for ø6		N7	One-touch fitting for ø $\frac{1}{4}$ "	
C8	One-touch fitting for ø8		N9	One-touch fitting for ø $\frac{5}{16}$ "	
M	Mixed		M	Mixed	

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

Voltage

NII	24 VDC
12V	12 VDC

* No symbol is used for T, T1, S□ types.

Option

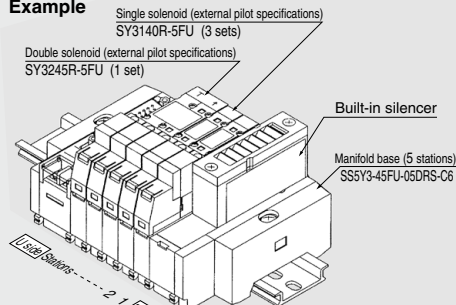
When a longer DIN rail is desired than the specified stations, specify the station number to be required. (20 stations at maximum)

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

How to Order Manifold Assembly (Example)

Example



SS5Y3-45FU-05DRS-C6 ... 1 set (External pilot specification with

* SY3140R-5FU 3 sets (Single solenoid part no.)

* SY3245R-5FU 1 set (Double solenoid part no.)

The asterisk denotes the symbol for assembly.

Prefix it to the part nos. of the solenoid valve, etc.

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the manifold specification sheet to instruct us.

For manifolds with SUP/EXH block at each end of the manifold, external pilot ports and silencers will be also located at each end of the manifold. The SUP/EXH block assembly (SX3/5000-51-1A), for special specifications, can also be mounted. Please specify the mounting position, by correctly filling in the blank space on the manifold specification sheet.

Two stations of the manifold base are necessary for the double, 3 position (Dual body type). Use caution when specifying the number of stations required for the manifold base.

How to Order Valve

SY 3 1 4 - 5FU - □ - □ - □

Series

3	SY3000
5	SY5000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Body Option

0	Standard (Single only)
5	Dual body type (Double, 3 position)

Pilot type

NII	Internal pilot
R	External pilot

Rated voltage

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

* Mark: 45T and T1 only
S□ type is available for 24 VDC only.

Manual override

NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Made to Order

NII	—	CE/UKCA-compliant
X90	Main valve fluororubber (Refer to page 942.)	NII
		Q
		CE/UKCA-compliant

Type **M45**

SY3000/5000

Made to Order

Mixed Mounting Type



[Option]

Note) CE/UKCA-compliant:
For DC only.

Non plug-in

This manifold makes it possible to mount SY3000 onto base of SY5000.

How to Order Manifold

Type M45 (Mixed mounting type)

SS5Y5-M45-05U-C86

Mixed mounting type

Valve stations

Symbol	Stations
02	2 stations
i	i
20	20 stations

* The number of blanking plate assembly is included, too.

SUP/EXH block assembly mounting position

Symbol	Mounting position	Stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 20 stations
M	Special specifications	

* For special specifications, indicate separately by the manifold specification sheet.

SUP/EXH block assembly specifications

Symbol	Specifications
NII	Standard/Internal pilot specifications
S	Built-in silencer

* External pilot specification is unavailable for mixed mounting type.

CE/UKCA-compliant

Symbol	CE/UKCA-compliant
NII	—
Q	CE/UKCA-compliant

Option

When a longer DIN rail is desired than the specified stations, specify the station number to be required. (Max. 20 stations)

One-touch fitting (Metric size)

Symbol	Port size
C44	SY5000: One-touch fitting for ø4 SY3000: One-touch fitting for ø4
C46	SY5000: One-touch fitting for ø4 SY3000: One-touch fitting for ø6
C64	SY5000: One-touch fitting for ø6 SY3000: One-touch fitting for ø4
C66	SY5000: One-touch fitting for ø6 SY3000: One-touch fitting for ø6
C84	SY5000: One-touch fitting for ø8 SY3000: One-touch fitting for ø6
C86	SY5000: One-touch fitting for ø8 SY3000: One-touch fitting for ø8
M	Mixed

One-touch fitting (Inch size)

Symbol	Port size
N33	SY5000: One-touch fitting for ø ⁵ / ₈ " SY3000: One-touch fitting for ø ⁵ / ₈ "
N37	SY5000: One-touch fitting for ø ⁵ / ₈ " SY3000: One-touch fitting for ø ¹ / ₄ "
N78	SY5000: One-touch fitting for ø ¹ / ₄ " SY3000: One-touch fitting for ø ⁵ / ₈ "
N77	SY5000: One-touch fitting for ø ¹ / ₄ " SY3000: One-touch fitting for ø ¹ / ₄ "
N93	SY5000: One-touch fitting for ø ¹ / ₂ " SY3000: One-touch fitting for ø ⁵ / ₈ "
N97	SY5000: One-touch fitting for ø ¹ / ₂ " SY3000: One-touch fitting for ø ¹ / ₂ "
M	Mixed

* In the case of mixed specifications, indicate separately on the manifold specification sheet.

How to Order Valve

SY 5 2 40 - 5 L

Series

3	SY3000
5	SY5000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Coil specifications

Symbol	Specifications
NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of WCI type.

Rated voltage

For DC	CE/UKCA-compliant	For AC (%Hz)	CE/UKCA-compliant
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
V	6 VDC	3	110 VAC [115 VAC]
S	5 VDC	4	220 VAC [230 VAC]
R	3 VDC		

Electrical entry for G, H, L, M, W

Symbol	Specifications
NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

CE/UKCA-compliant

Symbol	CE/UKCA-compliant
NII	—
Q	CE/UKCA-compliant

Note) CE/UKCA-compliant: For DC only.

Made to Order

Symbol	Specifications
NII	—
X90	Main valve fluororubber (Refer to page 942)

Manual override

Symbol	Specifications
NII	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC			
Grommet	L plug connector	M plug connector	M8 connector
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	WO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	MN: Without lead wire	WC: With connector cable (Note)
	LO: Without connector	MO: Without connector	

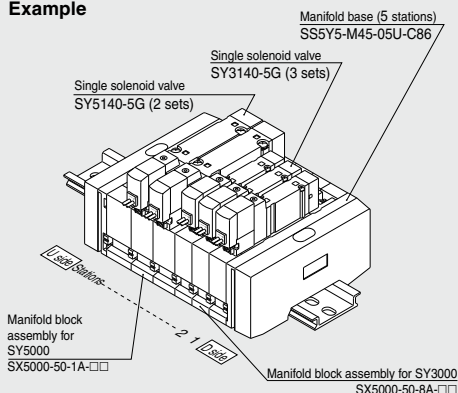
* For type W□, DC voltage is only available.

Note) CE/UKCA-compliant: For DC only.

* When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the integrated manifold are supplied with the solenoid valve, but the stacking type gaskets are not included. When the stacking type gaskets are required, order them separately.

How to Order Manifold Assembly (Example)

Example



SS5Y5-M45-05U-C86... 1 set (Type M45, manifold base part no.)
*** SY3140-5G... 3 sets (Single solenoid part no.)**
*** SY5140-5G... 2 sets (Single solenoid part no.)**

The asterisk denotes the symbol for assembly.
Prefix it to the part no. of the solenoid valve, etc.

The valve arrangement is numbered as the 1st. station from D side regardless of the mounting position of SUP/EXH block assembly. In ordering, specify the part nos. in the order from the 1st. station on D side. Besides, when the arrangement will be complicated, fill out the manifold specification sheet to instruct us.

* LN, MN type: with 2 sockets.

* Refer to page 960 for connector cable of M8 connector.

* M8 connector conforming to IEC60947-5-2 standard is also available. Refer to page 941 for details.

* Refer to page 957 for the lead wire length of L and M plug connectors.

* Refer to page 958 for the connector assembly with cover for L and M plug connectors.

Note) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

[SY3000/5000/7000/9000/SY300/500 Series]

Made to Order

M8 Connector Conforming to IEC60947-5-2



[Option]

How to Order Valve

* For details on specifications, refer to page 956.

Type of actuation

3	Body ported
5	Base mounted

Type of actuation

1	Normally closed
2	Normally open

Series

3	SY3000
5	SY5000

3 port valve SY 3 1 3

5 port valve mixed mounting type) SY 3 2 2 0

Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

Type of actuation

1	2 position single
2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Body type

2	Body ported
4	Base mounted
6	Body ported cassette type

* The body ported cassette type is not available for the SY9000 series.

A port size Thread piping

Symbol	Port size	Applicable series
Nll	Base mounted	
M5	M5 x 0.8	SY300
O1	1/8	SY500

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY300
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	SY500
C8	One-touch fitting for ø8	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for 5/32	SY300
N7	One-touch fitting for 1/4	
N7	One-touch fitting for 1/4	
N9	One-touch fitting for 5/16	SY500

Thread type

Nll	Rc
F	G
N	NPT
T	NPTF

CE/UKCA-compliant

Nll	—
Q	CE/UKCA-compliant

Pilot type

Nll	Internal pilot
R*	External pilot

* Base mounted type only.

Rated voltage

For DC

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

Electrical entry

WAO: Without connector cable

WA□: With connector cable (Note 1)

Note 1) □: Enter a symbol for cable length. Enter referring page 961.

Light/Surge voltage suppressor

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

Manual override

Nll	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

Made to Order

Nll	—
X20	Body ported external pilot (Refer to page 942.)
X90	Main valve fluororubber (Refer to page 942.)

* X20 for the SY9000 series is not available.
* X20 for the base mounted type is not available.

A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
O1	1/8	SY5000
O2	1/4	SY7000
O2	1/4	SY9000
O3	3/8	

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	
C8	One-touch fitting for ø8	
C10	One-touch fitting for ø10	SY9000
C12	One-touch fitting for ø12	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32	SY3000
N7	One-touch fitting for ø1/4	
N3	One-touch fitting for ø5/32	
N7	One-touch fitting for ø1/4	SY5000
N9	One-touch fitting for ø5/16	
N9	One-touch fitting for ø5/16	SY7000
N11	One-touch fitting for ø3/8	
N9	One-touch fitting for ø5/16	
N11	One-touch fitting for ø3/8	SY9000

For Base Mounted

Symbol	Port size	Applicable series
Nll	Without sub-plate	
O1	With sub-plate	SY3000
O2	With sub-plate	SY5000
O3	With sub-plate	SY7000
O4	With sub-plate	SY9000

Note) When placing an order for body ported solenoid valve as a single unit, gaskets are not included. Order them separately, if necessary. (Refer to catalog on page 795 for details.)

How to Order Pilot Valve

V111- 5 WAO

Rated voltage

For DC

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

Light/Surge voltage suppressor

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

Electrical entry

WAO	M8 Without connector cable
WA□	connector With connector cable (Note 1)

Note 1) □: Enter a symbol for cable length. Enter referring page 961.

* Since V111 is CE/UKCA-compliant as standard, the suffix "-Q" is not necessary.

SY3000/5000/7000/9000 Series

Pilot Valve Assembly

Port Block Assembly

How to Order Pilot Valve Assembly

V111 - 5 G

Coil specifications

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, DO or W□ type.

Rated voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC
1	100 VAC $\frac{\%}{60}$ Hz
2	200 VAC $\frac{\%}{60}$ Hz
3	110 VAC $\frac{\%}{60}$ Hz [115 VAC $\frac{\%}{60}$ Hz]
4	220 VAC $\frac{\%}{60}$ Hz [230 VAC $\frac{\%}{60}$ Hz]

* For type W□, DC voltage is only available.
* CE/UKCA-compliant: For DC only.

Light/Surge voltage suppressor

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type.

Electrical entry

G	Grommet, 300 mm lead wire
H	Grommet, 600 mm lead wire
L	L plug connector
LN	Without lead wire
L	Without lead wire
LO	Without connector
M	M plug connector
ML	Without lead wire
MO	Without connector
WO	M8 connector
W□	Without connector cable (Note 1)

* For connector cable of M8 connector, refer to page 960.
Note 1) Enter the cable length symbols in □. Please be sure to fill in the blank referring to page 961.

DIN terminal type

V115 - 5 D

Rated voltage

5	24 VDC
6	12 VDC
1	100 VAC $\frac{\%}{60}$ Hz
2	200 VAC $\frac{\%}{60}$ Hz
3	110 VAC $\frac{\%}{60}$ Hz [115 VAC $\frac{\%}{60}$ Hz]
4	220 VAC $\frac{\%}{60}$ Hz [230 VAC $\frac{\%}{60}$ Hz]

* DC specifications of type D and DO is only available with 12 and 24 VDC.

Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Electrical entry

D	DIN terminal (Type D)	With connector
DO	DIN terminal (Type D)	Without connector
Y	DIN terminal (Type Y)	With connector
YO	DIN terminal (Type Y)	Without connector

Note) Do not replace V111 (G, H, L, M) to V115 (DIN terminal) and vice versa when replacing pilot valve assembly only.

How to Order Port Block Assembly

SY 000 - 6A -

Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000
02	1/4	SY9000
03	3/8	SY9000

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	SY3000
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	SY7000
C8	One-touch fitting for ø8	SY9000
C10	One-touch fitting for ø10	SY9000
C12	One-touch fitting for ø12	SY9000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/32"	SY3000
N7	One-touch fitting for ø 1/4"	SY3000
N3	One-touch fitting for ø 5/32"	SY5000
N7	One-touch fitting for ø 1/4"	SY5000
N9	One-touch fitting for ø 9/16"	SY5000
N9	One-touch fitting for ø 9/16"	SY7000
N9	One-touch fitting for ø 9/16"	SY7000
N9	One-touch fitting for ø 9/16"	SY9000
N11	One-touch fitting for ø 3/8"	SY9000

How to Change Port Block Assembly

Connecting port size of A and B can be changed by replacing port block assembly mounted on body. When changing block assembly, correct screw torque must be achieved to avoid trouble; e.g. air leakage.

With the one-touch fitting port block assembly, it is only necessary to change the fitting and not the whole block. Refer to following part numbers.

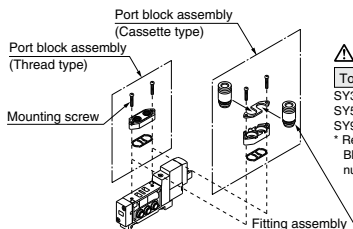
One-touch fitting (Metric size)

Port size	Fitting assembly part no.	Applicable series
One-touch fitting for ø4	VVQ1000-50A-C4	SY3000
One-touch fitting for ø6	VVQ1000-50A-C6	SY3000
One-touch fitting for ø4	VVQ1000-51A-C4	SY5000
One-touch fitting for ø6	VVQ1000-51A-C6	SY5000
One-touch fitting for ø8	VVQ1000-51A-C8	SY5000
One-touch fitting for ø8	VVQ2000-51A-C8	SY7000
One-touch fitting for ø10	VVQ2000-51A-C10	SY7000
One-touch fitting for ø8	VVQ4000-50B-C8	SY9000
One-touch fitting for ø10	VVQ4000-50B-C10	SY9000
One-touch fitting for ø12	VVQ4000-50B-C12	SY9000

One-touch fitting (Inch size)

Port size	Fitting assembly part no.	Applicable series
One-touch fitting for ø5/32"	VVQ1000-50A-N3	SY3000
One-touch fitting for ø1/4"	VVQ1000-50A-N7	SY3000
One-touch fitting for ø5/32"	VVQ1000-51A-N3	SY5000
One-touch fitting for ø1/4"	VVQ1000-51A-N7	SY5000
One-touch fitting for ø5/16"	VVQ1000-51A-N9	SY5000
One-touch fitting for ø1/4"	VVQ2000-51A-N9	SY7000
One-touch fitting for ø3/8"	VVQ2000-51A-N11	SY7000
One-touch fitting for ø5/16"	VVQ4000-50B-N9	SY9000
One-touch fitting for ø3/8"	VVQ4000-50B-N11	SY9000

Note) Purchasing order is available in units of 10 pieces.



Caution

Torque for mounting screws
SY3000 (M2): 0.12N·m
SY5000/7000 (M3): 0.6N·m
SY9000 (M4): 1.4N·m
* Refer to "How to Change Port Block Assembly" for part numbers.

Note) Since V111 and V115 are CE/UKCA-compliant as standard, the suffix "-Q" is not necessary.

5 Port Solenoid Valve Body Ported/Single Unit SY3000/5000/7000/9000 Series



How to Order

30 - SY 5 1 20 - 5 L - 01 - - - -

Series	
3	SY3000
5	SY5000
7	SY7000
9	SY9000

Conforming to UL standard

Type of actuation

1	2 position single (A)4 2(B) (EA)5 1 3(EB) (P)
2	2 position double (A)4 2(B) (EA)5 1 3(EB) (P)
3	3 position closed center (A)4 2(B) (EA)5 1 3(EB) (P)
4	3 position exhaust center (A)4 2(B) (EA)5 1 3(EB) (P)
5	3 position pressure center (A)4 2(B) (EA)5 1 3(EB) (P)

Coil specifications

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

DC	
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

- Rated voltage -

AC (%Hz)

B	24 VAC
---	--------

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.

Electrical entry

24, 12, 6, 5, 3 VDC/24 VAC				24, 12 VDC/24 VAC
Grommet	L plug connector	M plug connector	DIN terminal	
G: Lead wire length 300 mm 	L: With lead wire (Length 300 mm) 	M: With lead wire (Length 300 mm) MN: Without lead wire 	D.Y: With connector 	
H: Lead wire length 600 mm 	LN: Without lead wire LO: Without connector 	MO: Without connector 	DO, YO: Without connector 	

24, 12, 6, 5, 3 VDC	
M8 connector	M8 connector (IEC60947-5-2 Standard)
W0: Without connector cable 	WA0: Without connector cable
W1: With connector cable (Length 0.3 m) W2: With connector cable (Length 0.5 m) W3: With connector cable (Length 1 m) W4: With connector cable (Length 2 m) W5: With connector cable (Length 3 m) W6: With connector cable (Length 4 m) W7: With connector cable (Length 5 m) 	WA1: With connector cable (Length 0.3 m) WA2: With connector cable (Length 0.5 m) WA3: With connector cable (Length 1 m) WA4: With connector cable (Length 2 m) WA5: With connector cable (Length 3 m) WA6: With connector cable (Length 4 m) WA7: With connector cable (Length 5 m)

* LN, MN type: with 2 sockets.
* For DIN terminal of SY3000 series, refer to page 958.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.
* For connector cable of M8 connector, refer to page 960.
* For the M8 connector with a connector cable, only American certification (UL) is available.
* Refer to page 957 for the lead wire length of L and M plug connectors.

A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000
02	1/4	SY9000
03	3/8	

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY3000
C6	One-touch fitting for ø6	
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	
C8	One-touch fitting for ø8	SY9000
C10	One-touch fitting for ø10	
C12	One-touch fitting for ø12	

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø 5/16"	SY3000
N7	One-touch fitting for ø 1/4"	
N3	One-touch fitting for ø 5/16"	SY5000
N7	One-touch fitting for ø 1/4"	
N9	One-touch fitting for ø 5/16"	SY7000
N9	One-touch fitting for ø 5/16"	
N11	One-touch fitting for ø 3/8"	SY9000
N9	One-touch fitting for ø 5/16"	
N11	One-touch fitting for ø 3/8"	

Manual override

Nil: Non-locking push type 	D: Push-turn locking slotted type 	E: Push-turn locking lever type
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Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

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

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type

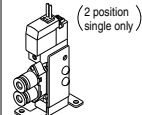
Electrical entry for D, Y

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

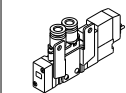
* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Bracket

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



F2: With side bracket



* SY9000 has no bracket.

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

* Except for M5

Made to Order

Nil	—
X20	Body ported external pilot (Refer to page 942)
X90	Main valve fluororubber (Refer to page 942)

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

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. (For details, refer to page 795.)

Refer to the standard product for specifications and dimensions.

5 Port Solenoid Valve Base Mounted/Single Unit SY3000/5000/7000/9000 Series



How to Order

30-SY 5 2 40 **5 L**

Series

3	SY3000
5	SY5000
7	SY7000
9	SY9000

• Conforming to UL standard

Pilot type

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W type.

Rated voltage

DC

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

AC (50/60 Hz)

B	24 VAC
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• DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W, DC voltage is only available.

Port size

Symbol	Port size	Applicable series
NII	Without sub-plate	
01	1/8 With sub-plate	SY3000
02	1/4 With sub-plate	SY5000 SY7000
03	3/8 With sub-plate	SY7000 SY9000
04	1/2 With sub-plate	SY9000

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

Manual override

NII: Non-locking push type

D: Push-turn locking slotted type

E: Push-turn locking lever type

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

Type of actuation

1 2 position single (A)4 2(B)
(EA)5 1 3(EB)
(P)

2 2 position double (A)4 2(B)
(EA)5 1 3(EB)
(P)

3 3 position closed center (A)4 2(B)
(EA)5 1 3(EB)
(P)

4 3 position exhaust center (A)4 2(B)
(EA)5 1 3(EB)
(P)

5 3 position pressure center (A)4 2(B)
(EA)5 1 3(EB)
(P)

Electrical entry

24, 12, 6, 5, 3 VDC/24 VAC				24, 12 VDC/24 VAC	24, 12, 6, 5, 3 VDC	
Grommet	L plug connector	M plug connector	MN: Without lead wire	DIN terminal	M8 connector	M8 connector (IEC617-2 standard)
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: Without lead wire (Length 300 mm)		D, Y: With connector	WO: Without connector cable	WAO: Without connector cable
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector	DO, YO: Without connector	W1: With connector cable (Length 0.3 m) W2: With connector cable (Length 0.5 m) W3: With connector cable (Length 1 m) W4: With connector cable (Length 2 m) W5: With connector cable (Length 3 m) W6: With connector cable (Length 4 m) W7: With connector cable (Length 5 m)	WA1: With connector cable (Length 0.3 m) WA2: With connector cable (Length 0.5 m) WA3: With connector cable (Length 1 m) WA4: With connector cable (Length 2 m) WA5: With connector cable (Length 3 m) WA6: With connector cable (Length 4 m) WA7: With connector cable (Length 5 m)

• LN, MN type: with 2 sockets.
* For DIN terminal of SY3000 series, refer to page 958.
* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.
* For connector cable of M8 connector, refer to page 960.
* For the M8 connector with a connector cable, only American certification (UL) is available.
* Refer to page 957 for the lead wire length of L and M plug connectors.
Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

3 Port Solenoid Valve Body Ported/Single Unit



SY300/500 Series

How to Order

30-SY 5 1 3 **- 5 L** **- 01**

Series

3	SY300
5	SY500

UL standard compliant

Type of actuation

1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type

NII	Single solenoid
D	Double solenoid

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Rated voltage

DC	AC (50/60Hz)
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

* Except for M5

A port size

Symbol	Port size	Applicable series
M5	M5 x 0.8	SY300
01	1/8	SY500

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for e4	SY300
C6	One-touch fitting for e6	SY300
C4	One-touch fitting for e4	SY500
C6	One-touch fitting for e6	SY500
C8	One-touch fitting for e8	SY500

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for e 5/16"	SY300
N7	One-touch fitting for e 1/4"	SY300
N3	One-touch fitting for e 5/16"	SY500
N7	One-touch fitting for e 1/4"	SY500
N9	One-touch fitting for e 3/8"	SY500

CE/UKCA-compliant

NII	—
Q	CE/UKCA-compliant

Made to Order

NII	—
X20	Body ported external pilot (Refer to page 942.)
X90	Main valve fluororubber (Refer to page 942.)

Bracket

NII: Without bracket
F1: With foot bracket (2 position (single only))
F2: With side bracket

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option.
* It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Manual override

NII: Non-locking push type
D: Push-turn locking slotted type
E: Push-turn locking lever type

Electrical entry

24, 12, 6, 5, 3 VDC/24 VAC				24, 12 VDC/24 VAC		24, 12, 6, 5, 3 VDC	
Grommet	L plug connector	M plug connector	DIN terminal	M8 connector		M8 connector (IEC60947-5-2 Standard)	
G: Lead wire length 300 mm H: Lead wire length 600 mm	L: With lead wire (Length 300 mm) LN: Without lead wire LO: Without connector	M: With lead wire (Length 300 mm) MN: Without lead wire MO: Without connector	D: With connector DO: Without connector Y: With connector YO: Without connector	W0: Without connector cable W1: With connector cable (Length 300 mm) W2: With connector cable (Length 500 mm) W3: With connector cable (Length 1000 mm) W4: With connector cable (Length 2000 mm) W5: With connector cable (Length 3000 mm) W6: With connector cable (Length 4000 mm) W7: With connector cable (Length 5000 mm)		WAO: Without connector cable WA1: With connector cable (Length 300 mm) WA2: With connector cable (Length 500 mm) WA3: With connector cable (Length 1000 mm) WA4: With connector cable (Length 2000 mm) WA5: With connector cable (Length 3000 mm) WA6: With connector cable (Length 4000 mm) WA7: With connector cable (Length 5000 mm)	

* LN, MN type: with 2 sockets.

* For DIN terminal of SY300 series, refer to page 958.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.

* For connector cable of M8 connector, refer to page 960.

* For the M8 connector with a connector cable, only American certification (UL) is available.

* Refer to page 957 for the lead wire length of 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.

(Refer to page 795 for details.)

3 Port Solenoid Valve Base Mounted/Single Unit



SY300/500 Series

How to Order

30-SY **5** **1** **5** **-** **5** **L** **-** **-** **-** **-** **-**

Series

3	SY300
5	SY500

• **UL standard compliant**

Type of actuation

1	Normally closed (N.C.)
2	Normally open (N.O.)

Solenoid type

NII	Single solenoid
D	Double solenoid

Pilot type

NII	Internal pilot
R	External pilot

Coil specifications

NII	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

* Power saving circuit is not available in the case of D, Y, DO, YO or W□ type.

Thread type

NII	Rc
F	G
N	NPT
T	NPTF

Made to Order

NII	—
X90	Main valve fluororubber (Refer to page 942.)

Port size

Symbol	Port size	Applicable series
NII	Without sub-plate	
01	1/8 With sub-plate	SY300
02	1/4 With sub-plate	SY500

Manual override

NII: Non-locking push type

D: Push-turn locking slotted type

E: Push-turn locking lever type

Rated voltage

DC	AC (50/60 Hz)
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

* DC specifications of type D, Y, DO and YO is only available with 12 and 24 VDC.
* For type W□, DC voltage is only available.

Electrical entry

24, 12, 6, 5, 3 VDC/24 VAC			24, 12 VDC/24 VAC		
Grommet	L plug connector	M plug connector	DIN terminal	M8 connector	M8 connector (IEC60947-5-2 Standard)
G : Lead wire length 300 mm H : Lead wire length 600 mm	L : With lead wire (Length 300 mm) LN : Without lead wire LO : Without connector	M : With lead wire (Length 300 mm) MN : Without lead wire MO : Without connector	D : With connector DO : Without connector Y : With connector YO : Without connector	WO : Without connector cable W1 : With connector cable (Length 300 mm) W2 : With connector cable (Length 500 mm) W3 : With connector cable (Length 1000 mm) W4 : With connector cable (Length 2000 mm) W5 : With connector cable (Length 3000 mm) W6 : With connector cable (Length 4000 mm) W7 : With connector cable (Length 5000 mm)	WAO : Without connector cable WA1 : With connector cable (Length 300 mm) WA2 : With connector cable (Length 500 mm) WA3 : With connector cable (Length 1000 mm) WA4 : With connector cable (Length 2000 mm) WA5 : With connector cable (Length 3000 mm) WA6 : With connector cable (Length 4000 mm) WA7 : With connector cable (Length 5000 mm)

Light/Surge voltage suppressor

Electrical entry for G, H, L, M, W

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.
* For "R" and "U", DC voltage is only available.
* Power saving circuit is only available in the "Z" type

Electrical entry for D, Y

NII	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* DOZ and YOZ are not available.
* For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

* LN, MN type: with 2 sockets.

* For DIN terminal of SY300 series, refer to page 958.

* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C). For details, refer to page 957.

* For connector cable of M8 connector, refer to page 960.

* For the M8 connector with a connector cable, only American certification (UL) is available.

* Refer to page 957 for the lead wire length of L and M plug connectors.

Note) When ordering single unit of the base mounted type solenoid valve, the mounting screws and gaskets for the manifold are included.

3 Port Solenoid Valve Base Mounted/Single Unit **SY300/500 Series**



Base Mounted/How to Order Valve

Plug-in: for SS5Y₅³-45□

Single solenoid 30 – SY **5** **1** 5 □ – **5** FU □ □ – □

Double solenoid 30 – SY **5** **1** 5C □ – **5** FU □ □ – □

Series •

3	SY300
5	SY500

Type of actuation •

1	Normally closed (N.C.)
2	Normally open (N.C.)

Dual body type •
* When ordering double solenoid valves (Dual body type), please keep in mind that they require two manifold stations.

Pilot type •

Nil	Internal pilot
R	External pilot

Rated voltage •

5	24 VDC
6	12 VDC

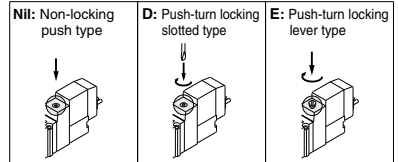
•CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

•Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

• Manual override



Plug-in: For SS5Y₅³-45F/45P□/45T/45T1

2 position single 30 – SY **3** 1 40 □ – **5** FU □ □ – □

Double, 3 position 30 – SY **3** **2** 45 □ – **5** FU □ □ – □

Series •

3	SY3000
5	SY5000

Type of actuation •

2	2 position double
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Dual body type •
(Double, 3 position)

Pilot type •

Nil	Internal pilot
R	External pilot

Rated voltage •

5	24 VDC
6	12 VDC

•CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

•Made to Order

Nil	—
X90	Main valve fluororubber (Refer to page 942.)

• Manual override

