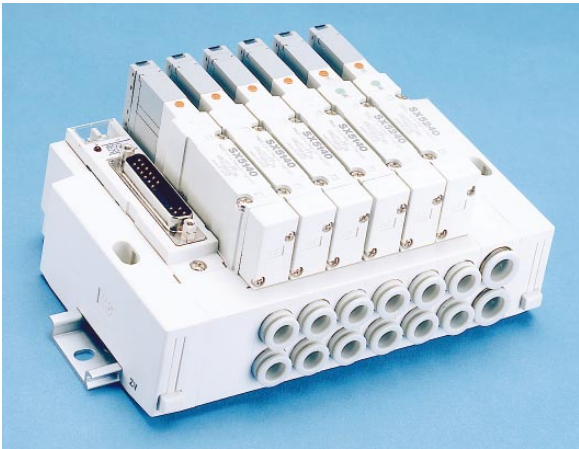


Valves

STACKING TYPE MANIFOLD – BASE MOUNTED TYPE
DIN RAIL MOUNTED. PRE-WIRED TYPE
SERIES SY AND SX

- ✓ Number of stations can be increased on DIN rail
- ✓ A variety of centralised wiring methods are possible
- ✓ Easy electrical connection
- ✓ Can be used with serial transmission
- ✓ Integral or separate exhausts
- ✓ Compact, light weight and aesthetic

NOTE: For applicable valves for this manifold series, please see the following page.



HOW TO ORDER

SS5●●—45●●●—●●—●●—●●—Q

VALVE TYPE

XSX valve

YSY valve

MANIFOLD SERIES

3SY3000, SX3000

5SY5000, SX5000

POLARITY

NNegative common (F + P types only)

Nil ...Positive common

CONNECTION

T9-pole terminal block

T1 ...18 pole terminal block

FD-sub connection (25-pin)

PFlat cable type (26 pin)

Nil ...45T+45TI types

CONNECTION/MOUNTING BLOCK

TERMINAL POSITION

UU side

DD side

VOLTAGE

(45F + 45P only)

Nil ...24vDC

12V ...12vDC

A-B PORT SIZE

C4 ...One touch fittings for C4 is available for S*3000

C6 ...One touch fittings for Ø6

C8 ...One touch fittings for Ø8 (SY 5000 and SX5000 only)

SUPPLY EXHAUST BLOCK ASSEMBLY

MOUNTING POSITION

UU Side – 2 to 10 station

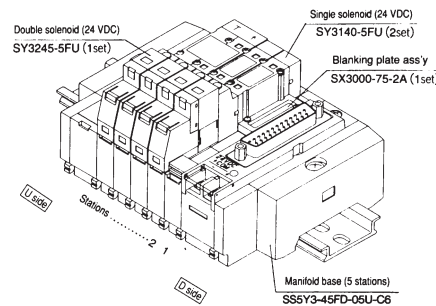
DD side – 2 to 10 station

BBoth sides – 2 to 20 station

VALVE STATIONS	
SY	SX
02 ...2 station to	044 Station (45T)
08 ...8 station (45T) to	088 Station (45T1)
17 ...17 station (45TI) to	1010 Station (45F + 45P)
20 ...20 station (45F + 45P)	

How to Order Valve / Manifold Ass'y (Example)

Ordering example (45F type / D-sub connector (25-pole))



PLEASE NOTE

Double solenoid type SY valves used on this manifold are the SY**45 type and two manifold stations must be allocated to each valve

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS, PLEASE SEE THE CURRENT SMC PRICE LIST

APPLICABLE VALVES FOR TYPE 45 PLUG-IN MANIFOLDS

NOTE: SY and SX valves can be used on this type of manifold. Please specify the appropriate manifold when ordering as the internal wiring differs. It is also possible to mix SY and SX valves on one manifold. Please contact your local Regional Centre to arrange assistance from your SMC Sales Engineer when ordering this type of assembly.

How To ORDER SY VALVES

SY ● ● 4 — ● FU — Q

VALVE SIZE

- 3SY3000 size
- 5SY5000 size

FUNCTION

- 12 position single solenoid
- 22 position double solenoid
- 33 position closed centre
- 43 position exhaust centre
- 53 position pressure centre

VOLTAGE

- 524VDC
- 612VDC

BODY DESIGN

- 0Single solenoid(SY*140)
 - 5Double solenoid
- NOTE: The double solenoid valve is of a double double body design and requires two manifold stations.

How To ORDER SX VALVES

SX ● ● 40 — ● LOZ — Q

VALVE SIZE

- 3SX3000 size
- 5SX5000 size

FUNCTION

- 12 position single solenoid
- 22 position double solenoid
- 33 position closed centre
- 43 position exhaust centre
- 53 position pressure centre

POLARITY

- Nil ...Positive common
- NNegative common

VOLTAGE

- 524VDC
- 612VDC

ACCESSORIES

TYPE 45 PRE-WIRED MANIFOLDS

Type	SY3000	SY5000	SX3000	SX5000
Blanking plate kit	SX3000-75-2A	SX5000-76-2A	SX3000-75-2A	SX5000-76-2A
4mm one touch outlet plug	KQP-04-X19	KQP-04-X19	KQP-04-X19	KQP-06-X19
6mm one touch outlet plug	KQP-06-X19	KQP-06-X19	KQP-06-X19	KQP-08-X19
8mm one touch outlet plug		KQP-08-X19		KQP-08-X19
Supply and exhaust gallery block disk	SX3000-77-1A	SX3000-77-1A	SX3000-77-1A	SX3000-77-1A
4mm one touch fitting cartridge	VVQ1000-50A-C4	VVQ1000-51A-C4	VVQ1000-50A-C4	VVQ1000-51A-C6
6mm one touch fitting cartridge	VVQ1000-50A-C6	VVQ1000-51A-C6	VVQ1000-50A-C6	VVQ1000-51A-C6

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS,
PLEASE SEE THE CURRENT SMC PRICE LIST

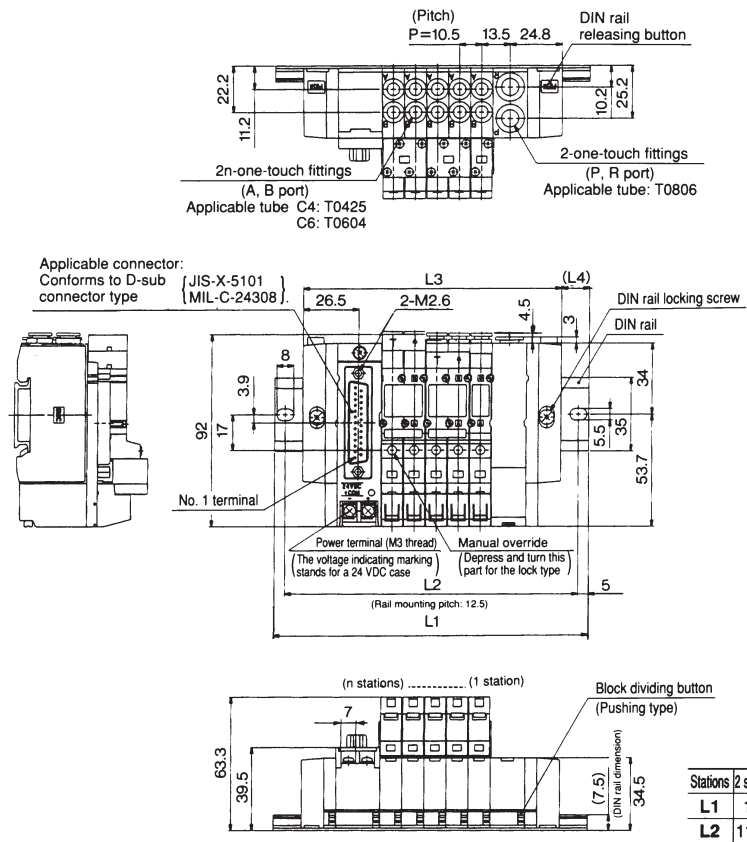


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DIMENSIONS
SY3000 D-DUB CONNECTOR/PLUG IN

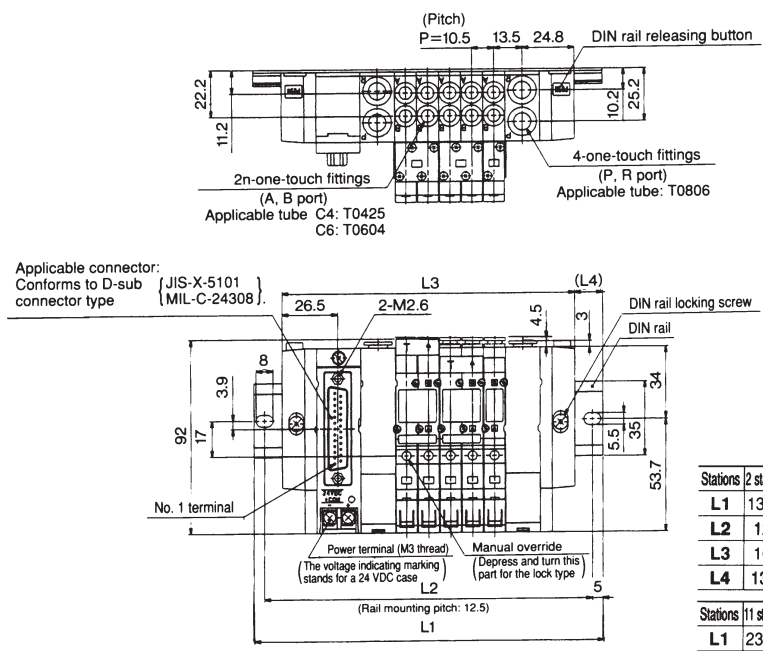


Note) The L1~L4 dimensions of SS5Y3-45FU- Stations U- C4 C6 are identical to those of SS5Y3-45FU- Stations D- C4 C6 .

Note:
Manifold dimensions are identical for SY and SX valves. Overall lengths are unchanged by electrical entry type F, P, T or T1 type. Drawings show a manifold with SY valves. SX valves fit within the same overall space envelope.

Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	123	135.5	148	148	160.5	173	185.5	198	210.5
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5	17.5

SS5Y3-45FU- Stations B- C4 C6



Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5

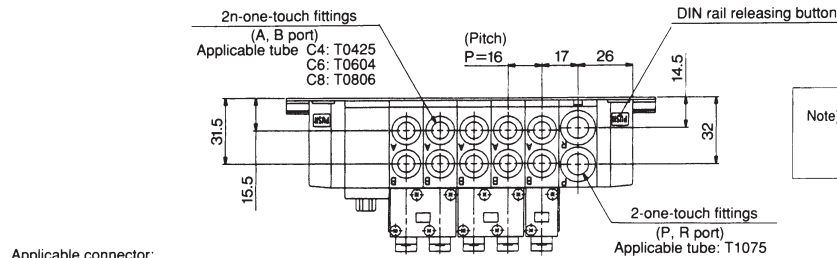
Stations	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	225	237.5	237.5	250	262.5	275	287.5	300	300	312.5
L3	202.5	213	223.5	234	244.5	255	265.5	276	286.5	297
L4	16.5	17.5	12	13	14	15	16	17	12	13



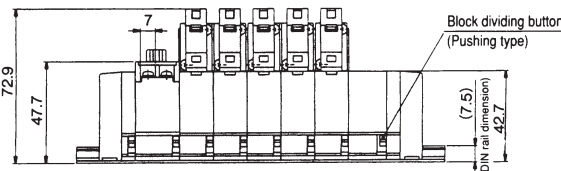
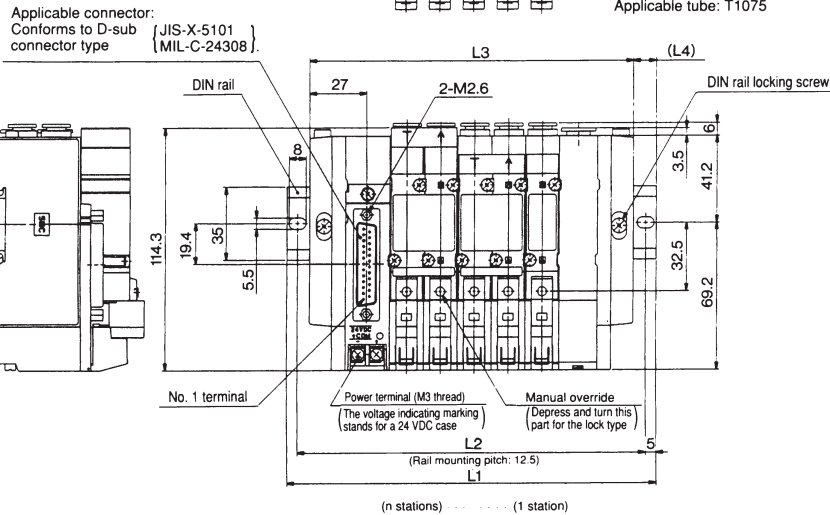
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DIMENSIONS

SY5000 D-SUB CONNECTOR/PLUG IN

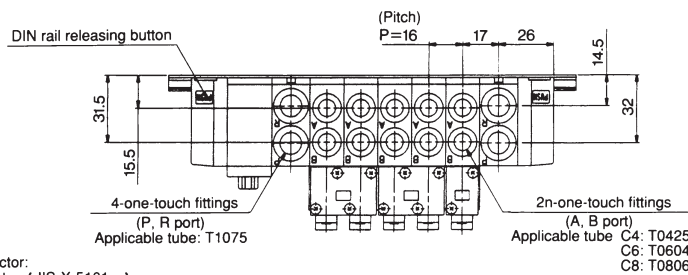


Note) The L1~L4 dimensions of SS5Y5-45FU- Stations U-C4 C6 C8 are identical to those of SS5Y5-45FU- Stations D-C4 C6 C8.

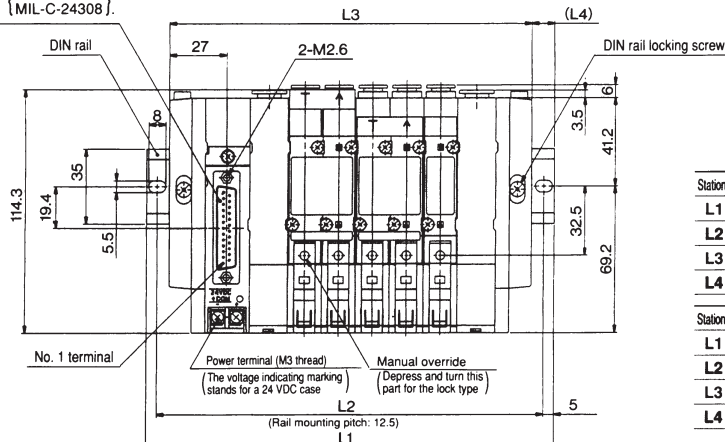


Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	135.5	148	160.5	185.5	198	210.5	235.5	248	260.5
L2	125	137.5	150	175	187.5	200	225	237.5	250
L3	105	121	137	153	169	185	201	217	233
L4	15	13.5	11.5	16	14.5	12.5	17	15.5	13.5

SS5Y5-45FU- Stations B-C4 C6 C8



Applicable connector:
Conforms to D-sub connector type {JIS-X-5101 MIL-C-24308}



Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	185.5	198	210.5	235.5	248	260.5	285.5
L2	137.5	162.5	175	187.5	200	225	237.5	250	275
L3	123	139	155	171	187	203	219	235	251
L4	12.5	17	15	13.5	11.5	16	14.5	12.5	17

Stations	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	298	310.5	323	348	360.5	373	398	410.5	423	435.5
L2	287.5	300	312.5	337.5	350	362.5	387.5	400	412.5	425
L3	267	283	299	315	331	347	363	379	395	411
L4	15.5	13.5	12	16.5	14.5	13	17.5	15.5	14	12

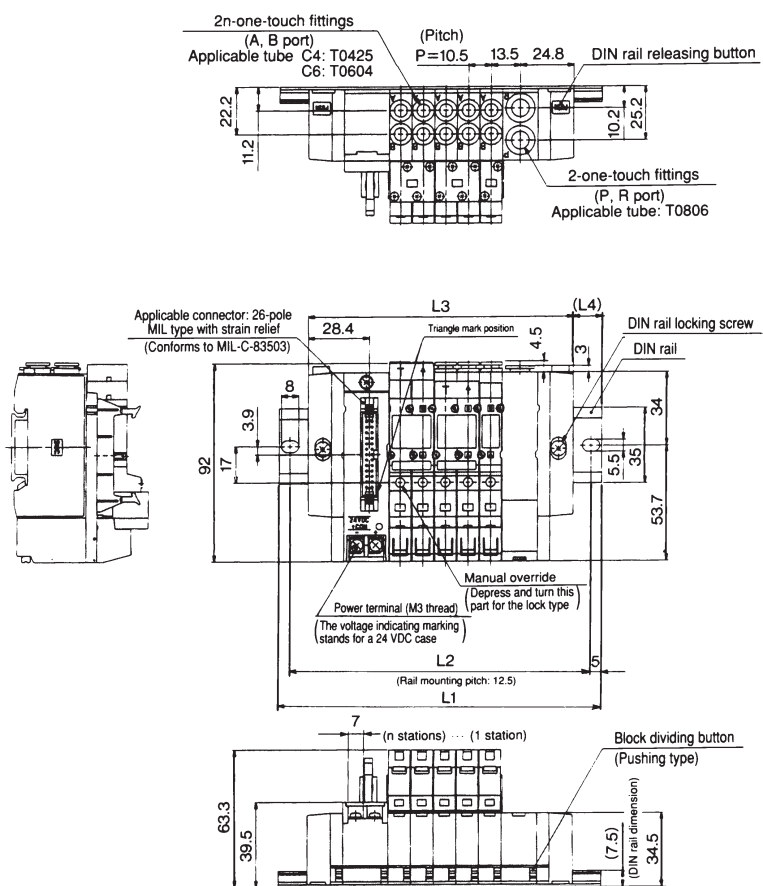


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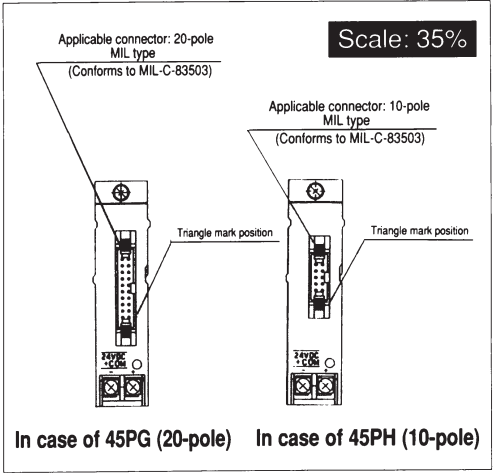


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DIMENSIONS
SY3000 FLAT CABLE TYPE/PLUG IN

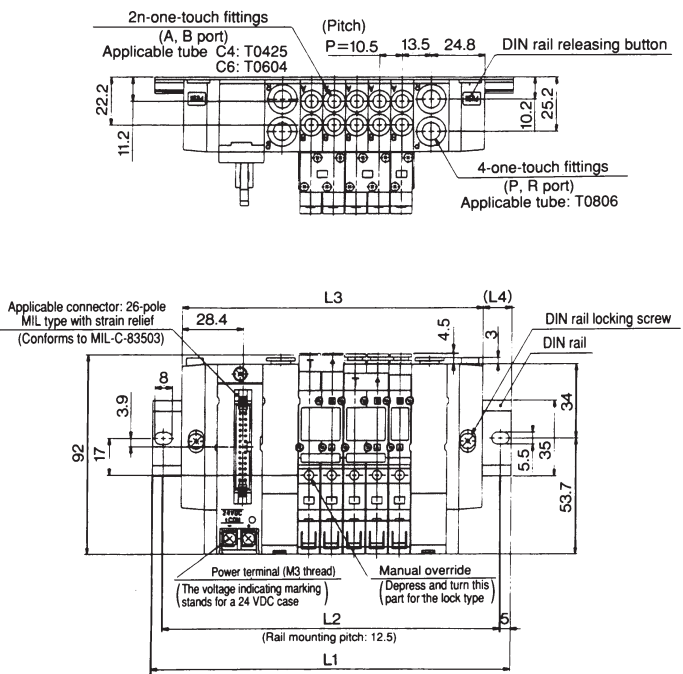


Note) The L1~L4 dimensions of SS5Y3-45P□U- Stations U-C4 C6 are identical to those of SS5Y3-45P□U- Stations D-C4 C6.



Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	123	135.5	148	148	160.5	173	185.5	198	210.5
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5	17.5

SS5Y3-45PU- Stations B-C4 C6 (26-pole)



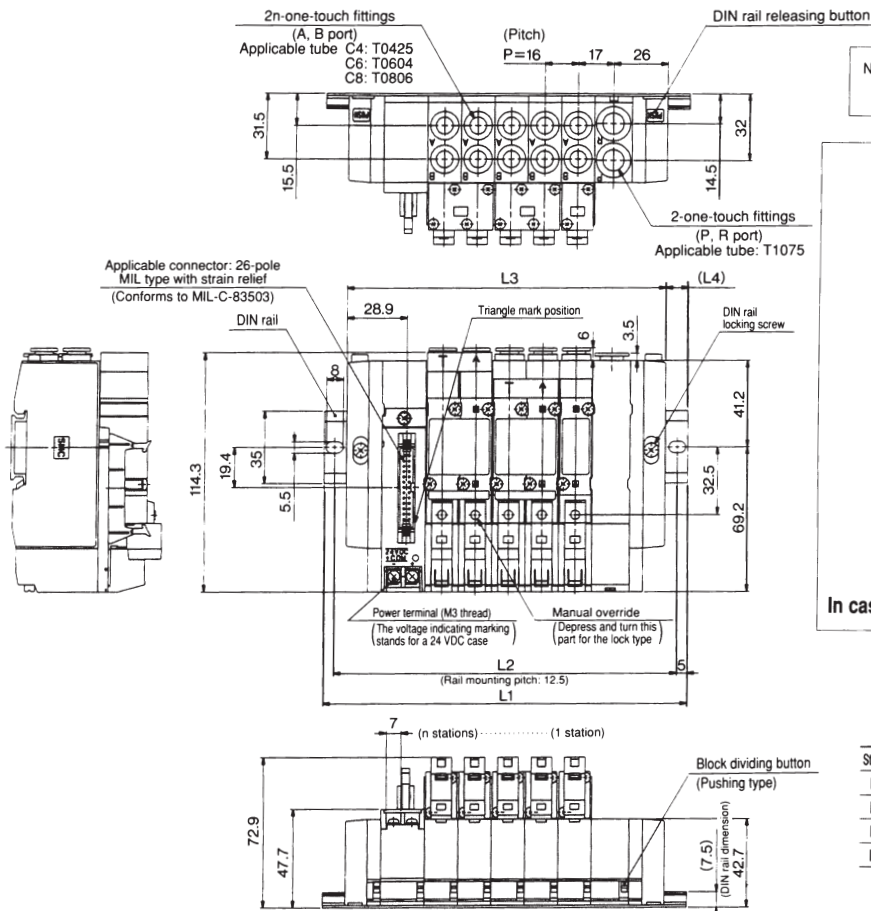
Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	13.5	14.5	15.5	16.5	17.5	12.5	13.5	14.5	15.5

Stations	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	225	237.5	237.5	250	262.5	275	287.5	300	300	312.5
L3	202.5	213	223.5	234	244.5	255	265.5	276	286.5	297
L4	16.5	17.5	12	13	14	15	16	17	12	13

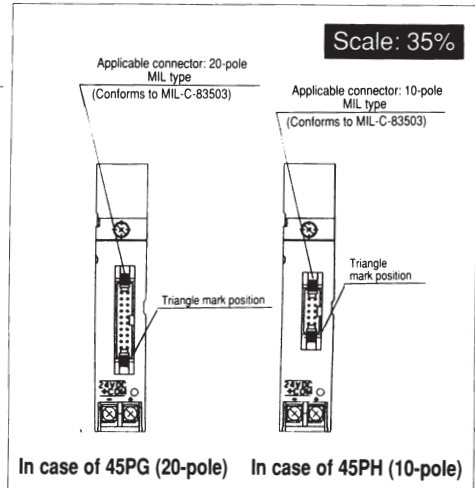
DIMENSIONS

SY5000 FLAT CABLE TYPE/PLUG IN

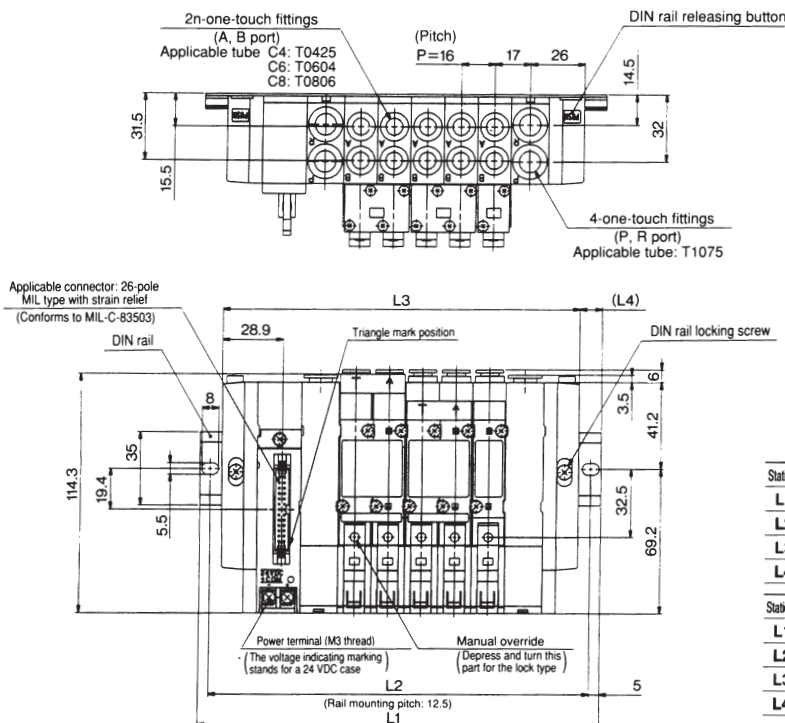
Valves



Note) The L1~L4 dimensions of SS5Y5-45P□U- Stations U-C4 C6 C8 are identical to those of SS5Y5-45P□U- Stations D-C4 C6 C8



SS5Y5-45PU- Stations B-C4 C6 C8 (26-pole)



Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	135.5	148	160.5	185.5	198	210.5	235.5	248	260.5
L2	125	137.5	150	175	187.5	200	225	237.5	250
L3	105	121	137	153	169	185	201	217	233
L4	15	13.5	11.5	16	14.5	12.5	17	15.5	13.5

Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	173	185.5	198	210.5	235.5	248	260.5	285.5
L2	137.5	162.5	175	187.5	200	225	237.5	250	275
L3	123	139	155	171	187	203	219	235	251
L4	12.5	17	15	13.5	11.5	16	14.5	12.5	17

Stations	11 stations	12	13	14	15	16	17	18	19	20 stations
L1	298	310.5	323	348	360.5	373	398	410.5	423	435.5
L2	287.5	300	312.5	337.5	350	362.5	387.5	400	412.5	425
L3	267	283	299	315	331	347	363	379	395	411
L4	15.5	13.5	12	16.5	14.5	13	17.5	15.5	14	12



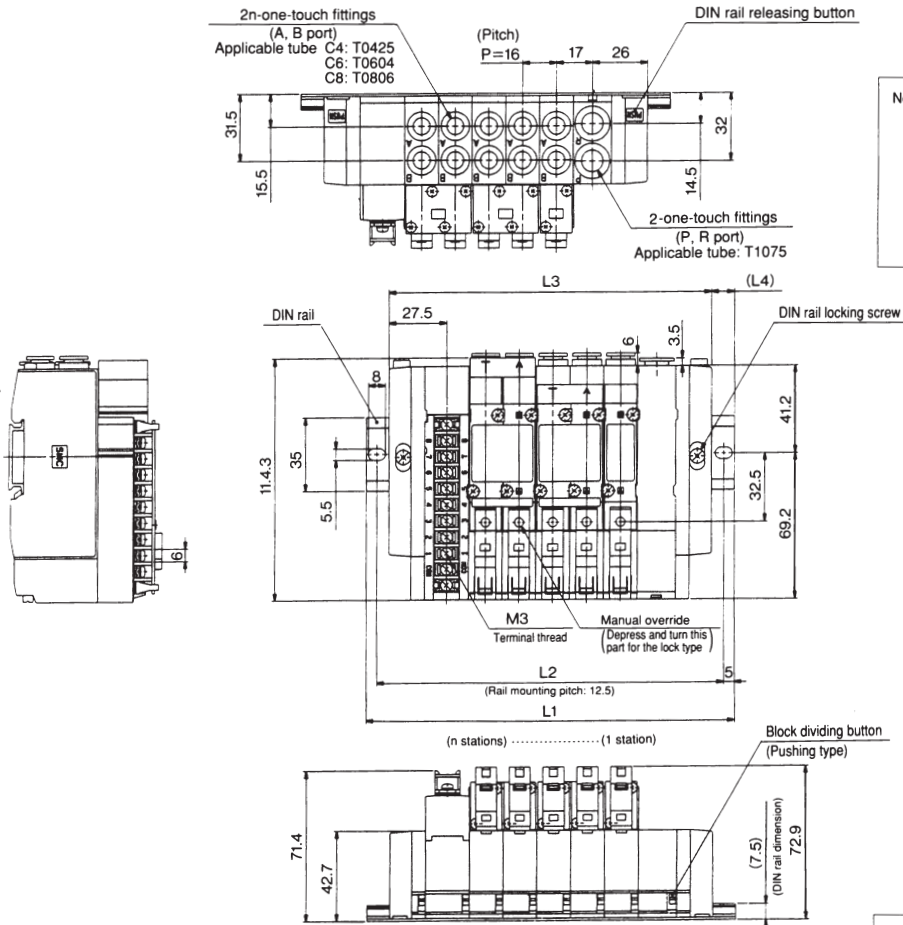
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DIMENSIONS

SY5000 9-POLE TERMINAL BLOCK TYPE/PLUG IN



Note) The L1~L4 dimensions of

SS5Y5-45TU- Stations U- C4, C6, C8

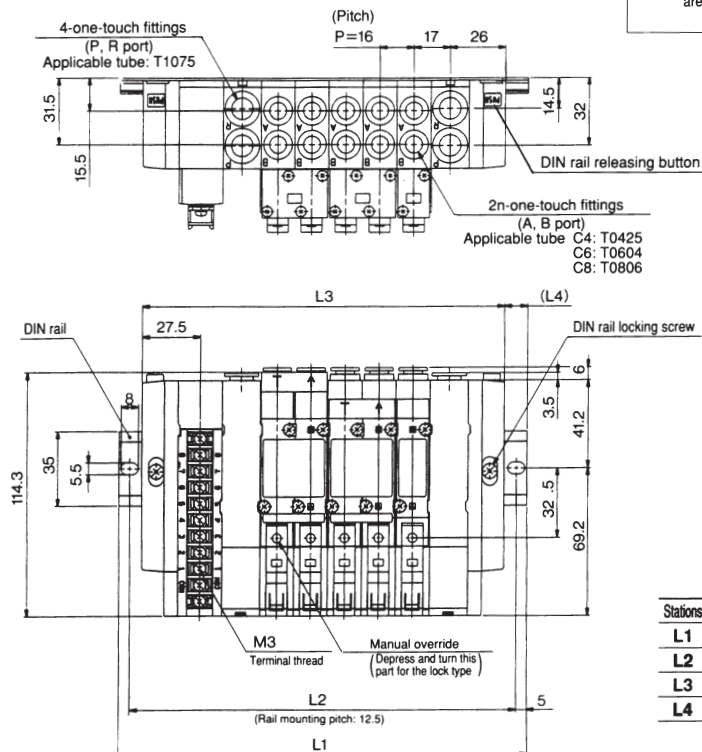
SS5Y5-45TD- Stations U- C4, C6, C8

SS5Y5-45TD- Stations D- C4, C6, C8

are identical to those of SS5Y5-45TU- Stations D- C4, C6, C8

Stations	2 stations	3	4	5	6	7	8 stations
L1	135.5	148	160.5	185.5	198	210.5	235.5
L2	125	137.5	150	175	187.5	200	225
L3	105	121	137	153	169	185	201
L4	15	13.5	11.5	16	14.5	12.5	17

SS5Y5-45TU- Stations B- (9-pole)



Note) The L1~L4 dimensions of SS5Y5-45TD- Stations B- C4, C6, C8

are identical to those of SS5Y5-45TU- Stations B- C4, C6, C8

Stations	2 stations	3	4	5	6	7	8 stations
L1	148	173	185.5	198	210.5	235.5	248
L2	137.5	162.5	175	187.5	200	225	237.5
L3	123	139	155	171	187	203	219
L4	12.5	17	15	13.5	11.5	16	14.5



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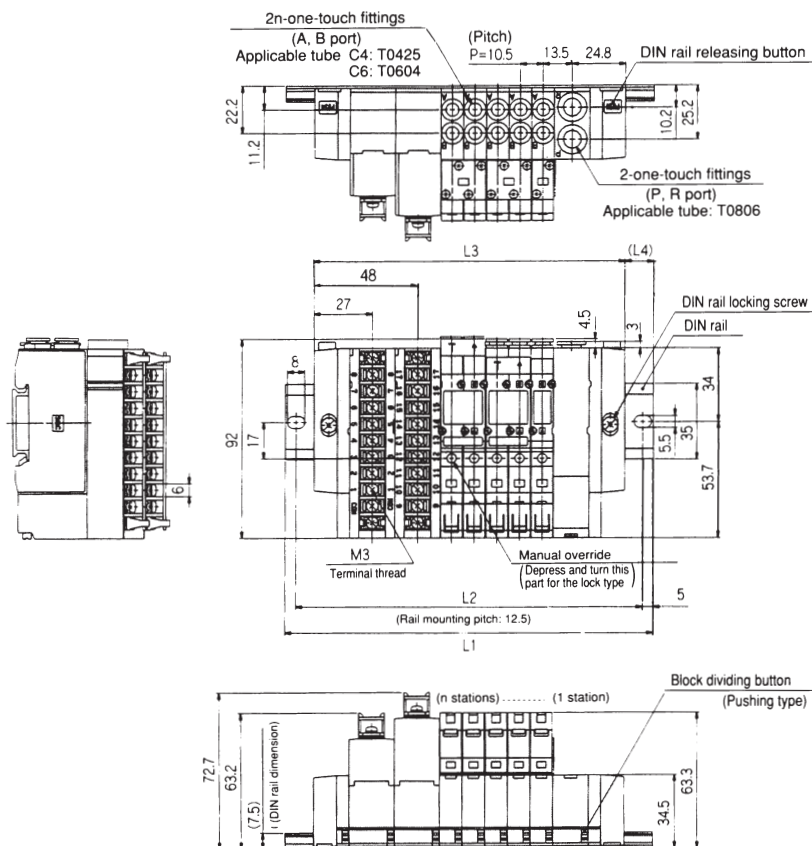


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DIMENSIONS

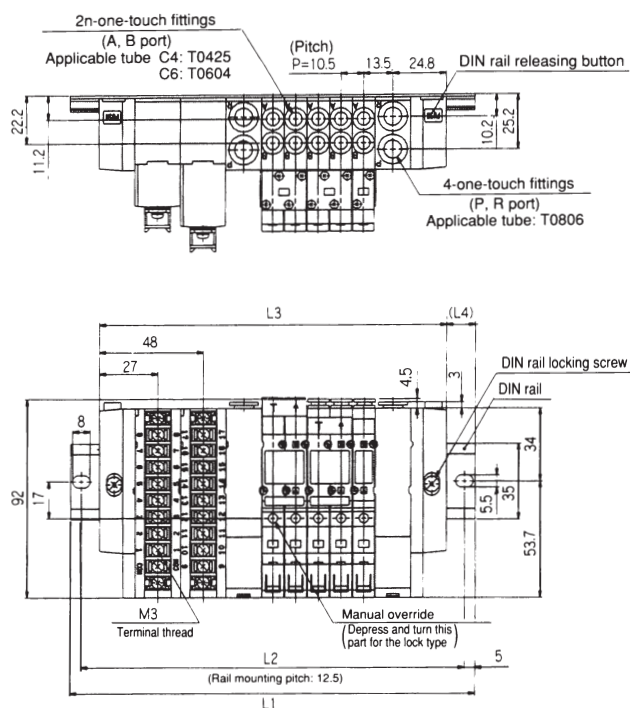
SY3000 18-POLE TERMINAL BLOCK TYPE/PLUG IN

Valves



Note) The L1~L4 dimensions of SS5Y3-45T1U-**Stations** U-C₆
are identical to those of SS5Y3-45T1U-**Stations** D-C₆.

Stations	2 stations	3	4	5	6	7	8	9	10 stations
L1	148	148	160.5	173	185.5	198	210.5	210.5	223
L2	137.5	137.5	150	162.5	175	187.5	200	200	212.5
L3	112.5	123	133.5	144	154.5	165	175.5	186	196.5
L4	17.5	12.5	13.5	14.5	15.5	16.5	17.5	12	13

SS5Y3-45T1U- Stations B- $\frac{C_4}{C_6}$ (18-pole)

Stations	2 stations	3	4	5	6	7	8	9 stations
L1	160.5	173	185.5	185.5	198	210.5	223	235.5
L2	150	162.5	175	175	187.5	200	212.5	225
L3	129	139.5	150	160.5	171	181.5	192	202.5
L4	15.5	16.5	17.5	12.5	13.5	14.5	15.5	16.5

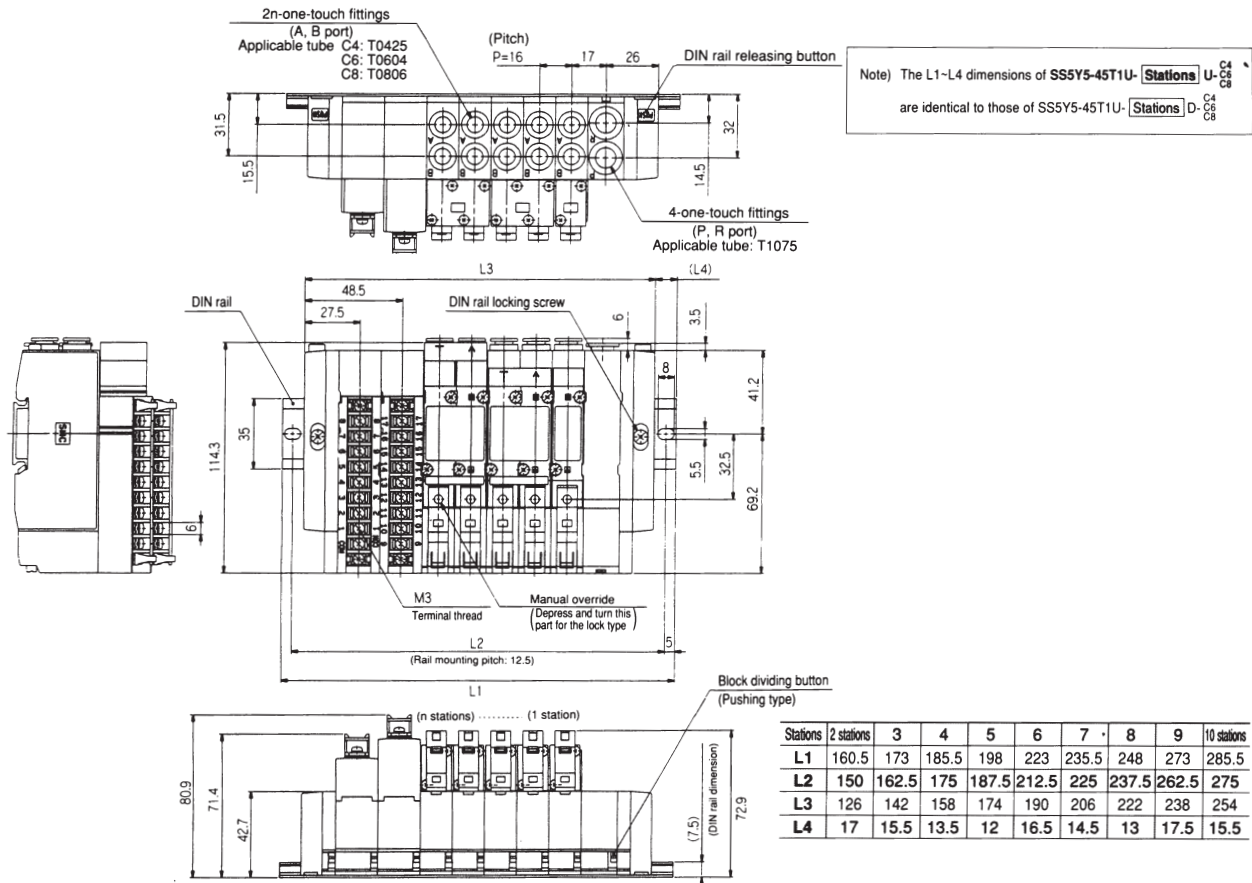
Stations	10 stations	11	12	13	14	15	16	17 stations
L1	248	248	260.5	273	285.5	298	310.5	310.5
L2	237.5	237.5	250	262.5	275	287.5	300	300
L3	213	223.5	234	244.5	255	265.5	276	286.5
L4	17.5	12	13	14	15	16	17	12



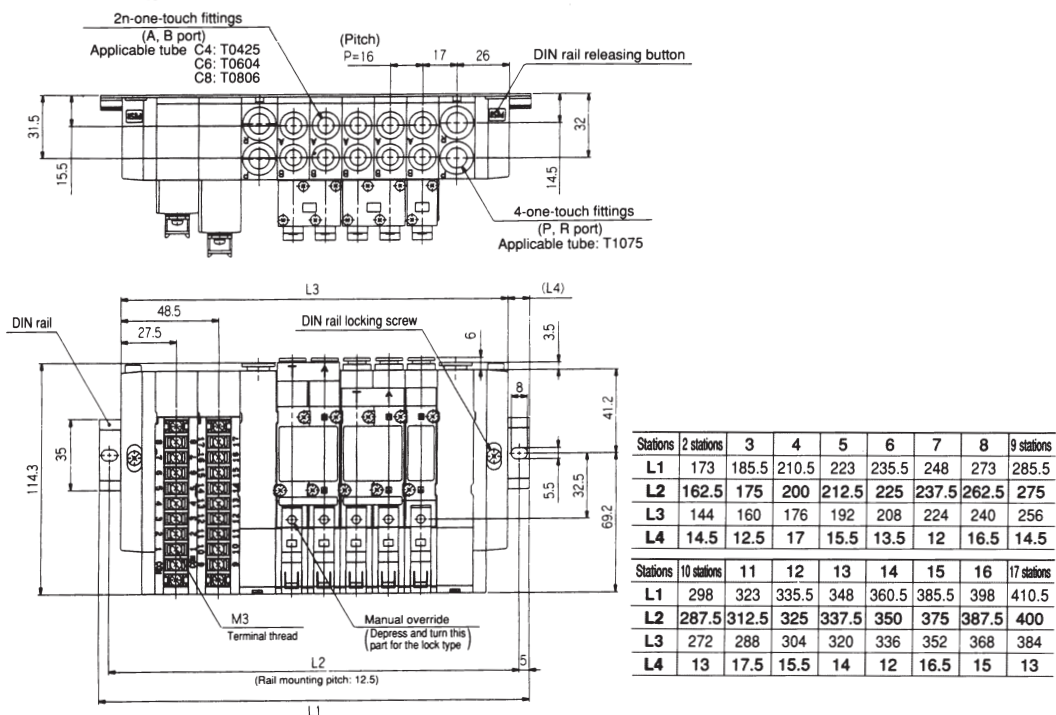
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DIMENSIONS

SY5000 18-POLE TERMINAL BLOCK TYPE/PLUG IN



SS5Y5-45T1U- Stations B-C4, C6, C8 (18-pole)



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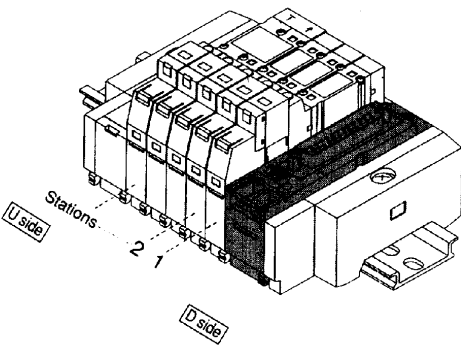


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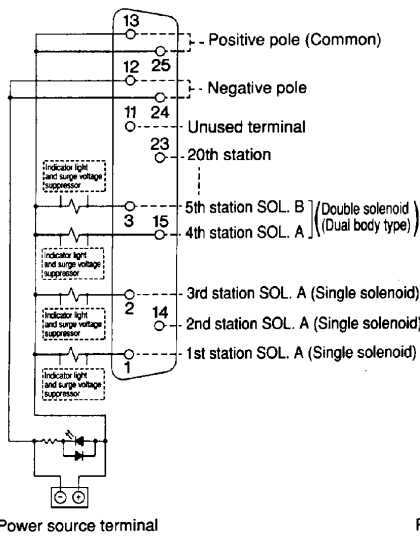
ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SY ONLY)

45(N)F/D-sub Connector Type

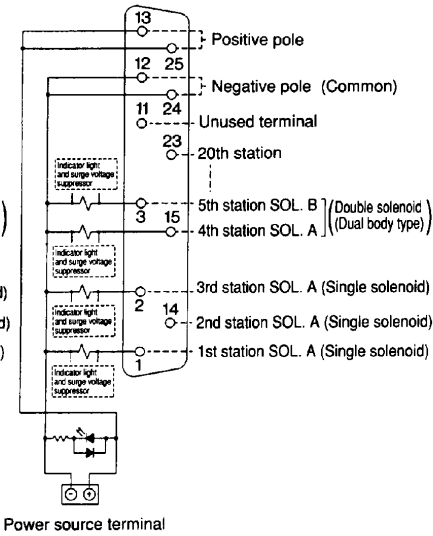
A D-sub connector used for electric wiring permits rationalization and labor-saving for wiring operation. Connectors conforming to MIL are used for wide interchangeability.



<In case of positive COM (45F)>



<In case of negative COM (45NF)>

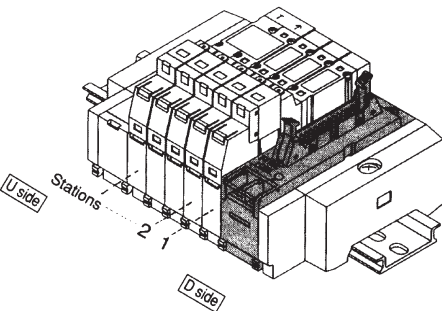


- The power source terminal is used for connecting an external power source.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

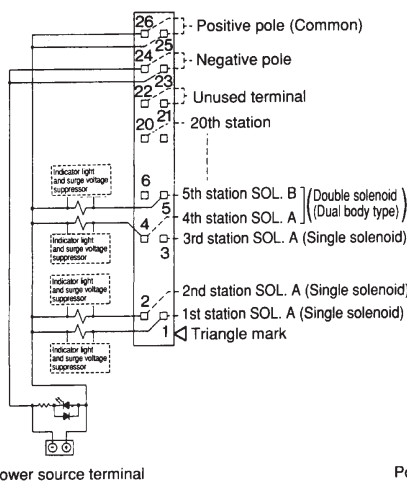
ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SY ONLY)

45(N)P/Flat Cable Type (26-Pole)

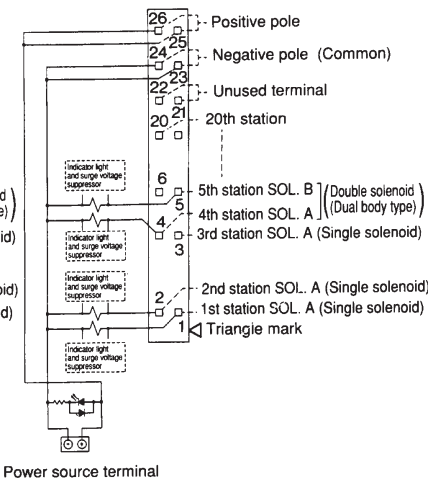
A flat cable connector used for electric wiring permits rationalization and labor-saving for wiring operation. Connectors conforming to MIL are used for wide interchangeability.



<In case of positive COM (45P)>



<In case of negative COM (45NP)>



Triangle mark

Reference

Note)
Terminal number is not indicated on the connector. The terminal number indicated in the connection schematic of connector as shown in the reference, means a correlation of 1, 2, 3, ... 26 from the triangle mark side on the flat ribbon cable of connector.

- The power source terminal is used for connecting an external power source.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

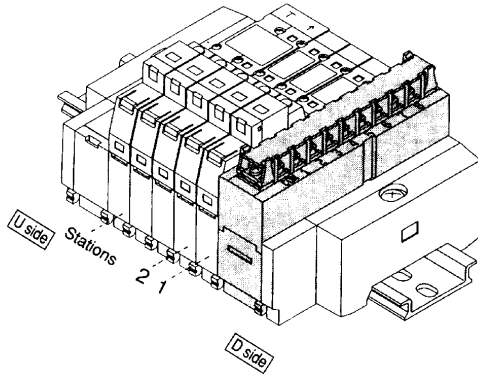


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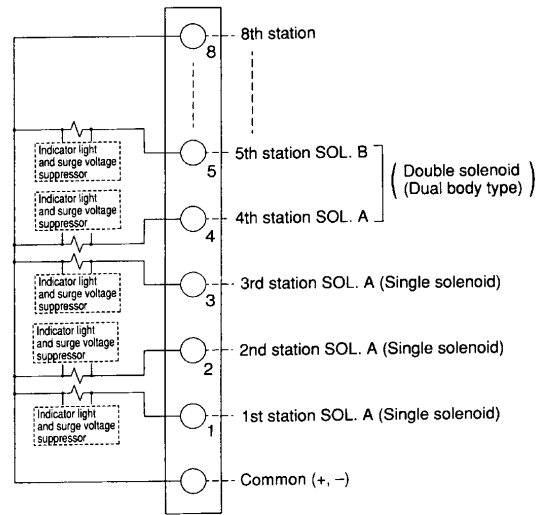
ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SY ONLY)

45T/Terminal Block Type

A terminal block type permits direct cable connection without treatment of lead wires.



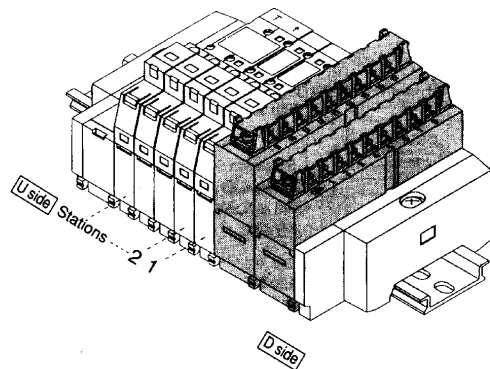
<45T>



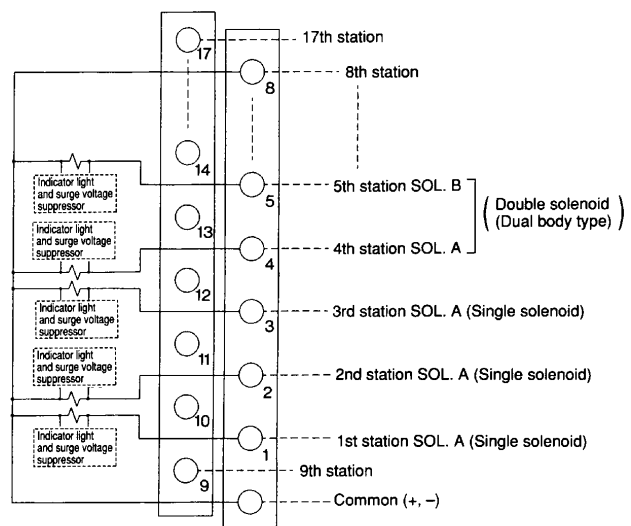
- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.

ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SY ONLY)

45T1/Terminal Block Type



<45T1>



- The maximum number of stations is 17 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM spec. and negative power for -COM spec.



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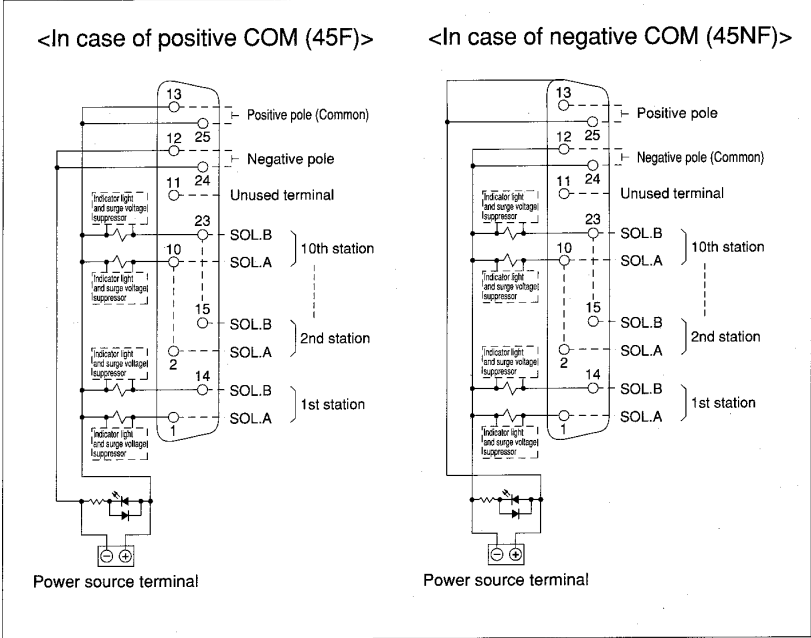
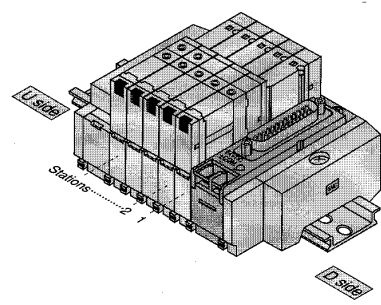
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ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SX ONLY)

45(N)F/D-sub Connector Type

A D-sub connector used for electric wiring permits rationalization and labor-saving for wiring operation. Connectors conforming to MIL are used for wide interchangeability.

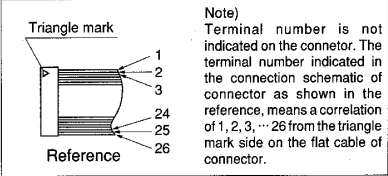
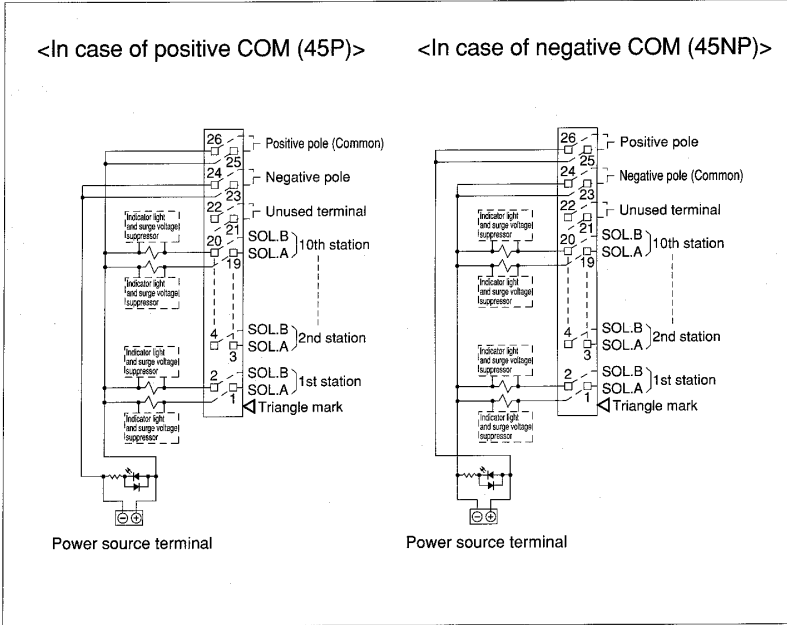
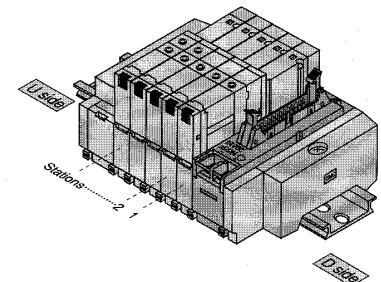


- The power source terminal is used for connecting an external power source.
- The above diagram is for a 10 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid, valve connect wire to SOL. A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SX ONLY)

45(N)P/Flat Cable Type (26-Pole)

A flat cable connector used for electric wiring permits rationalization and labor-saving for wiring operation. Connectors conforming to MIL are used for wide interchangeability.



- The power source terminal is used for connecting an external power source.
- The above diagram is for a 10 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid, valve connect wire to SOL. A.
- The maximum number of stations is 20 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.

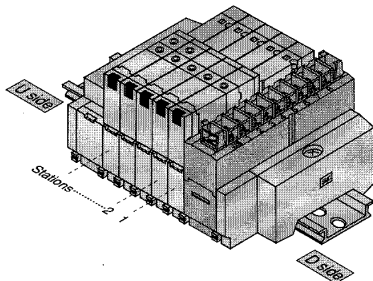


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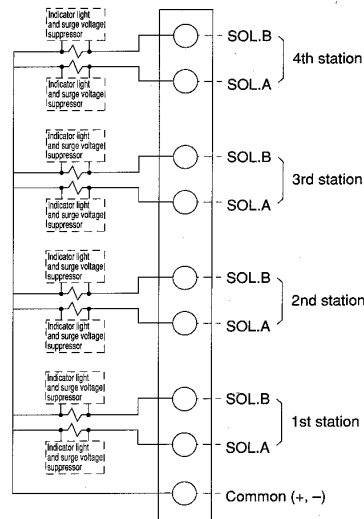
ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SX ONLY)

45T/Terminal Block Type

A terminal block type permits direct cable connection without treatment of lead wires.



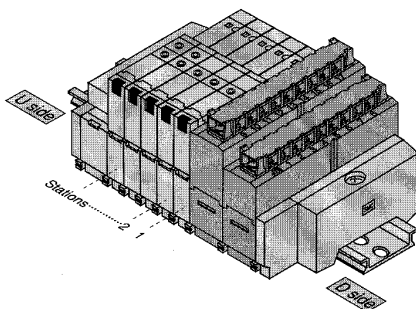
<45T>



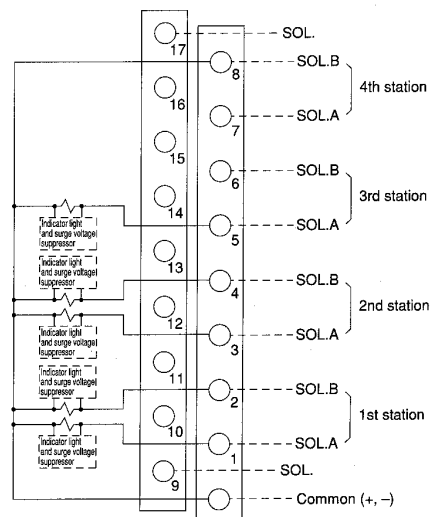
- The maximum number of stations is 8 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- The above diagram is for a 4 station double solenoid specification. When custom manifolds are ordered using the manifold specification form, the wiring may differ from above. Please contact SMC for more information.
- When using a single solenoid, valve connect wire to SOL. A.
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM specification and negative power for -COM specification.

ELECTRICAL WIRING OF PRE-WIRED MANIFOLD (SX ONLY)

45T1/Terminal Block Type



<45T1>



- The maximum number of stations is 17 in terms of manifold bases, as well as solenoids. (Contact us for more stations.)
- Irrespective of the connector mounting position, stations are counted from the D side.
- There is no polarity in the COM wiring. Supply positive power for +COM specification and negative power for -COM specification.

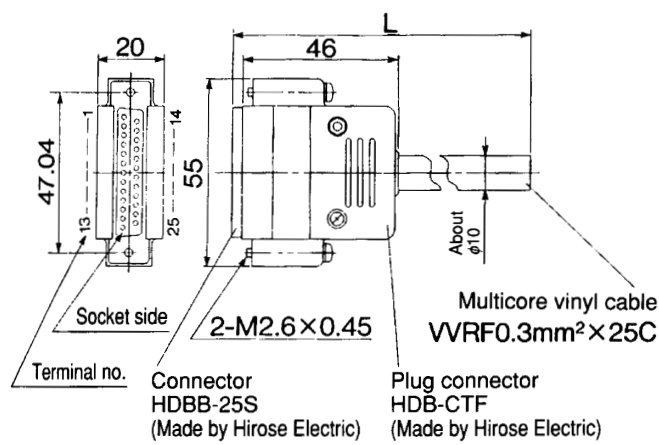


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CABLE ASSEMBLIES FOR TYPE 45 PRE-WIRED MANIFOLDS



Wire color table by terminal number of D-sub connector cable ass'y

Terminal No.	Lead wire color	Dot marking
1	Black	—
2	Brown	—
3	Red	—
4	Orange	—
5	Yellow	—
6	Pink	—
7	Blue	—
8	Violet	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Violet	—
18	Gray	—
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	—

D-sub connector cable ass'y

Cable length (L)	Ass'y No.	Note
1.5m	VVZS3000-21A-1	Cable 25-core x 24AWG
3m	VVZS3000-21A-2	
5m	VVZS3000-21A-3	

※ For other commercial connectors, use a 25-pole female connector made in conformity with MIL-C-24308.

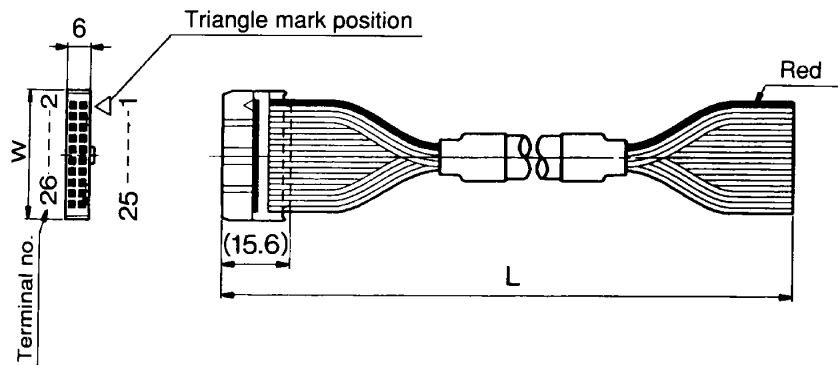
Electric characteristics

Item	Characteristics
Conductor resistance /km, 20°C	65 or less
Voltage limit V, 1min, AC	1000
Insulation resistance M km, 20°C	5 or more

Note) The min. bending radius of D-sub connector cable ass'y is 20 mm.

■ Flat Cable Connector / Cable Ass'y

AXT100-FC□ - 1/3



ACCESSORIES

CABLE ASSEMBLIES FOR TYPE 45 PRE-WIRED MANIFOLDS

Model	Cable Length	Part No.
1	1.5m	AXT100-FC26-1
2	3m	AXT100-FC26-2
3	5m	AXT100-FC26-3

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS, PLEASE SEE THE CURRENT SMC PRICE LIST



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