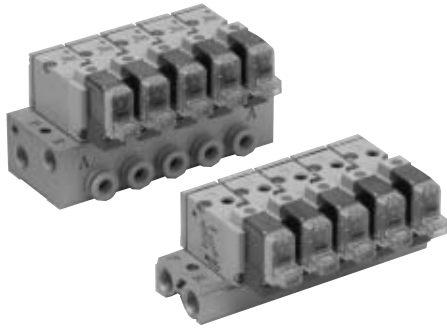


# Series SYJ500 Manifold Specifications



## Manifold Specifications

Model	For internal pilot	Type 20	Type 40	Type 41
	For external pilot	Type 21R	Type 40R	Type 41R
Manifold type	Single base/B mount			
P (SUP), R (EXH)	Common SUP, common EXH			
Valve stations	2 to 20 stations			
A port Porting specifications	Location	Valve	Base	
	Direction	Top	Bottom	Side
Port size	P, R port	1/8	1/8	1/8
	A port	M5 x 0.8	M5 x 0.8 1/8	M5 x 0.8, 1/8, C4 (One-touch fitting for ø4), C6 (One-touch fitting for ø6)
	X port <small>Note)</small>	M5 x 0.8	M5 x 0.8	M5 x 0.8

Note) Only for external pilot

## Flow Characteristics

Manifold			Port size		Flow characteristics					
					1 → 2 (P → A)			2 → 3 (A → R)		
1(P), 3(R) port	2(A) port		C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv		
Body ported for internal pilot	Type SS3YJ5-20	SYJ5□2	1/8	M5 x 0.8	0.47	0.43	0.13	0.74	0.32	0.19
Base mounted for internal pilot	Type SS3YJ5-40-M5	SYJ5□4	1/8	M5 x 0.8	0.71	0.52	0.21	0.81	0.28	0.20
	Type SS3YJ5-40-01		1/8	1/8	0.98	0.36	0.25	0.92	0.24	0.22
	Type SS3YJ5-41-M5		1/8	M5 x 0.8	0.71	0.49	0.20	0.80	0.23	0.19
	Type SS3YJ5-41-01		1/8	1/8	1.0	0.37	0.26	0.96	0.25	0.24
	Type SS3YJ5-41-C4		1/8	C4	0.68	0.35	0.17	1.0	0.25	0.24
	Type SS3YJ5-41-C6		1/8	C6	1.0	0.27	0.25	1.0	0.30	0.26
Body ported for external pilot	Type SS3YJ5-21R	SYJ5□2R	1/8	M5 x 0.8	0.47	0.43	0.13	0.74	0.32	0.19
Base mounted for external pilot	Type SS3YJ5-40R-M5	SYJ5□4R	1/8	M5 x 0.8	0.71	0.52	0.21	0.81	0.28	0.20
	Type SS3YJ5-40R-01		1/8	1/8	0.98	0.36	0.25	0.92	0.24	0.22
	Type SS3YJ5-41R-M5		1/8	M5 x 0.8	0.71	0.49	0.20	0.80	0.23	0.19
	Type SS3YJ5-41R-01		1/8	1/8	1.0	0.37	0.26	0.96	0.25	0.24
	Type SS3YJ5-41R-C4		1/8	C4	0.68	0.35	0.17	1.0	0.25	0.24
	Type SS3YJ5-41R-C6		1/8	C6	1.0	0.27	0.25	1.0	0.30	0.26

Note) Value at manifold base mounted, 2 position single operating

## How to Order Manifold (Example)

Instruct by specifying the valves and blanking plate assembly to be mounted on the manifold along with the manifold base model no.

Example:

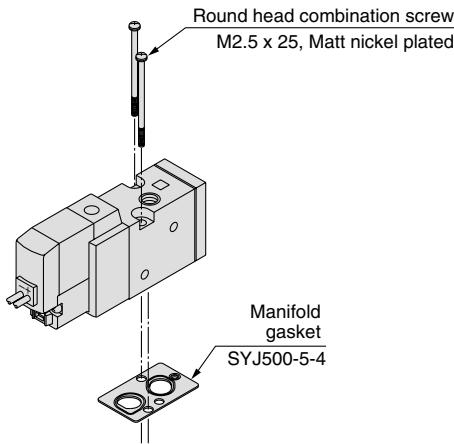
- SS3YJ5-20-03 ..... 1 set (Manifold base)
- SS3YJ5-41R-03-C6 ..... 1 set (Manifold base)
- \*SYJ512-5LZ-M5 ..... 2 sets (Valve)
- \*SYJ514R-5G ..... 2 sets (Valve)
- \*SYJ500-10-1A ..... 1 set (Blanking plate assembly)
- \*SYJ500-10-3A ..... 1 set (Blanking plate assembly)

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

# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ500

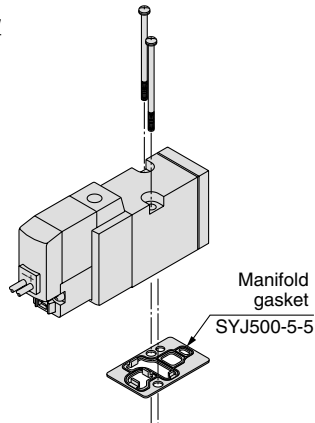
## Combinations of Solenoid Valve, Manifold Gasket and Manifold Base

### Body ported (Type SYJ5□2(R))



**Applicable base**  
SS3YJ5-21R } Manifold base  
SS3YJ5-20 }  
Manifold base

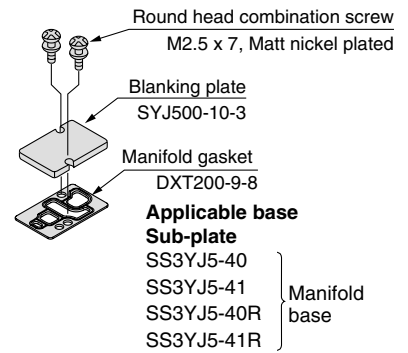
### Base mounted (Type SYJ5□4(R))



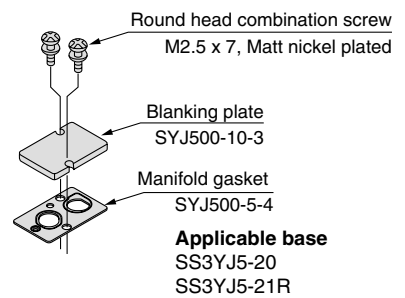
**Applicable base**  
Sub-plate  
SS3YJ5-40 } Manifold base  
SS3YJ5-41 }  
SS3YJ5-40R }  
SS3YJ5-41R }

## Blanking Plate Assembly

### Part no.: SYJ500-10-3A



### Part no.: SYJ500-10-1A



### Caution

**Mounting screw tightening torques**

**M2.5: 0.45 N·m**

**Use caution to the assembly orientation for solenoid valves (blanking plate) and manifold gasket.**

V100

SY

**SYJ**

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

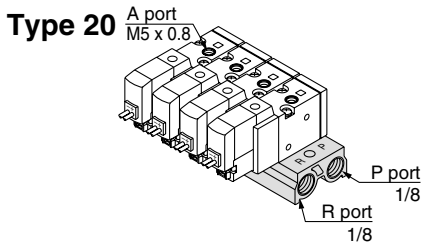
VZ

VS

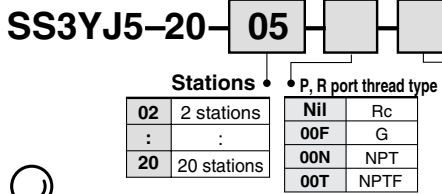
VFN

# Series SYJ500

## Manifold for Internal Pilot Type



### How to Order



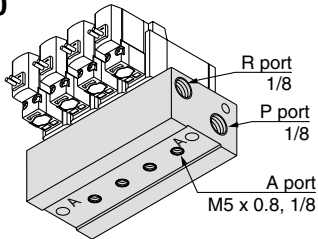
**Applicable solenoid valve**  
 SYJ512-□□□□-M5  
 SYJ512M-□□□□-M5  
 SYJ522-□□□□-M5  
 SYJ522M-□□□□-M5

**Applicable blanking plate assembly**  
 SYJ500-10-1A

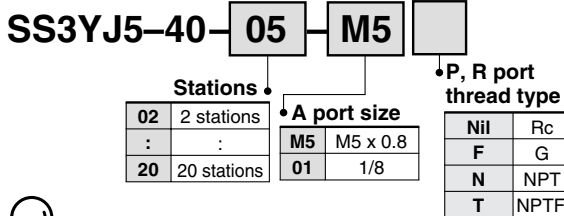


Note) For more than 6 stations, supply air to both sides of P port and exhaust air from both sides of R port.

## Type 40



### How to Order



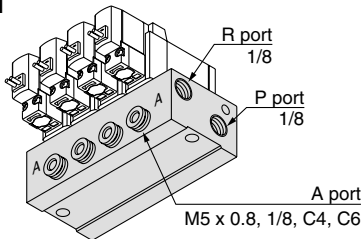
**Applicable solenoid valve**  
 SYJ514-□□□□  
 SYJ514M-□□□□  
 SYJ524-□□□□  
 SYJ524M-□□□□

**Applicable blanking plate assembly**  
 SYJ500-10-3A

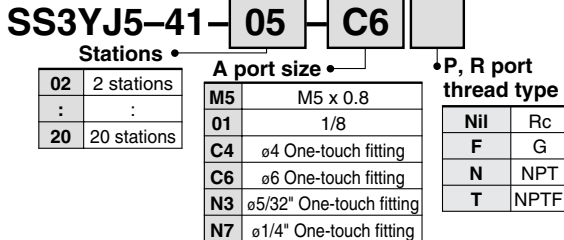


Note) For more than 9 stations, supply air to both sides of P port and exhaust air from both sides of R port.

## Type 41



### How to Order



**Applicable solenoid valve**  
 SYJ514-□□□□  
 SYJ514M-□□□□  
 SYJ524-□□□□  
 SYJ524M-□□□□

**Applicable blanking plate assembly**  
 SYJ500-10-3A

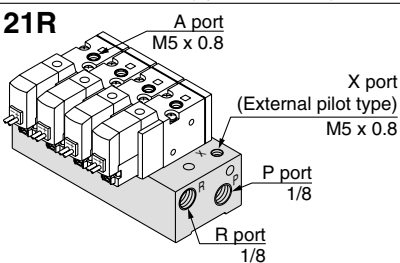


Note) For more than 9 stations, supply air to both sides of P port and exhaust air from both sides of R port.

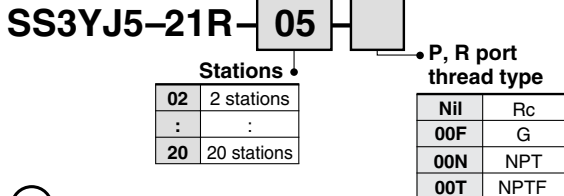
## Manifold for External Pilot Type

Pilot valve pressure is supplied separately from the main valve pressure through the use of a separate supply port. It can be used in the vacuum (up to -100 kPa) or low pressure line with 0.15 MPa or less.

## Type 21R



### How to Order



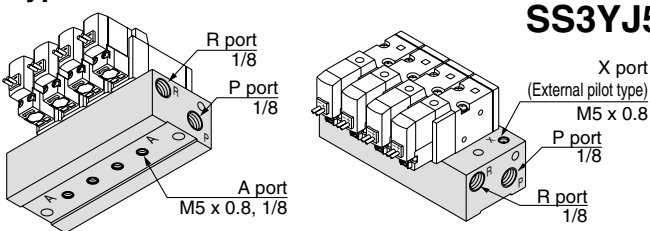
**Applicable solenoid valve**  
 SYJ512R-□□□□-M5  
 SYJ522R-□□□□-M5

**Applicable blanking plate assembly**  
 SYJ500-10-1A

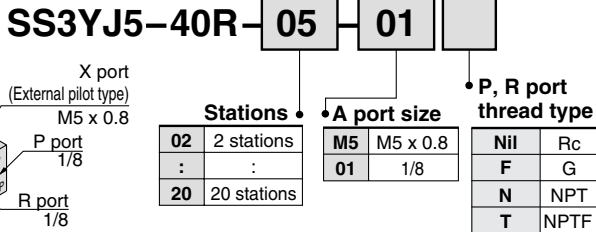


Note) For more than 9 stations, supply/exhaust air to/from both sides of P and R port

## Type 40R



### How to Order



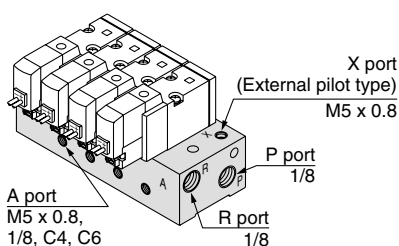
**Applicable solenoid valve**  
 SYJ514R-□□□□  
 SYJ524R-□□□□

**Applicable blanking plate assembly**  
 SYJ500-10-3A

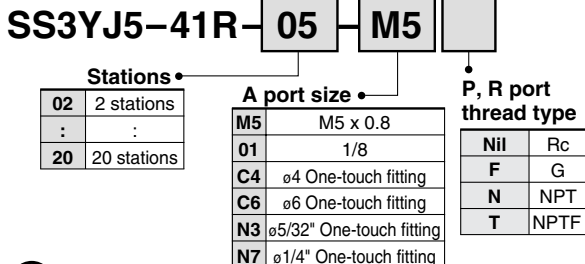


Note) For more than 9 stations, supply/exhaust air to/from both sides of P and R port

## Type 41R



### How to Order



**Applicable solenoid valve**  
 SYJ514R-□□□□  
 SYJ524R-□□□□

**Applicable blanking plate assembly**  
 SYJ500-10-3A



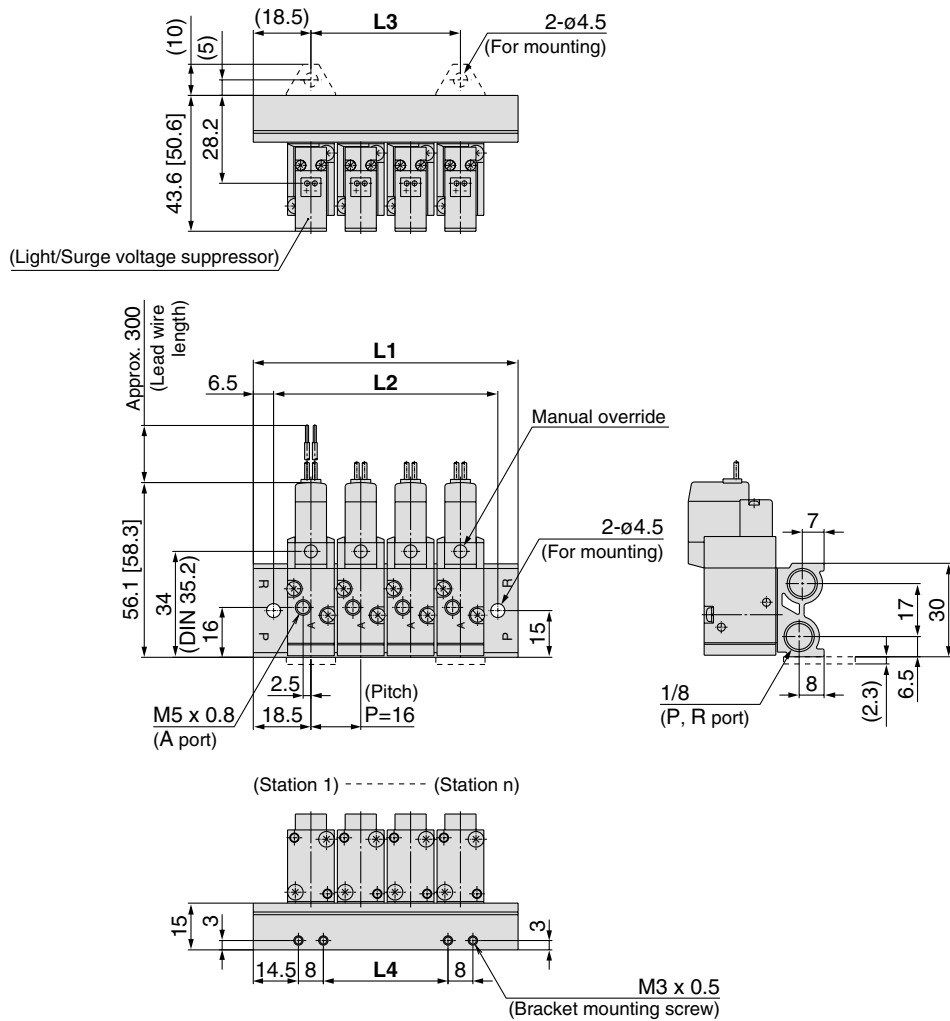
Note) For more than 9 stations, supply/exhaust air to/from both sides of P and R port

# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ500

## Type 20 Manifold: Top Ported/SS3YJ5-20- Stations -00□ (-F)



### Grommet (G)



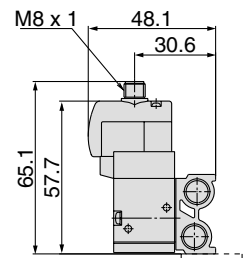
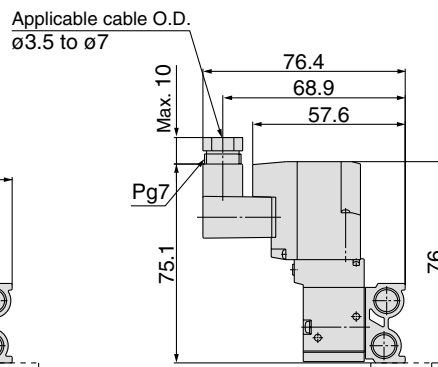
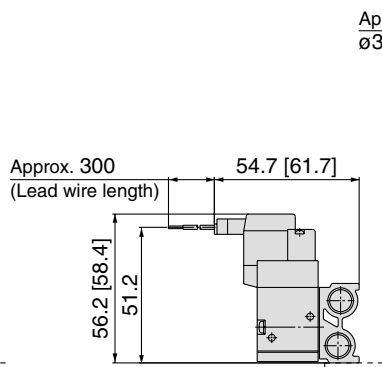
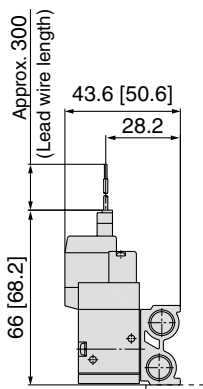
- V100
- SY
- SYJ**
- VK
- VZ
- VT
- VP
- VG
- VP
- S070
- VQ
- VKF
- VQZ
- VZ
- VS
- VFN

### L plug connector (L)

### M plug connector (M)

### DIN terminal (D)

### M8 connector (WO)

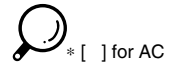


\* Refer to page 4-4-61 for dimensions with connector cable.

Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
<b>L1</b>	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
<b>L2</b>	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
<b>L3</b>	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304
<b>L4</b>	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296

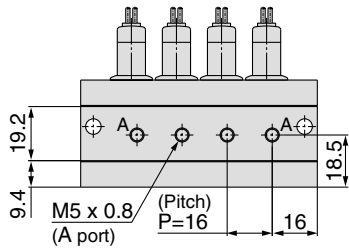
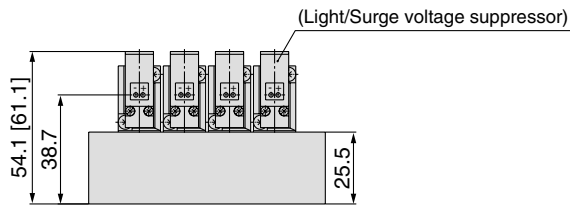
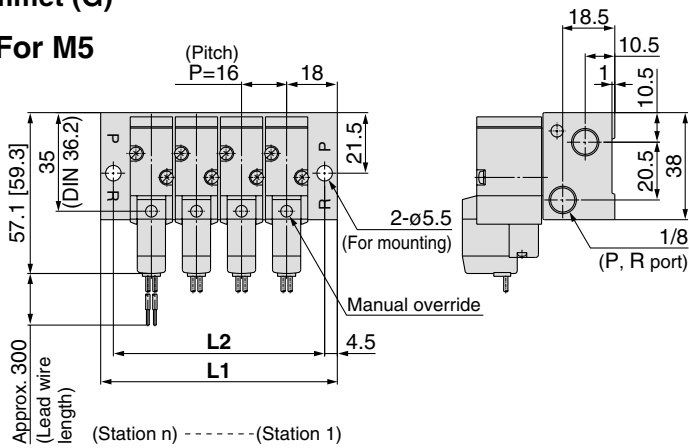
# Series SYJ500

## Type 40 Manifold: Bottom Ported/SS3YJ5-40- Stations -M5, 01□

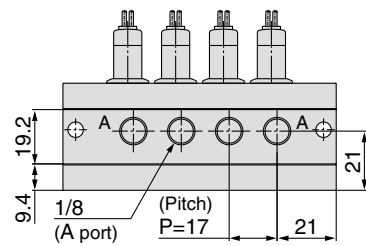
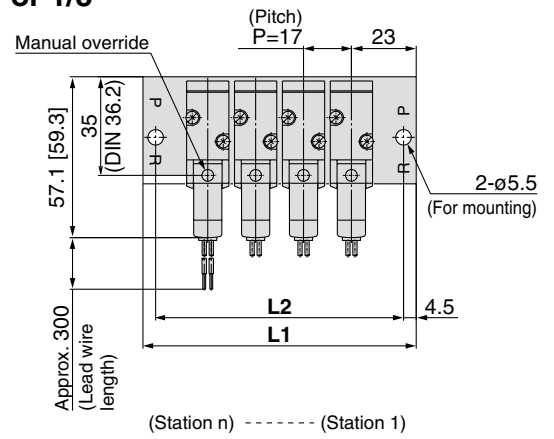


### Grommet (G)

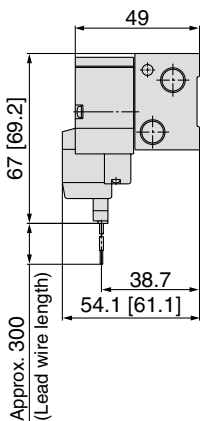
#### For M5



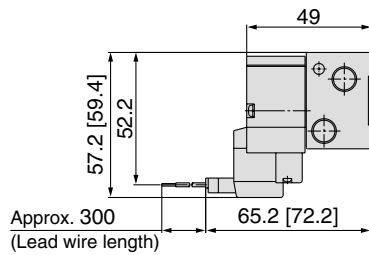
#### For 1/8



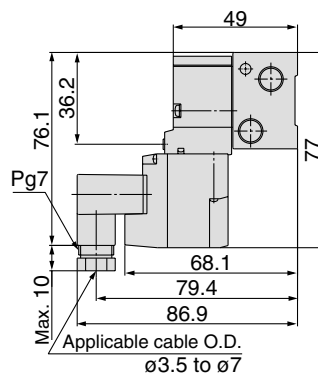
### L plug connector (L)



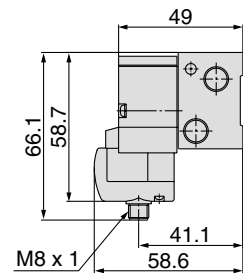
### M plug connector (M)



### DIN terminal (D)



### M8 connector (WO)



\* Refer to page 4-4-61 for dimensions with connector cable.

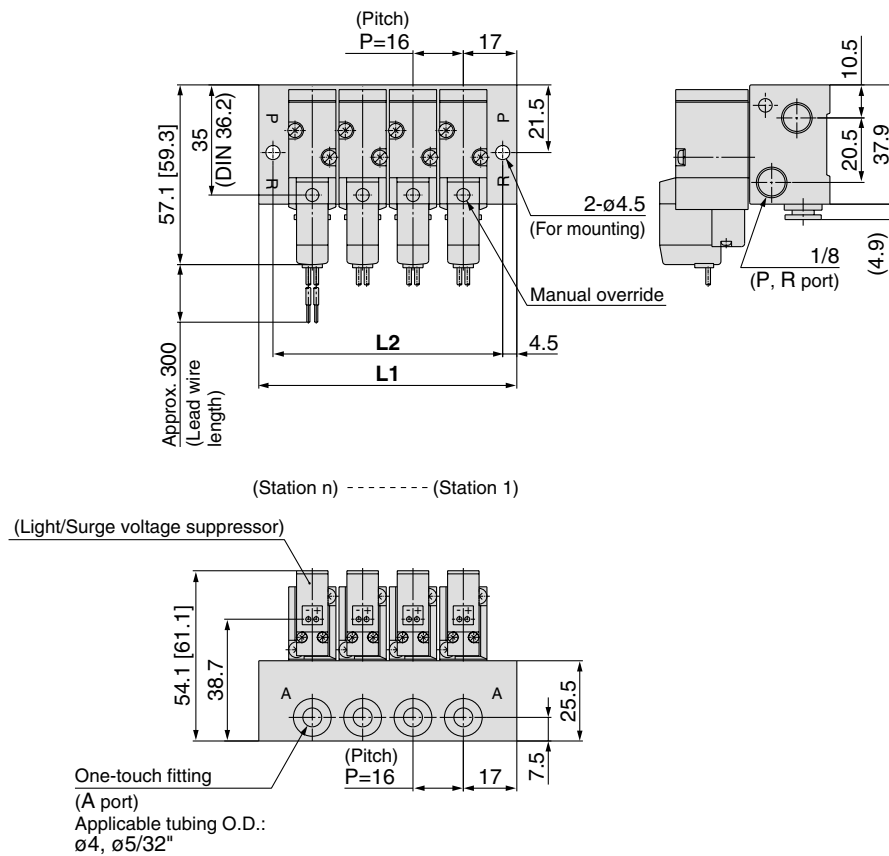
Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
M5	L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
	L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
1/8	L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
	L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360

# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ500

Type 41 Manifold: Side Ported/SS3YJ5-41- Stations C4, N3  
C6, N7



## Grommet (G)



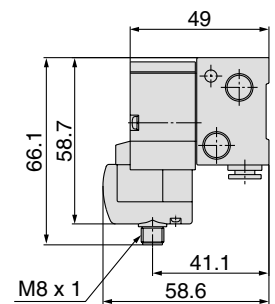
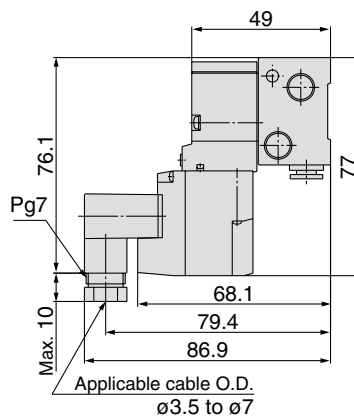
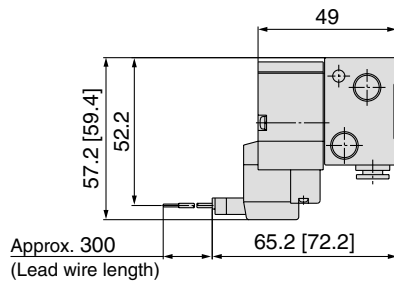
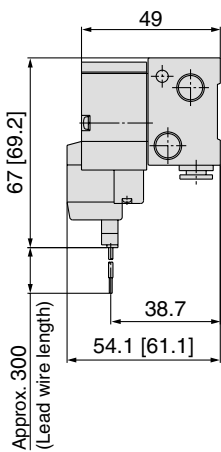
- V100
- SY
- SYJ**
- VK
- VZ
- VT
- VP
- VG
- VP
- S070
- VQ
- VKF
- VQZ
- VZ
- VS
- VFN

## L plug connector (L)

## M plug connector (M)

## DIN terminal (D)

## M8 connector (WO)



\* Refer to page 4-4-61 for dimensions with connector cable.

Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
One-touch fitting	L1	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338
	L2	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329

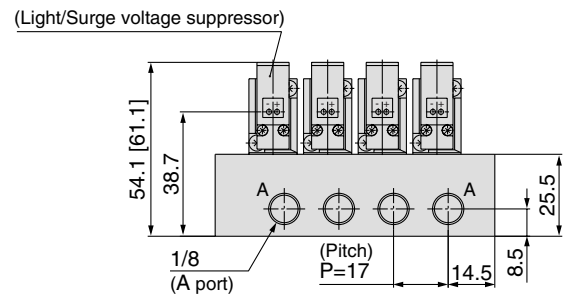
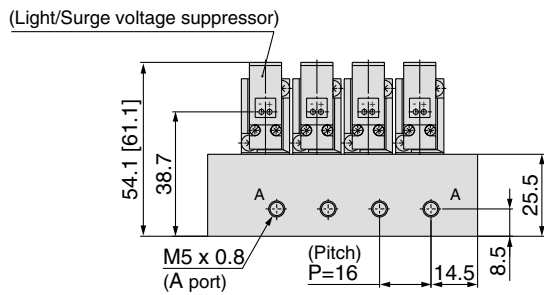
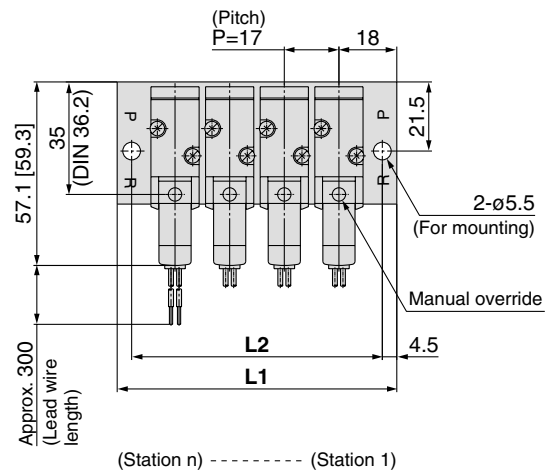
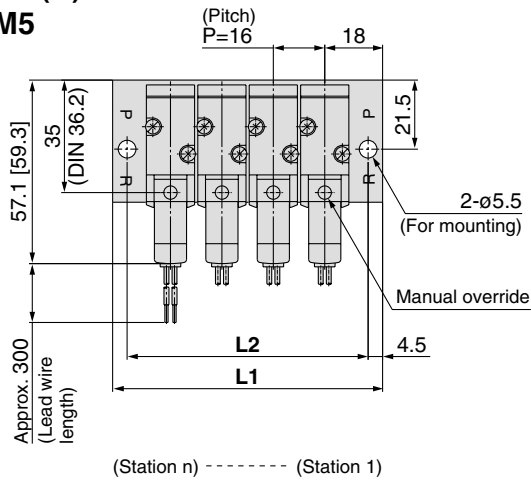
# Series SYJ500

## Type 41 Manifold: Side Ported/SS3YJ5-41- Stations -M5, 01 □



### Grommet (G) For M5

### For 1/8



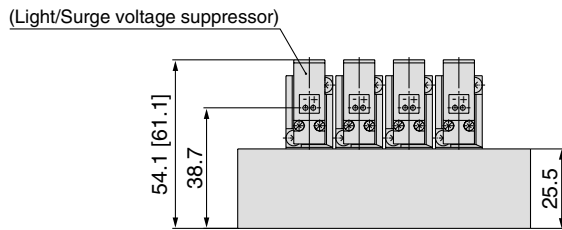
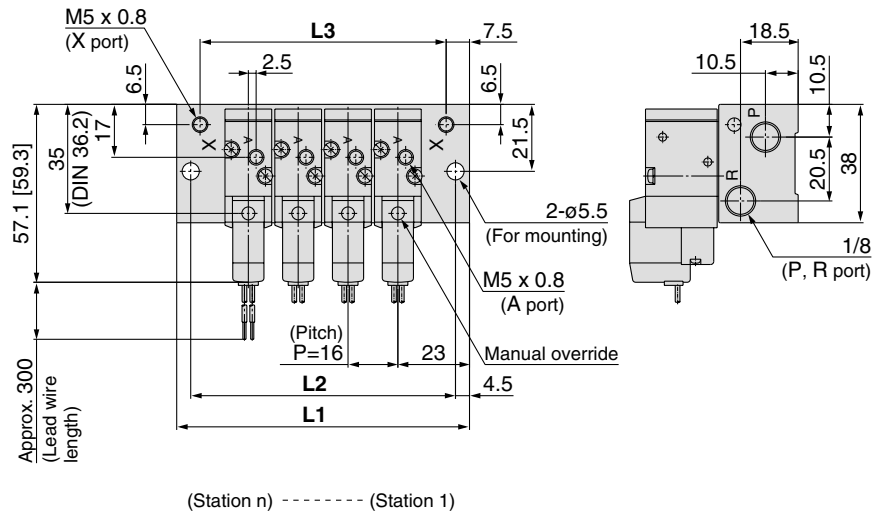
Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
M5	L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
	L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
1/8	L1	53	70	87	104	121	138	155	172	189	206	223	240	257	274	291	308	325	342	359
	L2	44	61	78	95	112	129	146	163	180	197	214	231	248	265	282	299	316	333	350

# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ500

Type 21R Manifold: Top Ported (External Pilot Type)/SS3YJ5-21R- Stations -00 □

\* [ ] for AC

## Grommet (G)

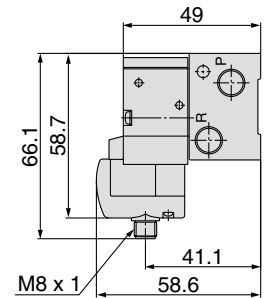
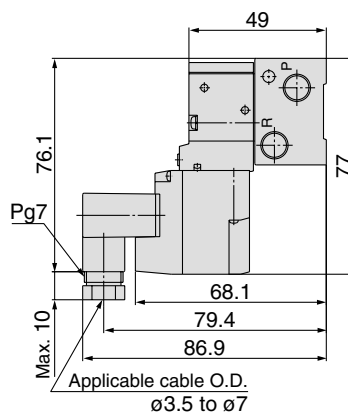
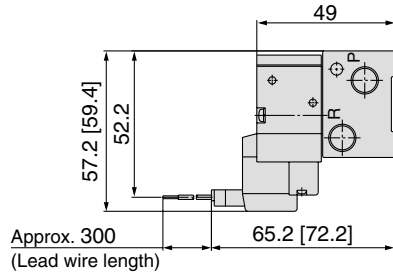
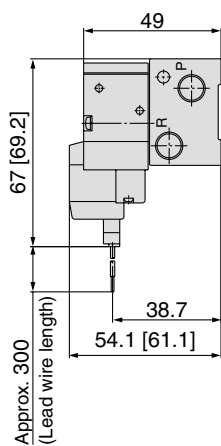


## L plug connector (L)

## M plug connector (M)

## DIN terminal (D)

## M8 connector (WO)



\* Refer to page 4-4-61 for dimensions with connector cable.

Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
<b>L1</b>	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
<b>L2</b>	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
<b>L3</b>	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335

- V100
- SY
- SYJ**
- VK
- VZ
- VT
- VP
- VG
- VP
- S070
- VQ
- VKF
- VQZ
- VZ
- VS
- VFN



# Series SYJ500

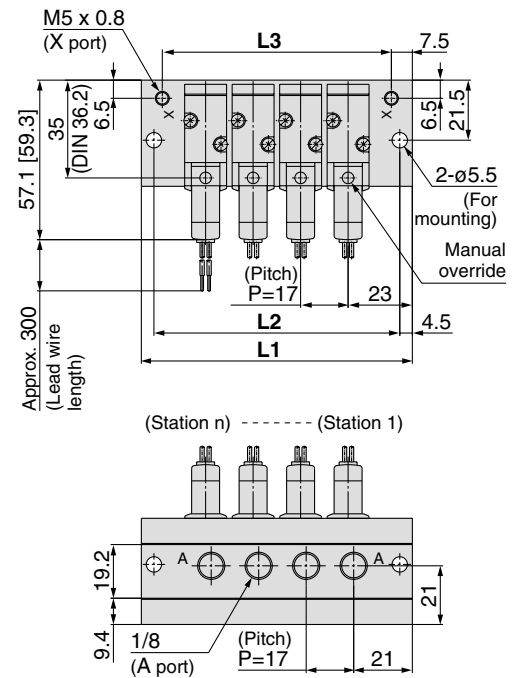
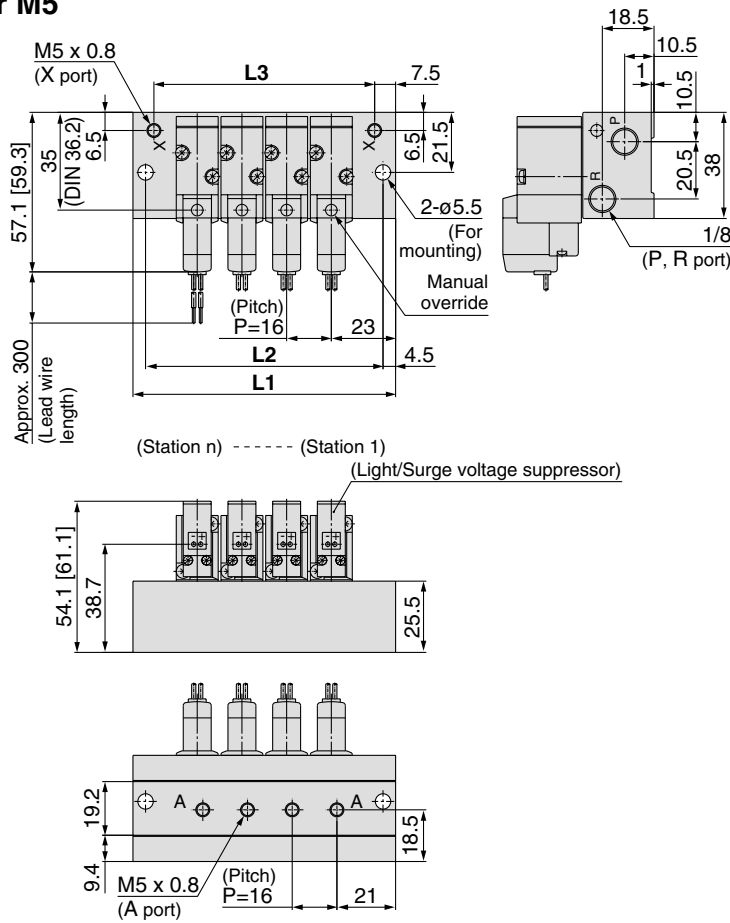
Type 40R Manifold: Bottom Ported (External Pilot Type)/SS3YJ5-40R-**Stations**-M5, 01□

\* [ ] for AC

Grommet (G)

For 1/8

For M5

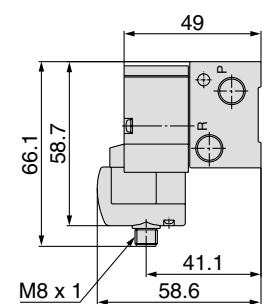
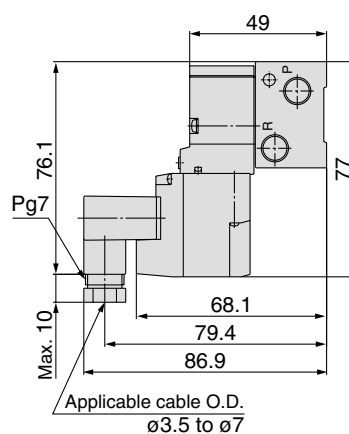
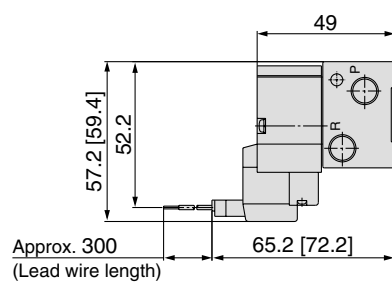
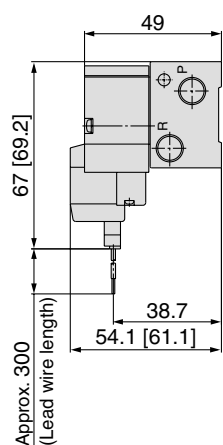


L plug connector (L)

M plug connector (M)

DIN terminal (D)

M8 connector (WO)



\* Refer to page 4-4-61 for dimensions with connector cable.

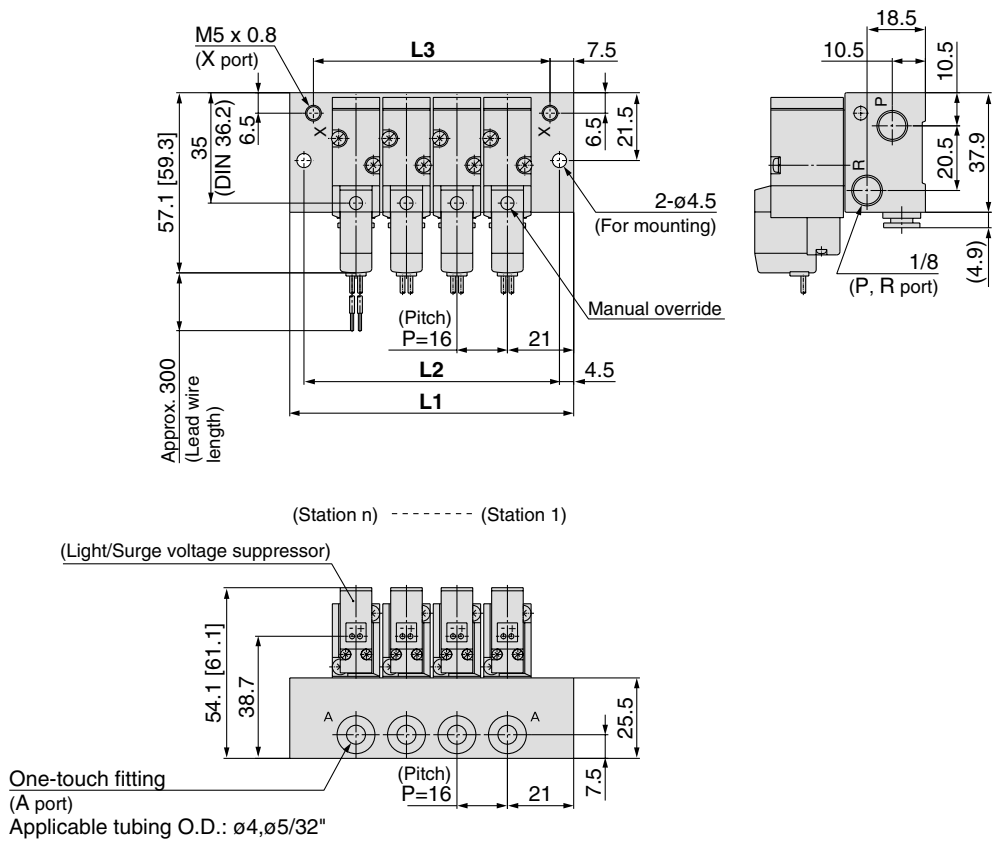
Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
M5	L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
	L2	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
	L3	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335
1/8	L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
	L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360
	L3	48	65	82	99	116	133	150	167	184	201	218	235	252	269	286	303	320	337	354

# 3 Port Pilot Operated Solenoid Valve Rubber Seal Series SYJ500

Type 41R Manifold: Side Ported (External Pilot Type)/SS3YJ5-41R- Stations  C4, N3  C6, N7

\* [ ] for AC

## Grommet (G)

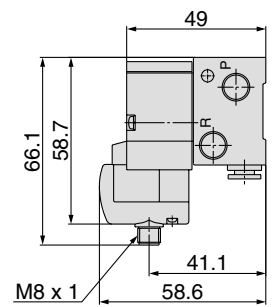
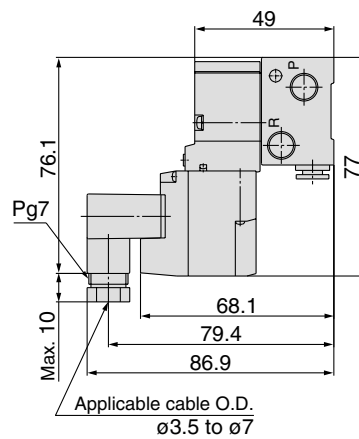
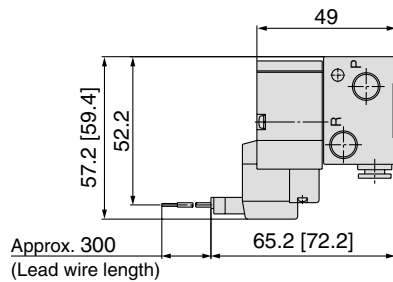
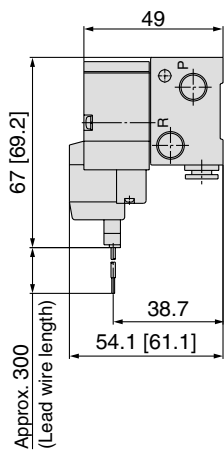


## L plug connector (L)

## M plug connector (M)

## DIN terminal (D)

## M8 connector (WO)



\* Refer to page 4-4-61 for dimensions with connector cable.

Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
One-touch fitting	L1	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346
	L2	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337
	L3	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

- V100
- SY
- SYJ**
- VK
- VZ
- VT
- VP
- VG
- VP
- S070
- VQ
- VKF
- VQZ
- VZ
- VS
- VFN

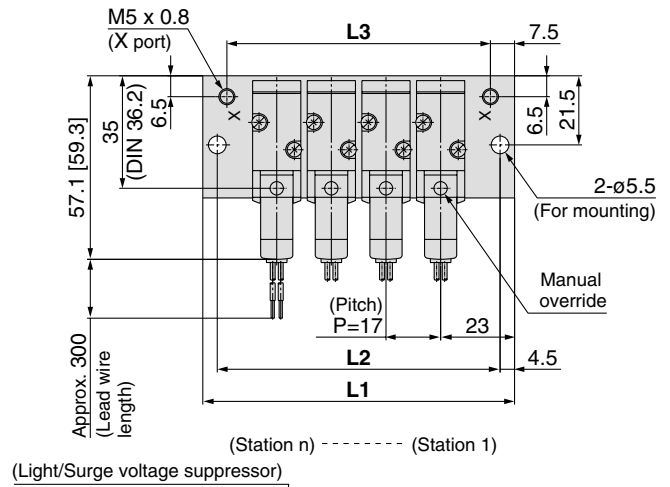
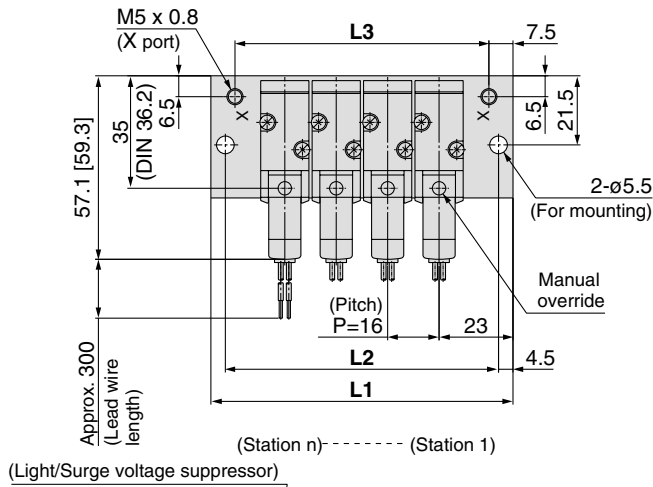
# Series SYJ500

## Type 41R Manifold: Side Ported (External Pilot Type)/SS3YJ5-41R- Stations -M5, 01□



### For M5

### For 1/8



Port size	Station n	Station 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Station 20
M5	L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
	L2	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
	L3	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335
1/8	L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
	L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360
	L3	48	65	82	99	116	133	150	167	184	201	218	235	252	269	286	303	320	337	354