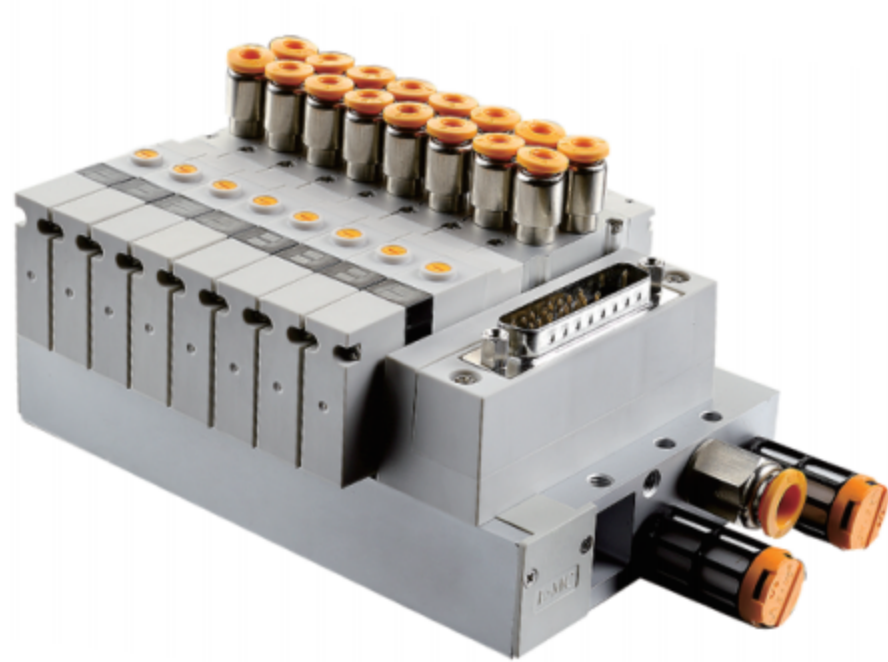
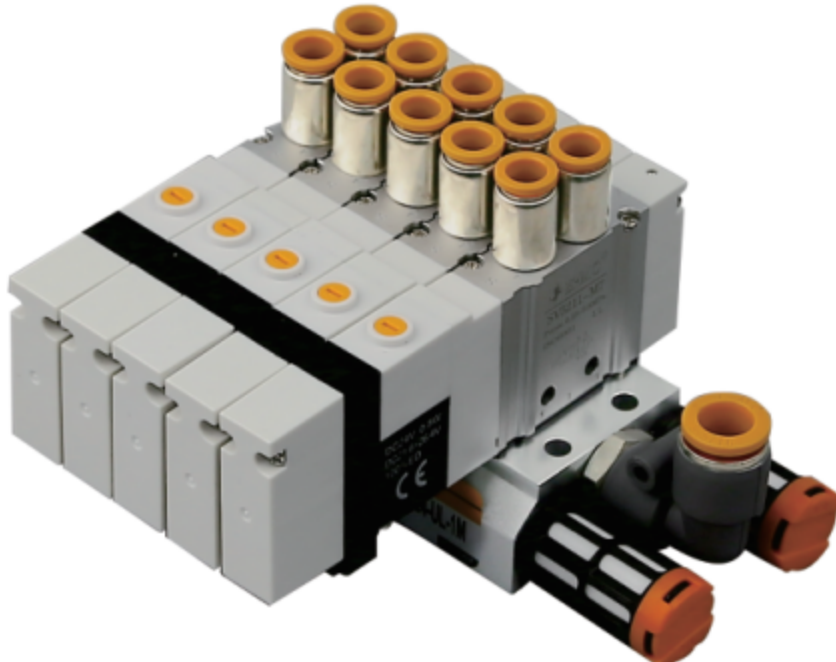


SV

Solenoid Valve&Valve Terminal



Integrated valve terminal



Standard valve terminal



Valve slice(top ported)



Valve slice(side/bottom ported)

Product Features

- Integrated valve terminal , integrated wiring ;Adopt 25 pins D-sub connector .
- Centralized air inlet and exhaust, available for top ported ,side ported and bottom ported , compact structure.
- Patent design: the pilots of double control valve are on same side; Wiring and piping are on same side.
- 5/2 ways,5/3 ways,5/4 ways(2pcs 3/2 ways) can be integrated on same valve terminal.
- 0.8W per coil.

How to Order?

SV Integrated valve terminal

Series No.	Body Size	Piping Type	—	—	—	—	Voltage	Pilot Type	Wiring Type	Manifold Port	Mounting	Thread Type
S: Standard SN:Energy-saving	V: Top ported VM: Side ported VB: Bottom ported	1: 1 series 2: 2 series	Qty (Max.24 links for single control Max.12 links for double control)	Valve quantity for different port			E4: DC24V	Blank: Internal pilot WB: External pilot①	Blank: Double control wiring (max.12 links) S: Single control wiring (max.24 links) (Note:Mix wiring is available to customize)		Blank: Without accessories D: With DIN rail clip and 1M guide rail D0: With DIN rail clip, no guide rail DIN guide rail packed separately)	Blank: G

Code	Function	Remark
S	5/2 single	assembly sequence, 1st link start from U side
D	5/2 double	
C	5/3 center closed	
P	5/3 center pressure	
E	5/3 center exhaust	
Y ①	2pcs 3/2 (N.C.)	
H ①	2pcs 3/2 (N.O.)	
U ①	2pcs 3/2 (N.O./N.C.)	
YK①	2pcs 3/2 (N.C.) spring return	
HK①	2pcs 3/2 (N.O.) spring return	
UK①	2pcs 3/2 (N.O./N.C.) spring return	
B	blind plate	
TA	port 1 air supply pressure separate	
TG	port 3/5 air exhaust pressure separate	
TL	port 1/3/5 air supply & exhaust pressure separate	
N	air supply & exhaust module	

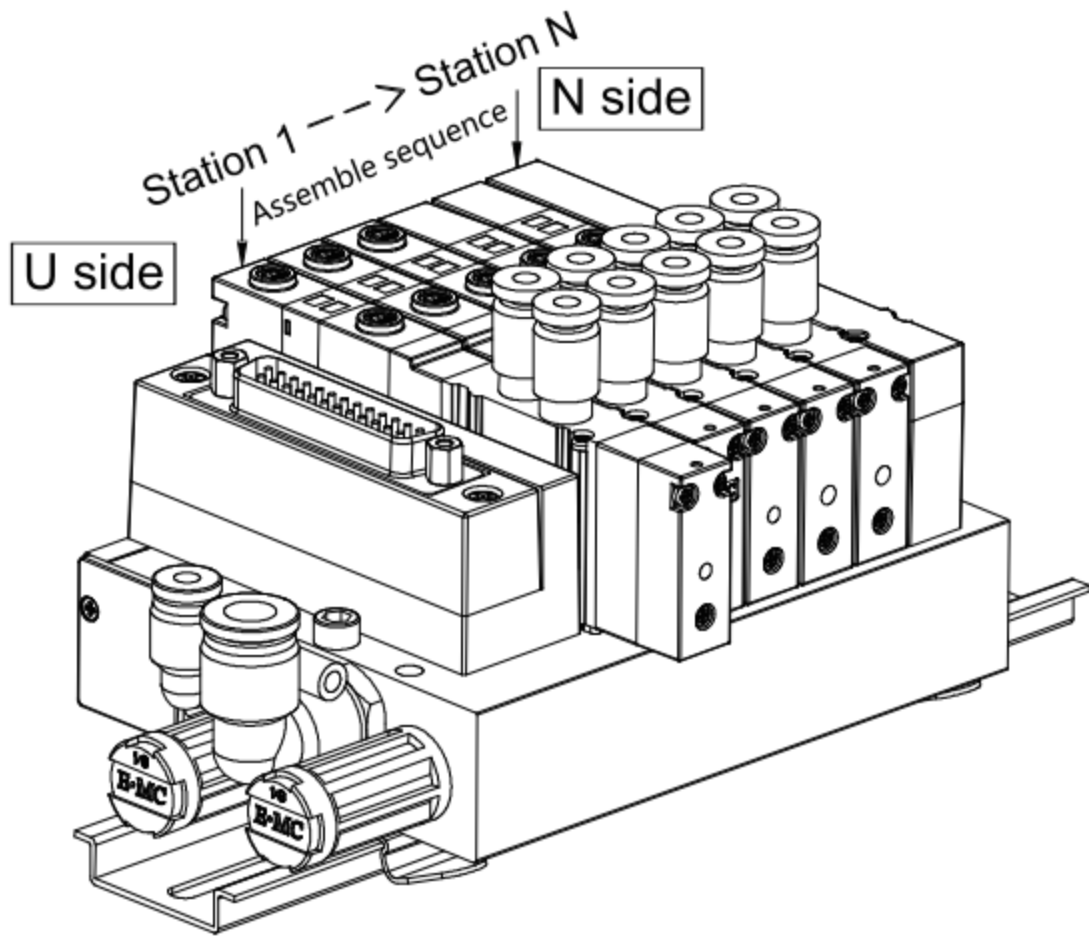
No.	Code	Port size	Remark
1 Series	M5	M5: M5 port	assembly sequence, 1st link start from U side
	C4	φ 4 one-touch fitting(ZPOC04-M7C)	
	M7	M7: M7 port	
	C6	φ 6 one-touch fitting(ZPOC06-M7C)	
2 Series	06	1/8 port	
	C4	φ 4 one-touch fitting(ZPOC04-01G)	
	C6	φ 6 one-touch fitting(ZPOC06-01G)	
	C8	φ 8 one-touch fitting(ZPOC08-01G)	

Code	Port entry	1Series	2Series	Remark
Blank	Both side without silencer, fitting, plug	-	-	1) plugs are mounted on the opposite of the selected ports; 2) only U,U1 is available for bottom ported 3) No need this code if order manifold only
U	U side with silencer, PC fitting	φ 8	φ 10	
N	Station N with silencer, PC fitting			
UN	Both side with silencer, PC fitting			
UL	U side with silencer, PL fitting			
NL	Station N with silencer, PL fitting			
UNL	Both side with silencer, PL fitting	φ 10	φ 12	
U1	U side with silencer, POC fitting			
N1	Station N with silencer, POC fitting			
UN1	Both side with silencer, POC fitting			

Note: ①Y/H/U is not available for external pilot due to the air return.
YK/HK/UK is available for external pilot due to the spring return.

Order Example:

1. Same valve: S series standard valve, 1 series body, top ported, 6 links 5/2 double controlled SV5212, port size M5, DC24V, G thread, internal pilot, double control wiring, both side without silencer, fitting, pug, the ERP code is S1V-6D-M5E4
2. Mix different valve: S series standard valve, 1 series body, top ported, see right picture : station 1 is 5/3 center closed SV5312C, station 2 is 5/2 double control SV5212, station 3 is 2pcs 3/2 (N.O.)spring return SV5412HK ,station 4 & station 5 are 5/2 single SV5211, station 6 is blind plate,station 1 & 2 with φ 6 one-touch fitting ZPOC06-M7C, station 3~5 with with φ 4 one-touch fitting ZPOC04-M7C, DC24V,G thread, external pilot, double control wiring, U-sub side with silencer, φ 8 PL fitting, with DIN rail clip and 1M guide rail, the ERP code is S1V-CDHK2SB-2C63C4AE4-WB-UL-D
3. Mix different valve with pressure separate: S series standard valve, 1 series body, top ported, see right picture : station 1 is 5/3 center closed SV5312C, port 1 air supply pressure separate between station 1 and station 2,station 2 is 5/2 double control SV5212, station 3 is air supply & exhaust module ,station 4 is 2pcs 3/2 (N.O.) SV5412H port 1 air supply pressure separate between station 4 and station 5,station 5 is 5/2 single SV5211, station 6 is blind plate,working port is M7 , DC24V, internal pilot, double control wiring,both sides without silencer,ittings ,plugs, G thread, the ERP code is S1V-CTADNHTASB-M7E4



SV Series Solenoid Valve&Valve Terminal



1

SV

Valve slice

Series No.	Piping Type	Ports	Positions	Body Size	Controls	Original Status	Port Size	Voltage	Pilot Type	Wiring	Thread Type
S: Standard SN: Energy-saving	V: Piping on valve VM: Piping on manifold (VM series should work with manifold)	5: 5 ports	1: 1 series 2: 2 series 2: 2 position 3: 3 position 4: Dual 3/2 valves	1: 1 series 2: 2 series	1: Single control 2: Double control C: 3 position 5 port(center close) P: 3 position 5 port(center pressure) E: 3 position 5 port(center exhaust) ① Y: Dual 3/2 valves(N.C.) ① H: Dual 3/2 valves(N.O.) ① U: Dual 3/2 valves(N.C./N.O.) ① YK: Dual 3/2 valves(N.C.) spring return ① HK: Dual 3/2 valves(N.O.) spring return ① UK: Dual 3/2 valves(N.C./N.O.) spring return	(Note:Available for V type only)	M5: M5 M7: M7 06: 1/8"	E4: DC24V Blank: Internal pilot WB: External pilot ②	Blank: G P: PT T: NPT	Blank: None 0.3M: 0.3m wiring 0.6M: 0.6m wiring 1M: 1m wiring (Note: Available for V type only)	

Note: ①Y/H/U is not available for external pilot due to the air return.YK/HK/UK is available for external pilot due to the spring return(not available for standard valve group either separate use).
②All external pilot operated single valve are intended for use in multi-pin intergrated valve or valve terminal only, and cannot be used in ordinary manifold valve or alone.

Order Example:

S series standard type,piping on valve,2 station 5 port,1 series valve body,single control,M5 port ,DC24V, internal pilot,0.3 meter wiring, the ERP code is :SV5211-M5E4-0.3M.

SV standard valve terminal

Series No.	5/2 way	Body Size	—	—	—	—	Voltage	—	Manifold Port	—	Wiring	—	Thread Type
SV: Standard SN: Energy-saving	52	1: 1 series 2: 2 series	Qty				E4: DC24V				Blank: Without wiring 0.3M: 0.3M wiring 0.6M: 0.6M wiring 1M: 1M wiring		Blank: G
			Valve quantity for different port										

How to Order?

Manifold

SV	52	1	—	N	F	—	Thread Type
SV series	1: 1 series valve body 2: 2 series valve body	2 position 5 port		1: 1 station 2: 2 stations 3: 3 stations 24: 24 stations	F: Manifold		Blank: G P: PT T: NPT

Connector

Connector Type	Cable Core	Cable Length	Code	Injection Molding
D25: D-sub connector 25 pins	1M: 1m cable 2M: 2m cable 3M: 3m cable (Note: please contact EMC for customized length)	Blank: standard cable TL: Flexible drag chain cable (Flexible cable only 25 cores optional)	A	
25: 25 cores (24 coils or less) 15S: 15 cores (14 stations for single control or less) 15D: 15 cores (7 stations for double control or less) 08S: 8 cores (7 stations for single control or less)				

Wiring

Wiring Series	Category	Wiring Length
SV5211: Single control SV5212: Double control	P01: plug-in cable	0.3M: 0.3m wiring 0.6M: 0.6m wiring 1M: 1m wiring (Note: Please contact EMC to customize wiring)

Blind plate

Series NO.	Blind Plate Type	Category	2 Position 5 Port	Valve Size
S: Standard V: Top port VM: Side port VY: Common type	BP	52	1:1 series 2:2 series	

Air supply & exhaust module

Series No.	Piping Type	Category	5/2 way	Body Size	—	□	—	Thread Type
S:Standard	V: Top ported VM: Side ported	NP	52	1: 1 series 2: 2 series				Blank: G

No.	Code	Port size	Remark
1 Series	M5	M5: M5 port	when fittings required, the silencer will be mounted together
	C4	φ 4 one-touch fitting(ZPOC04-M5C)	
	M7	M7: M7 port	
	C6	φ 6 one-touch fitting(ZPOC06-M7C)	
2 Series	06	1/8 port	
	C6	φ 6 one-touch fitting(ZPOC06-01G)	
	C8	φ 8 one-touch fitting(ZPOC08-01G)	

Explain of pressure separate

Diagram of pressure separate

Explain of pressure separate

different options for pressure separate

TA: port 1 air supply pressure separate	
TG: port 3/5 air exhaust pressure separate	
TL: port 1/3/5 air supply & exhaust pressure separate	

1. 1pc Air supply & exhaust module requests 1 station
2. Use air supply & exhaust module to control the third or more different pressure and exhaust.
3. External pilot port 14 is not available for pressure separate.

SV Series Solenoid Valve&Valve Terminal



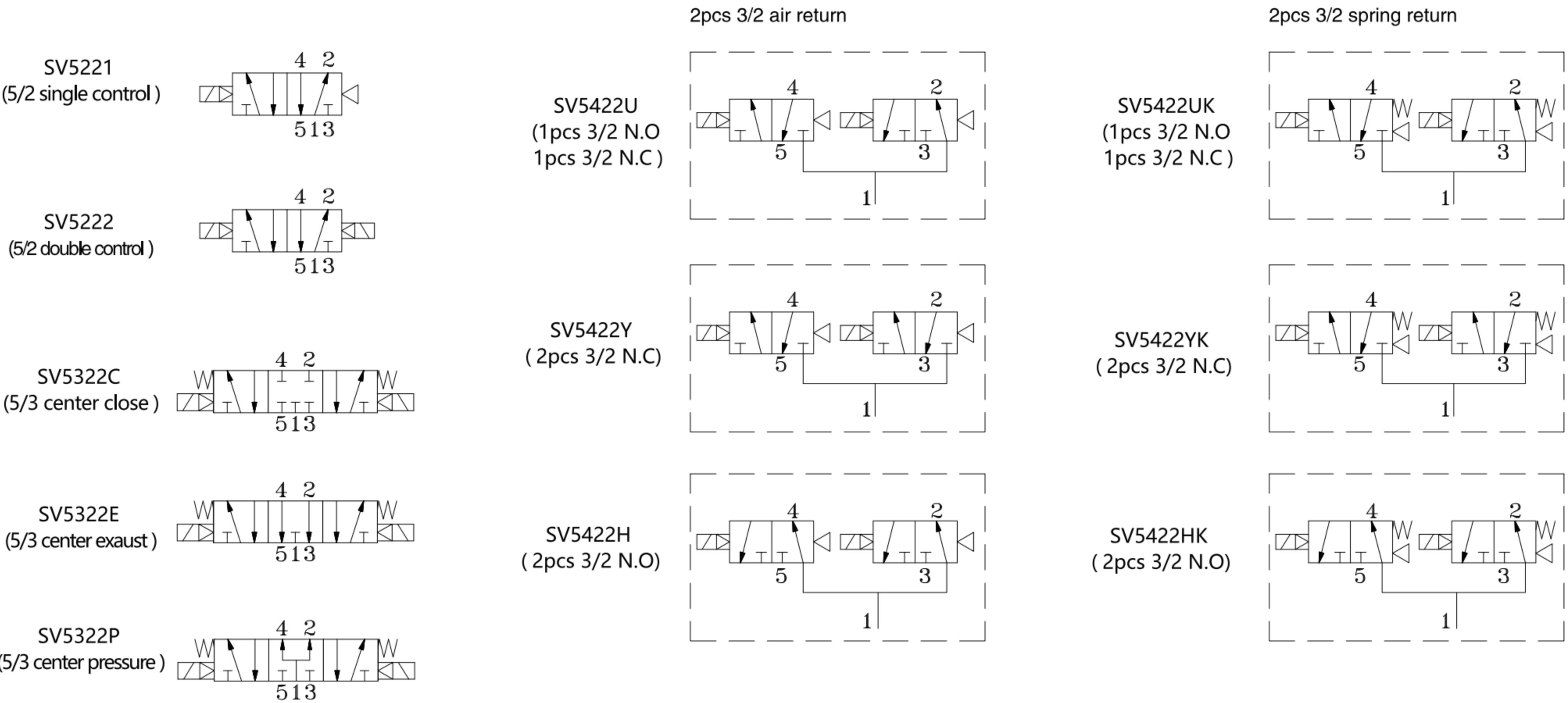
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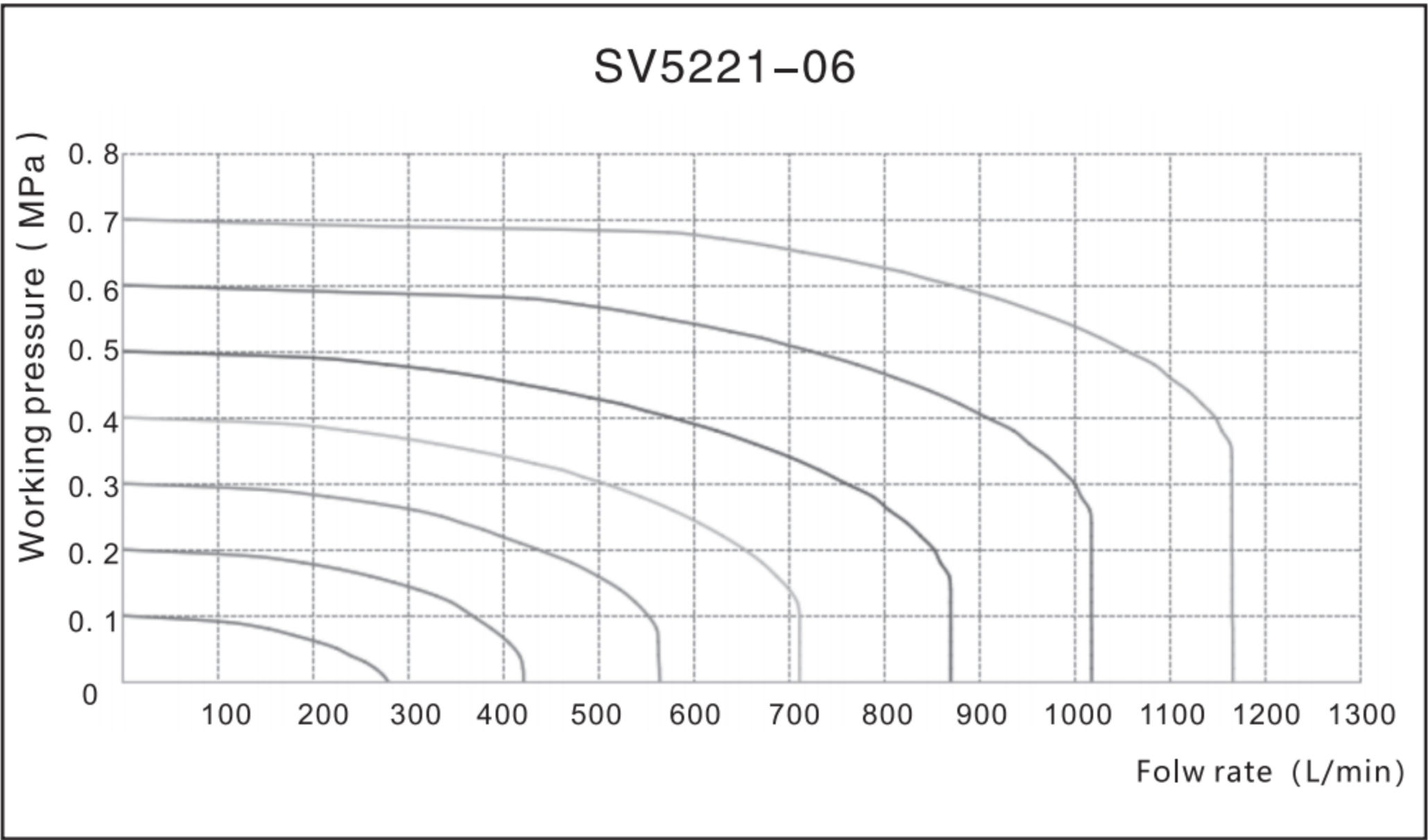
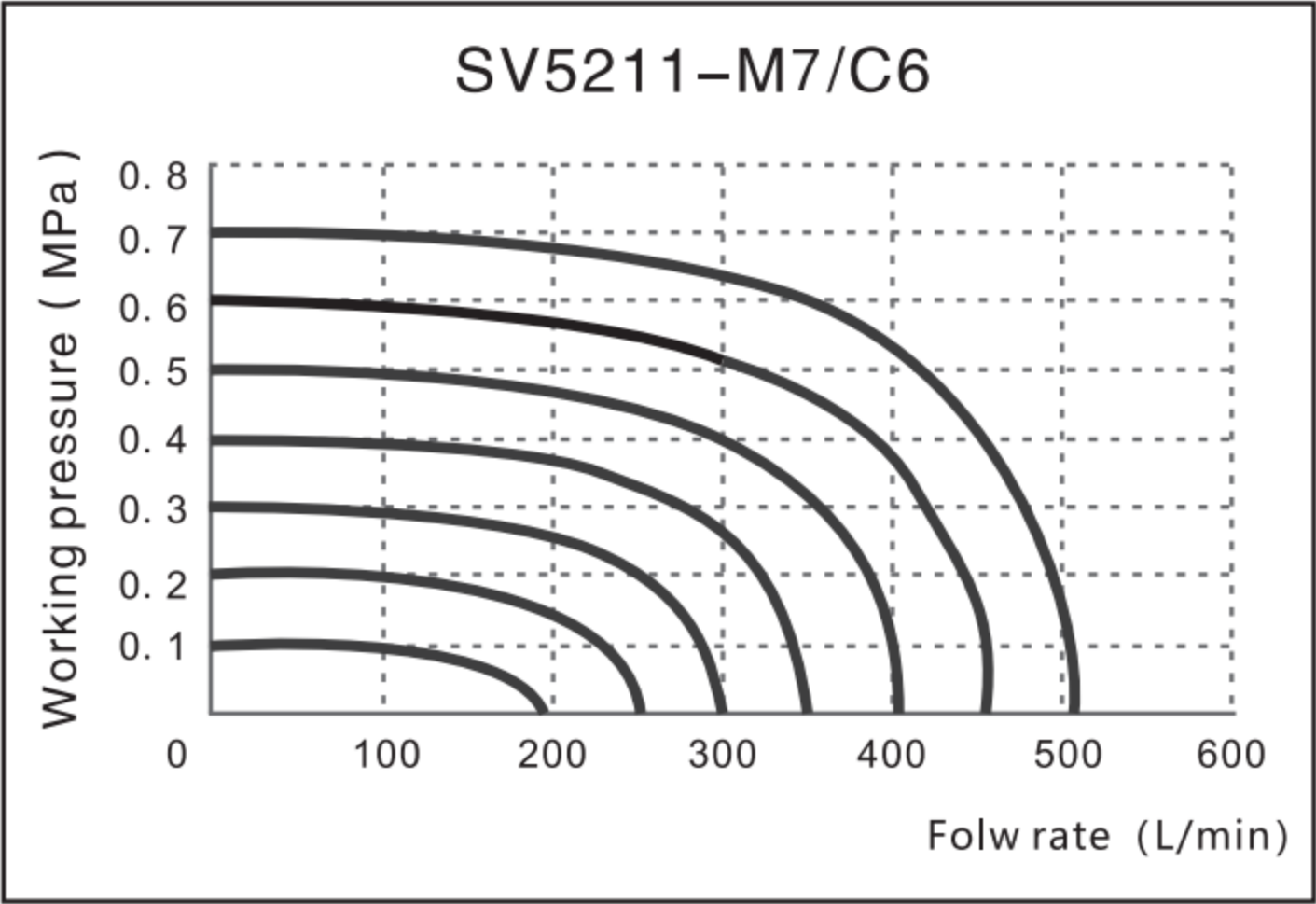
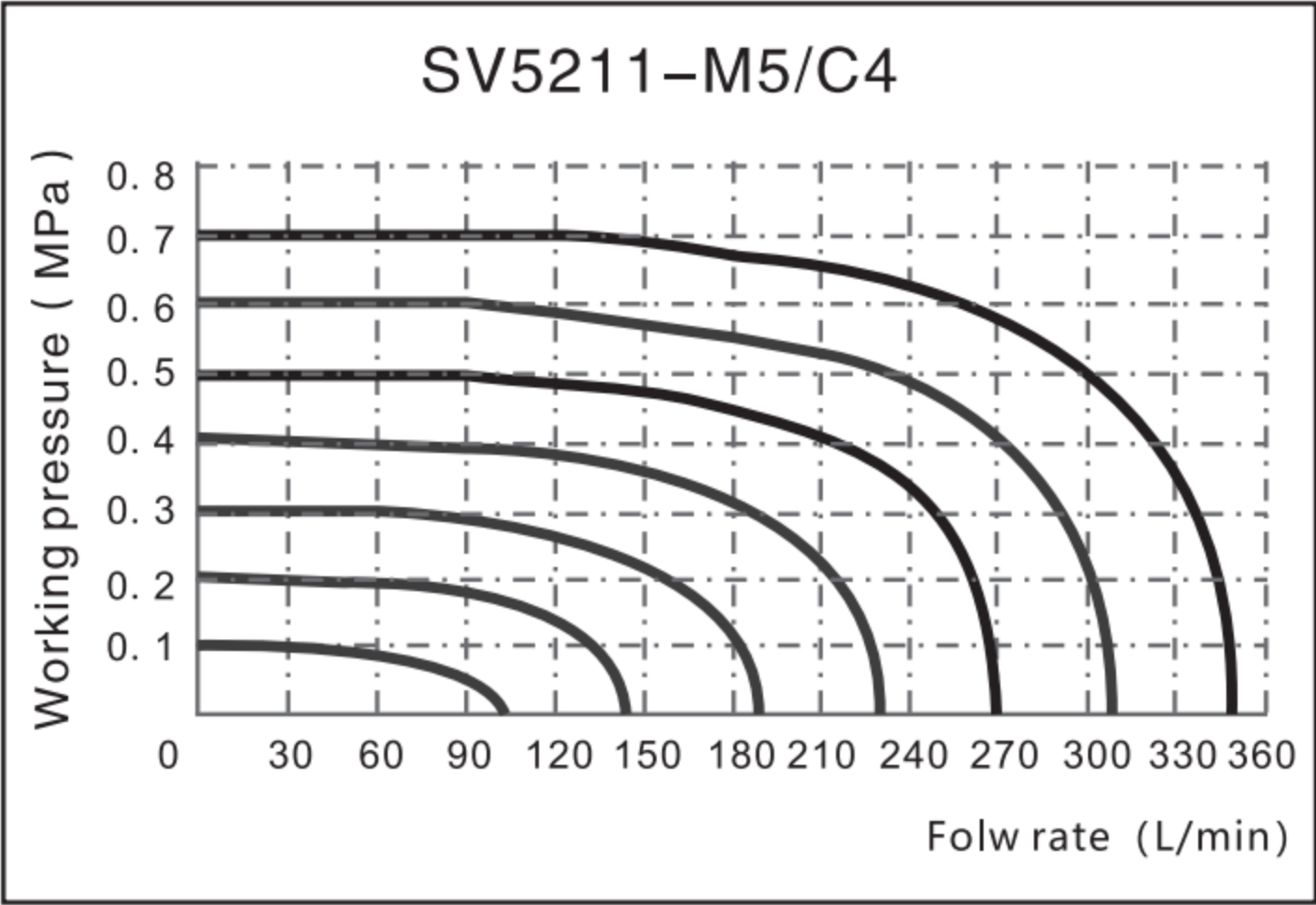
Specifications

Model	SV5211 SVM5211	SV5212 SVM5212	SV5412Y/U/H SVM5412Y/U/H	SV5412YK/UK/HK SVM5412YK/UK/HK	SV5312C/E/P SVM5312C/E/P	SV5221 SVM5221	SV5222 SVM5222	SV5422Y/U/H SVM5422Y/U/H	SV5422YK/UK/HK SVM5422YK/UK/HK	SV5322C/E/P SVM5322C/E/P
Sectional Area (mm)	M5/C4: 5(CV=0.28) M7/C6: 7(CV=0.39)		M5/C4: 4.6(CV=0.26) M7/C6: 6.5(CV=0.36)			16.2 (CV=0.9)		14.5 (CV=0.8)		
Positions	2 position 5 port		dual 3/2 valves		3 position 5 port	2 position 5 port		dual 3/2 valves		3 position 5 port
Working Pressure (MPa)	0.15~0.8			0.2~0.8		0.15~0.8			0.2~0.8	
Pilot pressure (external pilot type)(MPa)	0.25~0.8		0.25~0.8 (Exceed working pressure 0.1 Mpa at least)		0.25~0.8			0.25~0.8 (Exceed working pressure 0.1 Mpa at least)		0.25~0.8
Port Size	M5/M7 (Not available for VM series)					G1/8				
Working Medium	Clean air(After 40μm filtration)									
Pilot Exhaust Type	Internal pilot type / External pilot type									
Reset Type	air return , air return+spring return									
Lubrication	No required									
Proof Pressure (Mpa)	1.2									
Working Temperature (°C)	-20~70 (No freezing)									
Working Voltage	DC24V									
Voltage Range	± 10%									
Power Consumption	Standard: 0.8W, energy-saving: 0.35W									
Insulation Class	F Class									
Protective Class	IP40 Dust Proof									
Max.acting Frequency	5/2: 5 cycles/s; 5/3: 3 cycles/s									
Activate Time(0.5MPa)	15ms or less					20ms or less				
Weight (g)	55.5	64.5	65	65	68	88	97	98.5	98.5	104

Symbol



Flow Chart



SV Series Solenoid Valve&Valve Terminal



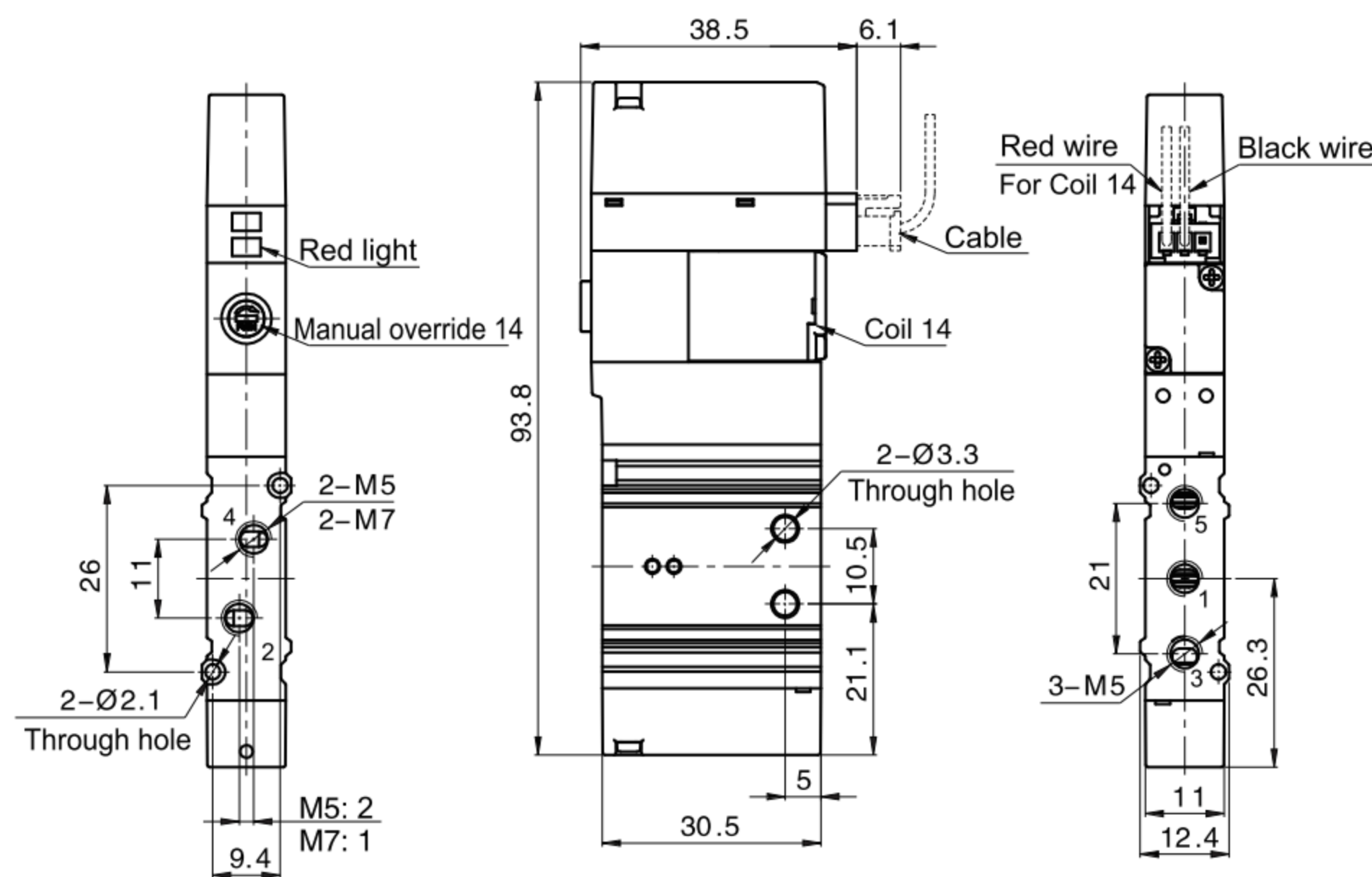
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SV

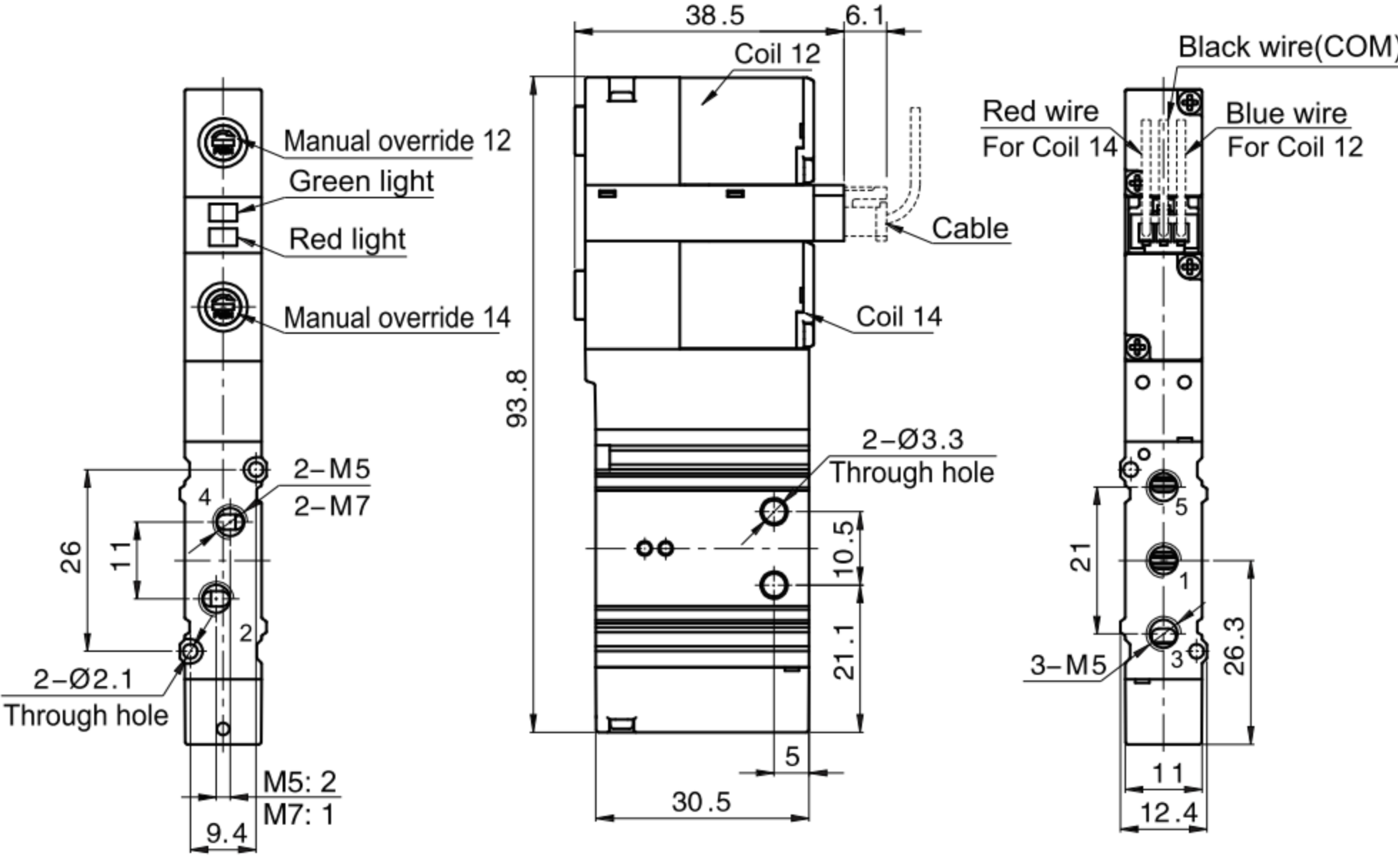
◎ Main Dimension

Solenoid valve

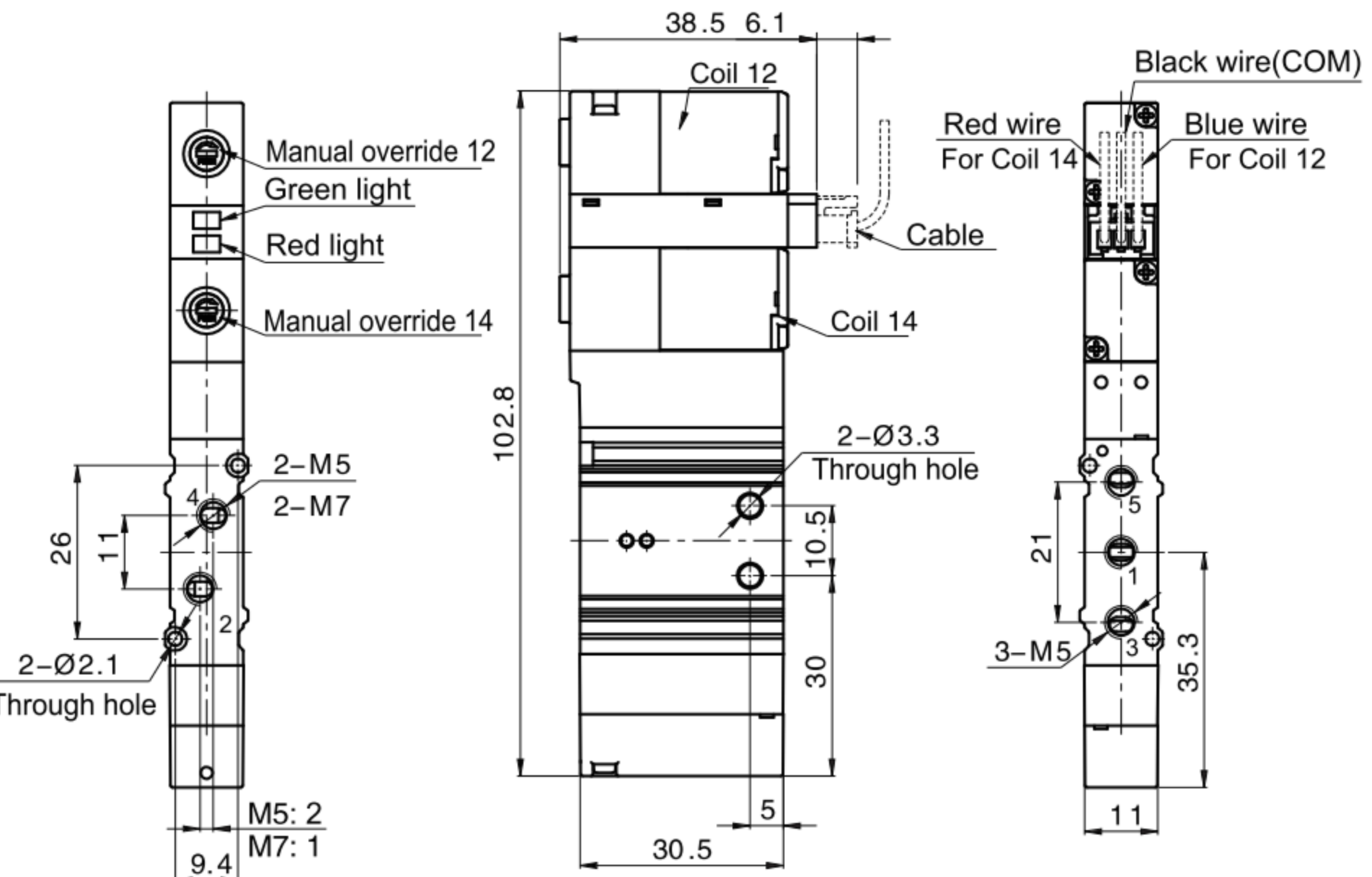
SV5211



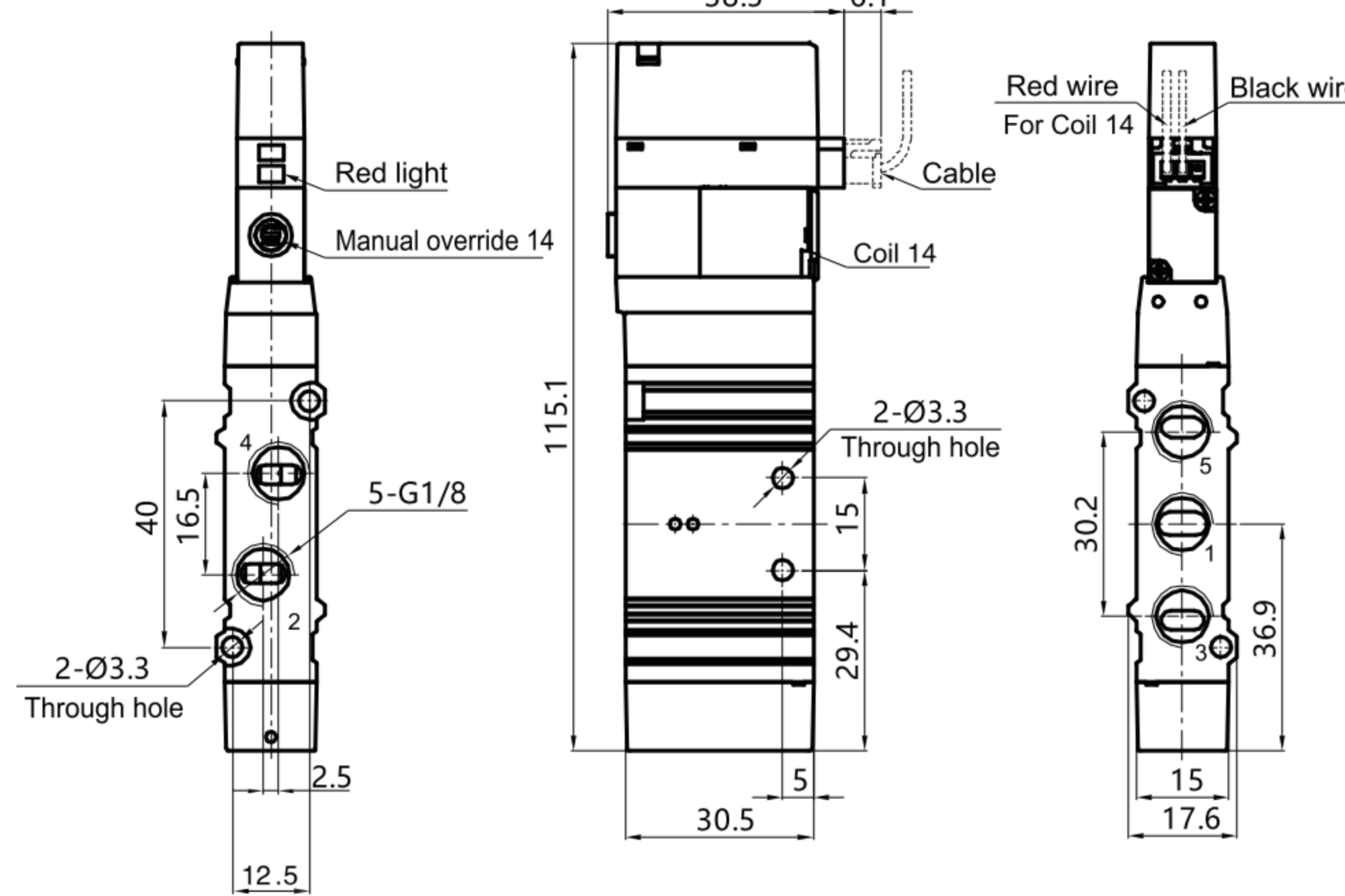
SV5212/SV5412



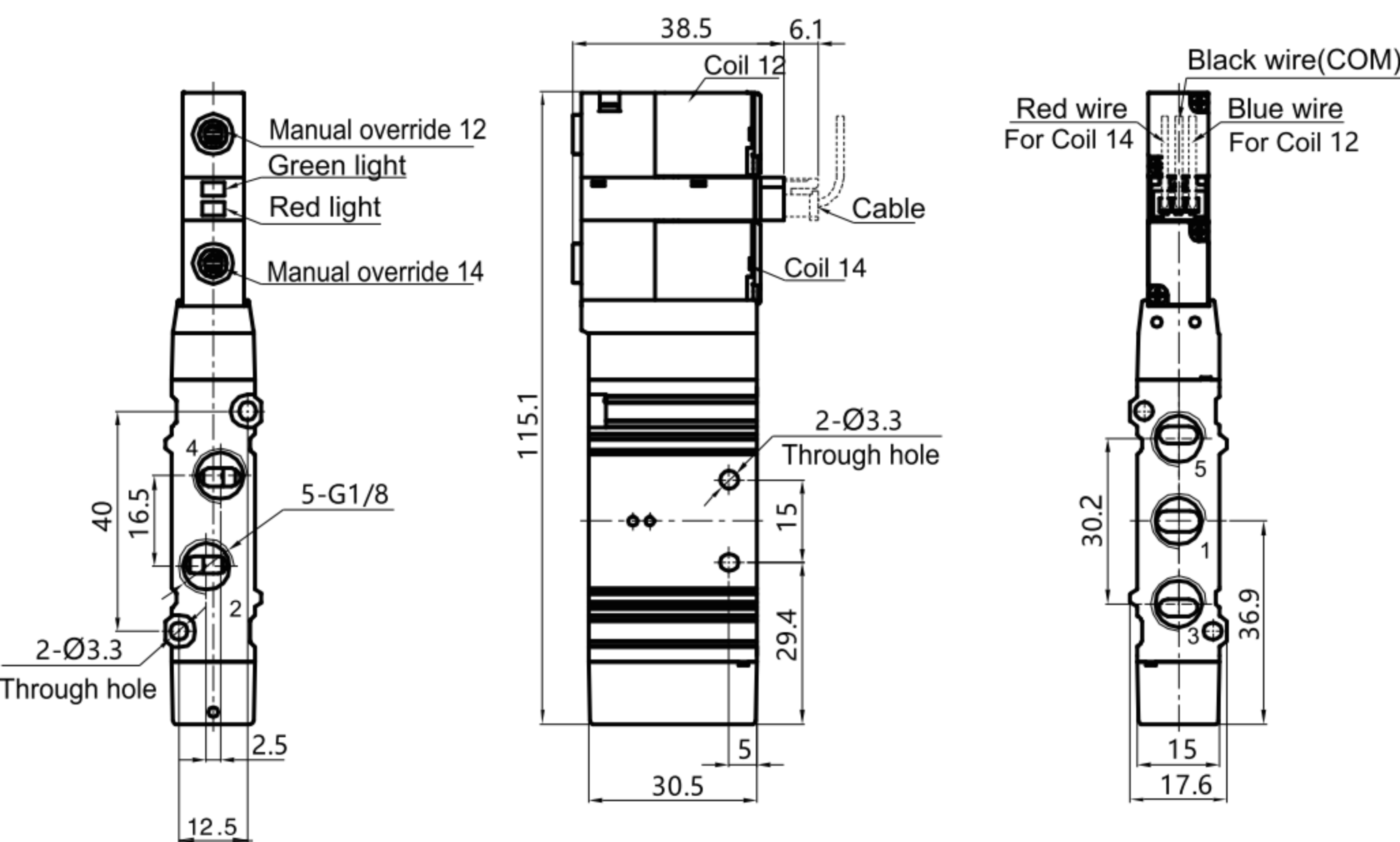
SV5312



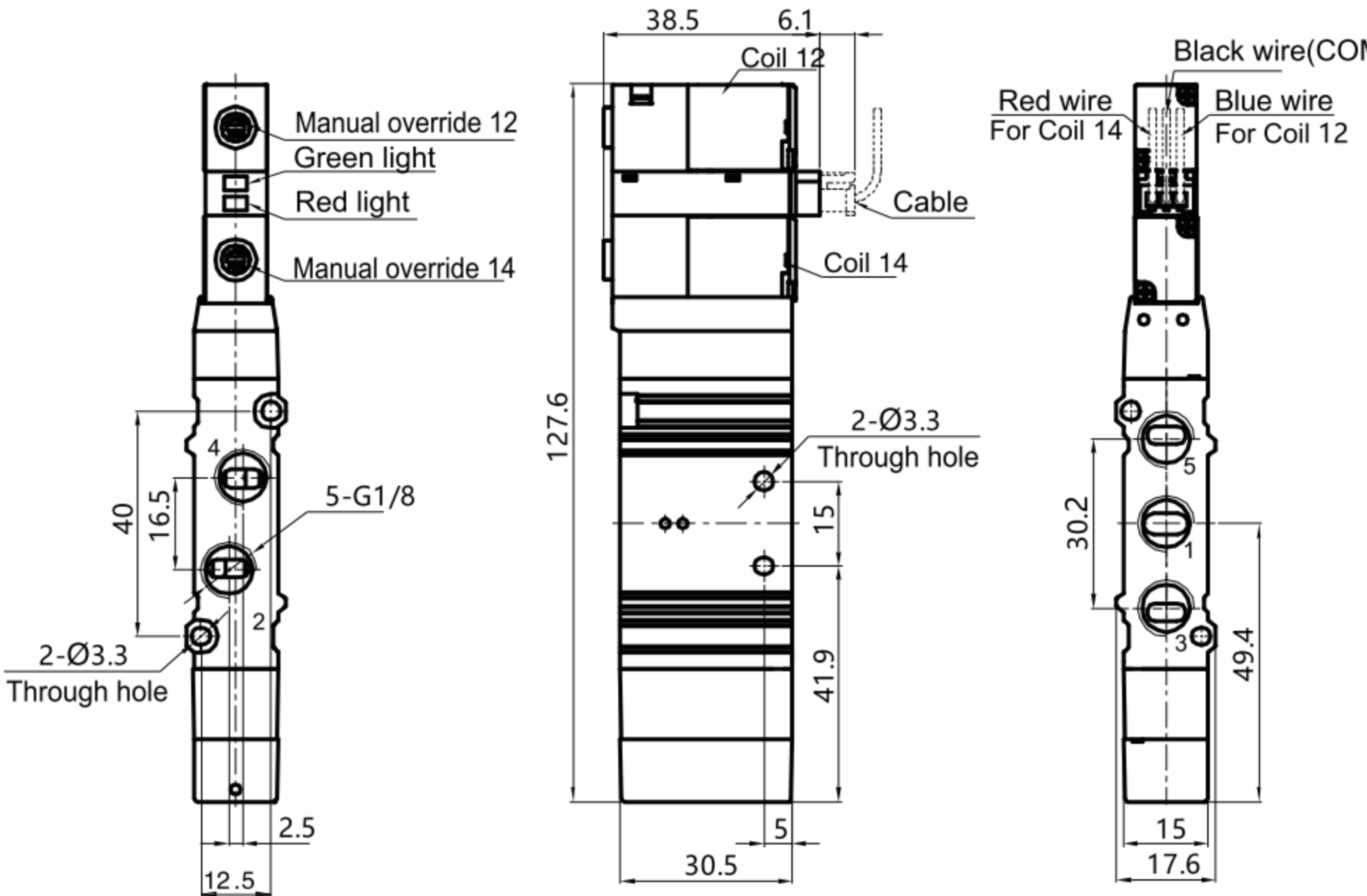
SV5221



SV5222/SV5422

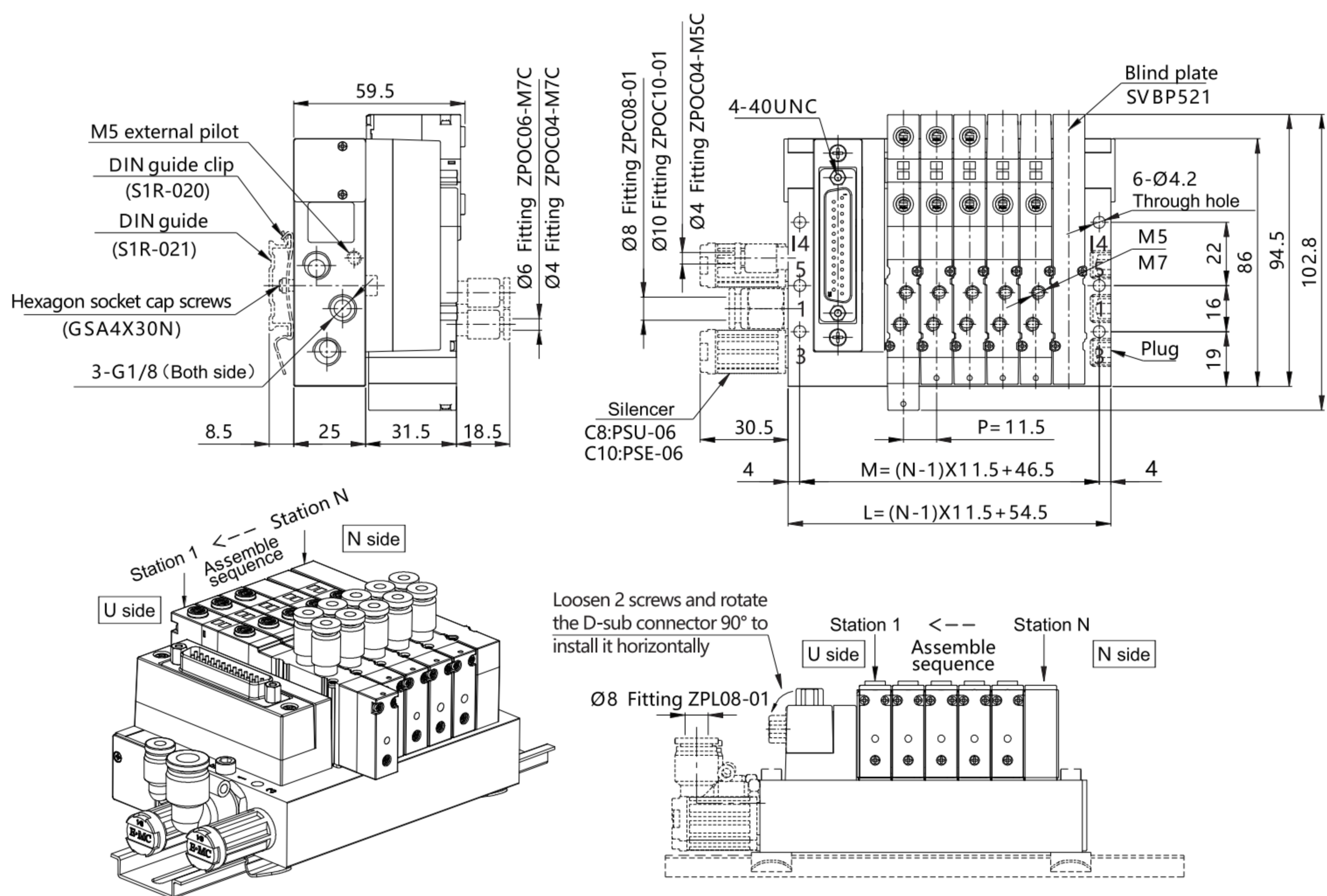


SV5322



Main Dimension

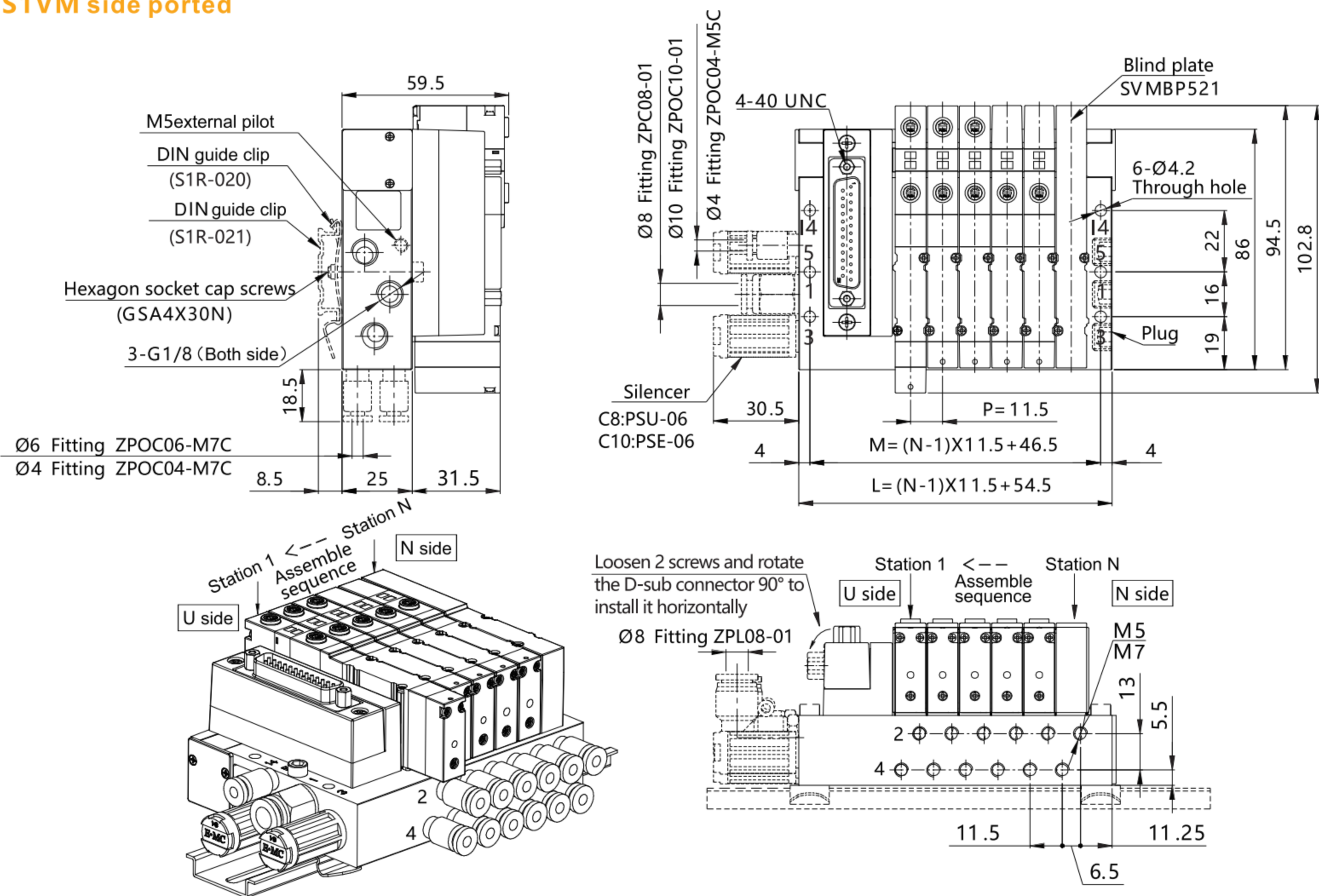
S1V Valve terminal



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5	204	215.5	227	238.5	250	261.5	273	284.5	296	307.5	319
M		58	69.5	81	92.5	104	115.5	127	138.5	150	161.5	173	184.5	196	207.6	219	230.5	242	253.5	265	276.5	288	299.5	311

S1VM side ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5	204	215.5	227	238.5	250	261.5	273	284.5	296	307.5	319
M		58	69.5	81	92.5	104	115.5	127	138.5	150	161.5	173	184.5	196	207.6	219	230.5	242	253.5	265	276.5	288	299.5	311

SV Series Solenoid Valve&Valve Terminal



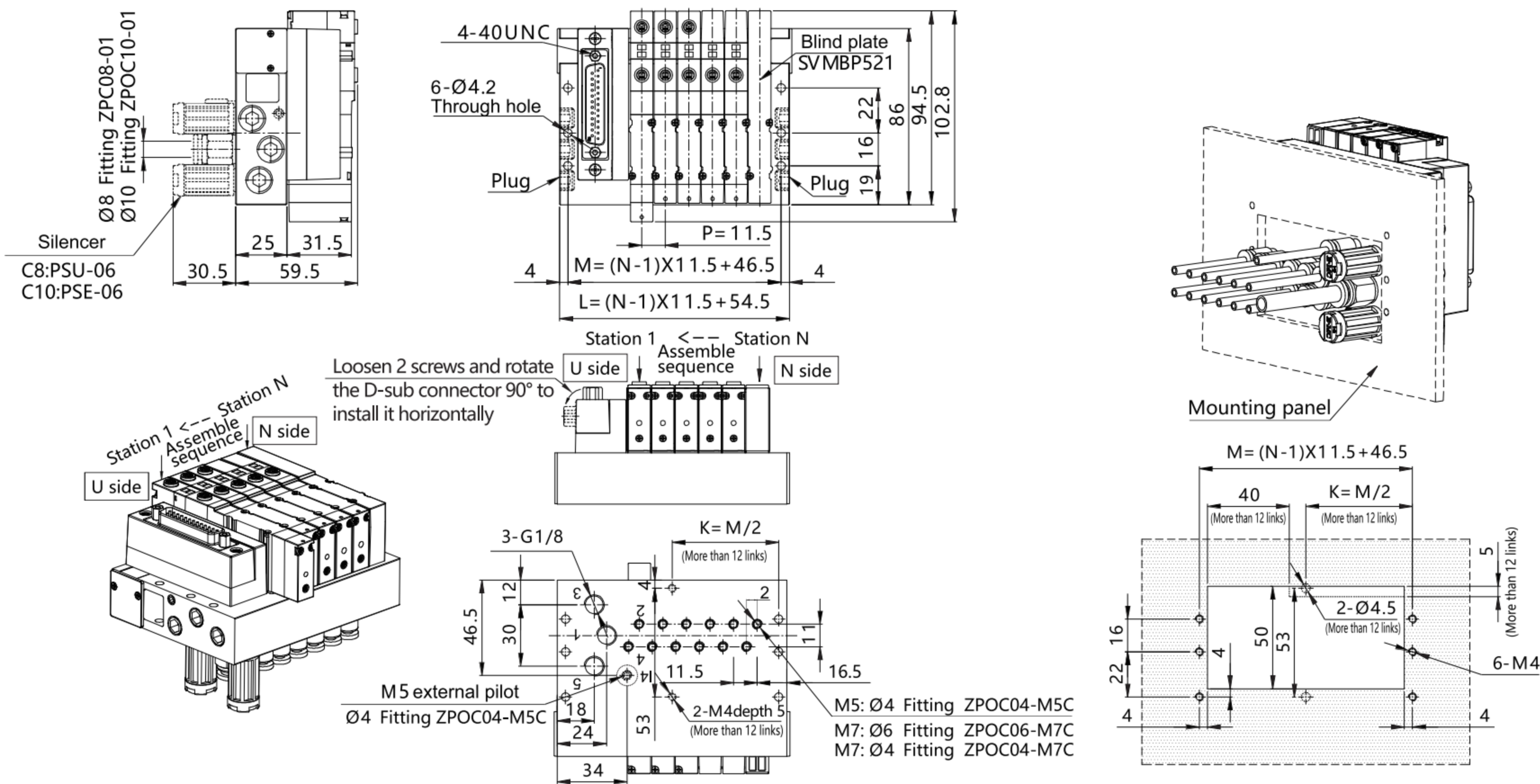
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SV

Main Dimension

SV Valve terminal

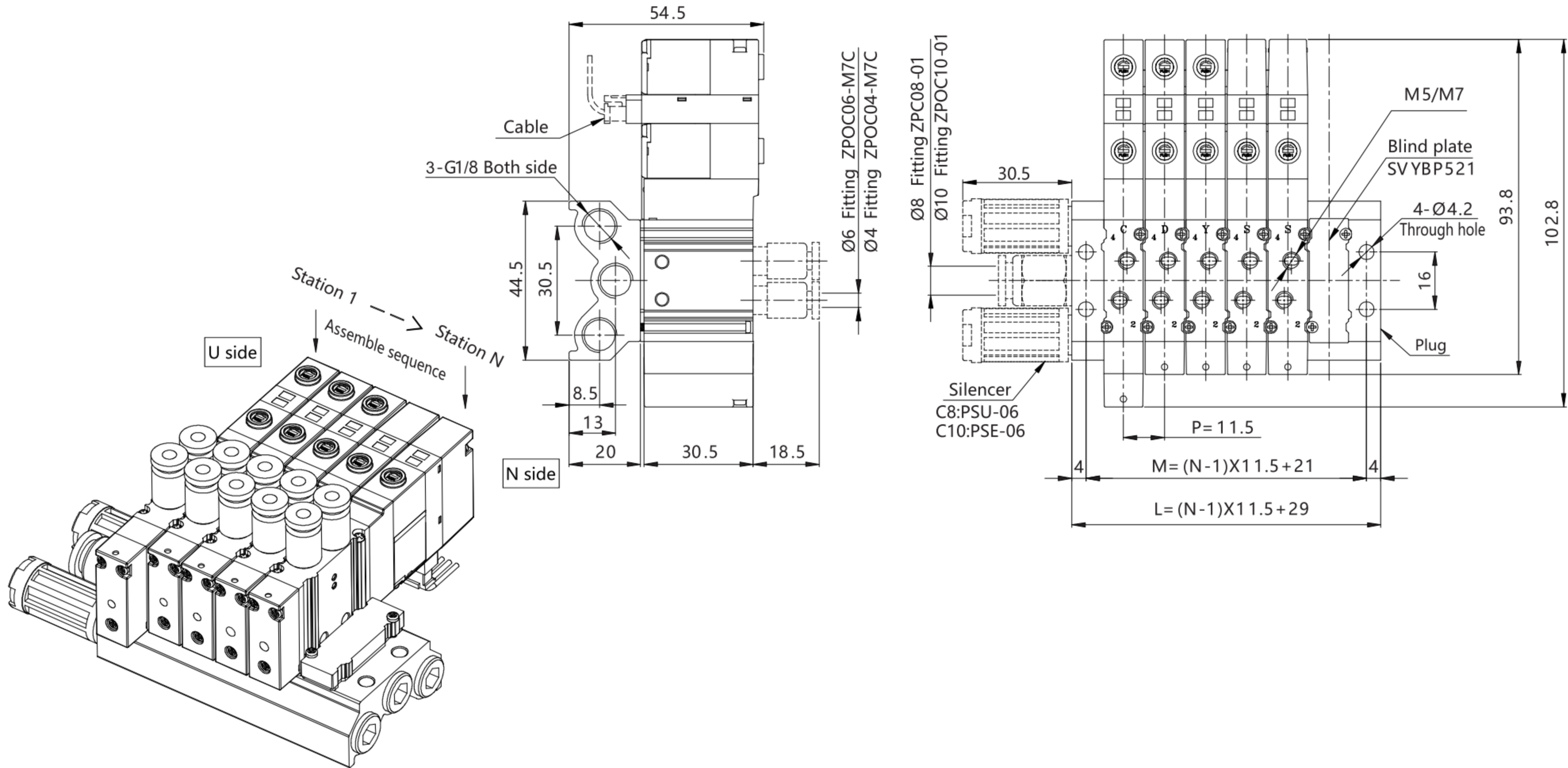
S1VB bottom ported



Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13
L		66	77.5	89	100.5	112	123.5	135	146.5	158	169.5	181	192.5
M		58	69.5	81	92.5	104	115.5	127	138.5	150	161.5	173	184.5
Sign	Model	14	15	16	17	18	19	20	21	22	23	24	
L		204	215.5	227	238.5	250	261.5	273	284.5	296	307.5	319	
M		196	207.6	219	230.5	242	253.5	265	276.5	288	299.5	311	
K		98	103.75	109.5	115.25	121	126.75	132.5	138.25	144	149.75	155.5	

Note: N means valve link

SV521 Valve terminal



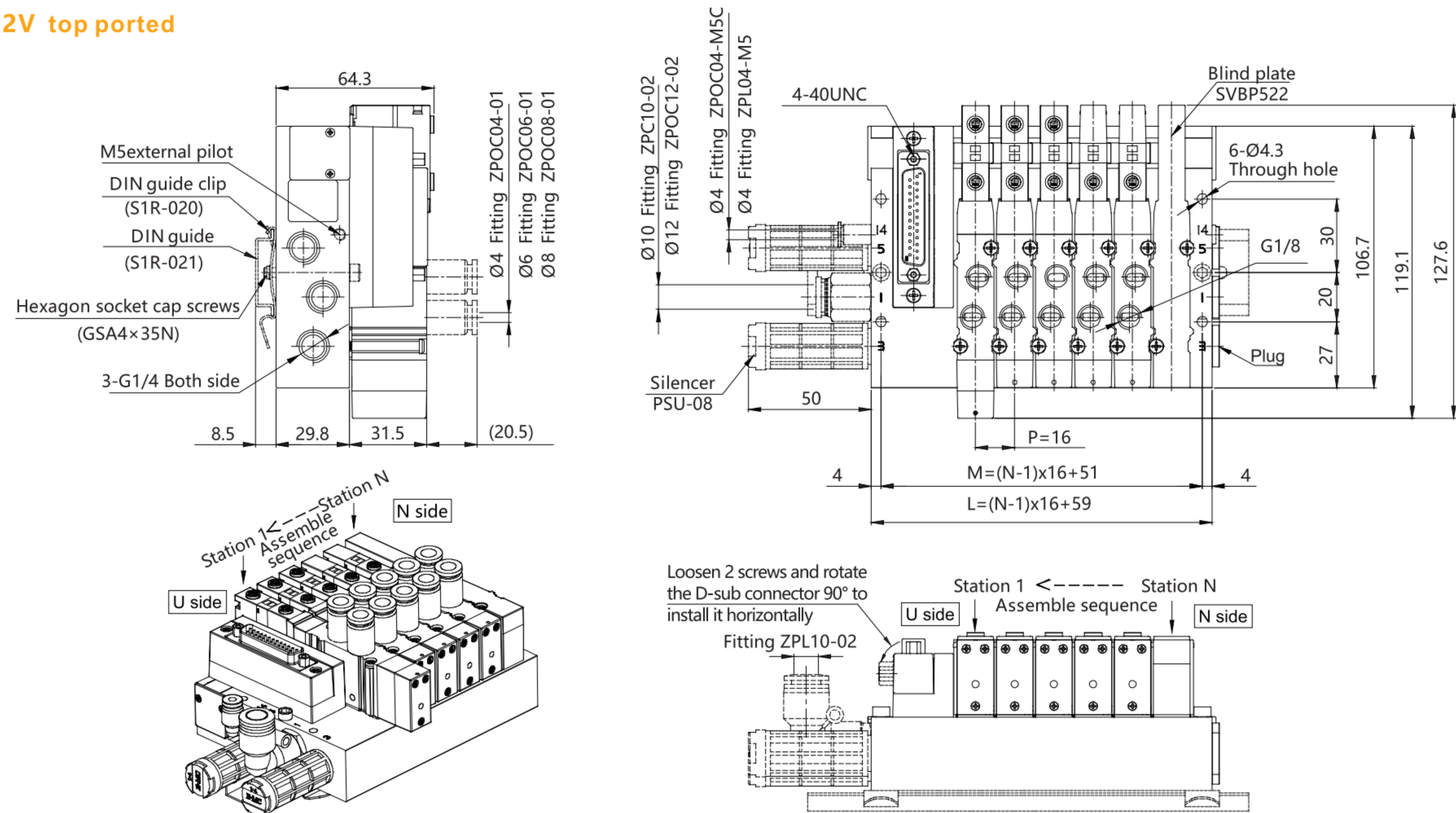
Note: N means valve link

Sign	Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		29	40.5	52	63.5	75	86.5	98	109.5	121	132.5	144	155.5	167	178.5	190	201.5	213	224.5	236	247.5	259	270.5	282	293.5
M		21	32.5	44	55.5	67	78.5	90	101.5	113	124.5	136	147.5	159	170.5	182	193.5	205	216.5	228	239.5	251	262.5	274	285.5

Main Dimension

S2V Valve terminal

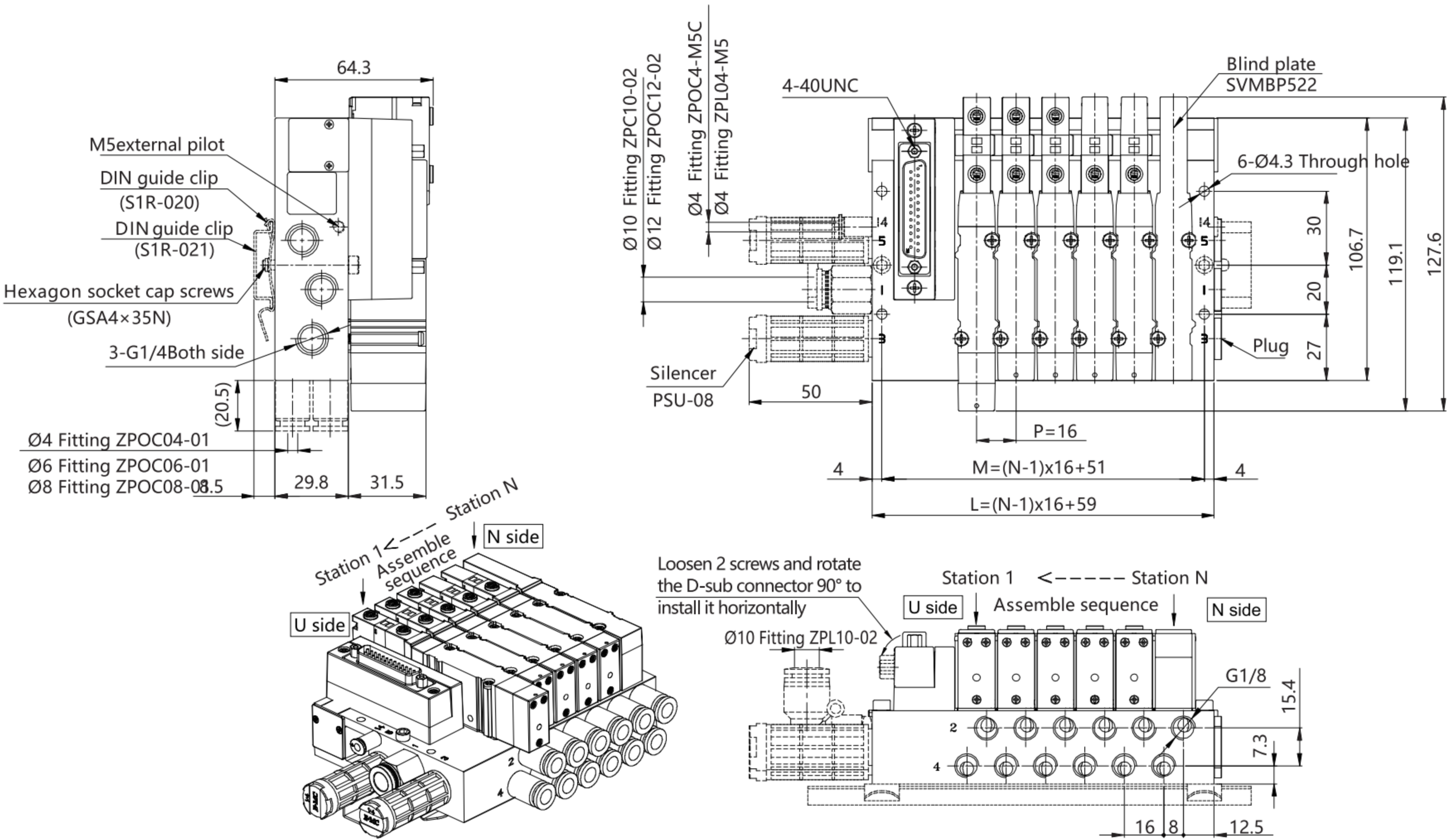
S2V top ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427
M		67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323	339	355	371	387	403	419

S2VM side ported



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427
M		67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323	339	355	371	387	403	419

SV Series Solenoid Valve&Valve Terminal



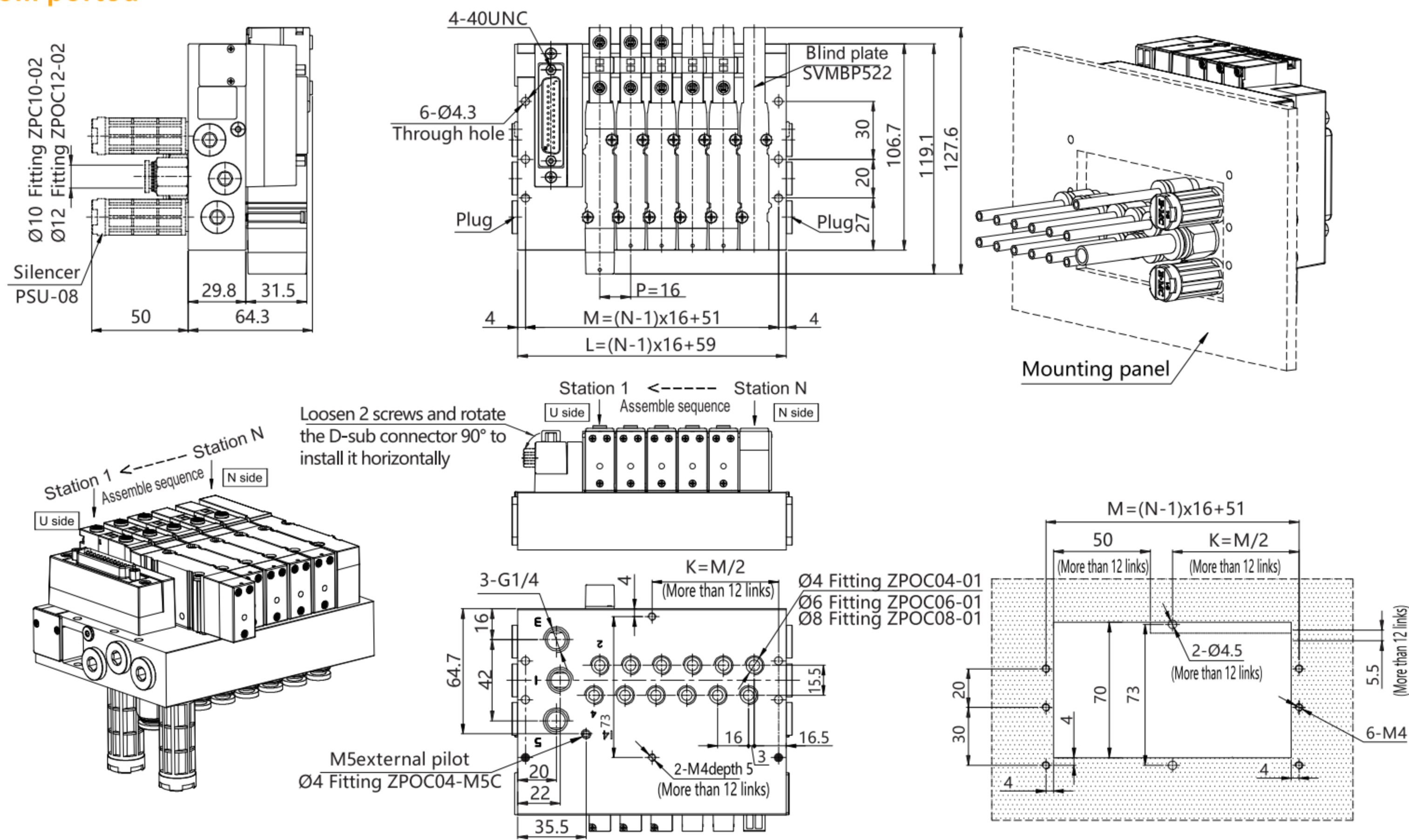
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SV

Main Dimension

S2V Valve terminal

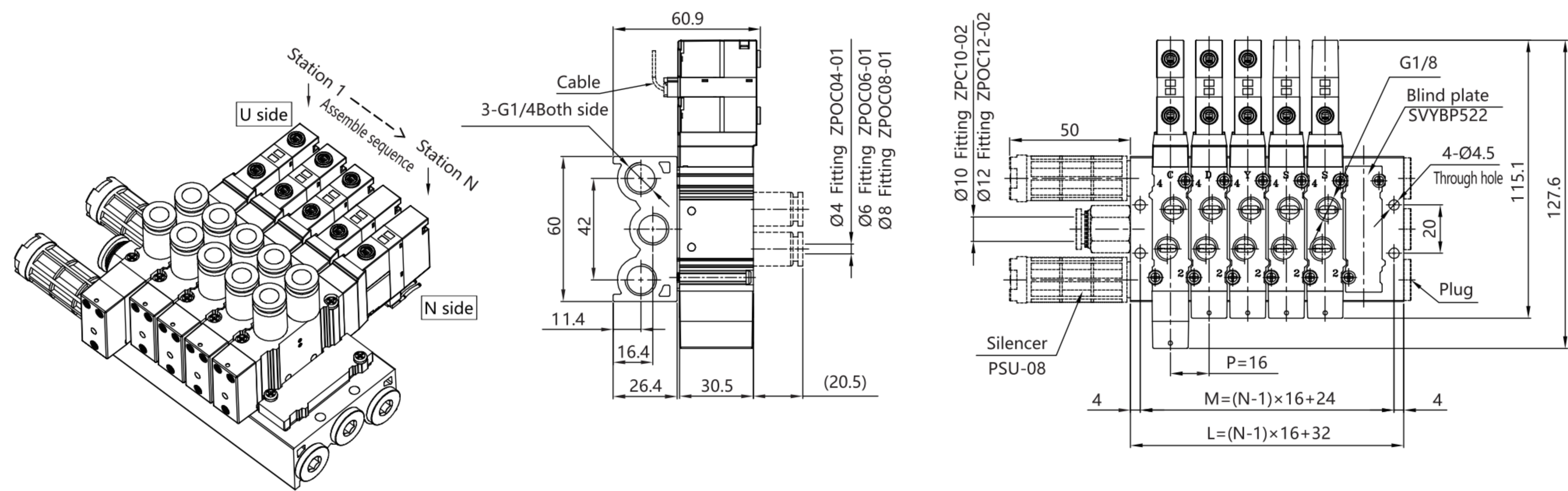
S1VB bottom ported



Sign	Model	2	3	4	5	6	7	8	9	10	11	12	
L		75	91	107	123	139	155	171	187	203	219	235	
M		67	83	99	115	131	147	163	179	195	211	227	
Sign	Model	13	14	15	16	17	18	19	20	21	22	23	24
L		251	267	283	299	315	331	347	363	379	395	411	427
M		243	259	275	291	307	323	339	355	371	387	403	419
K		121.5	129.5	137.5	145.5	153.5	161.5	169.5	177.5	185.5	193.5	201.5	209.5

Note: N means valve link

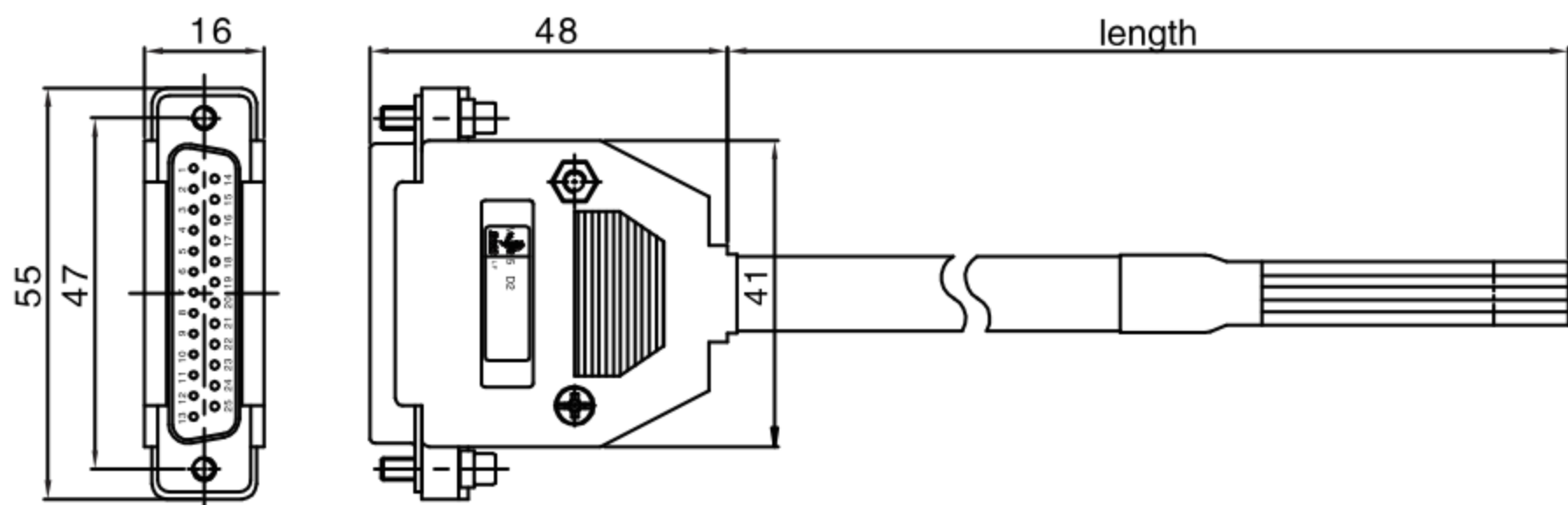
SV521 Valve terminal



Note: N means valve link

Sign	Model	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L		48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400
M		40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328	344	360	376	392

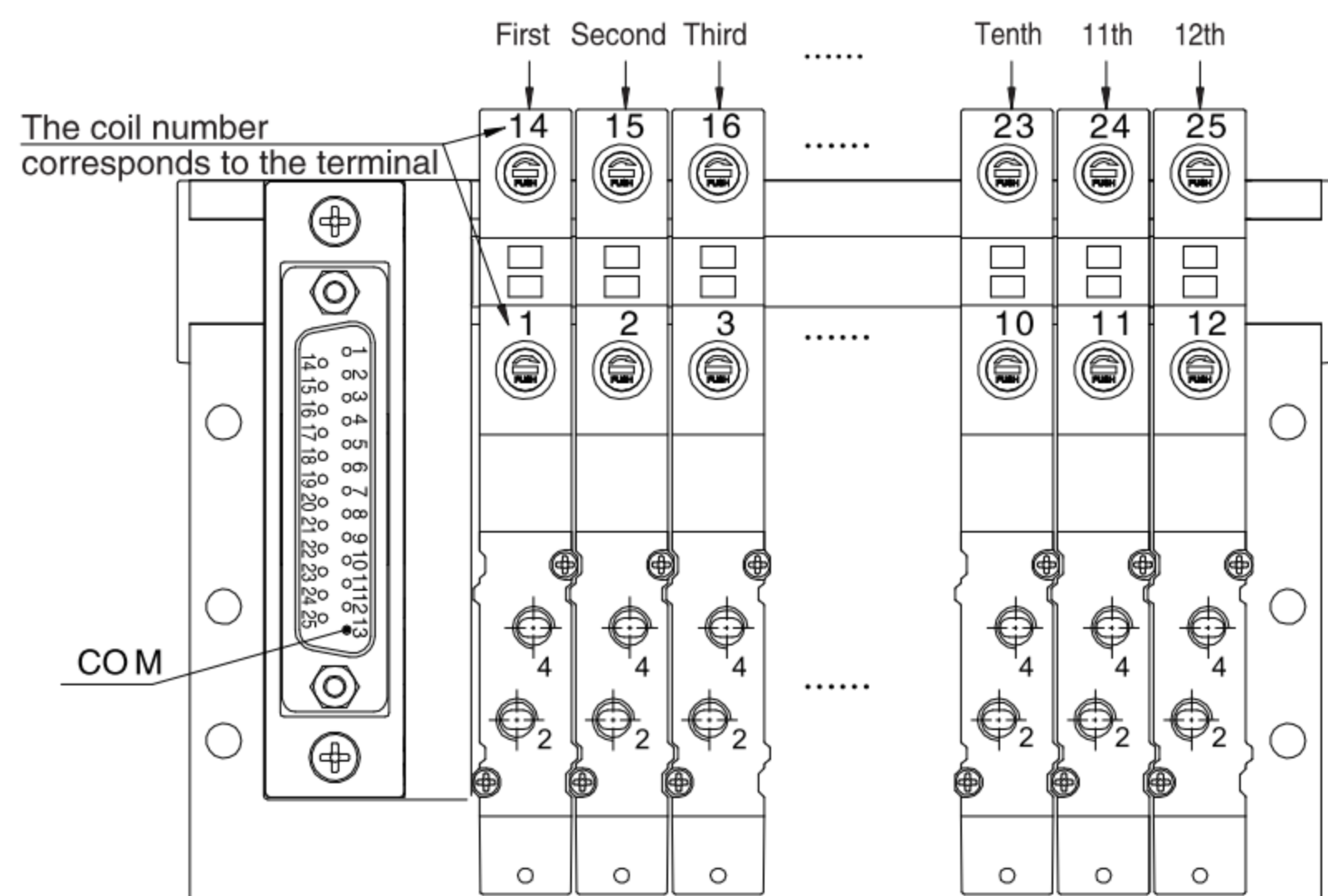
Connector & Cable



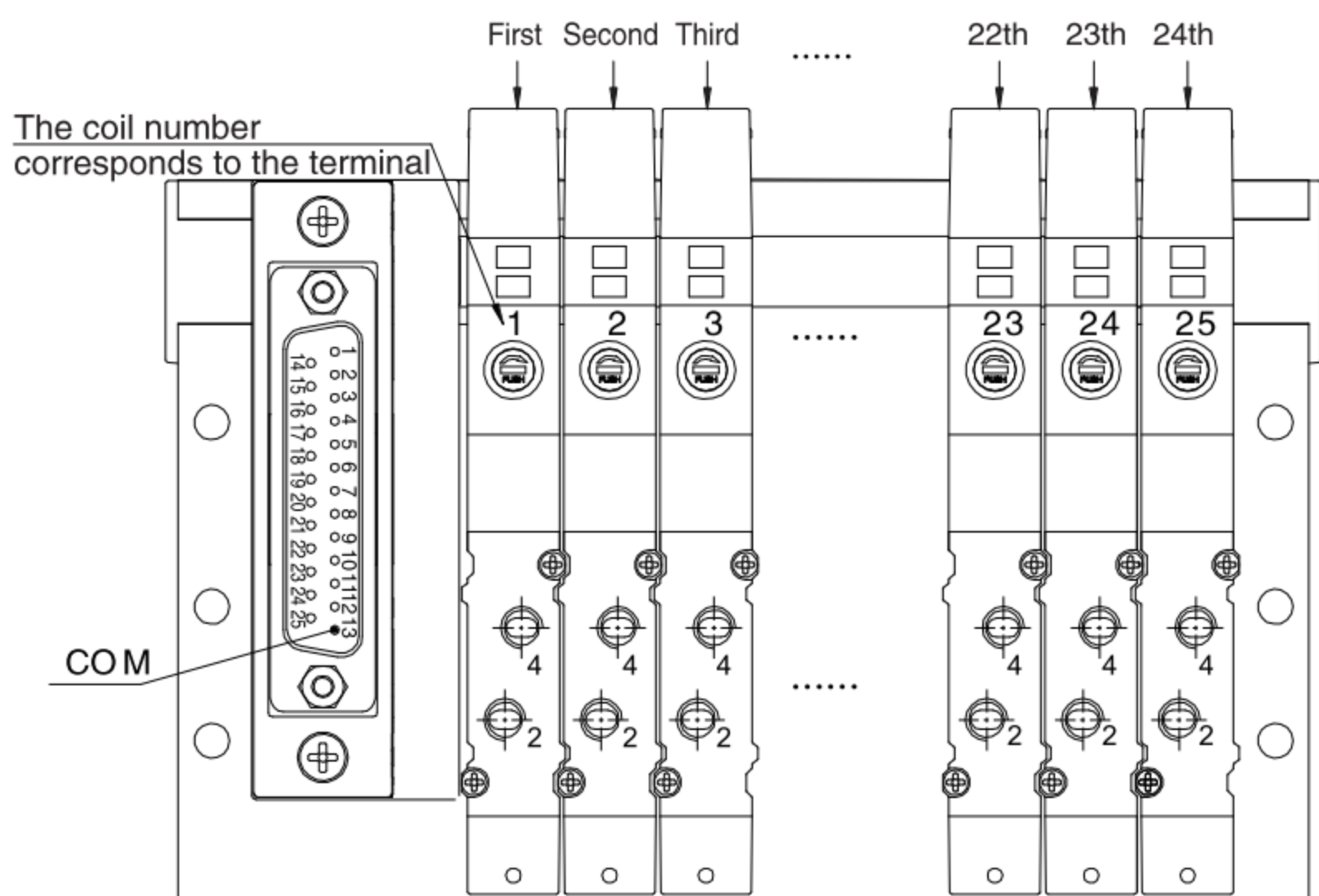
Connector Cable	PIN number	PIN number & Wire Color			
		Wire Color			
		D25-25	D25-15D	D25-15S	D25-08S
	1	Red and Black	Red and Black	Red and Black	Red
	2	Red and White	Red	Red	Yellow
	3	Red	Orange and Black	Orange and Black	Blue
	4	Orange and Black	Orange	Orange	Orange
	5	Orange and White	Yellow and Black	Yellow and Black	Purple
	6	Orange	Yellow	Yellow	Brown
	7	Yellow and Black	Pink	Pink	Green
	8	Yellow	---	Light Green	---
	9	Pink and Black	---	Purple	---
	10	Pink	---	White	---
	11	Blue and White	---	Brown	---
	12	Blue	---	Grey	---
	13(COM)	Black	Black	Black	Black
	14	Green	Blue	Blue	---
	15	Purple and White	Green	Green	---
	16	Purple	Light Green	---	---
	17	Brown and White	Purple	---	---
	18	Brown	White	---	---
	19	Green and Black	Brown	---	---
	20	Dark Grey	Grey	---	---
	21	Grey	---	---	---
	22	White and Black	---	---	---
	23	White	---	---	---
	24	Green and White	---	---	---
	25	Light Green	---	---	---

Valve Terminal Inner Wiring Diagram

Double control wiring
max.12 links



Single control wiring
max.24 links



Installation & Usage Attention

- 1.Do not drop the solenoid valve when it takes out from the box to avoid the damage;
2. Do not hit by external force during installation and adjustment;
3. Do not disassemble when using, once disassembled and reassembled, it may not meet the default setting and leads poor performance;
4. The torque required for relevant parts be showed on right picture.

