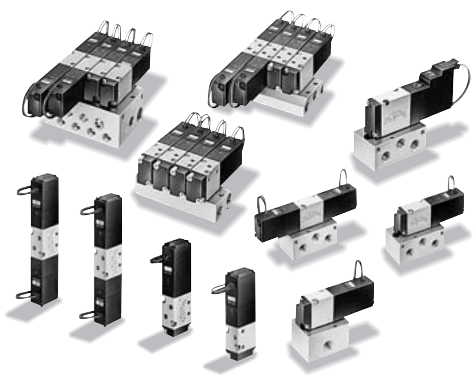
Small-size lubrication-free solenoid valves with valve width of 15 mm and effective sectional area of 4.2 mm² (2-position type)

- Suitable for driving cylinders with bores of up to 32 mm
- As standard devices for protection from power surge, the valves for AC are provided with varistors, and those for DC are provided with flywheel diodes.
- The valves for AC power can be used at 100 to 120 V AC or 200 to 240 V AC available.
- The valves can be wired by various methods, e.g. Q socket, P socket, DIN socket and lead wire methods, and the Q socket, P socket and DIN socket type valves are provided with indicating lamps for easy confirmation as standard devices.
- One touch fittings for 4- and 6-mm dia. valves are standardized.
- Compact tandem type double solenoid valves are available (sub-plate type, Mono-manifold type/24 V DC).



Valve Specifications

Item			3-port		5-port				
			2-position		2-position		3-position		
			Normally closed	Normally open	Return	Detent	3-position closed center	3-position exhaust center	3-position pressure center
Model number	Direct type Easy-manifold		SR332−NNO	SR332−ONO	SR532−RNO	SR532−DNO	SR532−CNO	SR532−ENO	SR532−PNO
	Sub-plate type Mono-manifold		SR332−NMM	SR332−OMM	SR532−RMM	SR532−DMM	SR532−CMM	SR532−EMM	SR532−PMM
JIS symbol									
Port size	Direct type	P·A·B	Direct screw piping type: M5×0.8 With one touch fittings: φ4 and φ6 (tube outer dia.)						
		R1·R2							
	Sub-plate type	P·A·B	Direct screw piping type: Rc1/8						
		R1·R2							
Effective sectional area	Direct		4.2mm²				3.8mm²		
	Sub-plate Sub-plate/tandem type		4.0mm²				3.6mm²		
Working fluid			Air						
Lubrication			Unnecessary						
Working pressure range			0.15 to 0.7 MPa						
Proof test pressure			1.05 MPa						
Note 1) Response time In ON/OFF state	24 V DC, 12 V DC		15/20 ms or less		15/20 ms or less	15 ms or less	15/30 ms or less		
	100 V AC, 200 V AC		15/15 ms or less		15/15 ms or less	15 ms or less	15/20 ms or less		
Working temperature range			+5 to +50℃ (ambient temperature and fluid temperature)						
Manual override			Pushing						
Installing direction			Free						
Vibration resistance/impact resistance			1373.0m/s² (294.2 m/s² in axial direction)				294.2m/s²		
Recommended lubricant			JIS K2213 Class 1 (additive-free turbine oil ISO VG32) or its equivalent						
Note 2) Weight (g)	Direct type Easy-manifold		75		80	125	145		
	Sub-plate type Mono-manifold		80 (180)		85 (180)	130 (225) Tandem type110 (205)	150 (245): Tandem type120 (215)		

Notes 1) Values at an air pressure of 0.5 MPa. The values were obtained at the opposite positions in the case of 2-position valves or in the valve neutral state in the case of 3-position valves.

Notes 2) The parenthesized weight includes the weight of the sub-plate.

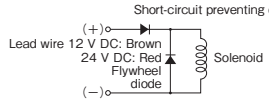
Electrical Specifications

Rated voltage		12 V DC	24 V DC	100 V AC		200 V AC		24 V DC (tandem solenoid)
Type		Flywheel diode against surge		Shading type				Built-in surge absorbing transistor
Working voltage range V		10.8 to 13.2 (12±10%)	21.6 to 26.4 (24±10%)	90 to 132 (100$^{+32}_{-10}$%)		180 to 264 (200$^{+32}_{-10}$%)		21.6 to 26.4 (24±10%)
Current value (when rated voltage is applied)	Frequency Hz	—	—	50	60	50	60	—
	Starting mA (r.m.s)	—	—	36	32	18	16	—
	Exciting mA (r.m.s)	140 (1.7W)	75 (1.8W)	24	20	12	10	50 (1.2W)
Allowable circuit leakage current value mA		8	4	4		2		2
Insulation resistance MΩ		100 or more						
Wiring method and lead wire length		Lead wire type: 300 mm, P/Q socket type: 300 mm (standard)						P/Q socket type: 300 mm (standard)
Note) Lead wire color		Brown : + Black : −	Red : + Black : −	Yellow		White		Red (SA) Black (COM) White (SB)
Color of LED indicator		Red		Yellow		Green		Red
Measures against surge (standard device)		Flywheel diode		Varistor				Surge absorbing transistor

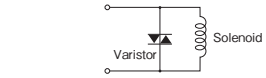
Electric circuit

Lead wire type

For 12 V DC and 24 V DC

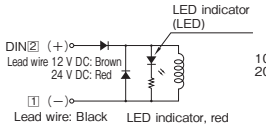


For 100 V AC and 200 V AC

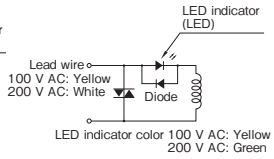


Q socket type
P socket type
DIN socket type

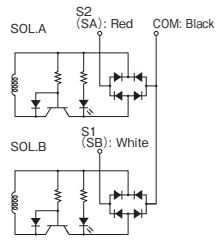
For 12 V DC and 24 V DC



For 100 V AC and 200 V AC



24 V DC (tandem solenoid)



Note) The 1 and 3m lead wires (code: 1L and 3L, optional) of the P socket and Q socket type valves are in red and black.

Manifold Specifications

Name		Mono-manifold		Easy-manifold	
Type		Direct screw piping type	With one touch fittings	Direct screw piping type	With one touch fittings
Model number		MF332M・MF532M		MF332E・MF532E	
Max. number of stations		20 stations		20 stations	
Standard number of stations		2・4・6・8・10		2・4・6・8・10	
Exhaust type		Common exhaust type			
Port size	P·R1·R2·R	P: Rc1/8 R: 1/4		P, R_1, R_2: Rc1/8	
	A·B	Rc1/8	φ4・φ6	M5×0.8 (valve piping)	φ4・φ6
Piping specification		Side piping		Front piping (valve piping)	

Valve Specifications

Item \ Model		3-port		5-port				
		2-position		2-position type		3-position		
		Normally closed	Normally open	Return	Detent	3-position closed center	3-position exhaust center	3-position pressure center
Model number	Direct type Easy-manifold	SR332−NNO	SR332−ONO	SR532−RNO	SR532−DNO	SR532−CNO	SR532−ENO	SR532−PNO
	Sub-plate type Mono-manifold	SR332−NMM	SR332−OMM	SR532−RMM	SR532−DMM	SR532−CMM	SR532−EMM	SR532−PMM
Weight g	Direct type Easy-manifold	75		80	125	145		
	Sub-plate type Mono-manifold	80(180)		85(180)	130(225) Tandem type 110(205)	150(245): Tandem type 120(215)		

● The parenthesized weight includes the weight of the sub-plate.

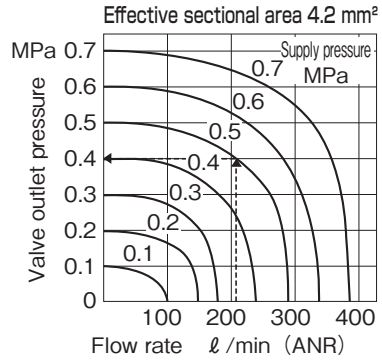
Manifold Weight

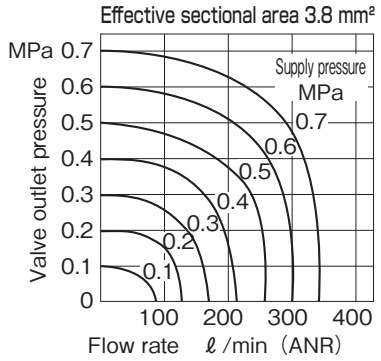
Unit: g

Name \ Number of stations		2	4	6	8	10
Mono-manifold	MF332M−＊＊A	135	225	315	405	495
	MF332M−＊＊C	151	257	363	469	575
	MF332M−＊＊E	145	245	345	445	545
Easy-manifold	MF332E−＊＊S	60	90	120	150	180
Mono-manifold	MF532M−＊＊A	180	300	420	540	660
	MF532M−＊＊C	194	328	462	596	730
	MF532M−＊＊E	188	316	444	572	700
Easy-manifold	MF532E−＊＊S	70	110	150	190	230

● Add the valve weight to the manifold weight.

Flow Characteristic Curves





How to read the chart

When the flow rate is 210 ℓ/min (ANR) at a supply pressure of 0.5 MPa, the valve outlet pressure is 0.4 MPa.

■How to order valve only (3-port)

●Model number of valve only

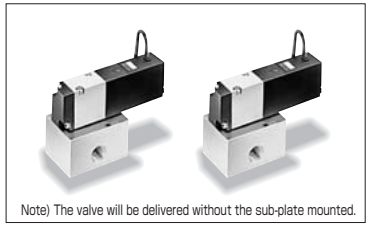
Direct type (port size M5)
Easy manifold

SR332- N NO 1 RK -1L - F

Series

Mounting plate
No symbol: None
F: With mounting plate

Sub-plate type (port size Rc1/8)
Mono-manifold



Note) The valve will be delivered without the sub-plate mounted.

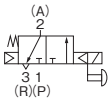
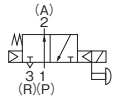
SR332- N MM 1 RK -1L - SP

Series

Sub-plate
No symbol: None
SP: With sub-plate

Lead wire length
No symbol: Standard (300 mm)
1L: 1000 mm (order made)
3L: 3000 mm (order made)
Note) Only Q and P socket types. All lead wires are in red and black.

● Switching method

Symbol	Switching method
N	Normally closed 
O	Normally open 

● Port size (standard)

Symbol	Port size
NO	Direct screw piping type M5×0.8
MM	For sub-plate/ Mono-manifold
Port size (option)	
VA	OD of tube with joint on secondary side ϕ4
VB	OD of tube with joint on secondary side ϕ6
WA	OD of tube with joints on both sides ϕ4
WB	OD of tube with joints on both sides ϕ6

● Voltage (standard)

Symbol	Voltage
1	AC100V $^{+32}_{-10}$% (Lead wire color: yellow)
2	AC200V $^{+32}_{-10}$% (Lead wire color: white)
8	DC24V±10% (Lead wire color: ⊕red, ⊖black)
Voltage (option)	
6	DC12V±10% (Lead wire color: ⊕brown, ⊖black)
9	Other voltages

● Wiring method

Symbol	Wiring method	
RK	Lead wire type With protective circuit	
QW	Q socket type With indicating lamp/protective circuit	
PW	P socket type With indicating lamp/protective circuit	
DW	DIN socket type With indicating lamp/protective circuit	

Note) Valves with one touch fittings do not have the two 3.2-mm dia. side mounting holes.

How to order manifold

●Model number of Mono-manifold

MF332M- 04 A

Series

● No. of manifold stations

Symbol	No. of stations
02	2 stations
04	4 stations
06	6 stations
08	8 stations
10	10 stations

● Piping method

Symbol	Piping method
A	Side piping (direct screw piping type)
C	Side piping (with one touch fittings: ϕ4)
E	Side piping (with one touch fittings: ϕ6)

●Model number of Easy-manifold

MF332E- 04 S

Series

● No. of manifold stations

Symbol	No. of stations
02	2 stations
04	4 stations
06	6 stations
08	8 stations
10	10 stations

How to order valve for manifold

●Mono-manifold

SR332- N MM 1 QW -1L

Series — For Mono-manifold

Note) For details, see "How to order valve only."

●Easy-manifold

SR332- N NO 1 QW -1L

Series

Port size
NO : Direct screw piping type (M5)
VA : With one touch fittings (ϕ4)
VB : With one touch fittings (ϕ6)

Note) For details, see "How to order valve only."

■How to order seal plate SZZ

MF332-MS (for Mono-manifold)
MF332-ES (for Easy-manifold)

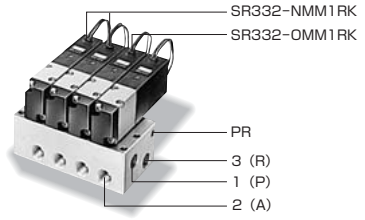
■How to order gasket and bolt set SZZ

MF332-MGBS (for Mono-manifold)
MF332-EGBS (for Easy-manifold)

Note) Easy-manifold valves will not come with manifold mounting gaskets and bolts. When adding a valve to a manifold, place an order for a gasket and bolt set at the same time.

How to order manifold

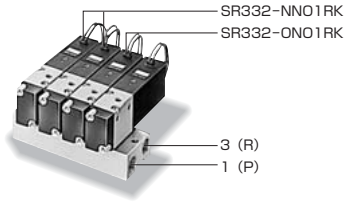
●Mono-manifold



●A 4-station Mono-manifold type is shown as follows.

	Qty.
●Manifold body	
MF332M-04A	1
●Valve block	
SR332-NMM1RK	2
SR332-OMM1RK	2

●Easy-manifold



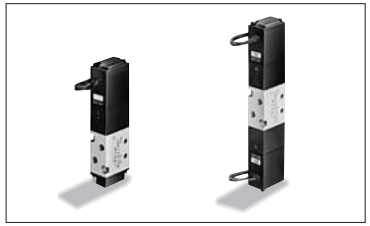
●A 4-station Easy-manifold type is shown as follows.

	Qty.
●Manifold body	
MF332E-04S	1
●Valve block	
SR332-NNO1RK	2
SR332-ONO1RK	2

■How to order valve only (5-port)

● Model number of valve only

Direct type (port size M5)
Easy manifold

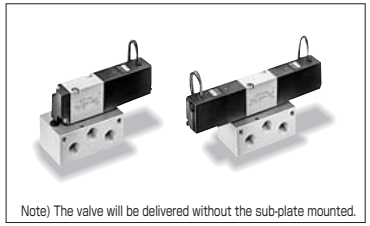


SR532- R NO 1 RK -1L - F

Series

Mounting plate
No symbol: None
F: With mounting plate
Note) Only return type

Sub-plate type (port size Rc1/8)
Mono-manifold



Note) The valve will be delivered without the sub-plate mounted.

SR532- R MM 1 RK -1L - SP

Series

Sub-plate
No symbol: None
SP: With sub-plate

Lead wire length
No symbol: Standard (300 mm)
1L: 1000 mm (order made)
3L: 3000 mm (order made)
Note) Only Q and P socket types. All lead wires are in red and black.

● Switching method

Symbol	Switching method
R	Return (B)(A) 2 4 / 3 1 5 (R2)(P)(R1)
D	Detent (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2
C	Closed center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2
E	Exhaust center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2
P	Pressure center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2

● Port size (standard)

Symbol	Port size
NO	Direct screw piping type M5×0.8
MM	For sub-plate/ Mono-manifold
Port size (option)	
VA	OD of tube with joint on secondary side ϕ4
VB	OD of tube with joint on secondary side ϕ6
WA	OD of tube with joints on both sides ϕ4
WB	OD of tube with joints on both sides ϕ6

Note) Valves with joints on both sides (WA and WB) come only in the return type.
Valves with one touch fittings do not have the two 3.2-mm dia. side mounting holes.

● Voltage (standard)

Symbol	Voltage
1	AC100V +32 −10 % (Lead wire color: yellow)
2	AC200V +32 −10 % (Lead wire color: white)
8	DC24V±10% (Lead wire color: ⊕red, ⊖black)
Voltage (option)	
6	DC12V±10% (Lead wire color: ⊕brown, ⊖black)
9	Other voltages

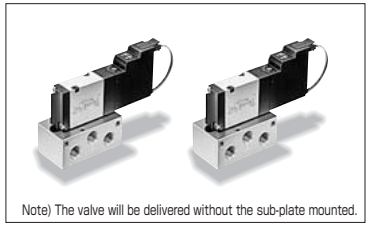
● Wiring method

Symbol	Wiring method
RK	Lead wire type With protective circuit
QW	Q socket type With indicating lamp/protective circuit
PW	P socket type With indicating lamp/protective circuit
DW	DIN socket type With indicating lamp/protective circuit

■How to order valve only (5-port)

● Model number of valve only

Tandem solenoid (port size Rc1/8)
Mono-manifold



Note) The valve will be delivered without the sub-plate mounted.

SR532- D DM 8 QW -1D - SP

Series

Tandem type

Sub-plate
No symbol: None
SP: With sub-plate

Lead wire length
No symbol: Standard (300 mm)
1D: 1000 mm (order made)
3D: 3000 mm (order made)
Note) The lead wires are in red, white and black.

● Switching method

Symbol	Switching method
D	Detent (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2 (SB) (SA)
C	Closed center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2 (SB) (SA)
E	Exhaust center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2 (SB) (SA)
P	Pressure center (B)(A) 2 4 / S1 3 1 5 (R2)(P)(R1) S2 (SB) (SA)

● Voltage

Symbol	Voltage
8	DC24V±10% (Lead wire color: SA: red, SB: white, COM: black)

● Wiring method

Symbol	Wiring method
QW	Q socket type With indicating lamp/protective circuit
PW	P socket type With indicating lamp/protective circuit

How to order manifold

●Model number of Mono-manifold

MF532M- 04 A

Series

No. of manifold stations

Symbol	No. of stations
02	2 stations
04	4 stations
06	6 stations
08	8 stations
10	10 stations

Piping method

Symbol	Piping method
A	Side piping (direct screw piping type)
C	Side piping (with one touch fittings: φ4)
E	Side piping (with one touch fittings: φ6)

How to order valve for Mono-manifold

●Single/double solenoid

SR532- R MM 1 QW - 1L

Series — For Mono-manifold

●Tandem solenoid

SR532- D DM 8 QW - 1D

Series — Tandem type

Note) For details, see "How to order valve only."

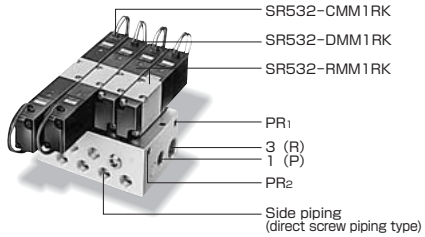
■How to order seal plate SZZ

MF532-MS

■How to order gasket and bolt set SZZ

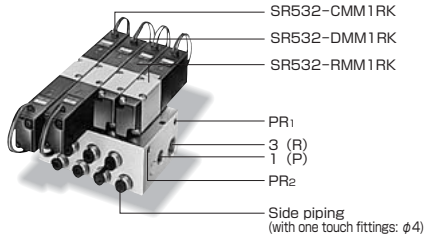
MF532-MGBS

How to order Mono-manifold (5-port)



●A 4-station Mono-manifold is shown as follows.

●Manifold body	Qty.
MF532M-04A	1
●Valve block	
SR532-CMM1RK	1
SR532-DMM1RK	1
SR532-RMM1RK	2



●A 4-station Mono-manifold is shown as follows.

●Manifold body	Qty.
MF532M-04C	1
●Valve block	
SR532-CMM1RK	1
SR532-DMM1RK	1
SR532-RMM1RK	2

How to order manifold

●Model number of Easy-manifold

MF532E- 04 S

Series

No. of manifold stations

Symbol	No. of stations
02	2 stations
04	4 stations
06	6 stations
08	8 stations
10	10 stations

How to order valve for Easy-manifold

●Single/double solenoid

SR532- R NO 1 QW - 1L

Series

Port size
NO: Direct screw piping type (M5)
VA: With one touch fittings (φ4)
VB: With one touch fittings (φ6)

Note) The above three port sizes are available.

Note) For details, see "How to order valve only."

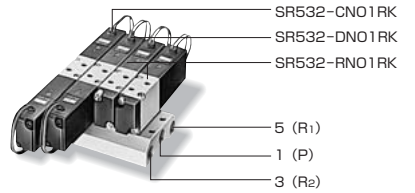
■How to order seal plate SZZ

MF532-ES

■How to order gasket and bolt set SZZ

MF532-EGBS

How to order Easy-manifold (5-port)



●A 4-station Easy-manifold is shown as follows.

●Manifold body	Qty.
MF532E-04S	1
●Valve block	
SR532-CNO1RK	1
SR532-DNO1RK	1
SR532-RNO1RK	2

Note) The valve will be delivered without the manifold mounted.

Note) Easy-manifold valves will not come with manifold mounting gaskets and bolts. When adding a valve to a manifold, place an order for a gasket and bolt set at the same time.

■Related products: Joints and silencers

More compact piping is enabled.

●One touch fittings

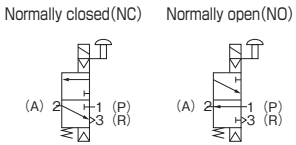
For M5		For Rc1/8	
Tube OD	Model number	Tube OD	Model number
φ4	M4-M5M	φ4	M4-01M
φ6	M6-M5M	φ6	M6-01M
		φ8	F8-01MS

●Silencer

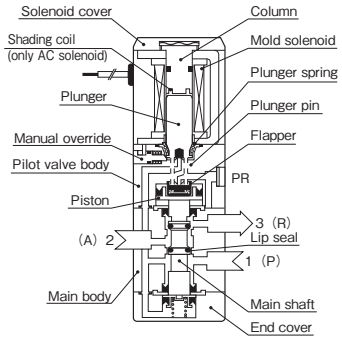
For M5	For Rc1/8
Model number	Model number
SA2-M5	SA2-06 (G1/8)

Sectional Drawings

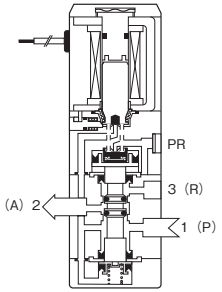
■3-port



SR332−NNO
(Normally closed)
In non-energized state



SR332−ONO
(Normally open)
In non-energized state

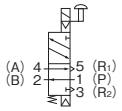


Materials of Major Parts

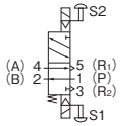
Name		Material
Valve	Main body	Aluminum alloy (alumite)
	Main shaft	
	Lip seal	Synthetic rubber (NBR)
	Flapper	
	Mounting base	Mild steel(galvanized)
	Sub-base	Aluminum alloy (alumite)
	Plunger	Electromagnetic stainless steel
	Column	
Manifold	Main body	Aluminum alloy (alumite)
	Block plate	Mild steel (nickel-plated)
	Seal	Synthetic rubber(NBR)

■5-port 2-position

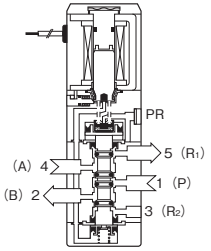
Return



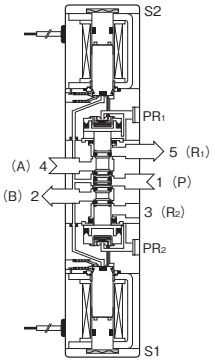
Detent



SR532−RNO
In non-energized state

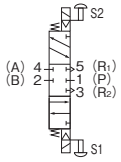


SR532−DNO

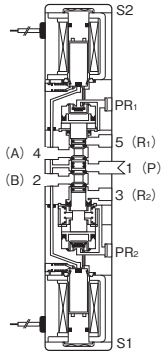


■5-port 3-position

Closed center



SR532−CNO



CAD/DATA
SR332/TSR332A(B) is available.

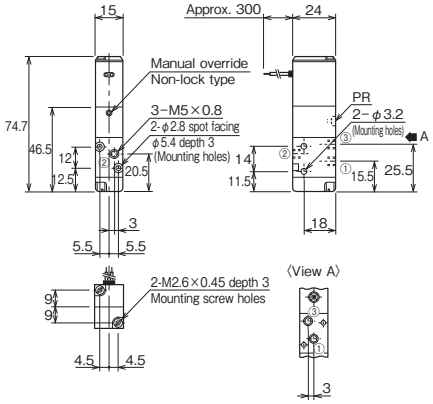
3-port/normally closed and normally open

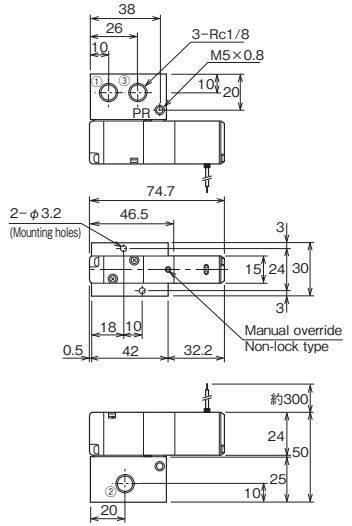
■Direct type

- ●SR332−NNO Voltage RK(normally closed)
- ●SR332−ONO Voltage RK(normally open)

■Sub-plate type

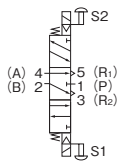
- ●SR332−NMM Voltage RK−SP(normally closed)
- ●SR332−OMM Voltage RK−SP(normally open)



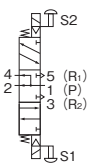


Note) The valve will be delivered without the sub-plate mounted.

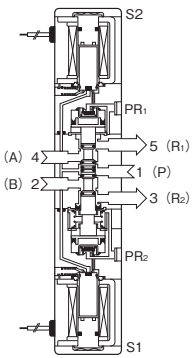
Exhaust center



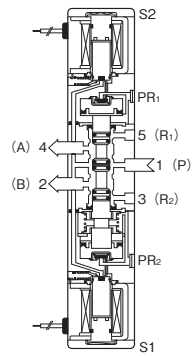
Pressure center



SR532−ENO



SR532−PNO

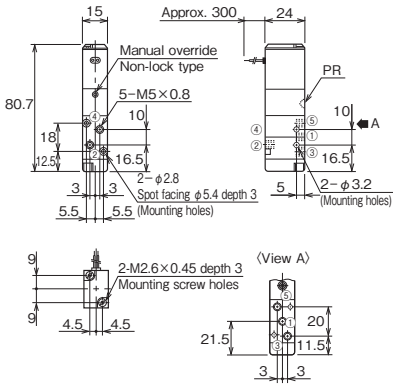


CAD/DATA SR532/TSR532A(B) is available.

5-port/2-poition and 3-position

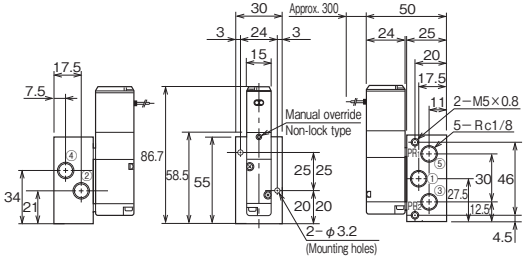
■Direct type

●SR532−RNO Voltage RK(return)

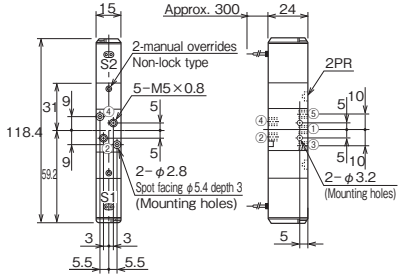


■Sub-plate type

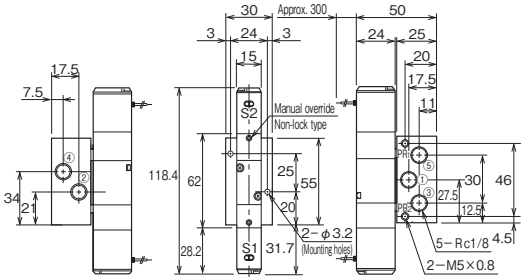
●SR532−RMM Voltage RK−SP(return)



●SR532−DNO Voltage RK(detent)

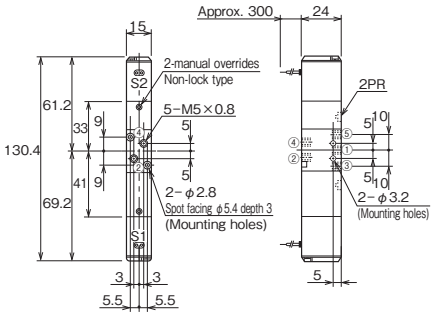


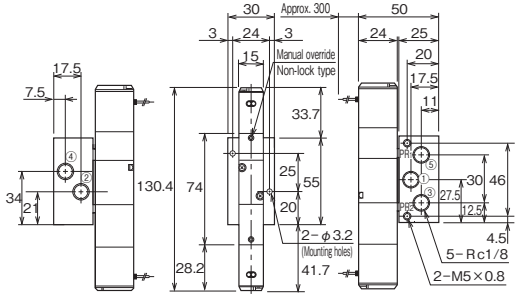
●SR532−DMM Voltage RK−SP(detent)



●SR532−CNO Voltage RK(closed center)
●SR532−ENO Voltage RK(exhaust center)
●SR532−PNO Voltage RK(pressure center)

●SR532−CMM Voltage RK−SP(closed center)
●SR532−EMM Voltage RK−SP(exhaust center)
●SR532−PMM Voltage RK−SP(pressure center)





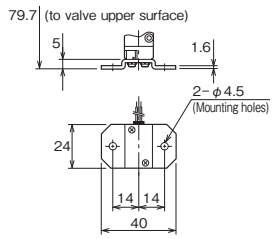
Note) The valve will be delivered without the sub-plate mounted.

CAD/DATA SR532/TSR532A(B) is available.

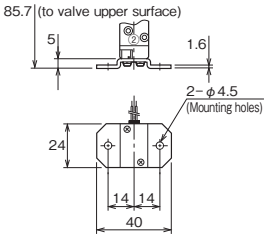
Option

■Mounting plate SZZ SR532−F

●3-port valve mounting dimensions



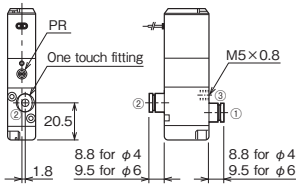
●5-port valve mounting dimensions (only return type)



Note) The valve will be delivered without the mounting plate mounted.

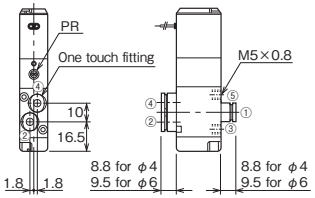
■With one touch fittings

●3-port valve dimensions



Note: PR is on the port side ②.
The valve with a one touch fittings does not have the two 3.2-mm dia. side mounting holes.

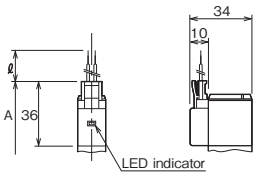
●5-port valve dimensions



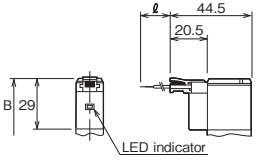
Note: PR is on the port side ②④.
The valve with a one touch fittings does not have the two 3.2-mm dia. side mounting holes.
The valve with joints on both sides (ports ①②④) comes only in the return type.

■Wiring method

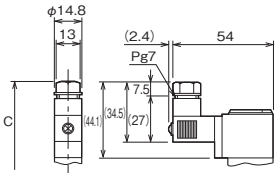
●Q socket type



●P socket type



●DIN socket type

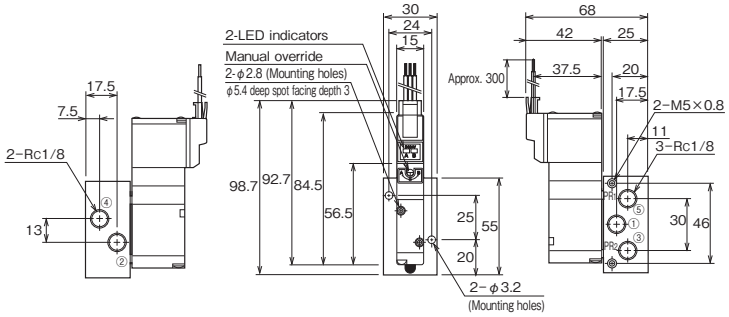


Dimensional Table

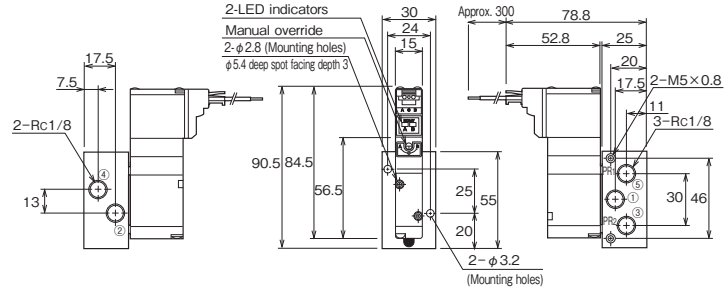
Model number \ Symbol	A	B	C	ℓ (lead wire length)	Remarks
SR332−*N0**	82.5	75.5	90.6	Standard type：300	Overall length to valve or sub-base end face
SR532−RN0**	88.5	81.5	96.6	Order made：	
SR532−RMM**−SP	94.5	87.5	102.6	1L：1000 3L：3000	
SR532−DN0**, SR532−DMM**−SP	134	120	150.2	1D：1000 3D：3000	Overall length to solenoid end face on opposite side
SR532−(C, E, P)N0**, SR532−(C, E, P)*M**−SP	146	132	162.2	(For tandem solenoid)	

5-port/tandem solenoid (2-position)

●SR532−DDM Voltage QW−SP(detent)



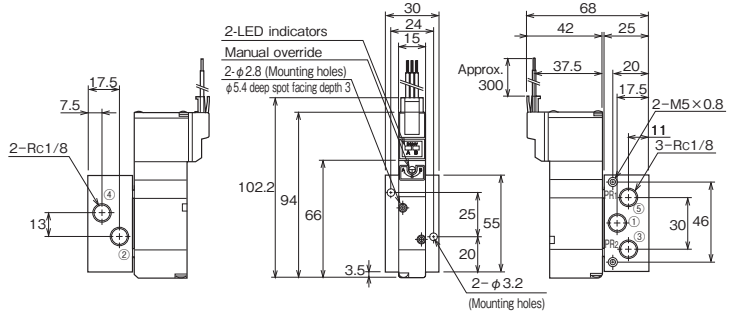
●SR532−DDM Voltage PW−SP(detent)



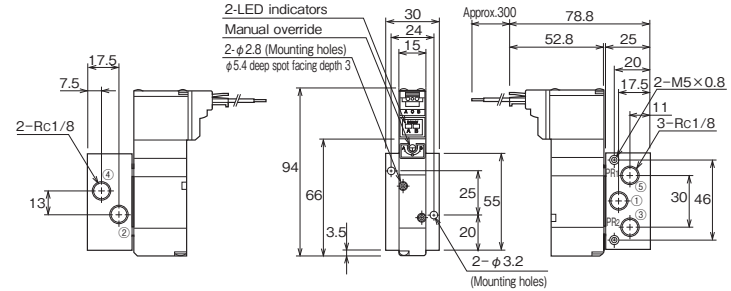
Note) The valve will be delivered without the sub-plate mounted.

5-port/tandem solenoid (3-position)

●SR532−CDM Voltage QW−SP(closed center)
●SR532−EDM Voltage QW−SP(exhaust center)
●SR532−PDM Voltage QW−SP(pressure center)



●SR532−CDM Voltage PW−SP(closed center)
●SR532−EDM Voltage PW−SP(exhaust center)
●SR532−PDM Voltage PW−SP(pressure center)



Note) The valve will be delivered without the sub-plate mounted.

CAD/DATA SR332/TSR332K is available.

Mono-manifold/MF332M (3-port)

■Direct screw piping type

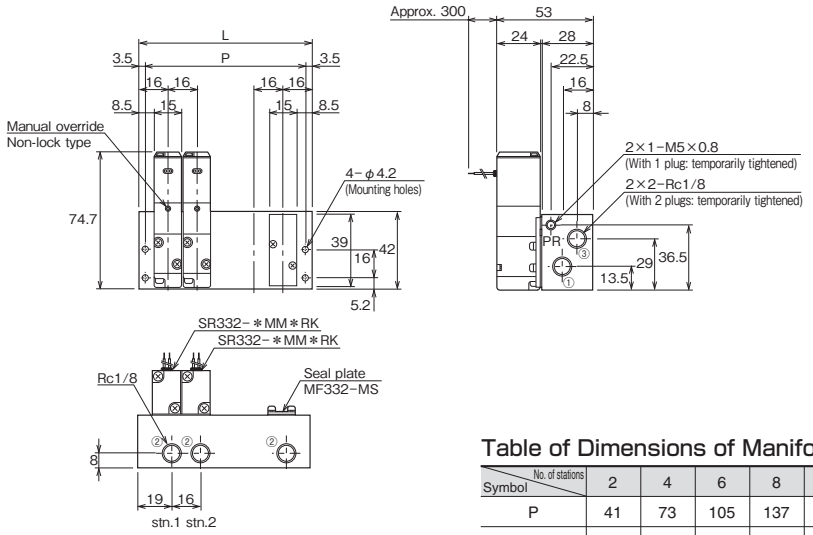


Table of Dimensions of Manifold

Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

■With one touch fittings

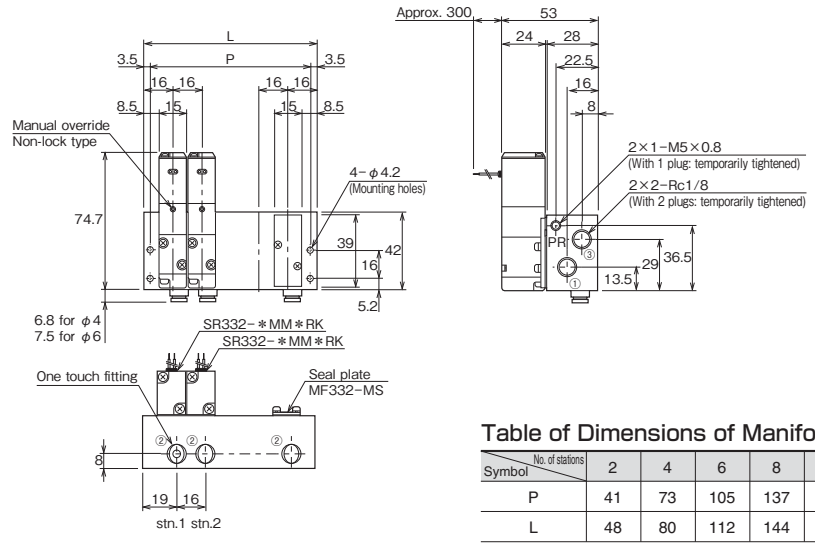


Table of Dimensions of Manifold

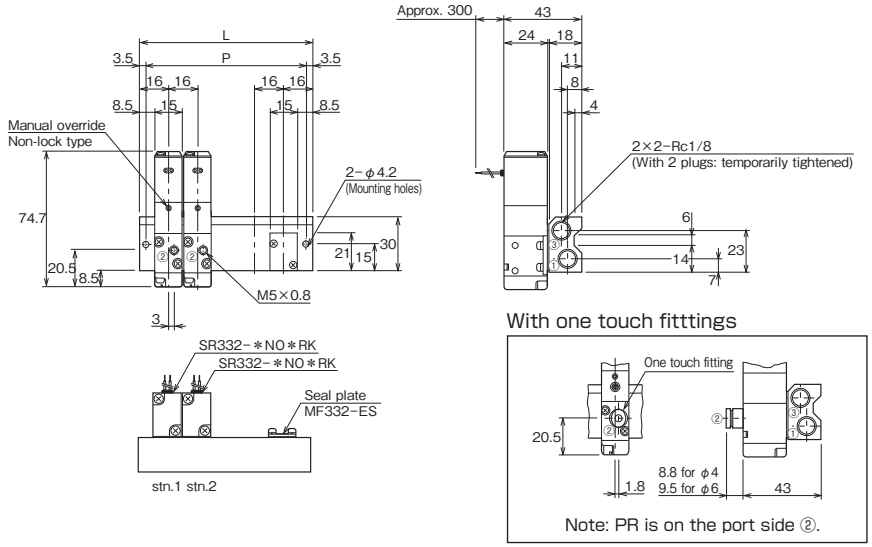
Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

CAD/DATA SR332/TSR332K is available.

Easy-manifold/MF332E (3-port)

■Direct screw piping type



Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

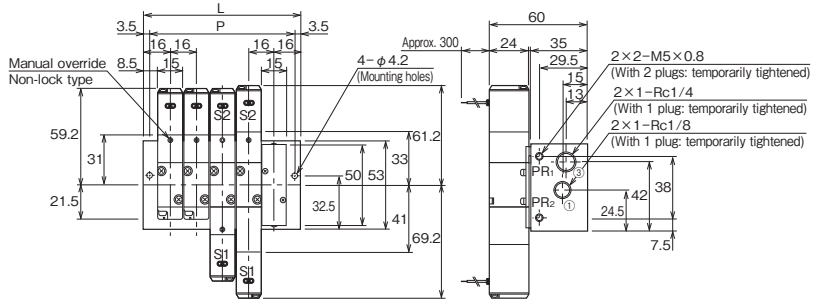
Table of Dimensions of Manifold

Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

CAD/DATA is available. SR532/TSR532K

Mono-manifold/MF532M (5-port)

■Direct screw piping type



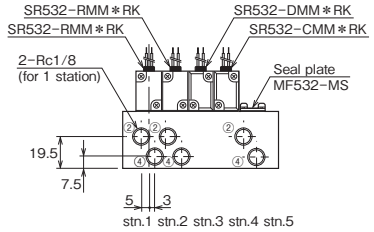
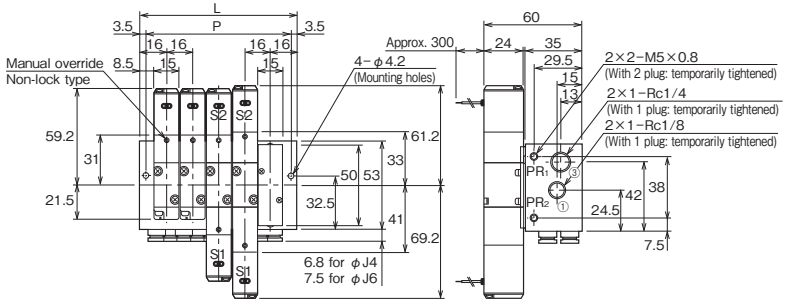


Table of Dimensions of Manifold

Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

■With one touch fittings



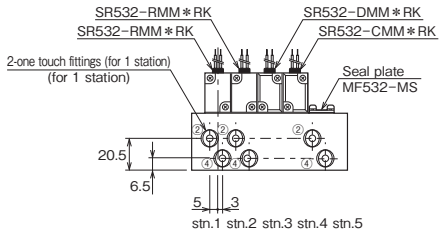


Table of Dimensions of Manifold

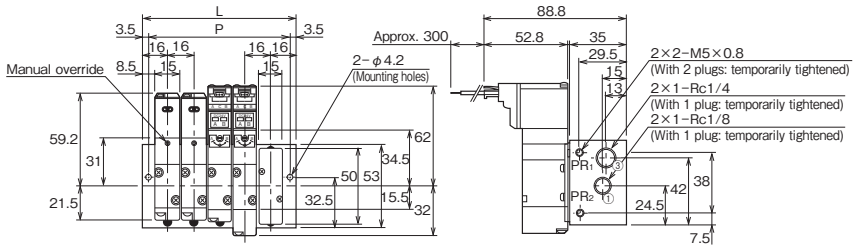
Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

CAD/DATA is available. SR532/TSR532K

Mono-manifold/MF532M (5-port)

■Direct screw piping type



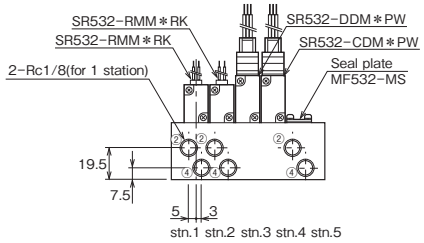
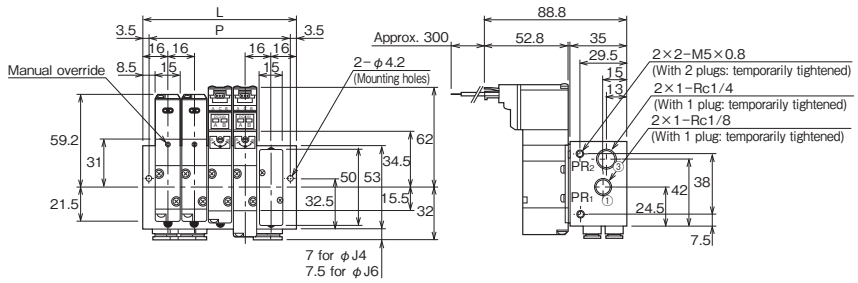


Table of Dimensions of Manifold

Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

Note) For a wiring method other than that shown above, see dimensions of each valve.

■With one touch fittings



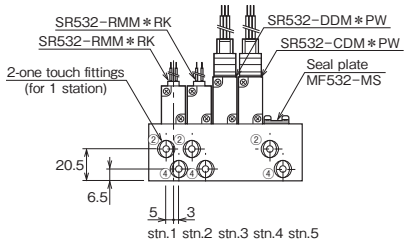


Table of Dimensions of Manifold

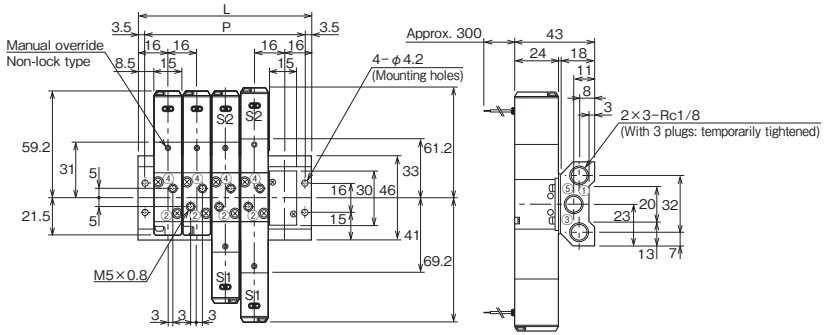
Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176

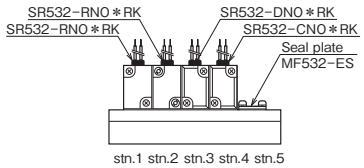
Note) For a wiring method other than that shown above, see dimensions of each valve.

SR532/TSR532K CAD/DATA is available.

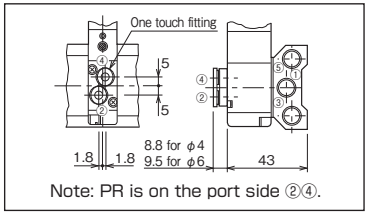
Easy-manifold/MF532E (5-port)

■Direct screw piping type





With one touch fittings



Note: PR is on the port side ②④.

Note) The above drawings show dimensions of the lead wire type valve. For the Q/P socket type and DIN socket type valves, see dimensions of each valve.

Table of Dimensions of Manifold

Symbol \ No. of stations	2	4	6	8	10
P	41	73	105	137	169
L	48	80	112	144	176