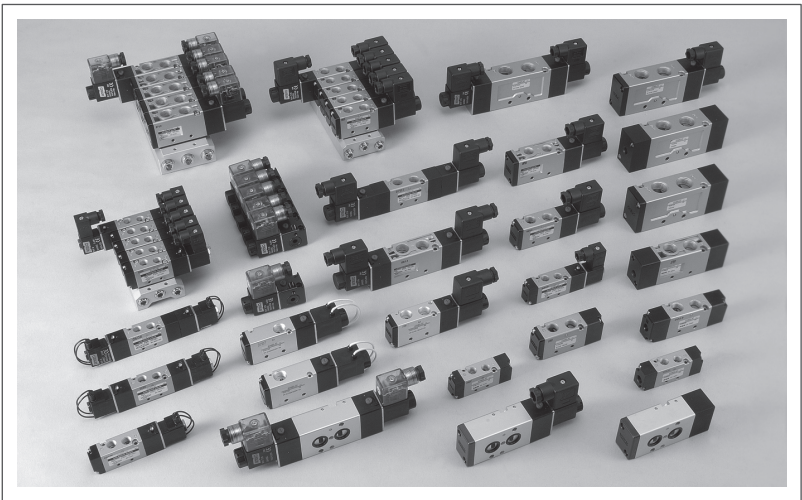


Directional control – SV series Body Ported Solenoid Valve

SV500, SV600, SV800, SV900 Solenoid Valve

CHELIC



Provide CAD external dimension.

SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

SZBC

SK

SV

SNK

SN

Solenoid valve single coil ----- **SV - 500 series** ----- **1/8** ----- **P.2-1.205**
(5 port 2-position)

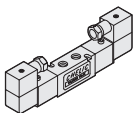


SV - 600 series ----- **1/8, 1/4** ----- **P.2-1.207**

SV - 800 series ----- **1/8, 3/8** ----- **P.2-1.209**

SV - 900 series ----- **1/2** ----- **P.2-1.211**

Solenoid valve double coils ----- **SV - 500 series** ----- **1/8** ----- **P.2-1.205**
(5 port 2-position)

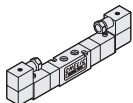


SV - 600 series ----- **1/8, 1/4** ----- **P.2-1.207**

SV - 800 series ----- **1/8, 3/8** ----- **P.2-1.209**

SV - 900 series ----- **1/2** ----- **P.2-1.211**

Solenoid valve double coils ----- **SV - 500 series** ----- **1/8** ----- **P.2-1.206**
3 positions (5 port 3-position)



SV - 600 series ----- **1/8, 1/4** ----- **P.2-1.208**

SV - 800 series ----- **1/8, 3/8** ----- **P.2-1.210**

SV - 900 series ----- **1/2** ----- **P.2-1.212**

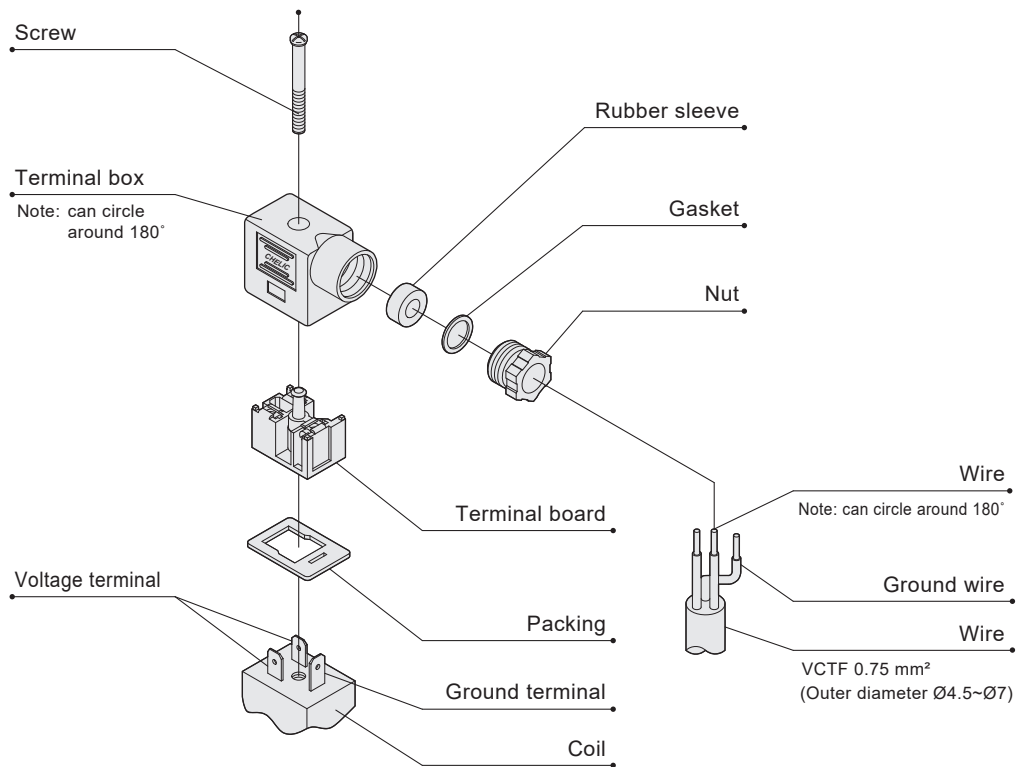
Direct operated solenoid valve ----- **SV - 310 series** ----- **1/8** ----- **P.2-1.292**
(3 port 2-position)



 CAUTION

● Connection of DIN terminal box

DIN terminal box is class IP65 water proof; please positioned and slot firmly when installing, there is no screw for tighten.



Caution for application

WARNING

- Do not switch the solenoid valve with manual override while the solenoid valve is energized; resume to normal position after the manual override is operated.
- Never apply incorrect voltage to the coil of solenoid valve to prevent from damage.
- The energizing of the compound movement solenoid valve, the energizing time at least 0.1 second.
- Provide voltage stabilization to power supply, rate voltage supply within 10%, avoid surge.

 CAUTION

- Heat dissipation should be taken into consideration after long period energizing.
- Take special attention to intermittent air tight solenoid valve for leakage between solenoid valve and cylinder and cause error action and displacement.



General Cautions for SV Solenoid Valve series

CHELIC



Please read the safety notice carefully before using and pay attention to the safety caution for this series of products.

Caution for service and maintenance

WARNING

- Shut off the power switch and air source properly before service and maintenance, confirm that there is no residue pressure in the pipeline and start work after confirming the status is safe.
- The manual device (Series 3, 6, 8, 9) of solenoid valve must be resumed to home (initial position) and confirm that all are reset and then start the normal operation is allowed. (There is no such concern for it is auto reset type), because if the power is turning on before confirming for reset to home will cause abnormal action and led to hazard.
- The assemble and disassemble of solenoid valve should be carried by personnel who is familiar with structure of the product who know well the internal structure and principle, avoid error disassemble and cause safety concern on operation and application.

CAUTION

- Keep the air source dry without moisture and debris, and pay attention for normal the front filter of the solenoid valve and strainer.
- Not oil is required for the solenoid valve as it is lubricated at assembly. In case of oiling is necessary, use ISO VG32 lubricant, consequent poor action if stop oiling (there is minor moisture in the air; lubrication is required at fast moving condition)
- Service and maintenance should be perform regularly as schedule, and confirm the normal operation of following:

(1) Is the compressed air supplied stably ?

(2) Is the front filter of the solenoid valve and strainer normal ?

(3) Is the connection portion or piping loosen accompany moving of object ?
Is the pipe connection portion normal ?

(4) Is the action condition of the solenoid valve normal ?
Is there any delay and exhaust phenomena ?
Any strange noise ?

(5) Whether the piping system connected to activator (or cylinder) normal ?
Terminal start and stop movement normal ?
Is the load system normal ?

(6) Is the lubricant feeding system normal ?
Is the oil amount adjusted properly ?

(7) Is the exhaust smooth ?
Any blockage ?
Are exhaust and speed normal ?

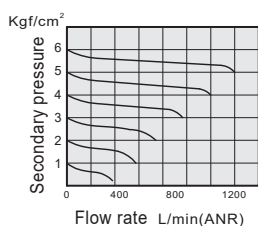
SV series Body Ported Solenoid Valve

Flow rate and applicable cylinder

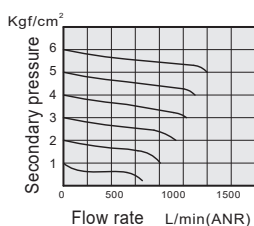
CHELIC

Flow rate characteristics

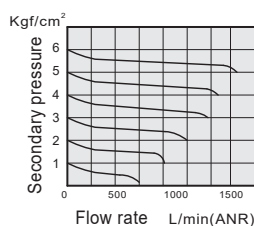
SV 500 series



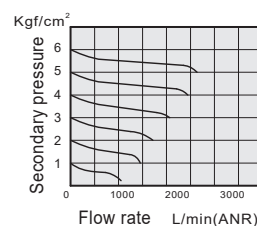
SV 600 series



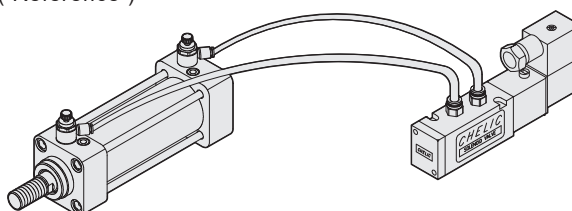
SV 800 series



SV 900 series



Applicable cylinder (Reference)



● Max. driving speed of the cylinder (Length of piping: 1m, Port size: Ø8)

(Port size: Ø10)

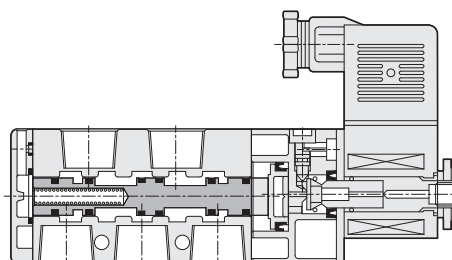
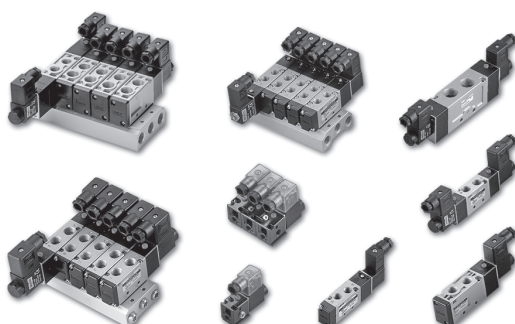
Model	CV value	Cylinder speed M/S	SDA • DB • FDA series						DMB • DN • DU series					
			Ø12	Ø16	Ø20	Ø25	Ø32	Ø40	Ø40	Ø50	Ø63	Ø80	Ø100	Ø125
SV500	0.67	150									●			
		300								●				
		450					●	●	●					
		600				●								
		750			●									
		900	●	●										
SV600	0.78	150											●	
		300										●		
		450						●		●				
		600					●		●					
		750				●			●					
		900			●									
SV800	1.4	150												
		300										●		
		450						●		●				
		600					●		●		●			
		750				●			●					
		900			●				●					
SV900	2.78	100												●
		150											●	
		300										●		
		450						●		●				
		600					●		●					
		750				●			●					
		900			●				●					

SV 500, 600, 800, 900 series Body Ported Solenoid Valve

Product features

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Internal structure



Specification

Item	Model	SV-5101	SV-5231	SV-6101(2)	SV-6231	SV-8102(3)	SV-8232	SV-9104
		SV-5201		SV-6201(2)	SV-6232	SV-8202(3)	SV-8233	SV-9204
Fluid		Air						
Pressure range	kgf/cm ² (kPa)	1.5 ~ 7 (150 ~ 700)						
Ambient and fluid temperature	℃	5 ~ 60						
Pilot type		Air operated						
Number of positions		5/2-position	5/3-position	5/2-position	5/3-position	5/2-position	5/3-position	5/2-position 5/3-position
Type of actuation		Normally closed						
Effective orifice	mm ² (CV)	12(0.67)		14(0.78)		25(1.4)		50(2.78)
Manual override		Push and lock (SV-500 Push type only)						
Port size		Rc 1/8		Rc 1/8, 1/4		Rc 1/4, 3/8		Rc 1/2
Lubrication		Lubrication free type						

Note: Custom made for NPT thread type.

Code of order

SV **6** **1** **0** **1** **110 VAC** **K** **L** **NC** **M** **2**

Model **Coil q'ty** **Position** **Port size** **Voltage type** **Electrical entry** **With light** **Valve type** **Manifold**

SV series Solenoid Valve

5: 500 series
6: 600 series
8: 800 series
9: 900 series

1: Single
2: Double

0: 2ports
3: 3ports

Thread type (standard)

Mark	Thread	Thread
1	Rc 1/8	SV500
1	Rc 1/8	SV600
2	Rc 1/4	SV800
3	Rc 3/8	SV800
4	Rc 1/2	SV900

Standard:
24VDC / 3W
110VAC / 5VA
220VAC / 5VA

Special voltage:
12VDC / 2.5W
24VAC / 8.5VA
220VAC / 8.5VA
Suitable for 190~250V
(For high pressure range)

ISO Socket solenoid type (ISO standard applicable for special voltage)

None(Standard) : without light (Black outer shell)

with indicator light (Clear outer shell)

ISO standard socket with AC and DC indicator light (clear case)

Solenoid with wire (500mm) (W type for standard voltage only)

NC: Closed center
NF: Exhaust center
NO: Pressure center

None:
Without manifold
M2 = 2 sets
M3 = 3 sets
M12 = 12 sets

SV500 series
Max. manifolds: M10

SV600 series
Max. manifolds: M12

SV800 series
Max. manifolds: M12

SV900 series
Max. manifolds: M5

Note:

- If special voltage needed, please contact sales representative.
- 500 series has W type only; 600, 800 and 900 series applicable with ISO socket K and L option.

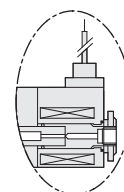
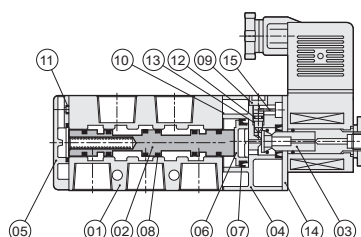
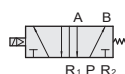
SV 500, 600, 800, 900 series Body Ported Solenoid Valve

Product features

CHELIC

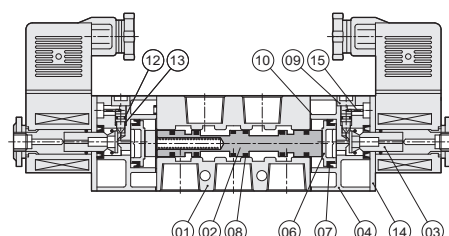
Internal structure

● 5 port 2-position single

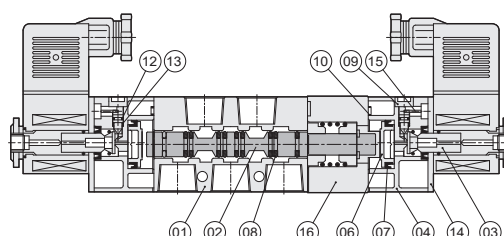
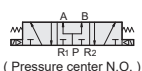
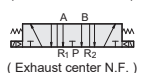
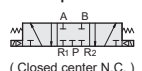


— **W** With wire type

● 5 port 2-position double



● 5 port 3-position double



Components and Material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	09	Manual override	POM
02	Shaft	Aluminum alloy	10	Holder O-Ring	NBR
03	Copper tube	Copper	11	Rear cover O-Ring	NBR
04	Holder	POM	12	Manual override O-Ring	NBR
05	Rear cover	POM	13	Manual override spring	Stainless steel
06	Holder piston	POM	14	Holder fixing piece	Iron
07	Holder piston packing	NBR	15	Position iron plate	Iron
08	Spool packing	NBR	16	Mechanical holder	POM



Note: The main body has been treated with painting.

Packing and O-ring material list

Item	Piston packing	Holder O-ring	Manual rod O-Ring	Rear cover O-Ring
Model \ Quantity	1	1	1	1
SV 500	—	—	Ø2XØ1	—
SV 600	MYA-14	Ø2XØ1.5	Ø2XØ1	Ø17.5XØ1.5
SV 800	MYA-18	Ø2XØ1.5	Ø2XØ1	Ø19.5XØ1.5
SV 900	Z8-2822	Ø3.5XØ1.5	Ø2XØ1	Ø22.8XØ1.58



Note: Piston packing and Rod packing are imported. (MITSUBISHI, SAKAGAMI and so on)

SV 500 series Body Ported Solenoid Valve

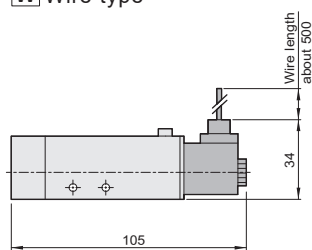
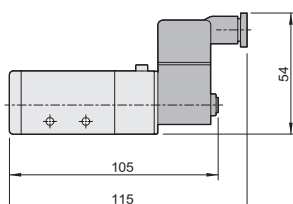
Dimensions

CHELIC

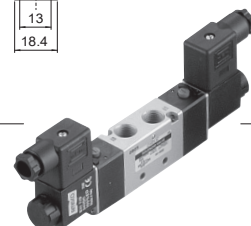
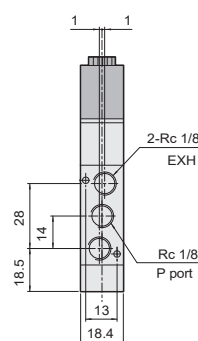
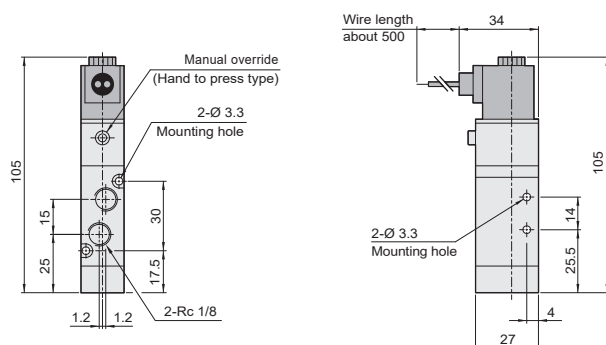
500 series Coil operated type

- **K** DIN terminal
- **K** — **L** With light

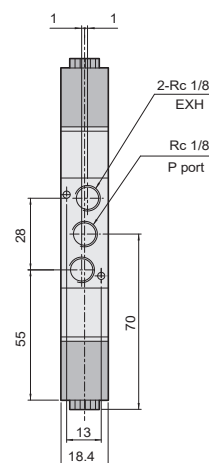
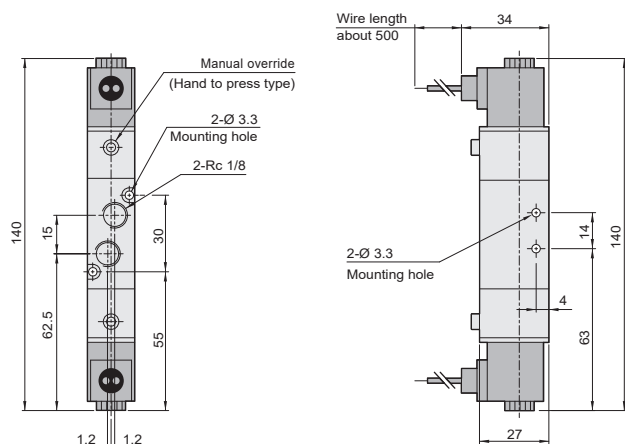
- **W** Wire type



SV - 5101 series 5 port 2-position single



SV - 5201 series 5 port 2-position double



SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

SZBC

SK

SV

SNK

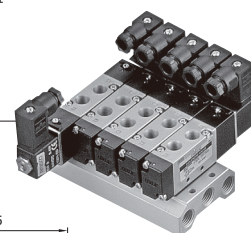
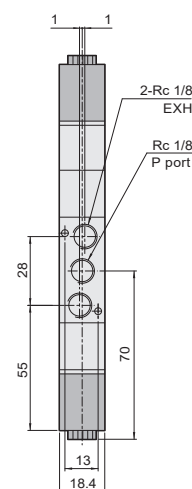
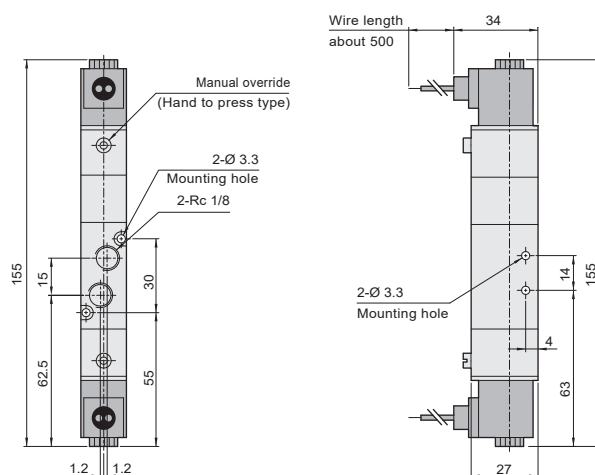
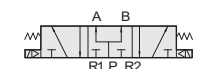
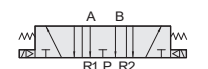
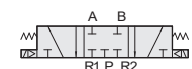
SN

SV 500 series Body Ported Solenoid Valve

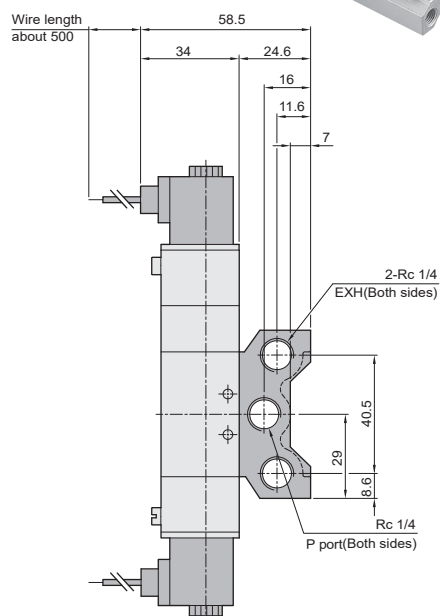
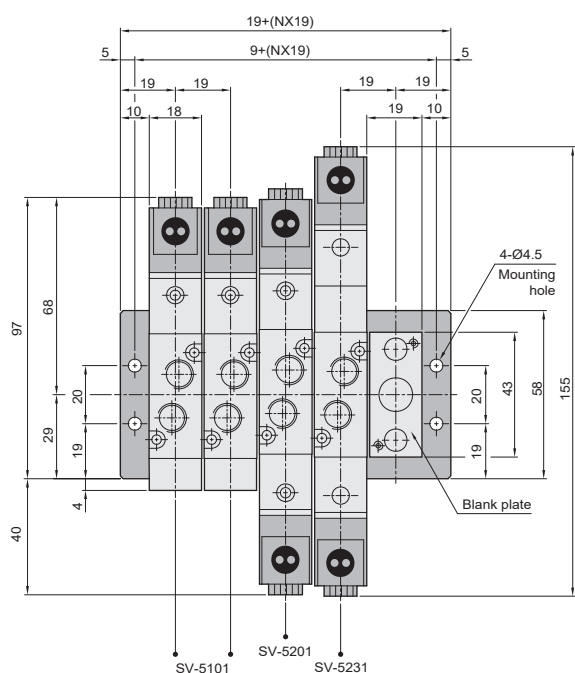
Dimensions

CHELIC

SV-5231 - series 5 port 3-position double



SV 500 series Manifold dimension



Note : Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

SV 600 series Body Ported Solenoid Valve

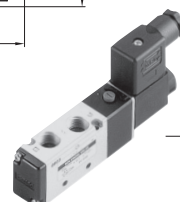
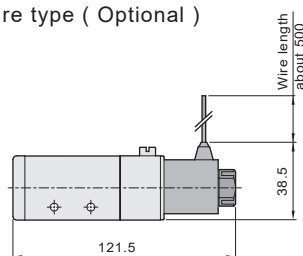
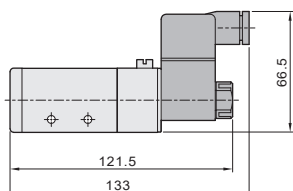
Dimensions

CHELIC

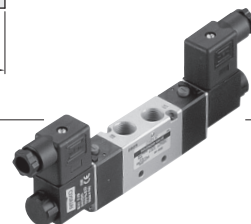
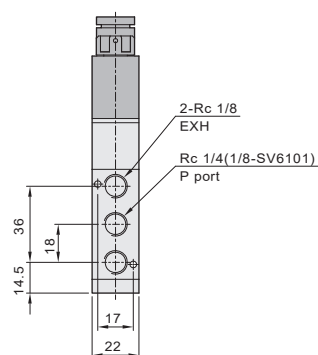
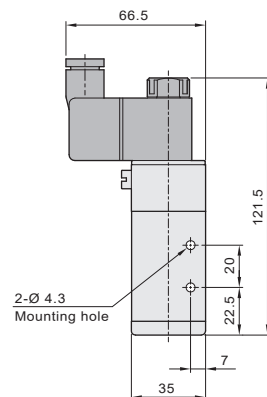
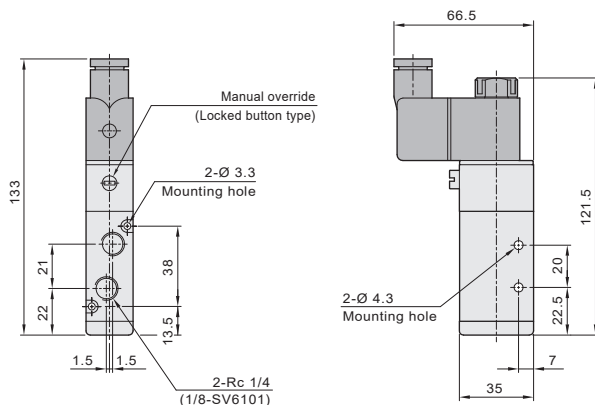
600 series Coil operated type

- **L** DIN terminal (Standard)
- With light (Optional)

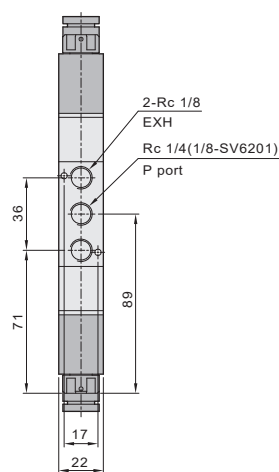
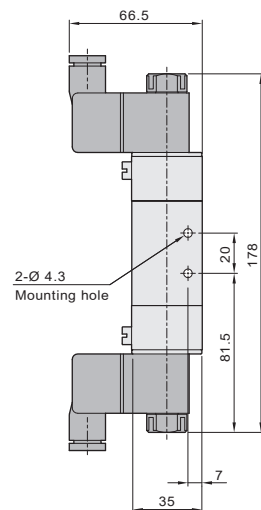
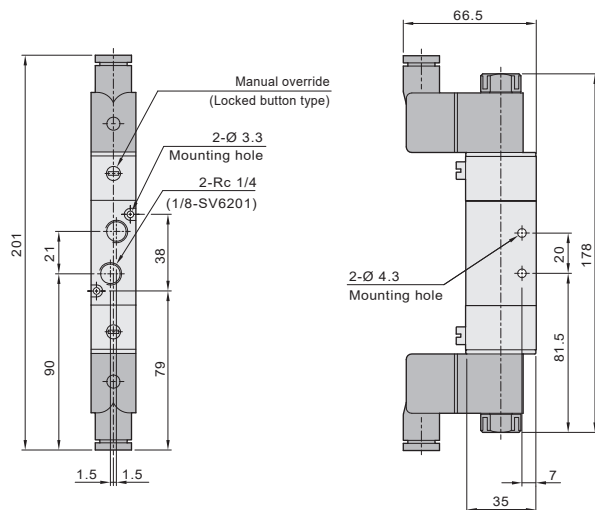
- **W** Wire type (Optional)



SV - 6102 series 5 port 2-position single



SV - 6202 series 5 port 2-position double



SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

SZBC

SK

SV

SNK

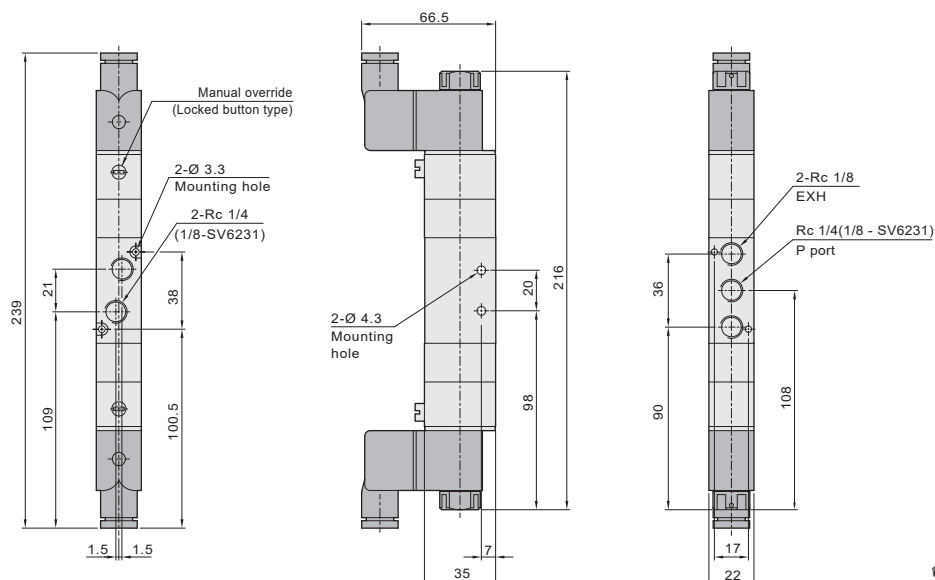
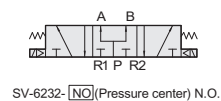
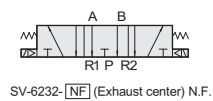
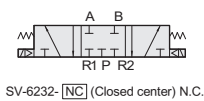
SN

SV 600 series Body Ported Solenoid Valve

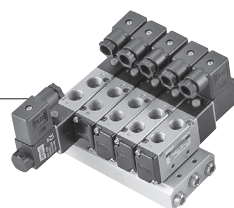
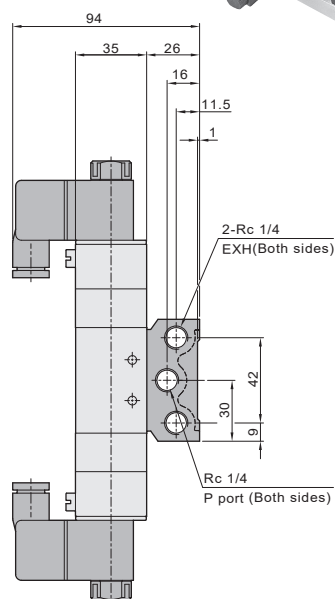
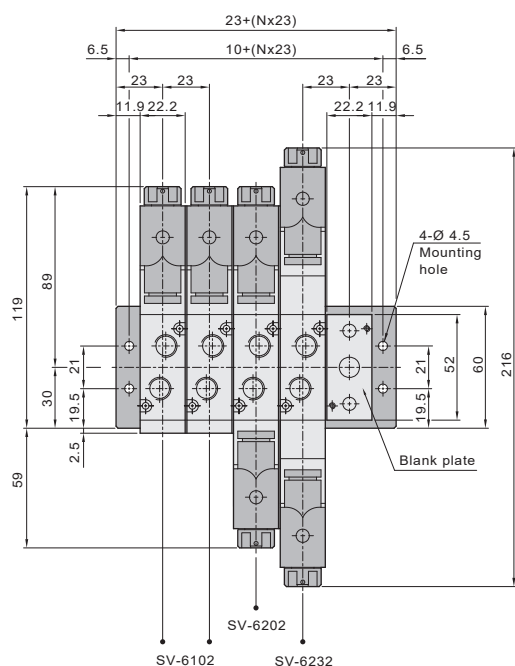
Dimensions

CHELIC

SV-6232 - series 5 port 3-position double



SV 600 series Manifold dimension



Note: Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

SV 800 series Body Ported Solenoid Valve

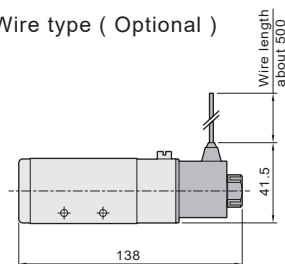
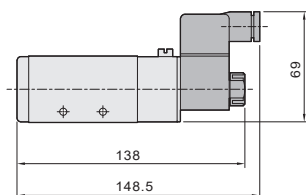
Dimensions

CHELIC

800 series Coil operated type

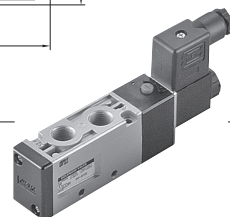
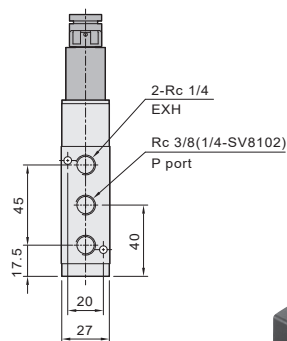
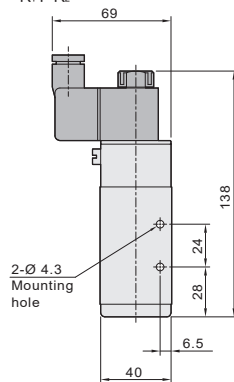
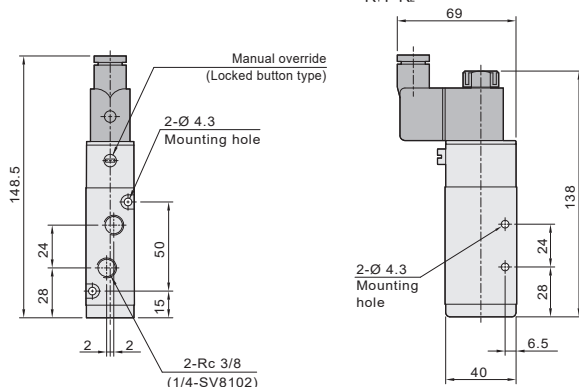
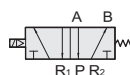
- **L** DIN terminal (Standard)
- With light (Optional)

- **W** Wire type (Optional)



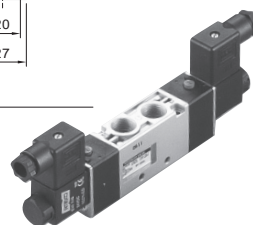
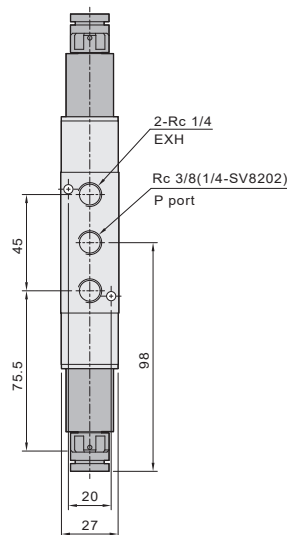
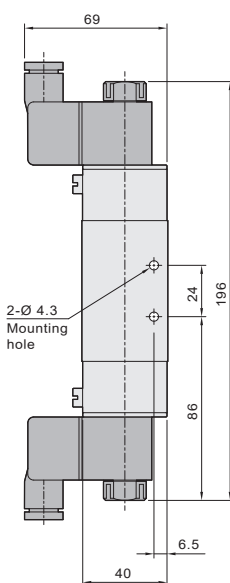
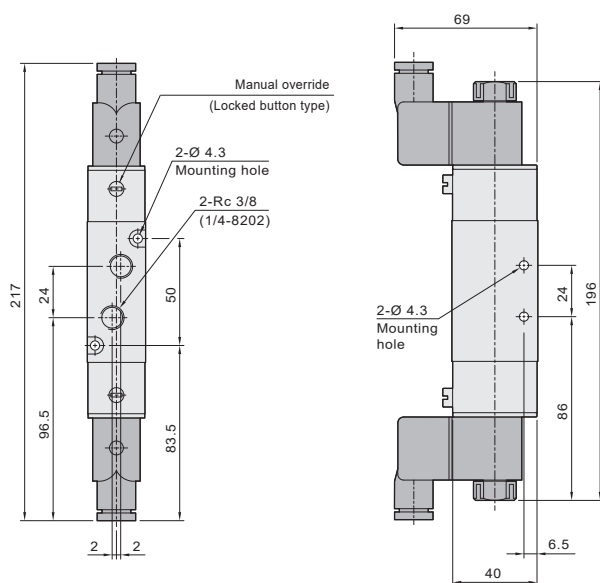
SV - 8103 series

5 port 2-position single



SV - 8203 series

5 port 2-position double



SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

SZBC

SK

SV

SNK

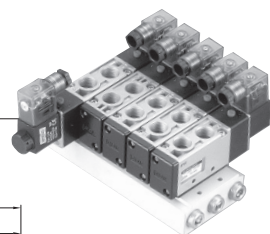
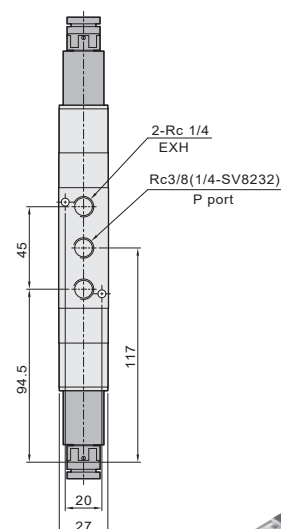
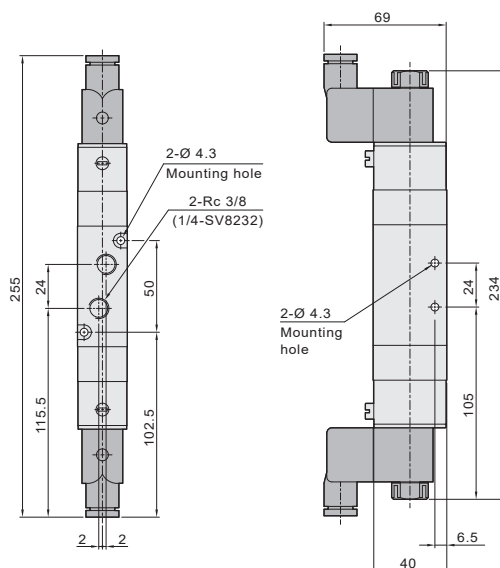
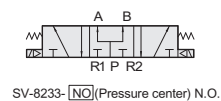
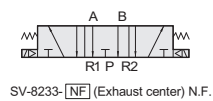
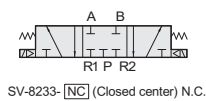
SN

SV 800 series Body Ported Solenoid Valve

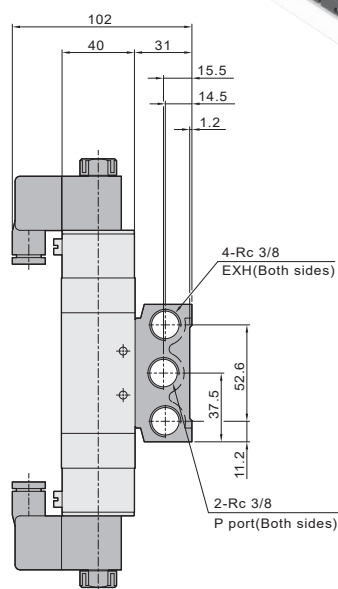
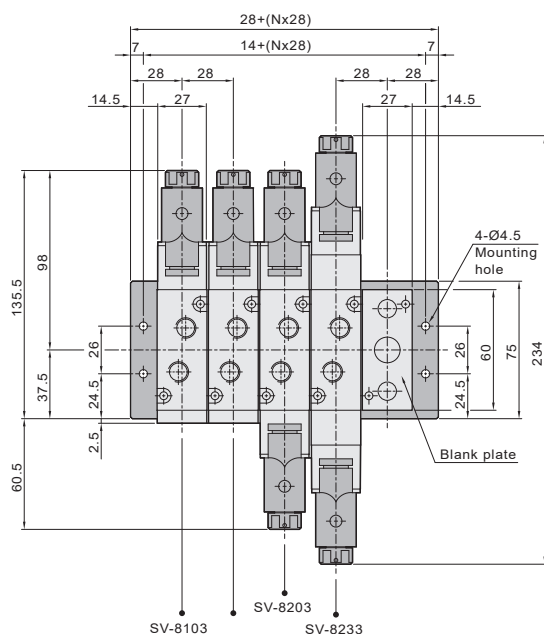
Dimensions

CHELIC

SV-8233 - series 5 port 3-position double



SV 800 series Manifold dimension



Note : Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

SV 900 series Body Ported Solenoid Valve

Dimensions

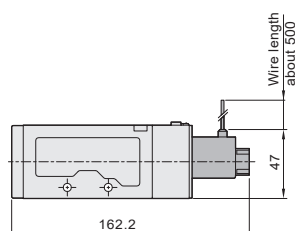
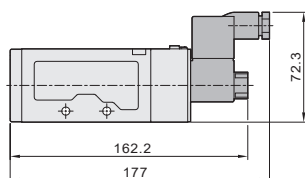
CHELIC

900 series Coil operated type

— **L** DIN terminal (Standard)

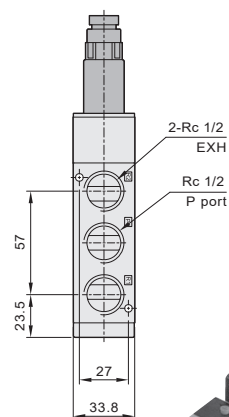
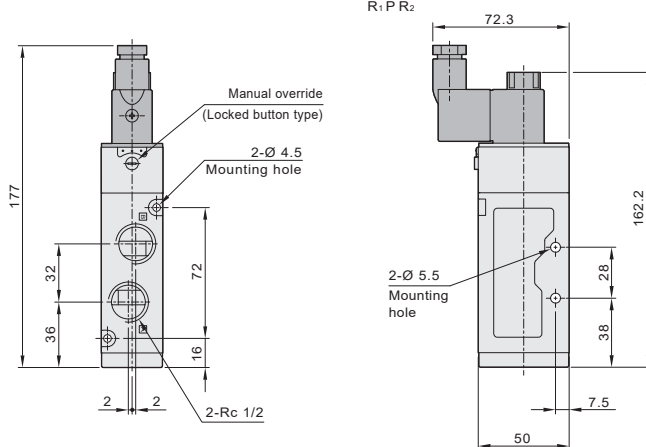
● With light (Optional)

— **W** Wire type (Optional)



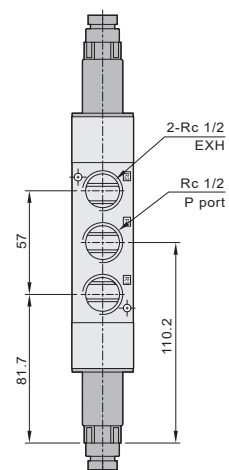
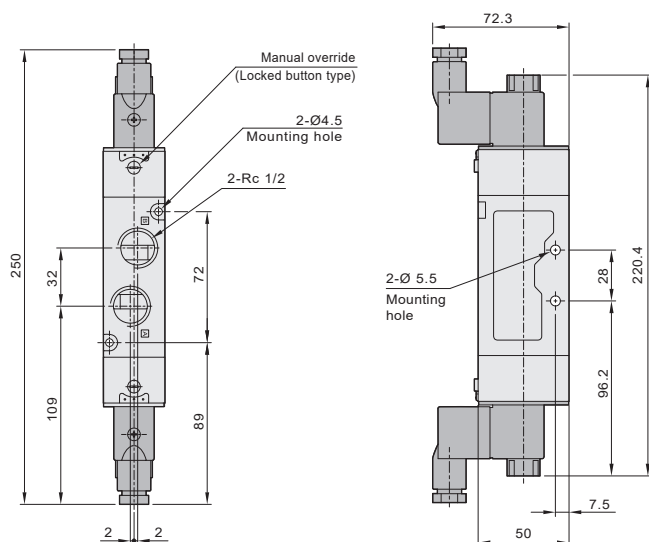
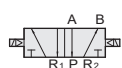
SV - 9104 series

5 port 2-position single



SV - 9204 series

5 port 2-position double



SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

SZBC

SK

SV

SNK

SN

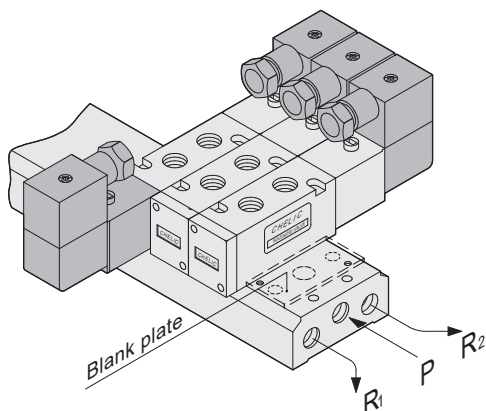
SV series Body Ported Solenoid Valve

Accessories/ Installation

CHELIC

Manifold

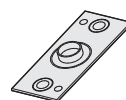
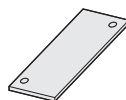
SV-500 • 600 • 800 • 900 series



Manifold accessory

SV-500 • 600 • 800 • 900 series

※ Blank plate accessory



Blank plate

Rubber lining

Mounting screw

SV-500 series
SV-600 series
SV-800 series
SV-900 series

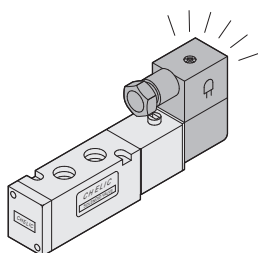
MSV-5056
MSV-6056
MSV-8056
MSV-9050

MSV-5051
MSV-6051
MSV-8051
MSV-9051

M3 X 8L
M3 X 10L
M4 X 9L
M4 X 9L

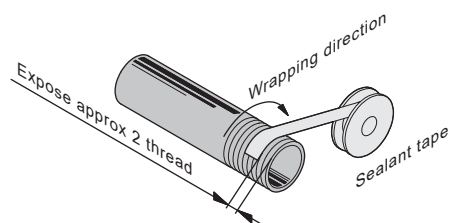
With indicator light - L

There is no protection from surge voltage for this product.



Handling details and precaution

1. Please keep the tube fitting clean.
2. Please wrap the thread by tape seal and leave about 2 pitches Unwrapped at the end to as avoid clogging in the air line.



SRM

SRVB

SF

SR

SRB

SM

SMB

SRK

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SK

SV

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SN