



# 6V Series solenoid valve (5/2 way, 5/3 way)

## Compendium of 6V Series

### Multi-port types are optional

Threaded type and quick connector type are optional, and can integrate manifold to form valve group to save space.

### Inner exhaust structure

Pilot airflow exhaust intensively from R, S port.

### Terminal

Special design for terminal, horizontal and vertical insertion can freely switch.



### Multi-series and type

6V0500, 6V100, 6V200 series are optional.

### Die-cast molding with aluminum alloy for body

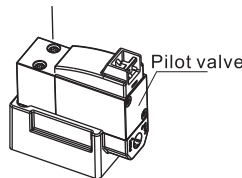
Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.

## Installation and Application

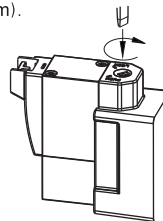
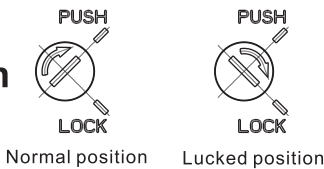
1. Don't throw or drop the solenoid valve when take it, to avoid breaking valve;
2. Because solenoid pilot valve is sophisticated component, can't crash pilot valve by outside force, otherwise solenoid valve break possibly;
3. Don't dismantle solenoid valve freely, if the screw(M1.6X14) becomes loose, please tighten it by torque 0.1~0.12N.m;
4. About manual operation:
  - 4.1. Ensure no danger, prior to activating manual override;
  - 4.2. For push button option:
 

Activate by push the button in the direction shown
  - 4.3. For slotted option:
 

Activate by push the button in the direction shown.  
With correct size screw driver: please turn to lock gently(Torque: 0.1N.m).



### Attention



- 4.4. Wiring instruction: Vertical plug type and parallel plug type are the same as plug, please insert wire line as up drawing by practicality.



Vertical plug wire



Parallel plug wire

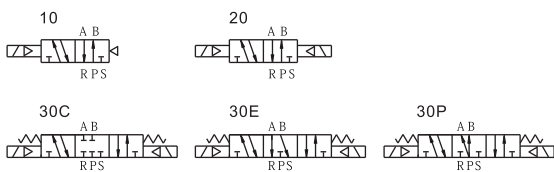


# Solenoid valve (5/2 way, 5/3 way)

## 6V Series



### Symbol



### Specification

Model	6V0510	6V0520	6V0530	6V110	6V120	6V130
Port size [Note1]	Thread type In=Out=Exh=M5			In=Out=Exh=M5 (or=1/8")		
	Tube type A port=B port=Φ4			A port=B port=Φ4 (or=Φ6) (or=Φ8)		
Orifice size (Cv)	5.0mm <sup>2</sup> (0.28)		4.5mm <sup>2</sup> (0.25)	M5:5.5mm <sup>2</sup> (0.3)		8.5mm <sup>2</sup> (0.51)
	06:10.0mm <sup>2</sup> (0.58)		08:18.0mm <sup>2</sup> (1.06)			
Max.frequency [Note2]	5 cycle/sec		3 cycle/sec	5 cycle/sec		3 cycle/sec
Weight	35g	50g	65g	60g	75g	90g
Model	6V210		6V220		6V230	
Port size [Note1]	Thread type In=Out=1/8"(or=1/4") Exh=1/8"			In=Out=1/8"(or=1/4") Exh=1/8"		
	Tube type A port=B port=Φ6 (or=Φ8) (or=Φ10)			A port=B port=Φ6 (or=Φ8) (or=Φ10)		
Orifice size (Cv)	06:14.0mm <sup>2</sup> (0.78)		08:18.0mm <sup>2</sup> (1.06)		14.0mm <sup>2</sup> (0.82)	
	08:18.0mm <sup>2</sup> (1.06)		14.0mm <sup>2</sup> (0.82)			
Max.frequency [Note2]	5 cycle/sec		5 cycle/sec		3 cycle/sec	
Weight	100g		115g		130g	
Fluid	Air (to be filtered by 40 μm filter element)					
Acting	Internal pilot					
Operating pressure	5/3 way 0.2~0.8MPa(29~114psi)			0.2~0.8MPa(29~114psi)		
	5/2 way 0.15~0.8MPa(21~114psi)			0.15~0.8MPa(21~114psi)		
Proof pressure	1.2MPa(175psi)					
Temperature	-20~70°C					
Material of body	Aluminum alloy					
Lubrication [Note3]	Not required					
Pilot valve's Exhaust type	Centralized exhaust type					

[Note1] G thread is available.

[Note2] The maximum actuation frequency is in the no-load state.

[Note3] Once lubricated air is used, continue with same medium to optimize valve life span. Lubricants like ISO VG32 or equivalent are recommended.

### Product feature

1. Electrical entry is terminal, horizontal and vertical insertion can freely switch.
2. Inner exhaust structure to collect pilot airflow, and then exhaust intensively from R, S port.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. Threaded type and quick connector type are optional, and can integrate manifold to form valve group to save space.

### Coil specification

Item	Specification			
Standard voltage	AC220V	AC110V	DC24V	DC12V
Scope of voltage	AC: +15% ~ -10%		DC: ±10%	
Power consumption	1.1VA		0.9W	
Protection	Dustproof			
Temperature classification	F Class			
Electrical entry	Terminal			
Activating time	0.05 sec and below			

### Ordering code

6V 2 10 J 08 B 050 G

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

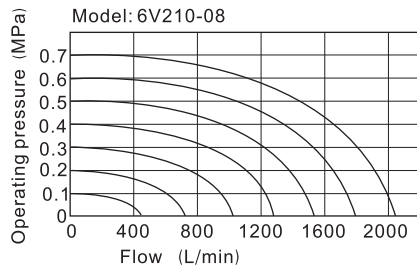
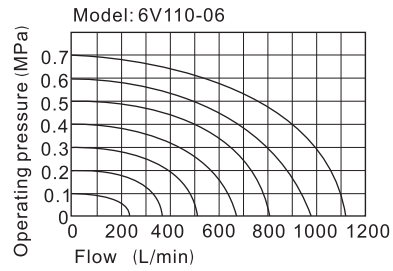
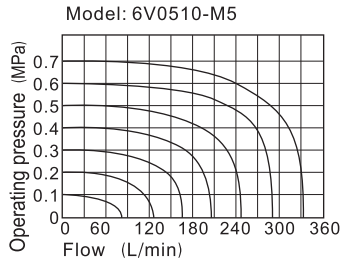
① Model	6V: Solenoid valve (5/2, 5/3 way)					
② Code	05: 0500 Series		1: 100 Series		2: 200 Series	
③ Valve type	10: Single solenoid 5/2 way		20: Double solenoid 5/2 way			
	30C: Double solenoid 5/3 way closed center		30E: Double solenoid 5/3 way exhaust center			
	30P: Double solenoid 5/3 way pressure center					
④ Port type	Blank: Thread type J: Tube type					
⑤ Port size	Thread M5: M5		M5: M5		06: 1/8" 08: 1/4"	
	Tube 04: Φ4mm		04: Φ4mm/06: Φ6mm/08: Φ8mm		06: Φ6mm/08: Φ8mm/10: Φ10mm	
⑥ Voltage	A: AC220V		B: DC24V		C: AC110V F: DC12V	
⑦ Line length	050: 0.5m		200: 2.0m			
⑧ Thread type [Note1]	-		G: G			

[Note]: The base of the tube type solenoid valve is only used with the base.

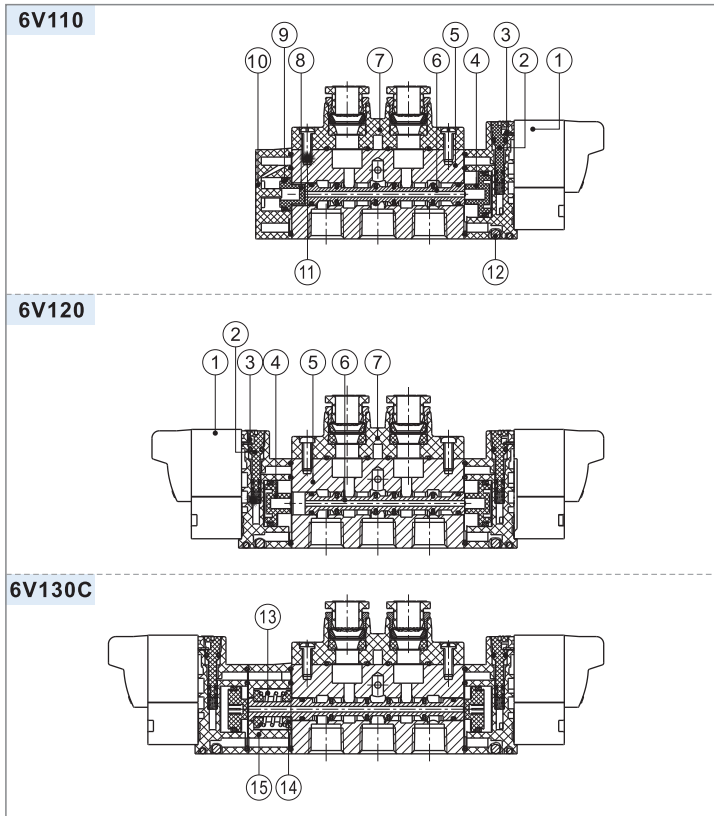
# Solenoid valve (5/2 way, 5/3 way)

## 6V Series

### Flow chart



### Inner structure



No.	Item	No.	Item	No.	Item
1	Pilot valve	6	Spool	11	Bolt
2	Manual override	7	Connecting block	12	Steel ball
3	Pilot kit	8	Little piston	13	Spring
4	Big piston	9	Gasket	14	Return holder
5	Body	10	Bottom cover	15	Side cover

# Solenoid valve (5/2 way, 5/3 way)

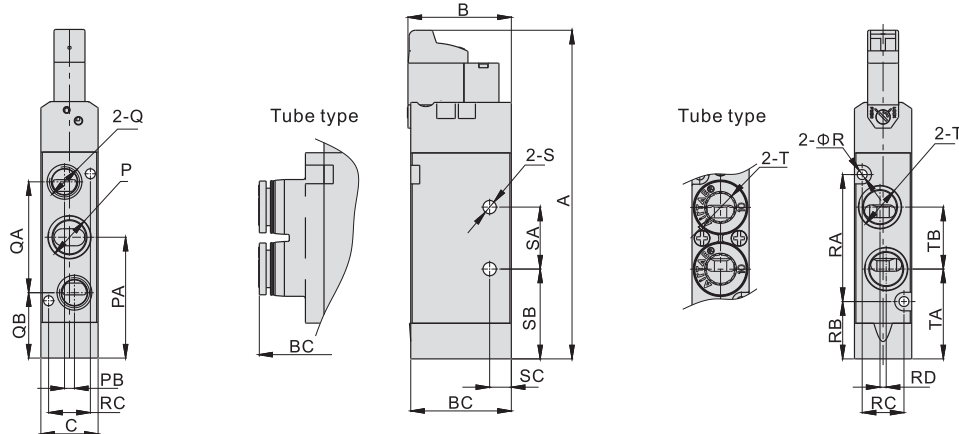
## 6V Series

### Dimensions

6V0510

6V110

6V210



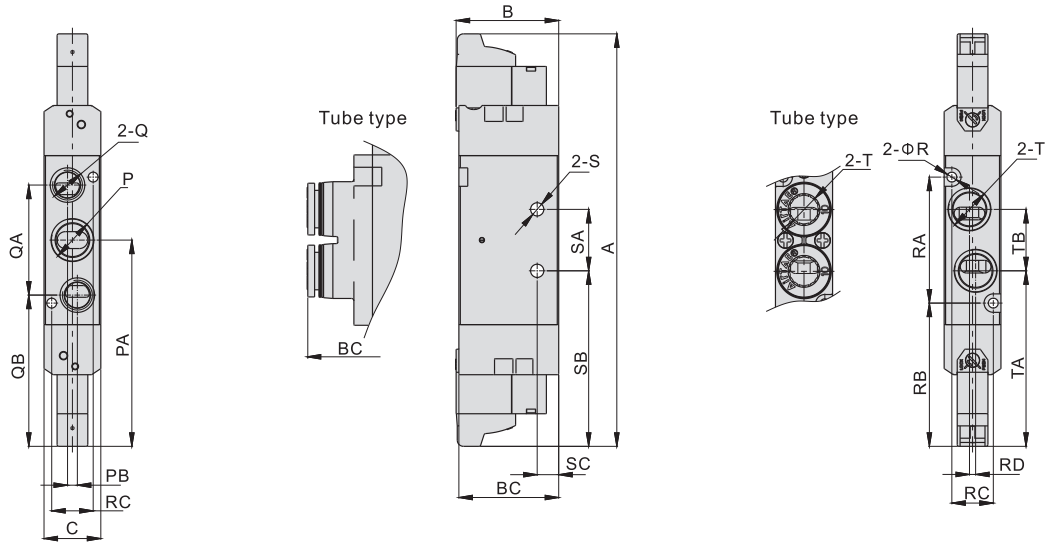
Model\Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC	
6V0510M5	73	31	21	10.6	M5X0.8	22.5	1	M5X0.8	19	13	M5X0.8	17.5	10	2.1	22.5	11	7.5	0	Φ2.6	10	17.5	4	
6V0510J04			Φ4(Tube)								-								-	-			
6V110M5	93.5	32	24	15.5	M5X0.8	33	2.6	PT1/8	28	19	M5X0.8	25.2	15.4	2.6	34	16	11	0	-	-	-	-	
6V11006			1/8"								-								Φ3.2	14	26	4	
6V110J04			39.5								Φ4(Tube)								24.5	16.5	-	-	-
6V110J06			41								Φ6(Tube)								-	-	-	-	
6V110J08			42.5								Φ8(Tube)								-	-	-	-	
6V21006	106	33.5	32.5	18.5	1/8"	39	3.2	PT1/8	36	21	1/8"	30	18	3.2	41	18.5	13.5	2	-	Φ4.3	20	29	7
6V21008			1/4"								-								-	-			
6V210J06			50.6								Φ6(Tube)								29	20	-	-	-
6V210J08			53.5								Φ8(Tube)								-	-	-	-	
6V210J10			53.5								Φ10(Tube)								-	-	-	-	

[Note]: The base of the tube type solenoid valve is only used with the base. No through hole "S" on the side.

6V0520

6V120

6V220



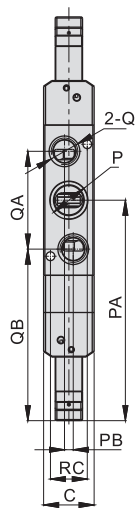
Model\Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC	
6V0520M5	101.5	31	21	10.6	M5X0.8	51	1	M5X0.8	19	41	M5X0.8	45.5	10	2.1	22.5	39.5	7.5	0	Φ2.6	10	45.5	4	
6V0520J04			Φ4(Tube)								-								-	-			
6V120M5	121.5	32	24	15.5	M5X0.8	61	2.6	PT1/8	28	47	M5X0.8	53.7	15.4	2.6	34	44	11	0	-	Φ3.2	14	54	4
6V12006			1/8"								-								-	-			
6V120J04			39.5								Φ4(Tube)								52.5	16.5	-	-	-
6V120J06			41								Φ6(Tube)								-	-	-	-	
6V120J08			42.5								Φ8(Tube)								-	-	-	-	
6V22006	134	33.5	32.5	18.5	1/8"	67	3.2	PT1/8	36	49	1/8"	58	18	3.2	41	46.5	13.5	2	-	Φ4.3	20	57	7
6V22008			1/4"								-								-	-			
6V220J06			50.6								Φ6(Tube)								57	20	-	-	-
6V220J08			53.5								Φ8(Tube)								-	-	-	-	
6V220J10			53.5								Φ10(Tube)								-	-	-	-	

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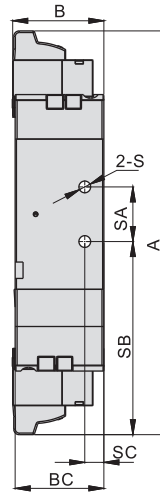
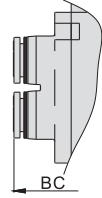
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## 6V Series

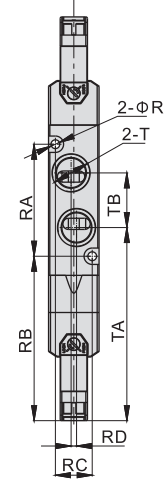
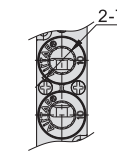
6V0530  
6V130  
6V230



Tube type



Tube type



Model/Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC	
6V0530M5	110	31	21	10.6	M5X0.8	59	1	M5X0.8	19	50	M5X0.8	54	10	2.1	22.5	48	7.5	0	Φ2.6	10	54	4	
6V0530J04			Φ4(Tube)								-								-	-			
6V130M5	133	32	24	15.5	M5X0.8	72.5	-	M5X0.8	29.8	58	M5X0.8	64.7	15.4	2.6	34	55.5	11	-	Φ3.2	14	65.5	4	
6V13006			1/8"		1/8"						-								-	-			
6V130J04			39.5		Φ4(Tube)						64								16.5	-	-	-	
6V130J06			41		Φ6(Tube)						-								-	-			
6V130J08			42.5		Φ8(Tube)						-								-	-			
6V23006	148	33.5	32.5	18.5	1/8"	81	3.2	PT1/8	36	63	1/8"	72	18	3.2	41	60.2	13.5	2	-	Φ4.3	20	70.7	7
6V23008			1/4"		1/4"						-								-	-			
6V230J06			50.6		Φ6(Tube)						71								20	-	-		
6V230J08			Φ8(Tube)		-						-								-	-			
6V230J10			53.5		Φ10(Tube)						-								-	-			

[Note]: The base of the tube type solenoid valve is only used with the base. No through hole "S" on the side.