



# 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, 6V300 series are optional.

### Extruded 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

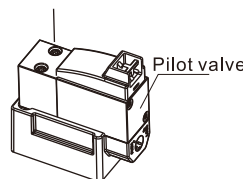
1. Don't throw or drop the solenoid valve when take it, to avoid breaking valve;
2. Because solenoid pilot valve is sophisticated component, can't crash pilot valve by outside force, otherwise solenoid valve break possibly;
3. Don't dismantle solenoid valve freely, if the screw(M1.6X14) becomes loose, 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:

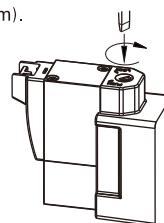
Activate by push the button in the direction shown



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



Normal position



Locked position

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



### Specification

Model	6V0510	6V0520	6V0530	6V110	6V120	6V130
Port size [Note1]	Thread type			In=Out=Exh=M5		
	Tube type			In=Out=Exh=M5(or=1/8")		
Orifice size(Cv) [Note4]	M5:3.4mm <sup>2</sup> (0.2)		6V0530CM5: 2.2mm <sup>2</sup> (0.13)	06:8.9mm <sup>2</sup> (0.52)		6V130C06: 8.0mm <sup>2</sup> (0.47)
	Weight	35g	50g	65g	60g	75g
Model	6V210	6V220	6V230	6V310	6V320	6V330
Port size [Note1]	Thread type			In=Out=3/8" Exh=1/4"		
	Tube type			A port=B port=Φ4 (or=Φ6) (or=Φ8)		
Orifice size(Cv) [Note4]	08:15.4mm <sup>2</sup> (0.91)		6V230C08: 14.2mm <sup>2</sup> (0.84)	10:38.4mm <sup>2</sup> (2.26)		6V330C10: 30.5mm <sup>2</sup> (1.8)
	Weight	100g	115g	130g	230g	265g
Fluid	Air(to be filtered by 40 μm filter element)					
Acting	Internal pilot					
Operating pressure	5/3 way			0.2~0.8MPa(29~114psi)		
	5/2 way			0.15~0.8MPa(21~114psi)		
Proof pressure	1.2MPa(175psi)					
Temperature	-20~70℃					
Material of body	Aluminum alloy					
Lubrication [Note3]	Not required					
Pilot valve's Exhaust type	Centralized exhaust type					
Max.frequency [Note2]	5 cycle/sec		3 cycle/sec	5 cycle/sec		3 cycle/sec

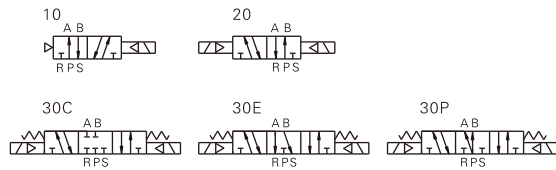
[Note1] G thread is available.

[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.

[Note4] Equivalent orifice S and Cv are all calculated from the flow rate data.

### Symbol



### 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
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



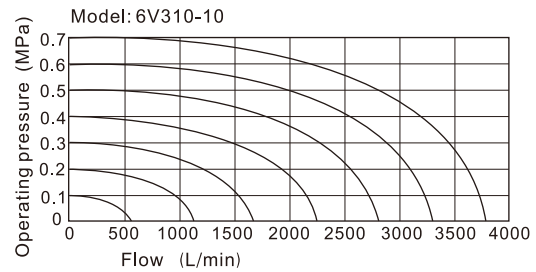
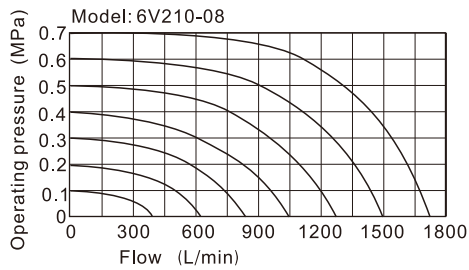
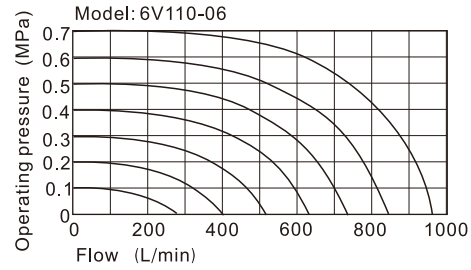
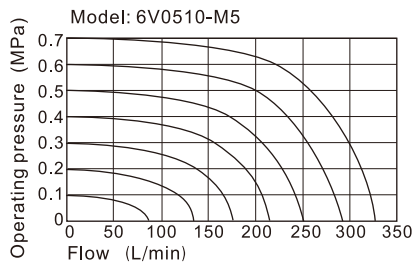
① Model	6V: Solenoid valve (5/2, 5/3 way)						
② Code	05: 0500 Series	1: 100 Series		2: 200 Series		3: 300 Series	
③ Valve type	10: Single solenoid 5/2 way			20: Double solenoid 5/2 way			
	30C: Double solenoid 5/3 way closed center		30E: Double solenoid 5/3 way exhaust center				
	30P: Double solenoid 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"	06: 1/8"	08: 1/4"	10: 3/8"
	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 Wire length			050: 0.5m	200: 2.0m			
⑧ Thread type [Note1]	-			G: G Thread			

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

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

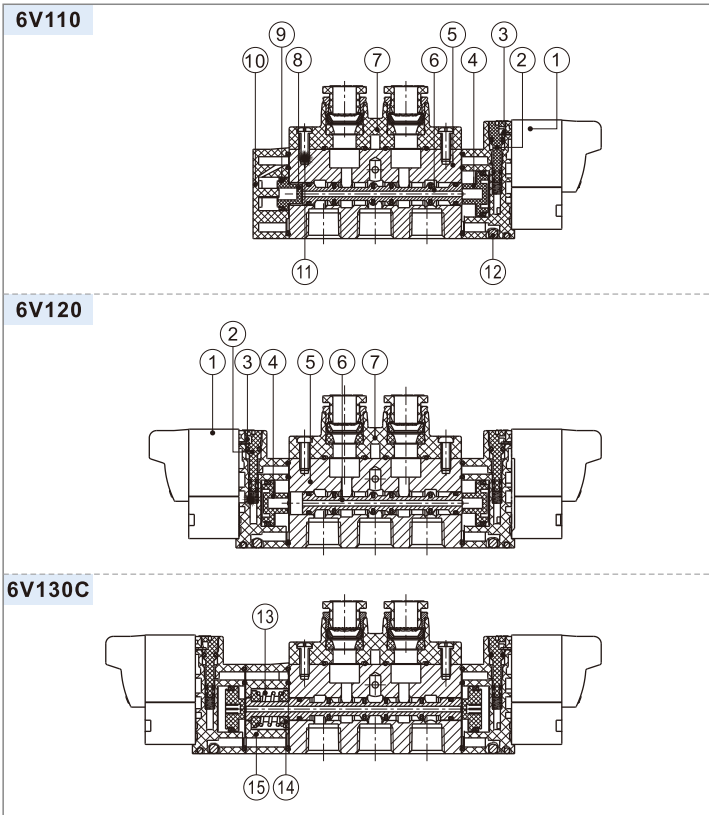
## 6V Series

### Flow chart



The data in flow rate chart are obtained from AirTAC lab.

### Inner structure



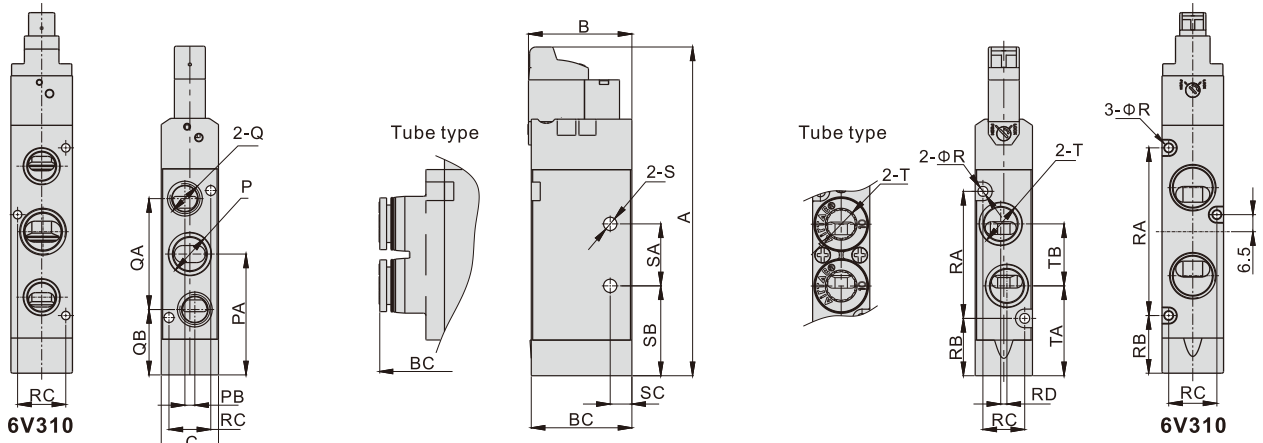
No.	Item	No.	Item	No.	Item
1	Pilot valve	6	Spool	11	Bolt
2	Manual override	7	Connecting block	12	Steel ball
3	Pilot kit	8	Little piston	13	Spring
4	Big piston	9	Gasket	14	Return holder
5	Body	10	Bottom cover	15	Side cover

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

## 6V Series

### Dimensions

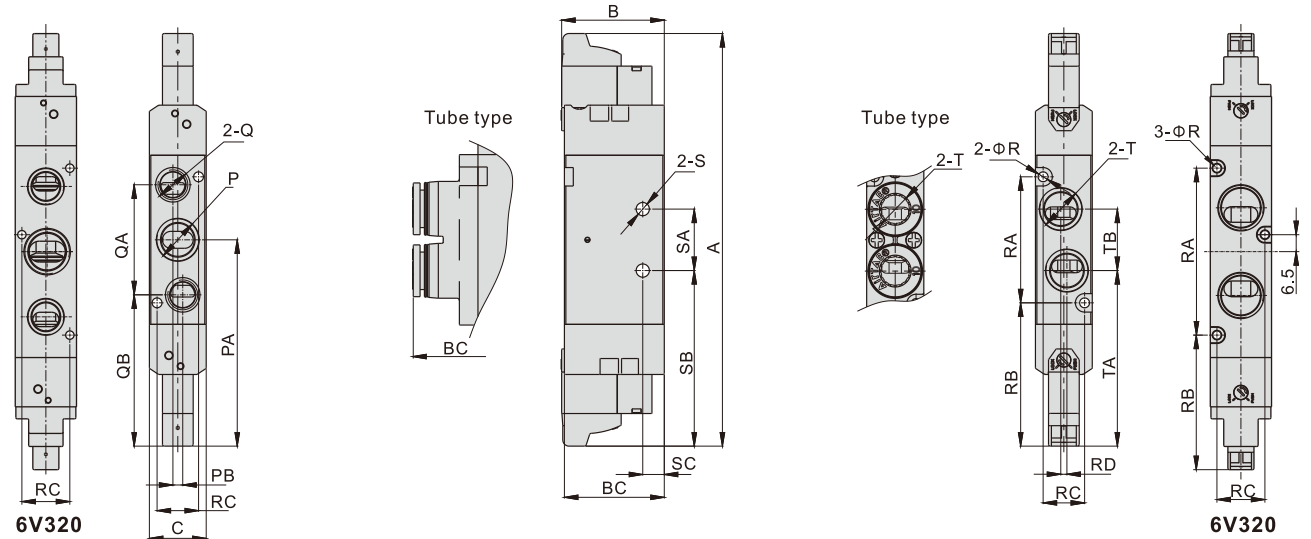
6V0510  
6V110  
6V210  
6V310



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	1/8"	28	19	1/8"	24.5	16.5	2.6	34	16	11	0	Φ3.2	14	26	4
6V110J04			Φ4(Tube)								-								-	-		
6V110J06			41								Φ6(Tube)								-	-	-	
6V110J08			42.5								Φ8(Tube)								-	-	-	
6V21006	106	33.5	32.5	18.5	1/8"	39	3.2	1/8"	36	21	1/8"	29	20	3.2	41	18.5	13.5	2	Φ4.3	20	29	7
6V21008			1/4"								Φ4.3								20	29	7	
6V210J06			50.6								Φ6(Tube)								-	-	-	
6V210J08			53.5								Φ8(Tube)								-	-	-	
6V210J10	53.5	Φ10(Tube)	-	-	-																	
6V31010	137.5	46	46	23.5	3/8"	54	0.5	1/4"	50	29	3/8"	37	33.5	3.2	64	22	18.4	0	Φ4.3	25	41.5	8

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

6V0520  
6V120  
6V220  
6V320



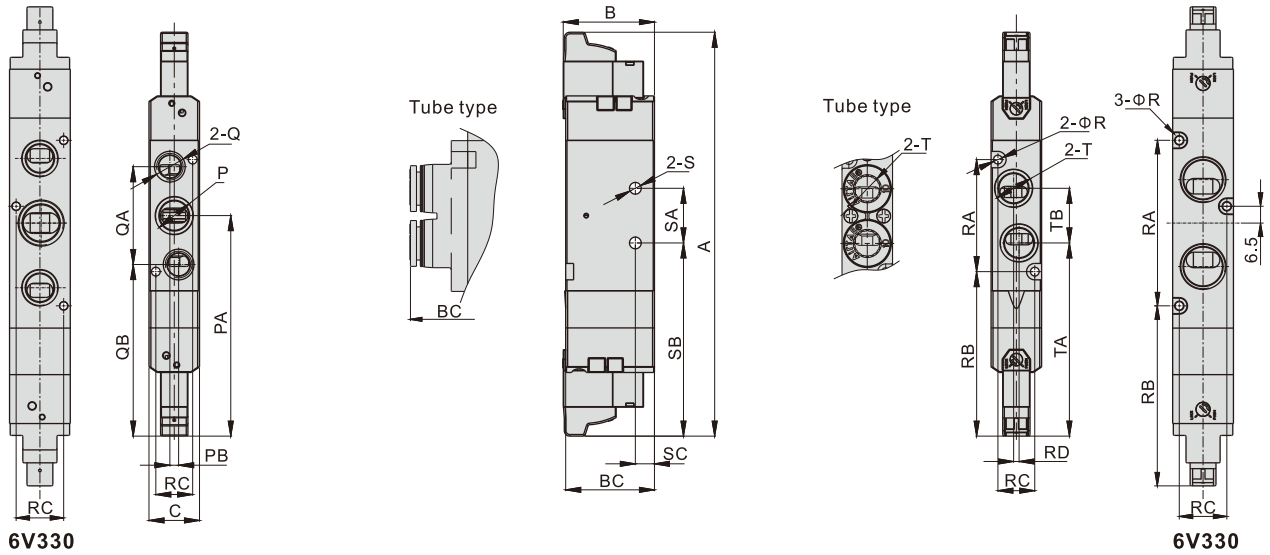
Model/Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC
6V0520M5	101.5	31	21	10.6	M5X0.8	51	1	M5X0.8	19	41	M5X0.8	45.5	10	2.1	22.5	39.5	7.5	0	Φ2.6	10	45.5	4
6V0520J04			Φ4(Tube)								-								-	-		
6V120M5	121.5	32	24	15.5	M5X0.8	61	2.6	1/8"	28	47	M5X0.8	53.7	15.4	2.6	34	44	11	0	Φ3.2	14	54	4
6V120J04			1/8"								Φ4(Tube)								-	-	-	
6V120J06			39.5								Φ6(Tube)								-	-	-	
6V120J08			41								Φ8(Tube)								-	-	-	
6V22006	134	33.5	32.5	18.5	1/8"	67	3.2	1/8"	36	49	1/8"	57	20	3.2	41	46.5	13.5	2	Φ4.3	20	57	7
6V22008			1/4"								Φ4.3								20	57	7	
6V220J06			50.6								Φ6(Tube)								-	-	-	
6V220J08			53.5								Φ8(Tube)								-	-	-	
6V220J10	53.5	Φ10(Tube)	-	-	-																	
6V32010	167	46	46	23.5	3/8"	83.5	0.5	1/4"	50	58.5	3/8"	67	33.5	3.2	64	51.5	18.4	0	Φ4.3	25	71	8

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

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

## 6V Series

6V0530  
6V130  
6V230  
6V330



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	0	-	Φ3.2	14	65.5	4
6V13006			1/8"								-								-	-			
6V130J04			39.5								Φ4(Tube)								-	-	-		
6V130J06			41								Φ6(Tube)								-	-	-		
6V130J08	42.5	Φ8(Tube)	-	-	-																		
6V23006	148	33.5	32.5	18.5	1/8"	81	3.2	1/8"	36	63	1/8"	72	18	3.2	41	60.2	13.5	2	-	Φ4.3	20	70.7	7
6V23008			1/4"								-								-	-			
6V230J06			50.6								Φ6(Tube)								-	-	-		
6V230J08			53.5								Φ8(Tube)								-	-	-		
6V230J10	53.5	Φ10(Tube)	-	-	-																		
6V33010	185	46	46	23.5	3/8"	101.5	0.5	1/4"	50	76.5	3/8"	85	33.5	3.2	64	69.5	18.4	0	Φ4.3	25	89	8	

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