



# 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

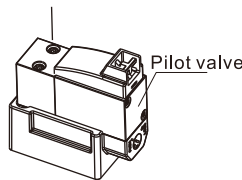
1. Don't throw or drop the solenoid valve when take it, to avoid breaking valve;
2. Because solenoid pilot valve is sophisticated component, can't crash pilot valve by outside force, otherwise solenoid valve break possibly;
3. Don't dismantle solenoid valve freely, if the screw(M1.6X14) becomes loose,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

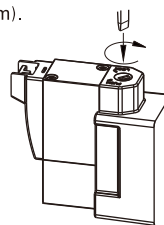
Activate by push the button in the direction shown



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



Normal position



Lucked 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

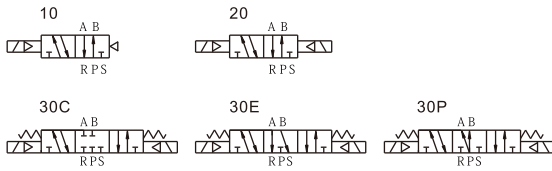


# Solenoid valve (5/2 way, 5/3 way)

## 6V Series



### Symbol



### Specification

Model	6V0510	6V0520	6V0530	6V110	6V120	6V130
Port size [Note1]	Thread type			In=Out=Exh=M5		
	Tube type			In=Out=Exh=M5(or=PT1/8)		
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)		
				06:10.0mm <sup>2</sup> (0.58) 8.5mm <sup>2</sup> (0.51)		
Max.frequency [Note2]	5 cycle/sec	3 cycle/sec	5 cycle/sec	3 cycle/sec	3 cycle/sec	3 cycle/sec
Weight	35g	50g	65g	60g	75g	90g
Model	6V210		6V220		6V230	
Port size [Note1]	Thread type					
	In=Out=PT1/8(or=PT1/4) Exh=PT1/8					
Orifice size(Cv)	Tube type					
	A port=B port=Φ6 (or=Φ8) (or=Φ10)					
Max.frequency [Note2]	06:14.0mm <sup>2</sup> (0.78)				14.0mm <sup>2</sup> (0.82)	
	08:18.0mm <sup>2</sup> (1.06)					
Max.frequency [Note2]	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)		
	5/2 way			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] PT, G, NPT thread are 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 □



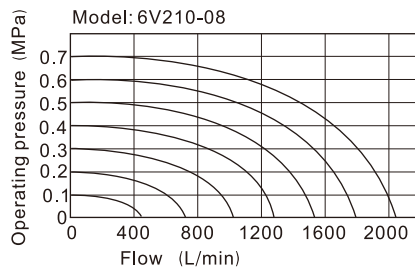
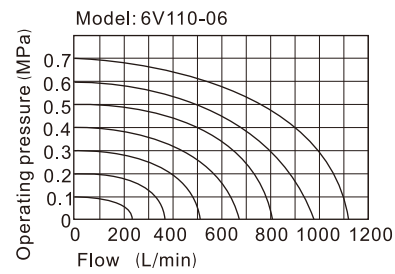
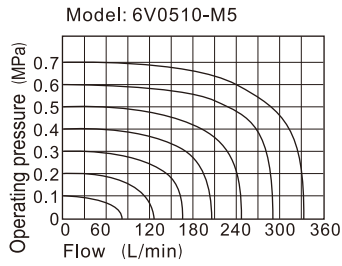
① Model	6V: Solenoid valve (5/2, 5/3 way)				
② Code	05: 0500 Series	1: 100 Series	2: 200 Series		
③ Valve type	10: Single solenoid 5/2 way		20: Double solenoid 5/2 way		
	30C: Double solenoid 5/3 way closed center		30E: Double solenoid 5/3 way exhaust center		
	30P: Double solenoid 5/3 way pressure center				
④ Port type	Blank: Thread type J: Tube type				
⑤ Port size	Thread		Tube		
	M5: M5	M5: M5	06: PT1/8	06: PT1/8	08: PT1/4
⑥ Voltage	A: AC220V		B: DC24V	C: AC110V	F: DC12V
			050: 0.5m	200: 2.0m	
⑦ Line length					
⑧ Thread type [Note1]	-		Blank: PT Thread/G: G Thread/T: NPT Thread		

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

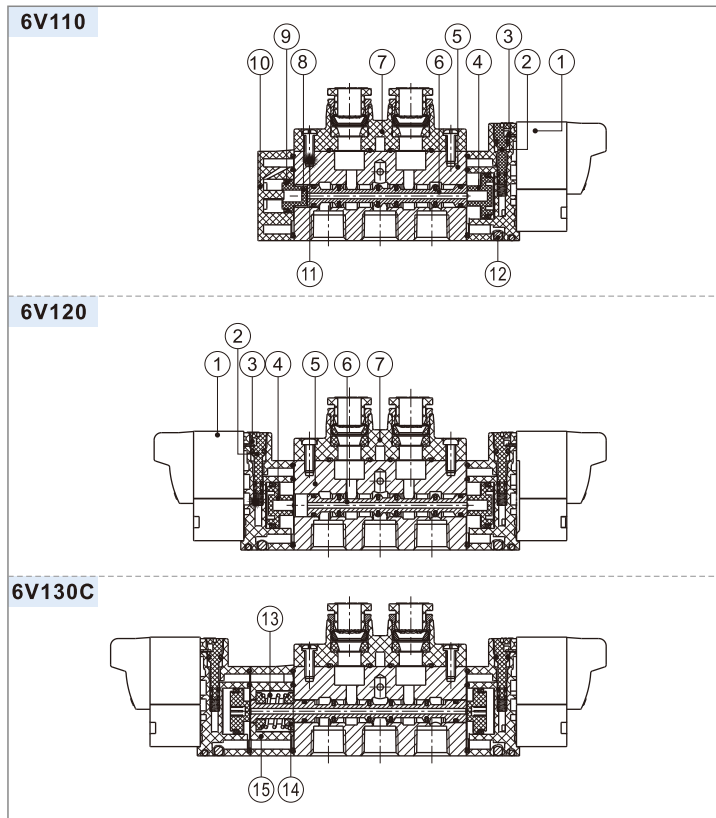
# Solenoid valve (5/2 way, 5/3 way)

## 6V Series

### Flow chart



### Inner structure



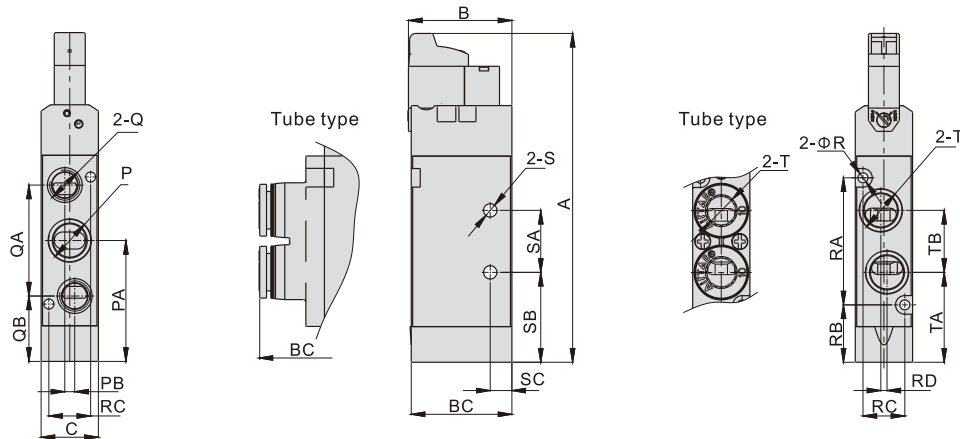
No.	Item	No.	Item	No.	Item
1	Pilot valve	6	Spool	11	Bolt
2	Manual override	7	Connecting block	12	Steel ball
3	Pilot kit	8	Little piston	13	Spring
4	Big piston	9	Gasket	14	Return holder
5	Body	10	Bottom cover	15	Side cover

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

## 6V Series

### Dimensions

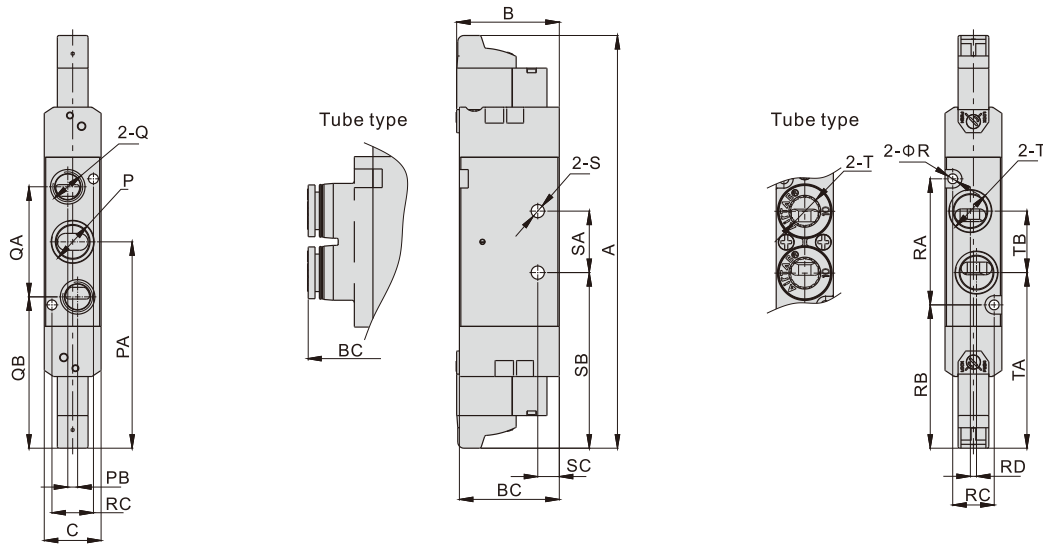
6V0510  
6V110  
6V210



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	-	Φ3.2	14	26	4
6V110J04			PT1/8								Φ4(Tube)								-	-	-		
6V110J06			39.5								41								Φ6(Tube)	-	-	-	
6V110J08			42.5								Φ8(Tube)								-	-	-		
6V210M5			106								33.5								32.5	18.5	PT1/8	39	3.2
6V210J06	PT1/4	Φ6(Tube)		-	-	-																	
6V210J08	50.6	Φ8(Tube)		-	-	-																	
6V210J10	53.5	Φ10(Tube)		-	-	-																	
6V210M5	32.5	PT1/8		30	18	-	-																

[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



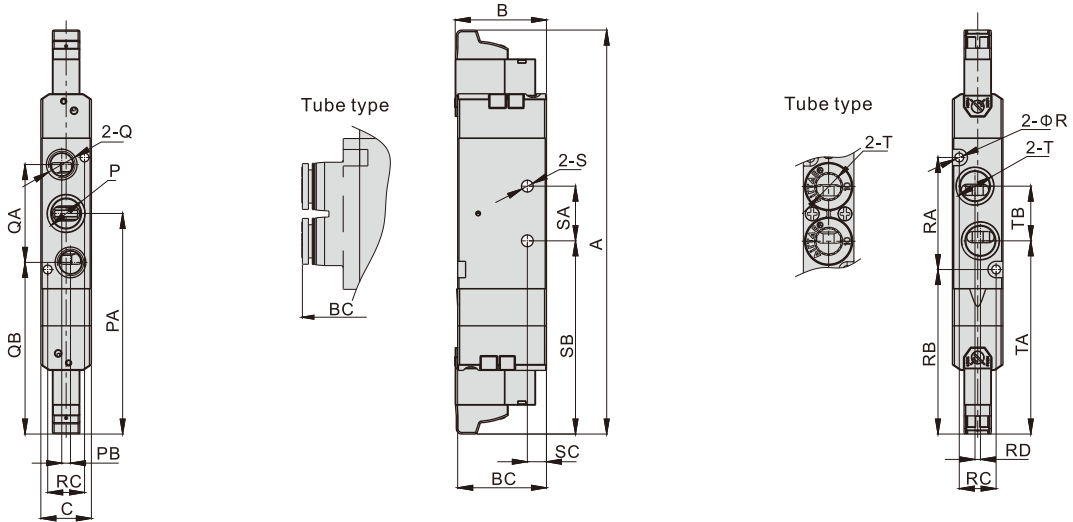
Model/Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC	
6V0520M5	101.5	31	21	10.6	M5X0.8	51	1	M5X0.8	19	41	M5X0.8	45.5	10	2.1	22.5	39.5	7.5	0	Φ2.6	10	45.5	4	
6V0520J04			Φ4(Tube)								-								-	-			
6V120M5	121.5	32	24	15.5	M5X0.8	61	2.6	PT1/8	28	47	M5X0.8	53.7	15.4	2.6	34	44	11	0	-	Φ3.2	14	54	4
6V120J04			PT1/8								Φ4(Tube)								-	-	-		
6V120J06			39.5								41								Φ6(Tube)	-	-	-	
6V120J08			42.5								Φ8(Tube)								-	-	-		
6V220M5			134								33.5								32.5	18.5	PT1/8	67	3.2
6V220J06	PT1/4	Φ6(Tube)		-	-	-																	
6V220J08	50.6	Φ8(Tube)		-	-	-																	
6V220J10	53.5	Φ10(Tube)		-	-	-																	
6V220M5	32.5	PT1/8		58	18	-	-																

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

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

## 6V Series

- 6V0530
- 6V130
- 6V230

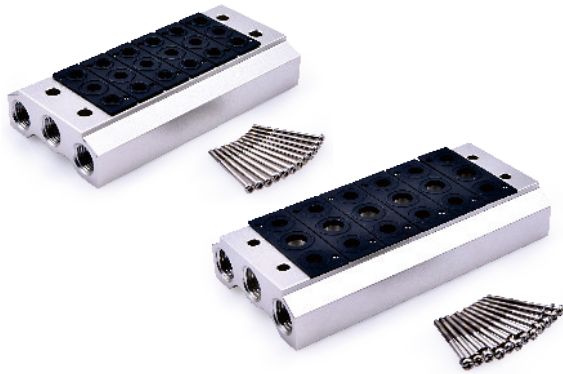


Model/Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC		
6V0530M5	110	31	21	10.6	M5X0.8	59	1	M5X0.8	19	50	M5X0.8	54	10	2.1	22.5	48	7.5	0	Φ2.6	10	54	4		
6V0530J04			Φ4(Tube)								-								-	-				
6V130M5	133	32	24	15.5	M5X0.8	72.5	-	M5X0.8	29.8	58	M5X0.8	64.7	15.4	2.6	34	55.5	11	0	-	Φ3.2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

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

## Manifold for 6V Series



### Specification

Item\Manifold Model	6V0500M	6V100M	6V200M
Fluid	Air(to be filtered by 40 μm filter element)		
Temperature °C	-20~70		
Adaptable valve's series	6V0500 Series	6V100 Series	6V200 Series

### Product feature

1. It is available to integrate the direction control valves of the same series to form valve group to save space and cost.
2. It is easy to examine when there are faults owing to the unified air intake and exhaust and unified wiring.
3. Flexible combination and strong expansion capability can make any combination or expansion of the numbers of direction control valves that are connected.

### Ordering code

**6V100M 5F**  Ordering code for manifold



① Model	6V0500M: 6V0500 Series manifold	6V100M: 6V100 Series manifold	6V200M: 6V200 Series manifold
② Number of stations	1F: 1 Station 2F: 2 Station 3F: 3 Station ..... 20F: 20 Station		
③ Thread type	Blank: PT / G: G Thread / T: NPT Thread		

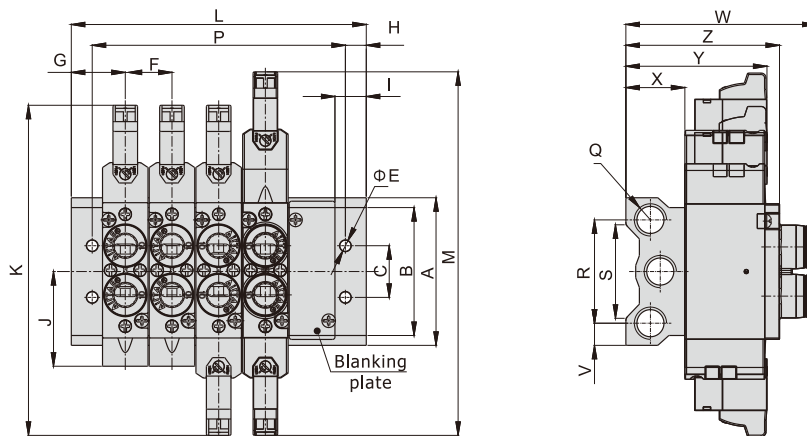
**P-6V100M-R2** Ordering code for blank plate



① Model	6V0500M: 6V0500 Series manifold	6V100M: 6V100 Series manifold	6V200M: 6V200 Series manifold
② Code	R2: Blank plate for manifold		

[Note] 1. Manifold kits contains manifold, seal and screw; 2. Blank plate kits contains blank plate and screw.

### Dimensions



Model\Item	A	B	C	E	F	G	H	I	J	K	M	Q	R	S	V	W			X	Y	Z	
6V0500M	46	32	16	4.5	11	15	5	9.5	22.5	102	110	PT1/8	32	26	7	48.5(M5)	49.5(J04)			17	35.5	47.5
6V100M	57.5	43	20	4.5	16	17	5	9.5	33	121.5	133.5	PT1/4	40	36	9	55(M5/06)	61.2(J04)/62.7(J06)	64.5(J08)	22	46	54	
6V200M	60	52	21	4.5	19	18.5	5	9.5	38.5	134.5	148	PT1/4	42	38	9	58.5(06/08)	75.2(J06/J08)	77.5(J10)	24	57.5	62.5	

Model\Item	L																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
6V0500M	30	41	52	63	74	85	96	107	118	129	140	151	162	173	184	195	206	217	228	239
6V100M	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338
6V200M	37	56	75	94	113	132	151	170	189	208	227	246	265	284	303	322	341	360	379	398

Model\Item	P																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
6V0500M	20	31	42	53	64	75	86	97	108	119	130	141	152	163	174	185	196	207	218	229
6V100M	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
6V200M	27	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388