

# Solenoid valve(3/2 way)

## 6TV Series



### Specification

Model	6TV0510	6TV0520	6TV110	6TV120
Port size [Note1]	In=Out=Exh=M5		In=Out=Exh=M5(or=1/8")	
Orifice size(Cv)[Note4]	M5:3.4mm <sup>2</sup> (0.2)		06: 8.9mm <sup>2</sup> (0.52)	
Weight (g)	28	43	52	67
Model	6TV210	6TV220	6TV310	6TV320
Port size [Note1]	06: In=Out=Exh=1/8" 08: In=Out=1/4" Exh=1/8"		In=Out=3/8" Exh=1/4"	
Orifice size(Cv)[Note4]	08: 15.4mm <sup>2</sup> (0.91)		10:38.4mm <sup>2</sup> (2.26)	
Weight (g)	90	105	180	215
Fluid	Air(to be filtered by 40 μm filter element)			
Acting	Internal pilot			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.2MPa(175psi)			
Temperature	-20~70°C			
Material of body	Aluminum alloy			
Lubrication [Note2]	Not required			
Exhaust type of pilot valve	Main valve and pilot valve concentrated exhaust			
Max.frequency [Note3]	5 cycle/sec			

[Note1] G thread is available.

[Note2] Once lubricated air is used, continue with same medium to optimize valve life span. Lubricants like ISO VG32 or equivalent are recommended.

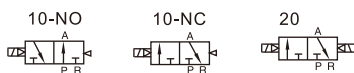
[Note3] The maximum actuation frequency is in the no-load state.

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

### 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	Dust-proof			
Temperature classification	F Class			
Electrical entry	Terminal			
Activating time	0.05 sec and below			

### 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 port.
3. The body is extruded by aluminum alloy, and the inner hole is specially processed to increase the flow rate.
4. Threaded type and quick connector type are optional, and can integrate manifold to form valve group to save space.

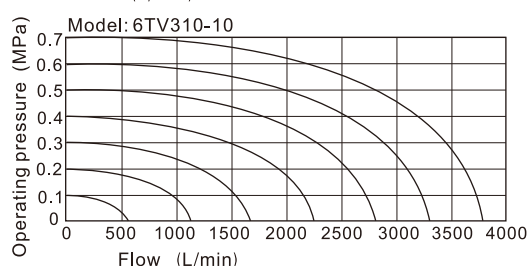
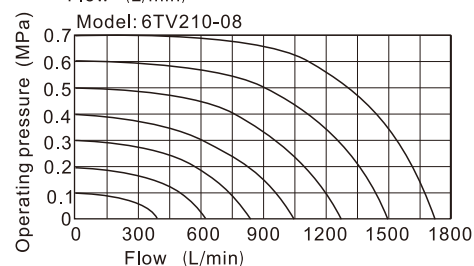
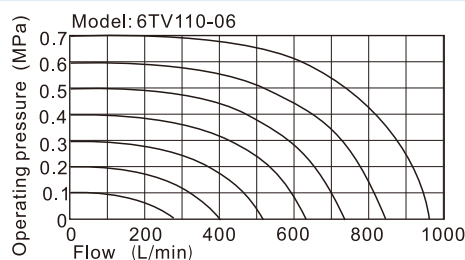
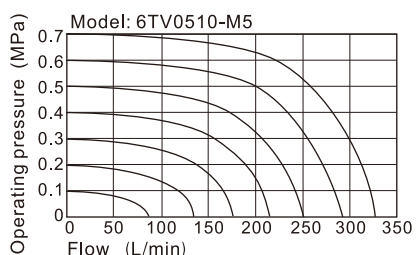
### Ordering code

6TV 1 10 06 NC B 050 G



① Model	6TV: Solenoid valve (3/2 way)					
② Code	05: 0500 Series	1: 100 Series	2: 200 Series	3: 300 Series		
③ Valve type	10: Single solenoid		20: Double solenoid			
④ Port size	M5: M5	M5: M5	06: 1/8"	06: 1/8"	08: 1/4"	10: 3/8"
⑤ Acting type	NC: Normally closed		NO: Normally opened		[Note: Double solenoid no this code]	
⑥ Voltage	A: AC220V		B: DC24V	C: AC110V	F: DC12V	
⑦ Wire length			050: 0.5m	200: 2.0m		
⑧ Thread type	-			G: G Thread		

### Flow chart

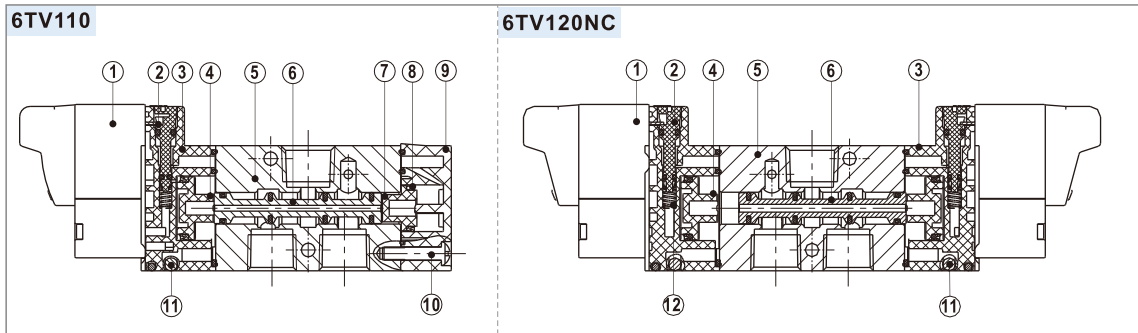


The data in flow rate chart are obtained from AirTAC lab.

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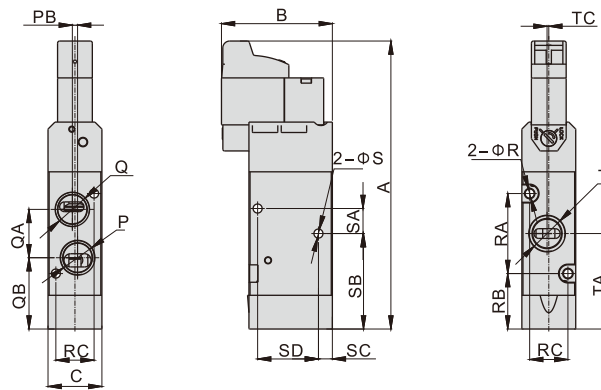
### Inner structure



No.	Item
1	Pilot valve
2	Manual override
3	Pilot kit
4	Big piston
5	Body
6	Spool
7	Small piston
8	Gasket
9	Bottom cover
10	Bolt
11	Steel ball
12	Spring

### Dimensions

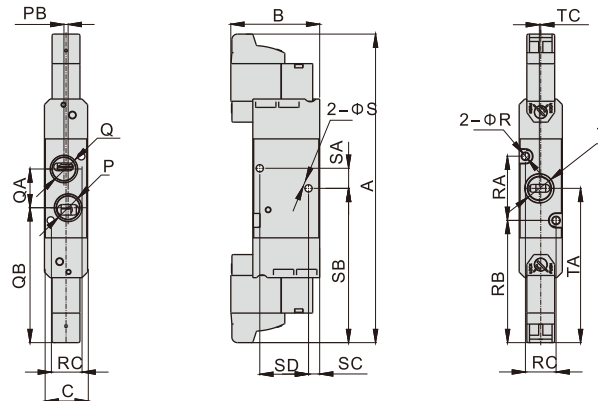
6TV0510  
6TV110  
6TV210  
6TV310



Model\Item	A	B	C	P	PB	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC	SD	T	TA	TC
6TV0510M5	64.5	30.5	10.6	M5X0.8	1	M5X0.8	9.5	13.5	2.1	14	11.5	7.5	-	-	-	-	-	M5X0.8	18.5	0.5
6TV110M5	83	32	15.5	M5X0.8	-	M5X0.8	14	20.5	2.6	23	16	11	Φ2.6	7.2	27.5	4	17.5	M5X0.8	27.5	-
6TV11006	83	32	15.5	1/8"	1.5	1/8"	14	20.5	2.6	23	16	11	Φ2.6	7.2	27.5	4	17.5	1/8"	27.5	0.5
6TV21006	97	33.5	18.5	1/8"	-	1/8"	18	25.5	3.2	33	18	13.5	Φ3.2	12	34.5	7	21	1/8"	34.5	-
6TV21008	97	33.5	18.5	1/4"	-	1/8"	18	25.5	3.2	33	18	13.5	Φ3.2	12	34.5	7	21	1/4"	34.5	1
6TV31010	116.5	46	23.5	3/8"	-	1/4"	28	29.5	3.2	43	22	18.4	Φ4.3	15	58.5	8	31	3/8"	43.5	-

[Note]: 6TV0510 type no through hole "S" on the side.

6TV0520  
6TV120  
6TV220  
6TV320



Model\Item	A	B	C	P	PB	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC	SD	T	TA	TC
6TV0520M5	93	30.5	10.6	M5X0.8	1	M5X0.8	9.5	41.5	2.1	14	39.5	7.5	-	-	-	-	-	M5X0.8	18.5	0.5
6TV120M5	110.5	32	15.5	M5X0.8	-	M5X0.8	14	48.5	2.6	23	44	11	Φ2.6	7.2	55.5	4	17.5	M5X0.8	27.5	-
6TV12006	110.5	32	15.5	1/8"	1.5	1/8"	14	48.5	2.6	23	44	11	Φ2.6	7.2	55.5	4	17.5	1/8"	27.5	0.5
6TV22006	125	33.5	18.5	1/8"	-	1/8"	18	53.5	3.2	33	46	13.5	Φ3.2	12	62.5	7	21	1/8"	34.5	-
6TV22008	125	33.5	18.5	1/4"	-	1/8"	18	53.5	3.2	33	46	13.5	Φ3.2	12	62.5	7	21	1/4"	34.5	1
6TV32010	146	46	23.5	3/8"	-	1/4"	28	59	3.2	43	51.5	18.4	Φ4.3	15	73	8	31	3/8"	43.5	-

[Note]: 6TV0520 type no through hole "S" on the side.