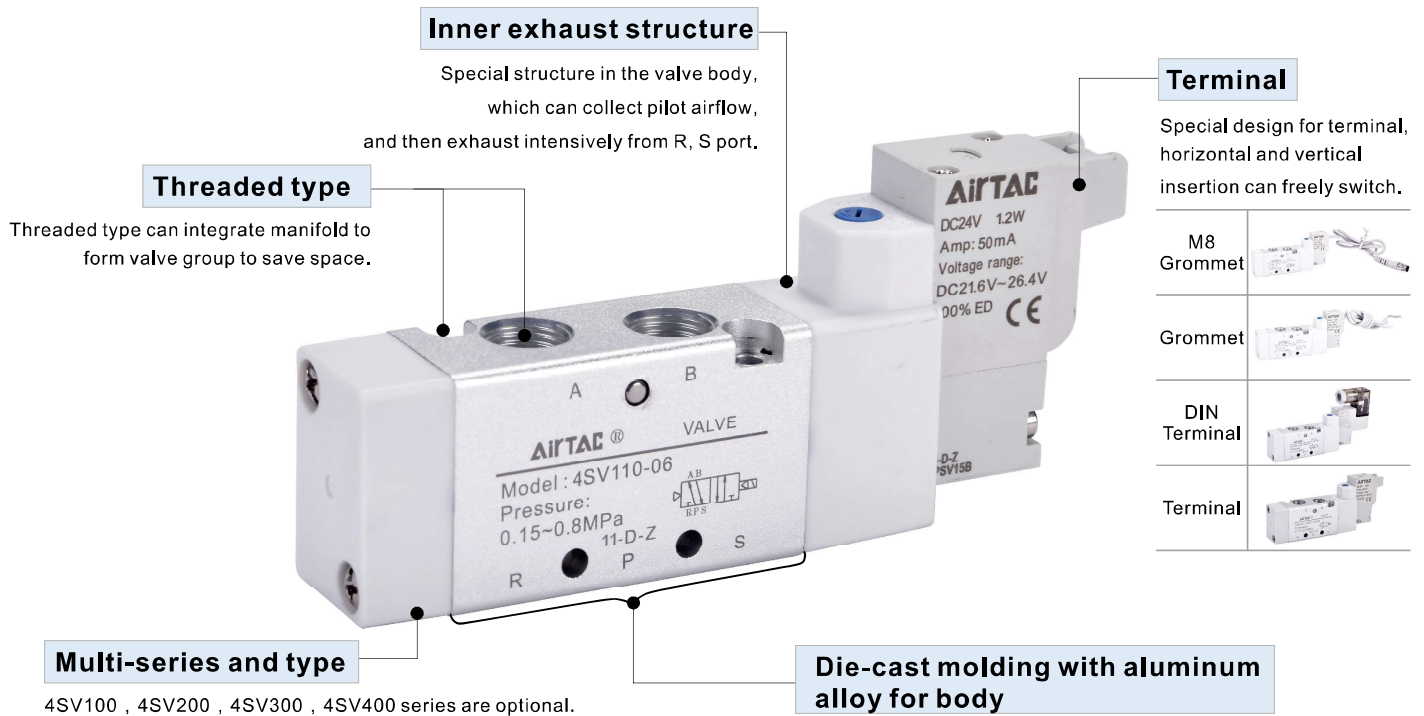




4SV Series Solenoid valve(5/2 way,5/3 way)

Compendium of 4SV Series



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 M2.5 × 17 becomes loose, please tighten it by torque 0.4~0.45N.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).

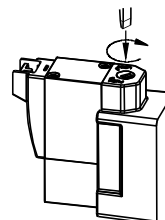
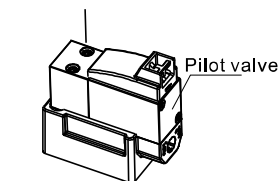
! Attention



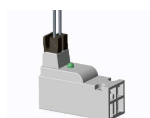
Normal position



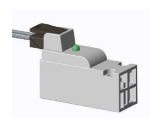
Locked position



- 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)

4SV Series



Specification

Model	4SV110	4SV120	4SV130	4SV210	4SV220	4SV230
Port size[Note1]	In=Out=Exhaust=M5(or=1/8")			In=Out=1/8"(or=1/4")Exhaust=1/8"		
Orifice size (Cv) [Note4]	06:10.2mm ² (0.6)		4SV130C06: 8.6mm ² (0.51)	08:17.0mm ² (1)		4SV230C08: 13.6mm ² (0.8)
Weight	84.4g	112.5g	121g	126g	156g	176g
Model	4SV310	4SV320	4SV330	4SV410	4SV420	4SV430
Port size[Note1]	In=Out=1/4"(or=3/8") Exhaust=1/4"			In=Out=Exhaust=1/2"		
Orifice size (Cv) [Note4]	10:31mm ² (1.8)		4SV330C10: 23mm ² (1.4)	15:57.6mm ² (3.2)		4SV430C10: 54.1mm ² (3.0)
Weight	208g	239.5g	265g	417.5g	453g	499g
Fluid	Air(to be filtered by 40μm filter element)					
Acting	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 [Note2]	Not required					
Exhaust type of pilot valve	Main valve and pilot valve is centralized exhaust					
Max. frequency[Note3]	5 cycle/sec		3 cycle/sec	5 cycle/sec		3 cycle/sec

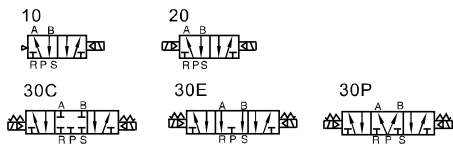
[Note1] G thread is available.

[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.

Symbol



Product feature

1. Electrical entry is terminal, horizontal and vertical insertion can freely switch.
2. Inner exhaust structure, which can collect pilot airflow, and then exhaust intensively from R, S port.
3. Die-cast molding with aluminum alloy for body. The shape of cavity is reasonable, which can increase valve's flow.
4. Threaded type can integrate manifold to form valve group to save space.

Coil specification

Item	Specification				
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: +15% ~-10%			DC: ±10%	
Power of consumption	2.0VA			1.2W	
Protection	IP65				
Temperature classification	F Class				
Activating time	0.05 sec and below				

Ordering code

4SV 2 10 06 B □ □ □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①Model	4SV : 5 port 2(3) position solenoid valve							
②Code	1 : 100 Series		2 : 200 Series		3 : 300 Series		4 : 400 Series	
③Valve 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)							
④Port type	M5 : M5	06 : 1/8"	06 : 1/8"	08 : 1/4"	08 : 1/4"	10 : 3/8"	15 : 1/2"	
⑤Voltage	A : AC220V		B : DC24V		C : AC110V		E : AC24V F : DC12V	
⑥Electrical entry	Blank:Terminal I:Grommet D:DIN Terminal M:M8 Grommet							
⑦Wire length	Blank : 0.5m 200 : 2.0m							
⑧Thread type	No this code	G: G Thread						

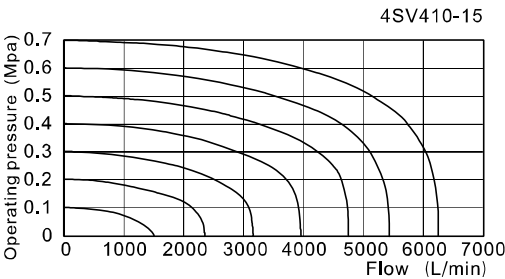
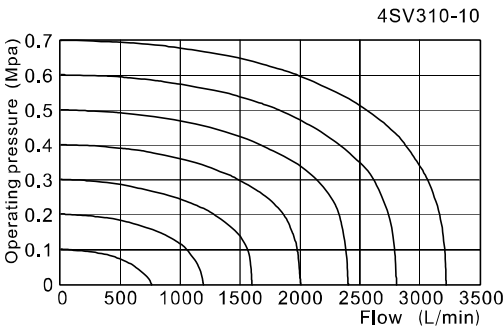
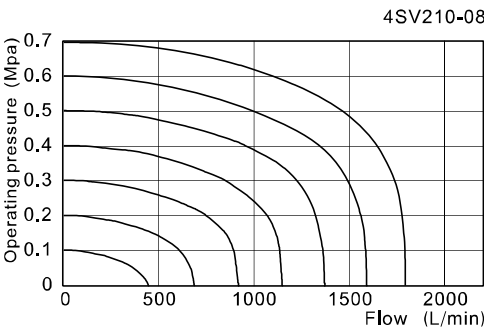
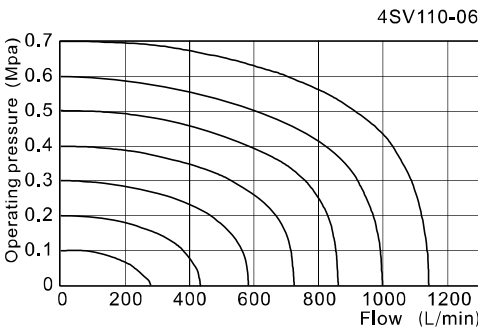
Note: 1. wire length only for terminal, 0.5m/2m are optional;

2. The wire length and M8 grommet length are 0.5m.

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

4SV Series

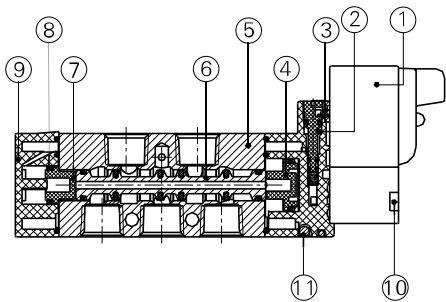
Flow chart



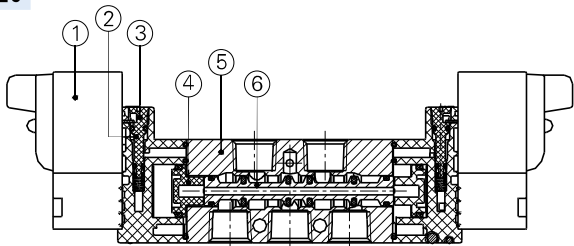
The data in flow rate chart are obtained from AirTAC lab.

Inner structure

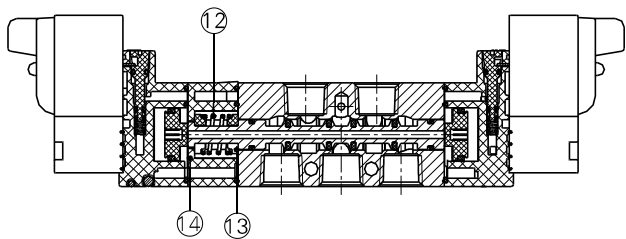
4SV110



4SV120



4SV130C



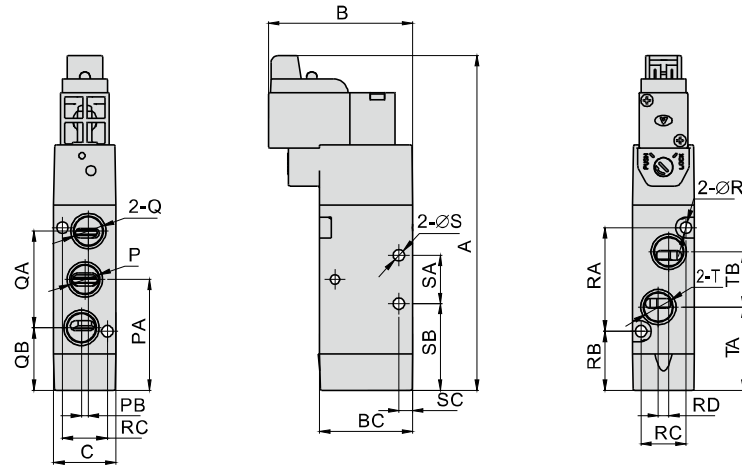
No.	Item	No.	Item	No.	Item
1	Pilot valve	6	Spool	11	Steel ball
2	Manual override	7	Little piston	12	Spring
3	Pilot kit	8	Gasket	13	Return holder
4	Big piston	9	Bottom cover	14	Side cover
5	Body	10	Bolt		

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

4SV Series

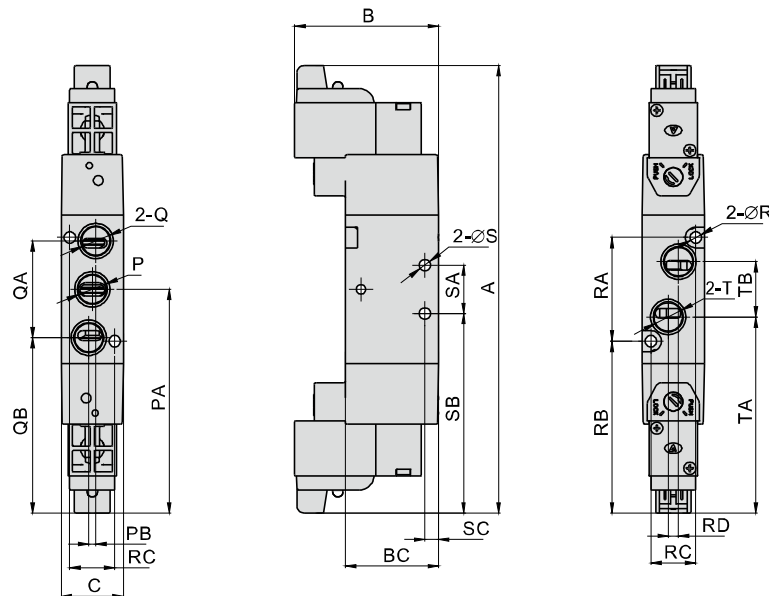
Dimensions

4SV110
4SV210
4SV310
4SV410



Model\Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC
4SV110M5	97	41.5	27	18	M5×0.8	32	0	M5×0.8	27	18.5	M5×0.8	25	14	3.3	30	17	13	0	3.3	14	25	4
4SV11006	97	41.5	27	18	1/8"	32	2	1/8"	28	18	1/8"	24	16	3.3	30	17	13	3	3.3	14	25	4
4SV21006	106	41	35	22	1/8"	36	0	1/8"	36	18	1/8"	27	18	3.3	38	17	17	0	4.3	20	26	7
4SV21008	106	41	35	22	1/4"	36	0	1/8"	36	18	1/4"	25.5	21	3.3	38	17	17	3	4.3	20	26	7
4SV31008	126	43.5	40	27	1/4"	46.5	0	1/4"	45	24	1/4"	35.5	22	4.3	50	21.5	20	0	4.3	24	34.5	6.5
4SV31010	126	43.5	40	27	3/8"	46.5	0	1/4"	45	24	3/8"	34.5	24	4.3	50	21.5	20	4	4.3	24	34.5	6.5
4SV41015	159.5	50	50	34	1/2"	62.5	0	1/2"	63.5	31	1/2"	44.5	36	4.3	72	26.5	27	4	5.5	28	48.5	7.5

4SV120
4SV220
4SV320
4SV420

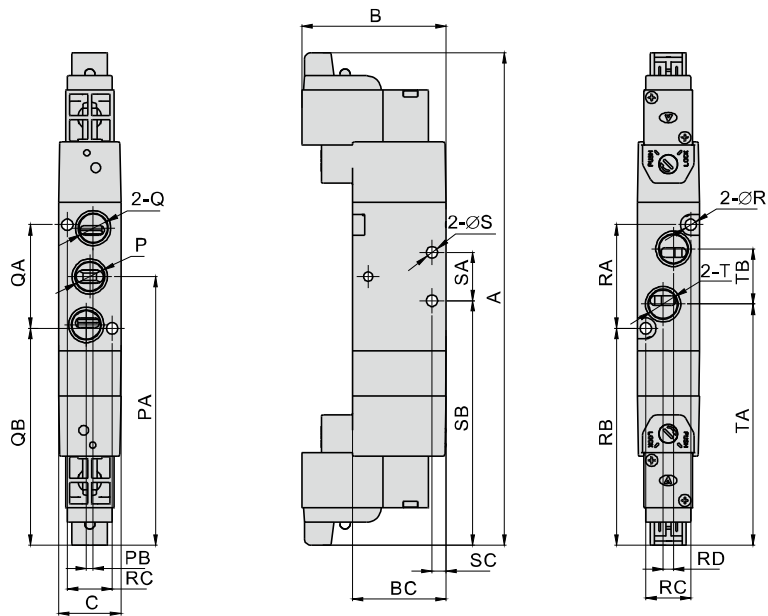


Model\Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC
4SV120M5	129.5	41.5	27	18	M5×0.8	65	0	M5×0.8	27	51.5	M5×0.8	58	14	3.3	30	50	13	0	3.3	14	58	4
4SV12006	129.5	41.5	27	18	1/8"	65	2	1/8"	28	51	1/8"	57	16	3.3	30	50	13	3	3.3	14	58	4
4SV22006	139.5	41	35	22	1/8"	70	0	1/8"	36	52	1/8"	61	18	3.3	38	51	17	0	4.3	20	60	7
4SV22008	139.5	41	35	22	1/4"	70	0	1/8"	36	52	1/4"	59.5	21	3.3	38	51	17	3	4.3	20	60	7
4SV32008	159.5	43.5	40	27	1/4"	80	0	1/4"	45	57.5	1/4"	69	22	4.3	50	55	20	0	4.3	24	68	6.5
4SV32010	159.5	43.5	40	27	3/8"	80	0	1/4"	45	57.5	3/8"	68	24	4.3	50	55	20	4	4.3	24	68	6.5
4SV42015	159.5	50	50	34	1/2"	96.5	4	1/2"	63.5	65	1/2"	78.5	36	4.3	72	60.5	27	4	5.5	28	82.5	7.5

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

4SV Series

- 4SV130
- 4SV230
- 4SV330
- 4SV430



Model\Item	A	B	BC	C	P	PA	PB	Q	QA	QB	T	TA	TB	R	RA	RB	RC	RD	S	SA	SB	SC
4SV130M5	142.5	41.5	27	18	M5×0.8	78	0	M5×0.8	27	64.5	M5×0.8	71	14	3.3	30	63	13	0	3.3	14	71	4
4SV13006	142.5	41.5	27	18	1/8"	78	2	1/8"	28	64	1/8"	70	16	3.3	30	63	13	3	3.3	14	71	4
4SV23006	158.5	41	35	22	1/8"	89	0	1/8"	36	71	1/8"	80	18	3.3	38	70	17	0	4.3	20	79	7
4SV23008	158.5	41	35	22	1/4"	89	0	1/8"	36	71	1/4"	78.5	21	3.3	38	70	17	3	4.3	20	79	7
4SV33008	178.5	43.5	40	27	1/4"	99	0	1/4"	45	76.5	1/4"	88	22	4.3	50	74	20	0	4.3	24	87	6.5
4SV33010	178.5	43.5	40	27	3/8"	99	0	1/4"	45	76.5	3/8"	87	24	4.3	50	74	20	4	4.3	24	87	6.5
4SV43015	214.5	50	50	34	1/2"	117.5	4	1/2"	63.5	86	1/2"	99.5	36	4.3	72	81.5	27	4	5.5	28	103.5	7.5

AirTAC