

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

7SA Series



Specification

Model	7SA0510		7SA0520	7SA0530	7SA110	7SA120	7SA130
Port size [Note1]	In=Out=Exh=M5				In=Out=Exh=1/8"		
Orifice size (Cv) [Note4]	M5:4.25mm ² (0.25)			7SA0530M5: 3.7mm ² (0.2)	06:12.3mm ² (0.7)		7SA130C06: 10mm ² (0.5)
Weight	22.5g	26.5g	28.5g	54g	62.5g	67.5g	
Model	7SA210	7SA220	7SA230	7SA310	7SA320	7SA330	
Port size [Note1]	In=Out=1/4" Exh=1/8"			In=Out=3/8" Exh=1/4"			
Orifice size (Cv) [Note4]	08:17.9mm ² (1.05)			7SA230C08: 16.2mm ² (0.9)	10:38.4mm ² (2.25)		7SA330C10: 30.5mm ² (1.8)
Weight	101.5g	121g	130g	247.5g	286.5g	332g	
Fluid	Air(to be filtered by 40μm filter element)						
Acting	External air control						
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						
Max.frequency [Note3]	5 cycle/sec		3 cycle/sec	5 cycle/sec		3 cycle/sec	

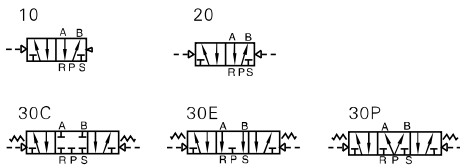
[Note1] PT thread, G thread and NPT thread are available.

[Note2] Once lubricated air is used, continue with same medium to optimise 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. The body is extruded by aluminum alloy, and the inner hole is specially processed to increase the flow rate.
2. Can integrate manifold to form valve group to save space.

Ordering code

7SA 2 10 08 □

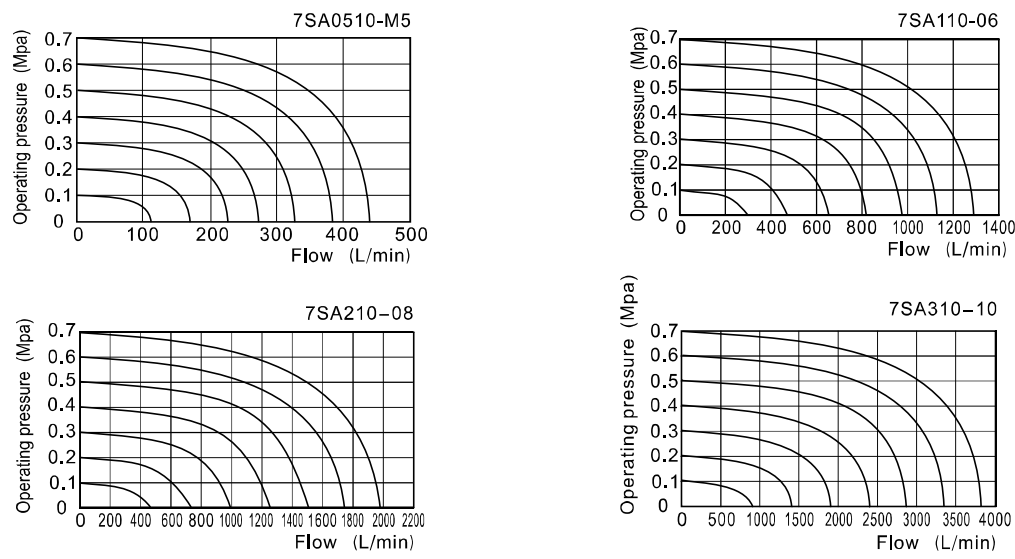
① ② ③ ④ ⑤

①Model	7SA: Air valve (5/2, 5/3 way)			
②Code	05: 0500 Series	1: 100 Series	2: 200 Series	3: 300 Series
③Valve type	10: Single air control 5/2 way		20: Double air control 5/2 way	
	30C : Double air control 5/3 way closed center		30E : Double air control 5/3 way exhaust center	
	30P: Double air control 5/3 way pressure center			
④Port type	M5: M5	06: 1/8"	08: 1/4"	10: 3/8"
⑤Thread type	No this code	Blank: PT Thread	G: G Thread	T: NPT Thread

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

7SA Series

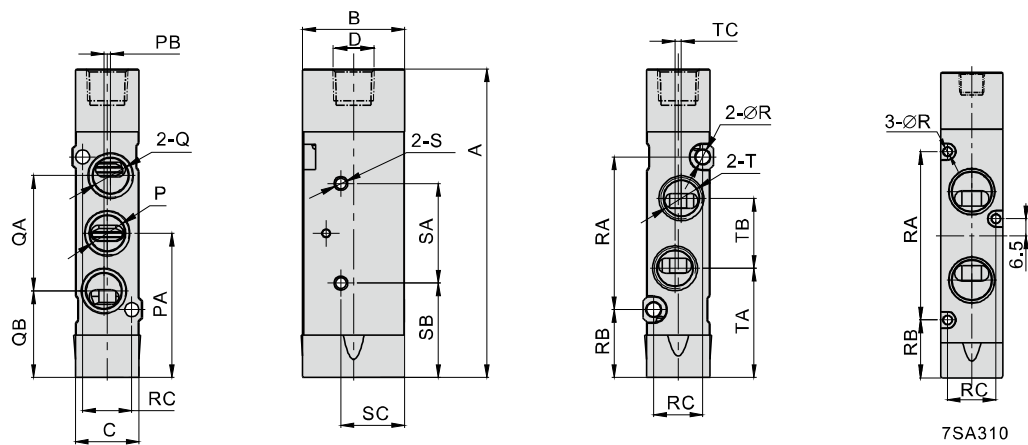
Flow chart



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

Dimensions

7SA0510
7SA110
7SA210
7SA310

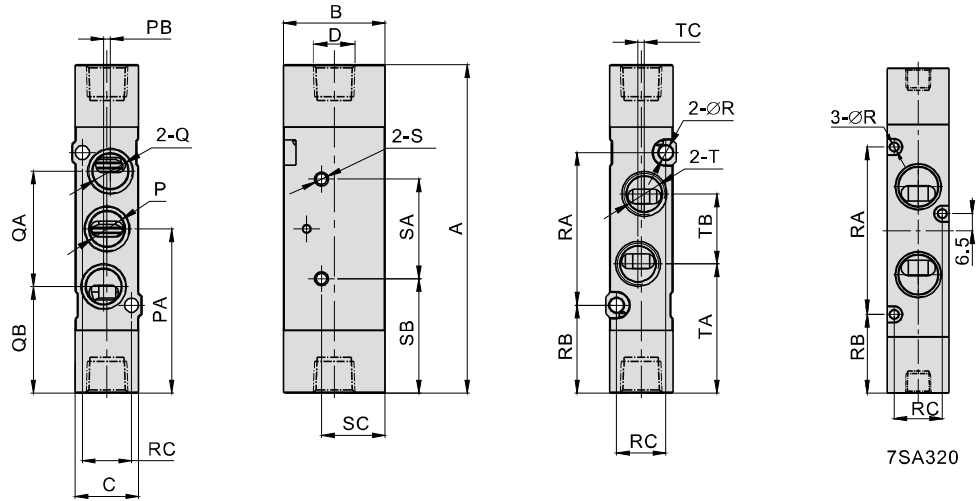


Model\Item	A	B	C	D	P	PA	PB	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC	T	TA	TB	TC
7SA0510M5	50.5	21	10	M5×0.8	M5×0.8	22.5	1	M5×0.8	19	13	2.1	21.4	12	8.6	M3×0.5Dp:3	9.5	18	4	M5×0.8	17	11	1
7SA11006	73	24	15	M5×0.8	1/8"	34	1.5	1/8"	27	20.5	3.2	36	16	11.6	M3×0.5Dp:3	23.5	22.5	15	1/8"	26	16.5	1.5
7SA21008	86.5	32.5	18	1/8"	1/4"	39	3	1/8"	36	21	4.1	42	18	13.7	M4×0.7Dp:5	20	29	7	1/4"	29	20	2
7SA31010	116	46	23.5	1/8"	3/8"	54	0	1/4"	50	29	3.2	64	22	18.4	Ø4.3	24.9	41.5	8	3/8"	37	33.5	0

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

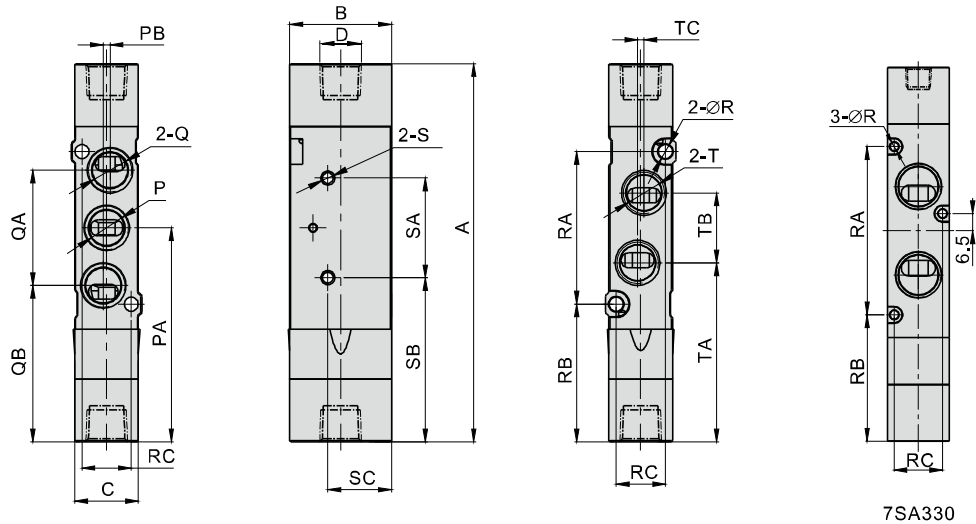
7SA Series

7SA0520
7SA120
7SA220
7SA320



Model\Item	A	B	C	D	P	PA	PB	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC	T	TA	TB	TC
7SA0520M5	56	21	10	M5×0.8	M5×0.8	28	1	M5×0.8	19	18.5	2.1	21.4	17	8.6	M3×0.5Dp:3	9.5	23	4	M5×0.8	22.5	11	1
7SA12006	77.5	24	15	M5×0.8	1/8"	39	1.5	1/8"	27	25	3.2	36	21	11.6	M3×0.5Dp:3	23.5	27	15	1/8"	30.5	16.5	1.5
7SA22008	94.5	32.5	18	1/8"	1/4"	47.5	3	1/8"	36	29.5	4.1	42	26.5	13.7	M4×0.7Dp:5	20	37.5	7	1/4"	37.5	20	2
7SA32010	124	46	23.5	1/8"	3/8"	62	0	1/4"	50	37	3.2	64	30	18.4	Ø4.3	24.9	49.5	8	3/8"	45.5	33.5	0

7SA0530
7SA130
7SA230
7SA330



Model\Item	A	B	C	D	P	PA	PB	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC	T	TA	TB	TC
7SA0530M5	64.5	21	10	M5×0.8	M5×0.8	36.5	1	M5×0.8	19	27	2.1	21.4	25.5	8.6	M3×0.5Dp:3	9.5	31.5	4	M5×0.8	31	11	1
7SA13006	89	24	15	M5×0.8	1/8"	50.5	1.5	1/8"	27	37	3.2	36	32.5	11.6	M3×0.5Dp:3	23.5	38.5	15	1/8"	42	16.5	1.5
7SA23008	108	32.5	18	1/8"	1/4"	61	3	1/8"	36	43	4.1	42	40	13.7	M4×0.7Dp:5	20	51	7	1/4"	51	20	2
7SA33010	142	46	23.5	1/8"	3/8"	80	0	1/4"	50	55	3.2	64	48	18.4	Ø4.3	24.9	67.5	8	3/8"	63.5	33.5	0

Manifold for 7SA series



Specification

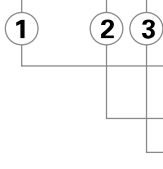
Item\Manifold Model	7SV0500M	7SV100M	7SV200M	7SV300M
Fluid	Air(to be filtered by 40μm filter element)			
Temperature °C	-20~70℃			
Adaptable valve's series	7SA0500 Series	7SA100 Series	7SA200 Series	7SA300 Series

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.

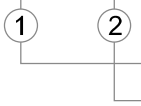
Ordering code

7SV100M 5F ☐ Ordering code for manifold



① Model	7SV0500M:7SV0500Series manifold	7SV100M:7SV100Series manifold
	7SV200M:7SV200Series manifold	7SV300M:7SV300Series manifold
② Number of stations	1F: 1Station 2F: 2Station 30F: 30Station	
③ Thread type	Blank: PT G: G Thread T: NPT Thread	

P-7SV100M - R2 Ordering code for blank plate

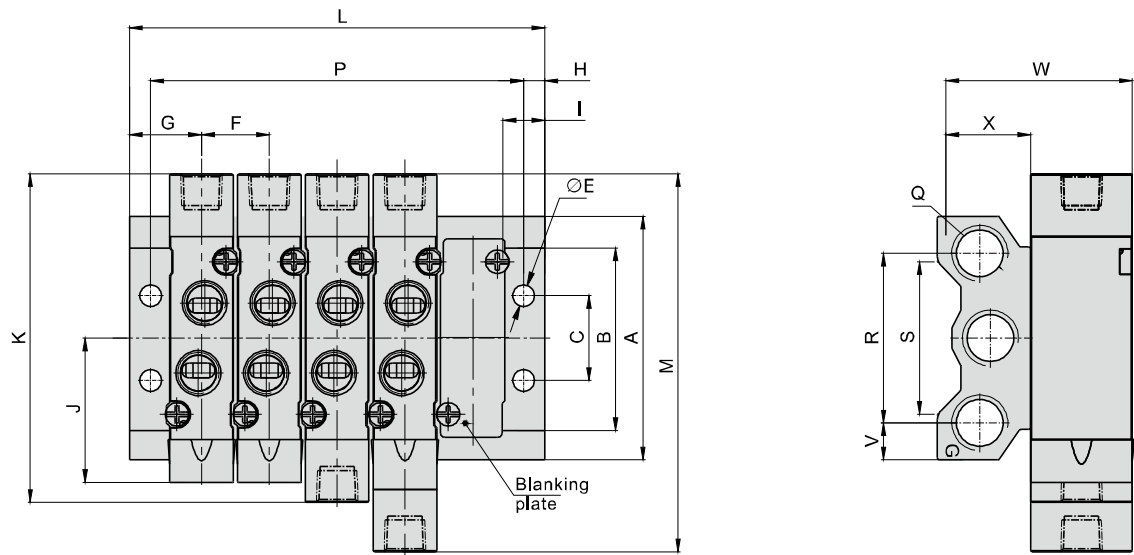


① Model	7SV0500M: 7SV0500 Series manifold	7SV100M: 7SV100 Series manifold	7SV200M: 7SV200 Series manifold	7SV300M: 7SV300 Series manifold
② Code	R2: Blank plate for manifold			

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

Manifold for 7SA series

Dimensions



Model\Item	A	B	C	E	F	G	H	I	J	K	M	Q	R	S	V	W	X
7SA0500M	46	32	16	4.5	10.5	15	5	10	22.5	56	64.5	1/8"	32	26	7	35.5	17
7SA100M	57.5	43	20	4.5	16	17	5	9.5	34	77.5	89	1/4"	40	36	9	46	22
7SA200M	60	52	21	4.5	19	18.5	5	9.5	39	94.5	108	1/4"	42	38	9	56.5	24
7SA300M	85	75	26	4.5	24	24	5	12	54	124	142	3/8"	57	58	14	73	27

Model\Item	L																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
7SA0500M	30	40.5	51	61.5	72	82.5	93	103.5	114	124.5	135	145.5	156	166.5	177	187.5	198	208.5	219	229.5
7SA100M	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338
7SA200M	37	56	75	94	113	132	151	170	189	208	227	246	265	284	303	322	341	360	379	398
7SA300M	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504

Model\Item	P																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
7SA0500M	20	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5
7SA100M	24	40	56	72	88	104	120	136	152	168	184	200	214	232	248	264	280	296	312	328
7SA200M	27	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388
7SA300M	38	62	86	110	134	158	182	206	230	254	278	302	326	350	374	398	422	446	470	494