

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

4SA Series



Specification

Model	4SA110	4SA120	4SA130	4SA210	4SA220	4SA230
Port size [Note1]	In=Out=Exh=M5(or=1/8")			In=Out=1/8"(or=1/4")Exh=1/8"		
Orifice size (Cv) [Note4]	06:10.2mm ² (0.6)		4SA130C06: 8.6mm ² (0.51)	08:17.0mm ² (1)		4SA230C08: 13.6mm ² (0.8)
Weight	69g	81g	90g	123g	149g	168.5g
Model	4SA310	4SA320	4SA330	4SA410	4SA420	4SA430
Port size [Note1]	In=Out=1/4"(or=3/8") Exhaust=1/4"			In=Out= Exh=1/2"		
Orifice size (Cv) [Note4]	10:31mm ² (1.8)		4SA330C10: 23mm ² (1.4)	15:57.6mm ² (3.2)		4SA430C10: 54.1mm ² (3.0)
Weight	216g	254g	280g	436.5g	519g	566.5g
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

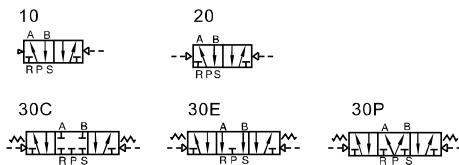
[Note1] PT thread, G thread and NPT thread are available.

[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

4SA 1 10 06 □

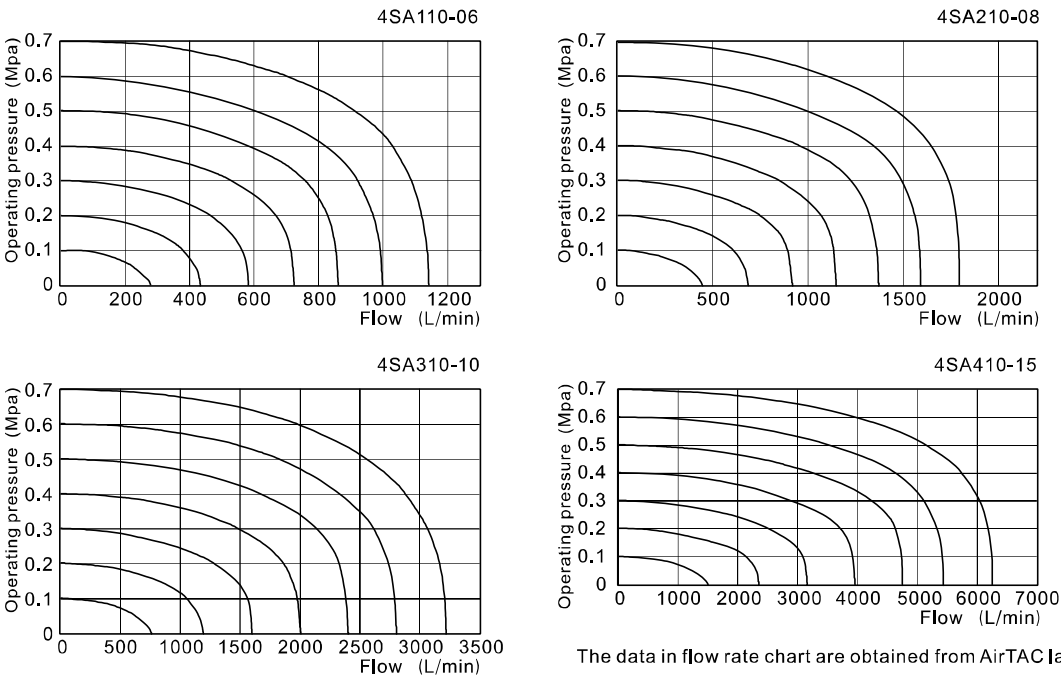
① ② ③ ④ ⑤

①Model	4SA : Air valve (5/2, 5/3 way)			
②Code	1 : 100 Series	2 : 200 Series	3 : 300 Series	4 : 400 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"	15 : 1/2"
⑤Thread type	No this code	Blank: PT Thread	G: G Thread	T: NPT Thread

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

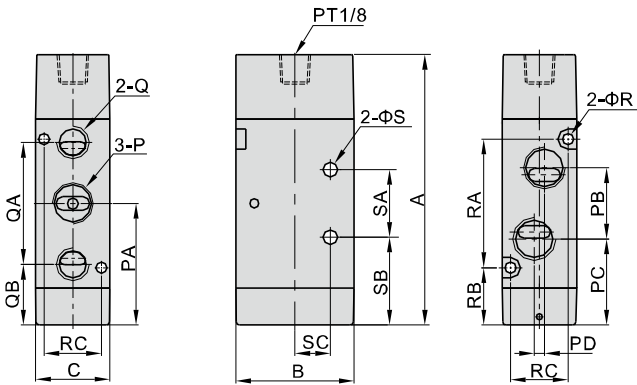
4SA Series

Flow chart



Dimensions

- 4SA110
- 4SA210
- 4SA310
- 4SA410



Model\Item	A	B	C	P	PA	PB	PC	PD	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC
4SA110M5	71	27	18	M5×0.8	32	14	25	0	M5×0.8	27	18.5	3.3	30	17	13	3.3	14	25	9.5
4SA11006	71	27	18	1/8"	32	16	24	3	1/8"	28	18	3.3	30	17	13	3.3	14	25	9.5
4SA21006	81	35	22	1/8"	36	18	27	0	1/8"	36	18	3.3	38	17	17	4.3	20	26	10.5
4SA21008	81	35	22	1/4"	36	21	25.5	3	1/8"	36	18	3.3	38	17	17	4.3	20	26	10.5
4SA31008	102	40	27	1/4"	46.5	22	35.5	0	1/4"	45	24	4.3	50	21.5	20	4.3	24	34.5	13.5
4SA31010	102	40	27	3/8"	46.5	24	34.5	4	1/4"	45	24	4.3	50	21.5	20	4.3	24	34.5	13.5
4SA41015	135	50	34	1/2"	62.5	36	44.5	4	1/2"	63.5	31	4.3	72	26.5	27	5.5	28	48.5	17.5

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

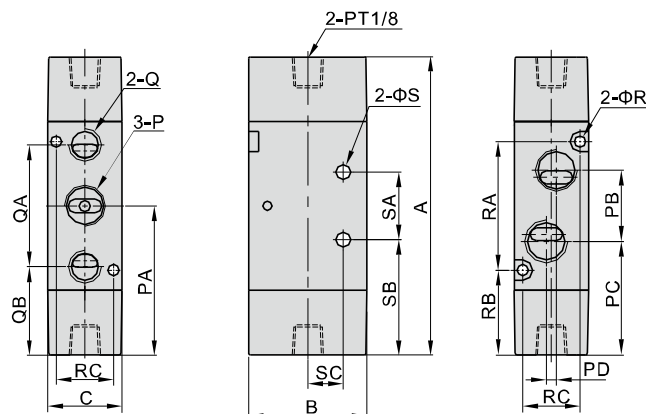
4SA Series

4SA120

4SA220

4SA320

4SA420



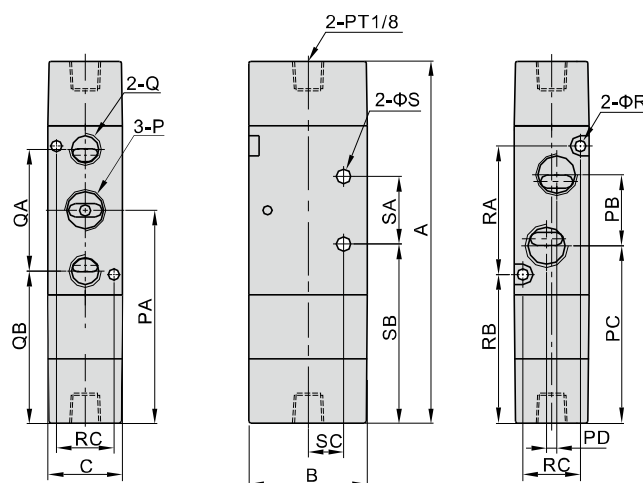
Model\Item	A	B	C	P	PA	PB	PC	PD	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC
4SA120M5	78	27	18	M5×0.8	39	14	32	0	M5×0.8	27	18.5	3.3	30	24	13	3.3	14	32	9.5
4SA12006	78	27	18	1/8"	39	16	31	3	1/8"	28	18	3.3	30	24	13	3.3	14	32	9.5
4SA22006	90	35	22	1/8"	45	18	36	0	1/8"	36	18	3.3	38	26	17	4.3	20	35	10.5
4SA22008	90	35	22	1/4"	45	21	34.5	3	1/8"	36	18	3.3	38	26	17	4.3	20	35	10.5
4SA32008	111.5	40	27	1/4"	56	22	45	0	1/4"	45	24	4.3	50	31	20	4.3	24	44	13.5
4SA32010	111.5	40	27	3/8"	56	24	44	4	1/4"	45	24	4.3	50	31	20	4.3	24	44	13.5
4SA42015	145	50	34	1/2"	72.5	36	54.5	4	1/2"	63.5	31	4.3	72	36.5	27	5.5	28	58.5	17.5

4SA130

4SA230

4SA330

4SA430



Model\Item	A	B	C	P	PA	PB	PC	PD	Q	QA	QB	R	RA	RB	RC	S	SA	SB	SC
4SA130M5	91	27	18	M5×0.8	52	14	45	0	M5×0.8	27	18.5	3.3	30	37	13	3.3	14	45	9.5
4SA13006	91	27	18	1/8"	52	16	44	3	1/8"	28	18	3.3	30	37	13	3.3	14	45	9.5
4SA23006	109	35	22	1/8"	64	18	55	0	1/8"	36	18	3.3	38	45	17	4.3	20	54	10.5
4SA23008	109	35	22	1/4"	64	21	53.5	3	1/8"	36	18	3.3	38	45	17	4.3	20	54	10.5
4SA33008	130.5	40	27	1/4"	75	22	64	0	1/4"	45	24	4.3	50	50	20	4.3	24	63	13.5
4SA33010	130.5	40	27	3/8"	75	24	63	4	1/4"	45	24	4.3	50	50	20	4.3	24	63	13.5
4SA43015	166	50	34	1/2"	93.5	36	75.5	4	1/2"	63.5	31	4.3	72	57.5	27	5.5	28	79.5	17.5

Manifold for 4SA series



Specification

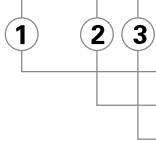
Item\Manifold Model	4SV100M	4SV200M	4SV300M	4SV400M
Fluid	Air(to be filtered by 40µm filter element)			
Temperature °C	-20~70°C			
Adaptable valve's series	4SA100 Series	4SA200 Series	4SA300 Series	4SA400 Series

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.

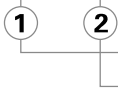
Ordering code

4SV100M 5F ☐ Ordering code for manifold



①Model	4SV100M:4SV100 Series	4SV200M:4SV200 Series	4SV300M:4SV300 Series	4SV400M:4SV400 Series
②Number of stations	1F: 1Station 2F: 2Station 30F: 30Station			
③Thread type	Blank: PT G: G Thread T: NPT Thread			

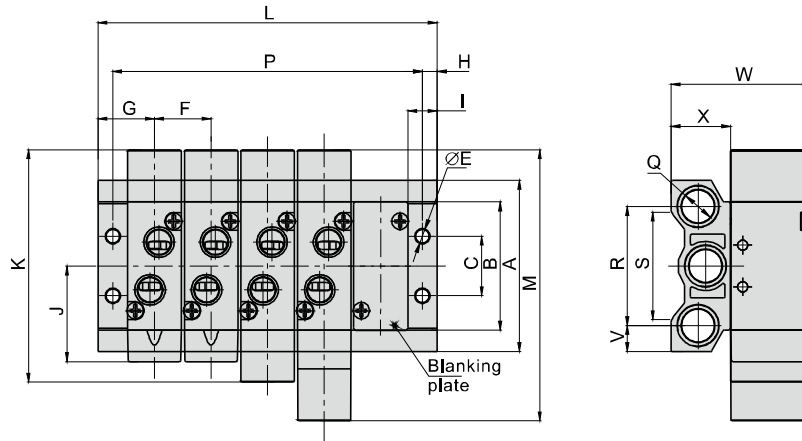
P-4SV100M-R2 Ordering code for blank plate



①Model	4SV100M:4SV100 Series	4SV200M:4SV200 Series	4SV300M:4SV300 Series	4SV400M:4SV400 Series
②Code	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
4SV100M	57.5	43	20	4.5	19	19	5	10	32	78	91	1/4"	40	36	9	48	20
4SV200M	60	52	21	4.5	23	22	5	11	36	90	109	1/4"	42	38	9	58.5	22.5
4SV300M	75	64	26	4.5	28	26	5	12.5	46.5	111.5	130.5	3/8"	53	53	11	69	28
4SV400M	100	94	32	5.5	35	30.5	6	13.5	62.5	145	166	1/2"	68	71	16	84	33

Model\Item	L																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
4SV100M	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399
4SV200M	44	67	90	113	136	159	182	205	228	251	274	297	320	343	366	389	412	435	458	481
4SV300M	52	80	108	136	164	192	220	248	276	304	332	360	388	416	444	472	500	528	556	584
4SV400M	61	96	131	166	201	236	271	306	341	376	411	446	481	516	551	586	621	656	691	726

Model\Item	P																			
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
4SV100M	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389
4SV200M	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379	402	425	448	471
4SV300M	42	70	98	126	154	182	210	238	266	294	322	350	378	406	434	462	490	518	546	574
4SV400M	49	84	119	154	189	224	259	294	329	364	399	434	469	504	539	574	609	644	679	714