



## Air valve(3/2 way)

### Product series

Air valve: 3A100 Series

58



Air valve: 3A200 Series

59



Air valve: 3A300 Series

60



Air valve

Air valve: 4A100 Series

61



Air valve: 4A200 Series

63



Air valve: 4A300 Series

65



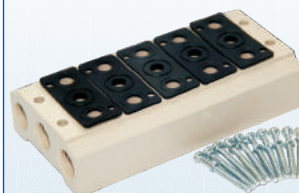
Air valve: 4A400 Series

67



Manifold Series

69



Air valve(ISO standard): EAV Series

71



Air valve: 7A, 7MA Series

78



### Installation and Application

1. Before installing, be sure the valve hasn't been damaged via transportation.
2. It's suggested to use the medium lubricated by 40  $\mu$ m filter element. Be aware of the flow direction and port size.
3. Please notice whether the installation condition accords with technical requirements (such as "act-uation frequency", "working pressure" and "scope of application temperature"), then the equipment can be installed and used.
4. Notice the flow direction of air during installation, P is the air intake, A (B) is the work port and R (S) is the exhaust outlet.
5. Take measure to avoid vibration and frozen.
6. Firstly press the base gasket into the base, and then connect the base with the valve body by the affiliated screws. The base gasket can be pressed into the installation places that are not used temporarily, and then seal them with affiliated blank cap. When the system expands, take the blank cap off and install relative air valves;
7. To keep the dust away, please use the silencer for the exhaust ports. Never forget to install dirt-proof boot in air intake and outlet during dismounting.

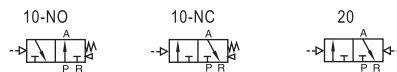
# Air valve( 3/2 way)

**AIRTAC**

## 3A100 Series



### Symbol

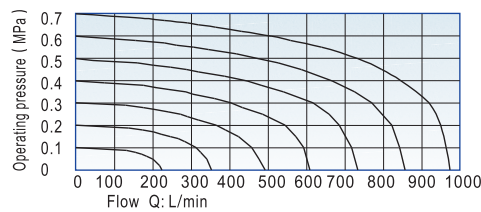


### Product feature

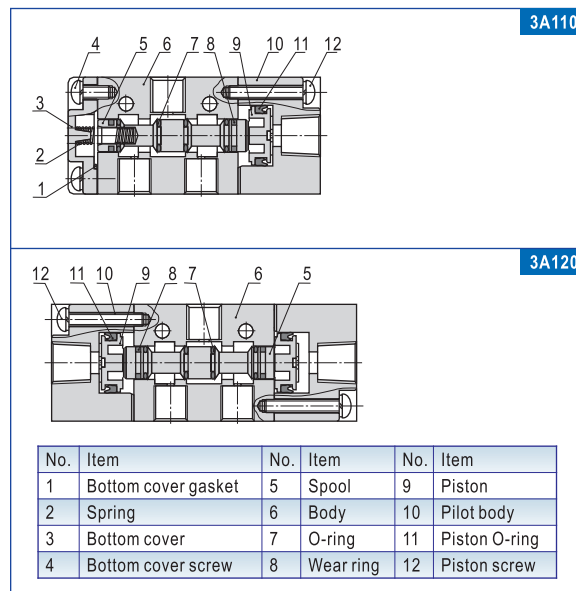
1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Double air control valves have memory function.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. No need to add oil for lubrication.
5. Multi-mounting helps to install and apply.
6. Integrate with the manifold to save installation space.

### Flow chart

Model: 3A110-06-NO



### Inner structure



### Specification

Model	3A110-M5	3A120-M5	3A110-06	3A120-06
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	M5		1/8"	
Orifice size	5.5mm <sup>2</sup> (Cv=0.31)		12.0mm <sup>2</sup> (Cv=0.67)	
Valve type	3 port 2 position			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature ℃	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

① PT thread, NPT thread and G thread are available.

② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

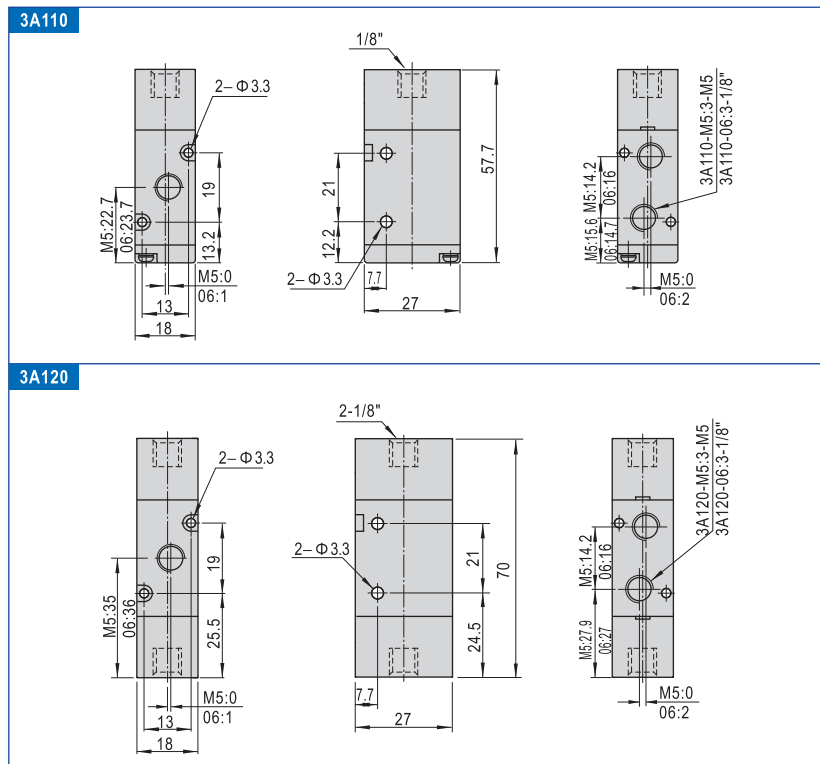
③ The maximum actuation frequency is in the no-load state.

### Ordering code

3A 1 10 06 NO P			
Model 3A: Air Valve(3/2 way)	Code 1: 100 Series	Valve type 10: Single air control 20: Double air control	Thread type
			Port size Thread type
			1/8" P: PT T: NPT G: G
			M5 No this code
Port size M5: M5 06: 1/8"	Acting type	Valve type	Acting type
			10 NC: Normally close
			20 NO: Normally open
			NO code

Please refer to 69 for manifold specification and the order way.

### Dimension



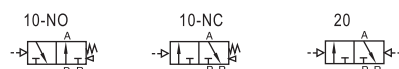
# Air valve(3/2 way)

## 3A200 Series

**AIRTAC**



### Symbol

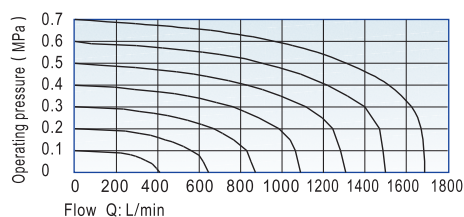


### Product feature

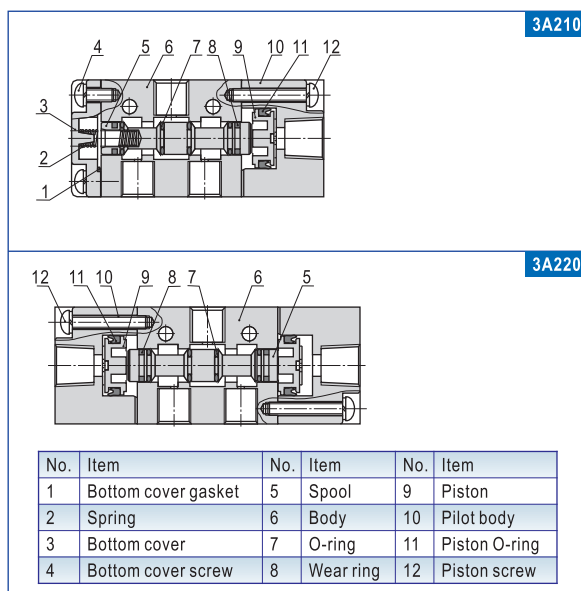
1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Double air control valves have memory function.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. No need to add oil for lubrication.
5. Multi-mounting helps to install and apply.
6. Integrate with the manifold to save installation space.

### Flow chart

Model: 3A210-08-NO



### Inner structure

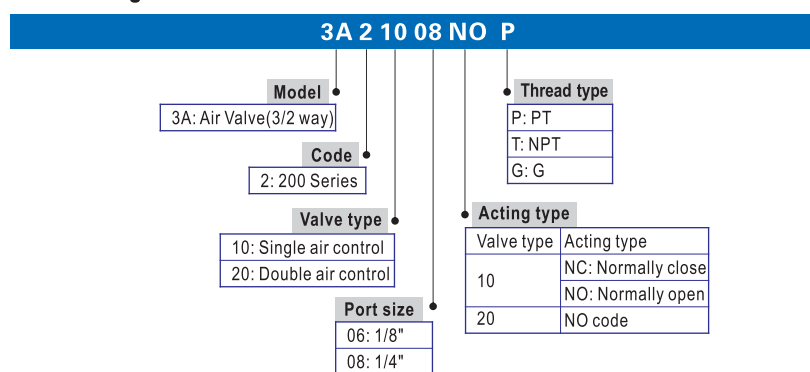


### Specification

Model	3A210-05	3A220-06	3A210-08	3A220-08
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	In=Out=1/8"		In=Out=1/4"	
Orifice size	14.0mm <sup>2</sup> (Cv=0.78)		16.0mm <sup>2</sup> (Cv=0.89)	
Valve type	3 port 2 position			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature °C	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

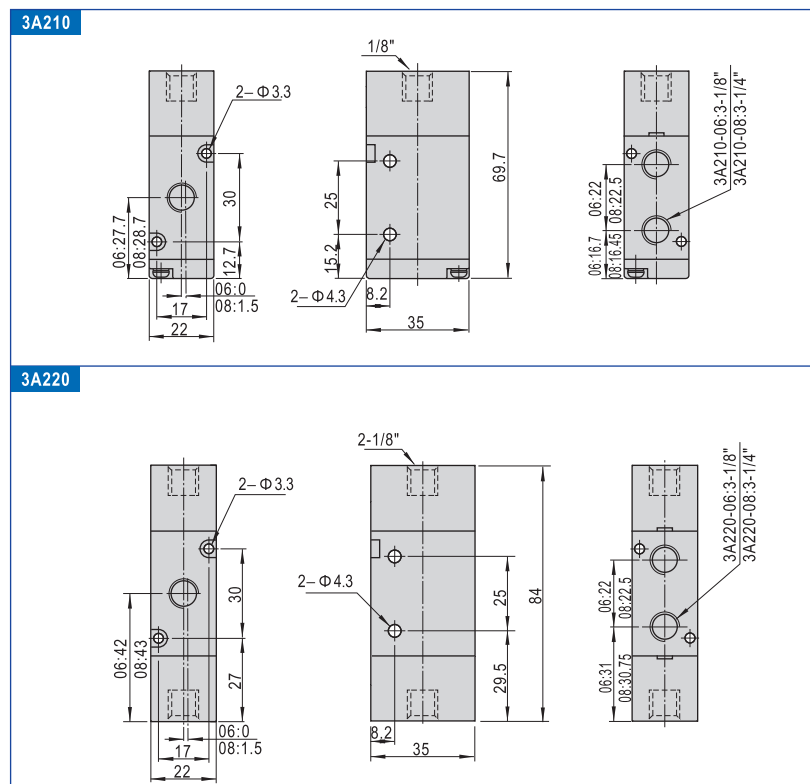
- ① PT thread, NPT thread and G thread are available.
- ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.
- ③ The maximum actuation frequency is in the no-load state.

### Ordering code



Please refer to 69 for manifold specification and the order way.

### Dimension



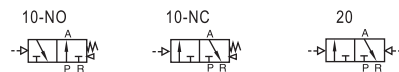
# Air valve(3/2 way)

**AIRTAC**

## 3A300 Series



### Symbol

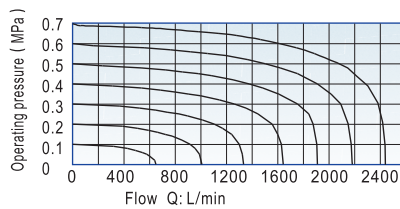


### Product feature

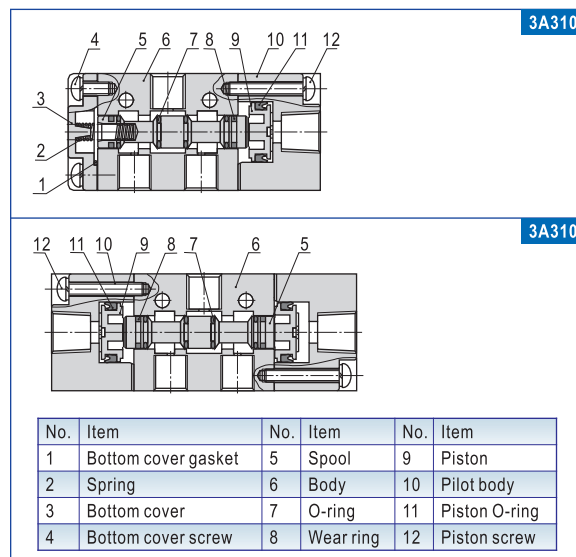
1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Double air control valves have memory function.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. No need to add oil for lubrication.
5. Multi-mounting helps to install and apply.
6. Integrate with the manifold to save installation space.

### Flow chart

Model: 3A310-10-NO



### Inner structure



### Specification

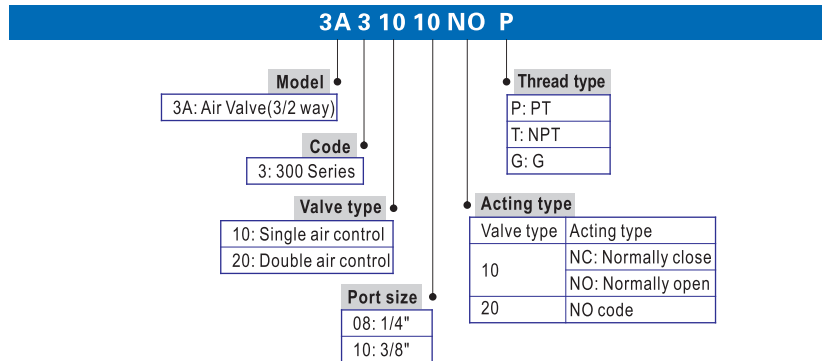
Model	3A310-08	3A320-08	3A310-10	3A320-10
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	In=Out=1/4"		In=Out=3/8"	
Orifice size	25.0mm <sup>2</sup> (Cv=1.35)		30.0mm <sup>2</sup> (Cv=1.67)	
Valve type	3 port 2 position			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature ℃	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

① PT thread, NPT thread and G thread are available.

② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

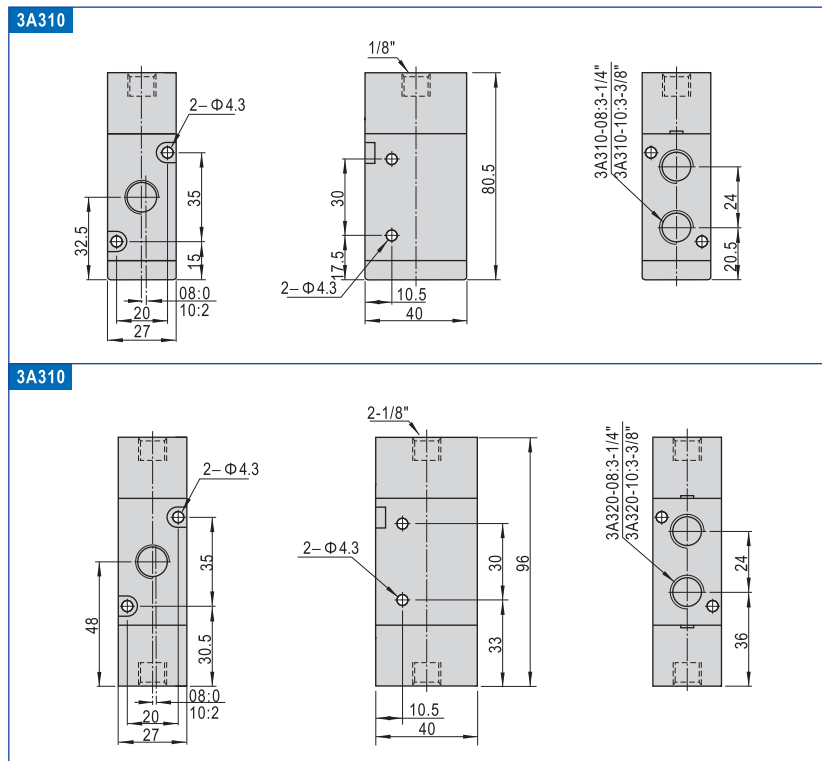
③ The maximum actuation frequency of no-load state.

### Ordering code



Please refer to 69 for manifold specification and the order way.

### Dimension





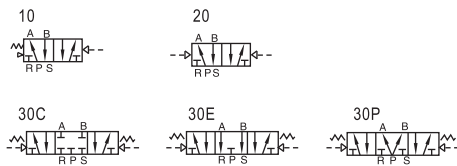
# Air valve(5/2, 5/3 way)

AIRTAC

## 4A100 Series



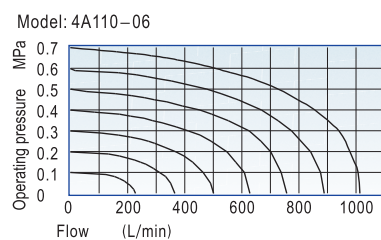
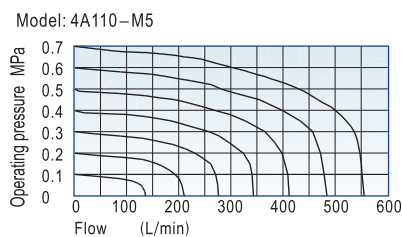
### Symbol



### Product feature

1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Three position air valves have three kinds of central function for your choice.
3. Double air control valves have memory function.
4. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
5. No need to add oil for lubrication.
6. Integrate with the manifold to save installation space.

### Flow chart



### Specification

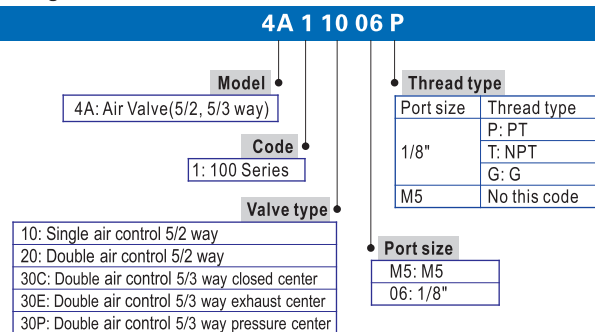
Model	4A110-M5 4A120-M5	4A130C-M5 4A130E-M5 4A130P-M5	4A110-06 4A120-06	4A130C-06 4A130E-06 4A130P-06
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	In=Out=M5		In=Out=1/8"	
Orifice size	5.5mm <sup>2</sup> (Cv=0.31)	5.0mm <sup>2</sup> (Cv=0.28)	12.0mm <sup>2</sup> (Cv=0.67)	9.0mm <sup>2</sup> (Cv=0.50)
Valve type	5 port 2 position	5 port 3 position	5 port 2 position	5 port 3 position
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature ℃	-20~70			
Material of body	Aluminum alloy			
Lubrication ②	Not required			
Max. frequency ③	5 cycle/sec	3 cycle/sec	5 cycle/sec	3 cycle/sec
Weight (g)	4A110-M5:85 4A120-M5:140	165	4A110-06:85 4A120-06:140	165

① PT thread, NPT thread and G thread are available.

② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

③ The maximum actuation frequency of no-load state.

### Ordering code



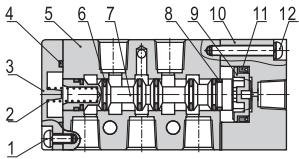
Please refer to 70 for manifold specification and the order way.

Air valve(5/2, 5/3 way)  
4A100 Series

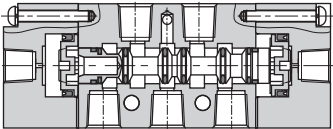


Inner structure

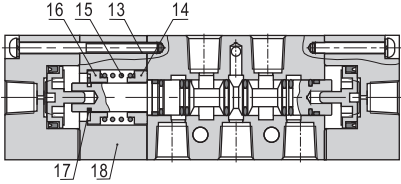
4A110



4A120



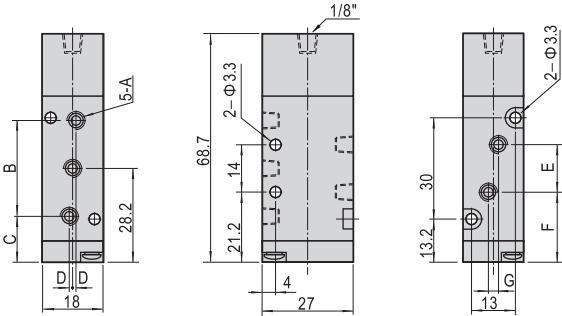
4A130C



No.	Item	No.	Item	No.	Item
1	Screw	7	Spool	13	Screw
2	Spring	8	Wear ring	14	Spring holder
3	Bottom cover	9	Piston	15	Return Spring
4	Bottom cover gasket	10	Pilot body	16	Spring holder
5	Body	11	O-ring	17	E Clip
6	O-ring	12	Screw	18	Side cover

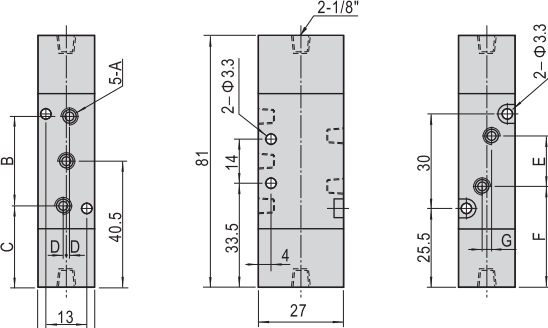
Dimension

4A110



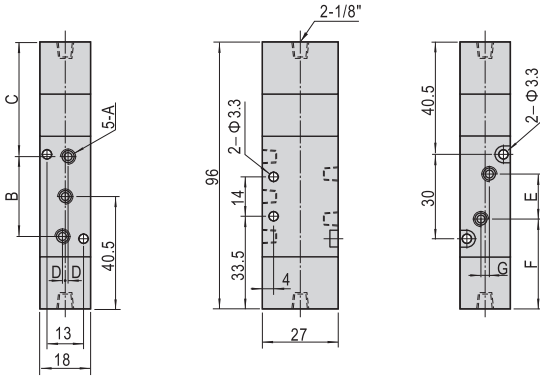
Model\Item	A	B	C	D	E	F	G
4A110-M5	M5x0.8	27	14.7	0	14	21.2	0
4A110-06	1/8"	28	14.2	1	16	20.2	3

4A120



Model\Item	A	B	C	D	E	F	G
4A120-M5	M5x0.8	27	27	0	14	33.5	0
4A120-06	1/8"	28	26.5	1	16	32.5	3

4A130



Model\Item	A	B	C	D	E	F	G
4A130-M5	M5x0.8	27	42	0	14	33.5	0
4A130-06	1/8"	28	41.5	1	16	32.5	3



Air valve(5/2, 5/3 way)  
4A200 Series

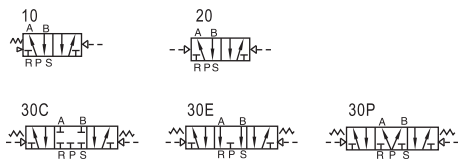


Specification

Model	4A210-06 4A220-06	4A230C-06 4A230E-06 4A230P-06	4A210-08 4A220-08	4A230C-08 4A230E-08 4A230P-08
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	In=Out=Exhaust=1/8"		In=Out=1/4" Exhaust=1/8"	
Orifice size	14.0mm <sup>2</sup> (Cv=0.78)	12.0mm <sup>2</sup> (Cv=0.67)	16.0mm <sup>2</sup> (Cv=0.89)	12.0mm <sup>2</sup> (Cv=0.67)
Valve type	5 port 2 position	5 port 3 position	5 port 2 position	5 port 3 position
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature °C	-20~70			
Material of body	Aluminum alloy			
Lubrication ②	Not required			
Max. frequency ③	5 cycle/sec	3 cycle/sec	5 cycle/sec	3 cycle/sec
Weight (g)	4A210-06:185 4A220-06:285	365	4A210-08:185 4A220-08:285	365

- ① PT thread, NPT thread and G thread are available.  
② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.  
③ The maximum actuation frequency of no-load state.

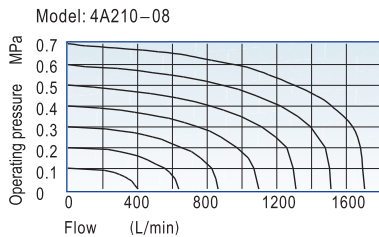
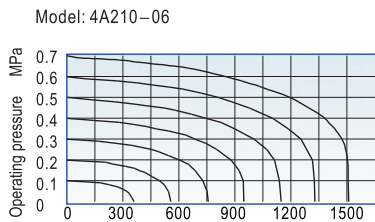
Symbol



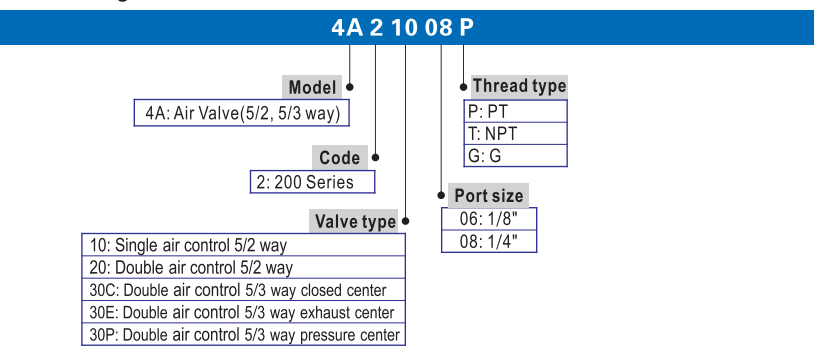
Product feature

1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Three position air valves have three kinds of central function for your choice.
3. Double air control valves have memory function.
4. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
5. No need to add oil for lubrication.
6. Integrate with the manifold to save installation space.

Flow chart



Ordering code



Please refer to 70 for manifold specification and the order way.



4A200

Air valve(5/2, 5/3 way)  
4A200 Series



Inner structure

4A210

4A220

4A230C

No.	Item	No.	Item	No.	Item
1	Screw	7	Spool	13	Screw
2	Spring	8	Wear ring	14	Spring holder
3	Bottom cover	9	Piston	15	Return Spring
4	Bottom cover gasket	10	Pilot body	16	Spring holder
5	Body	11	O-ring	17	E Clip
6	O-ring	12	Screw	18	Side cover

Dimension

4A210

Model\Item	A	B	C	D	E
4A210-06	1/8"	1/8"	18	22.7	0
4A210-08	1/8"	1/4"	21	21.2	3

4A220

Model\Item	A	B	C	D	E
4A220-06	1/8"	1/8"	18	37	0
4A220-08	1/8"	1/4"	21	35.5	3

4A230

Model\Item	A	B	C	D	E
4A230-06	1/8"	1/8"	18	37	0
4A230-08	1/8"	1/4"	21	35.5	3



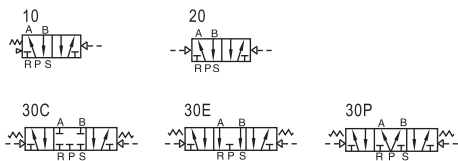


Air valve(5/2, 5/3 way)  
4A300 Series

AIRTAC



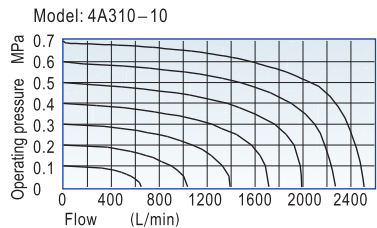
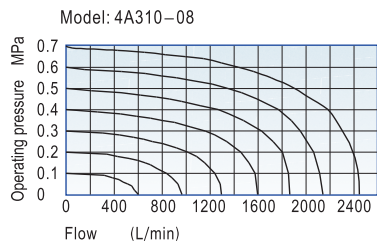
Symbol



Product feature

- 1. Structure in sliding column mode: good tightness and sensitive reaction.
- 2. Three position air valves have three kinds of central function for your choice.
- 3. Double air control valves have memory function.
- 4. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
- 5. No need to add oil for lubrication.
- 6. Integrate with the manifold to save installation space.

Flow chart

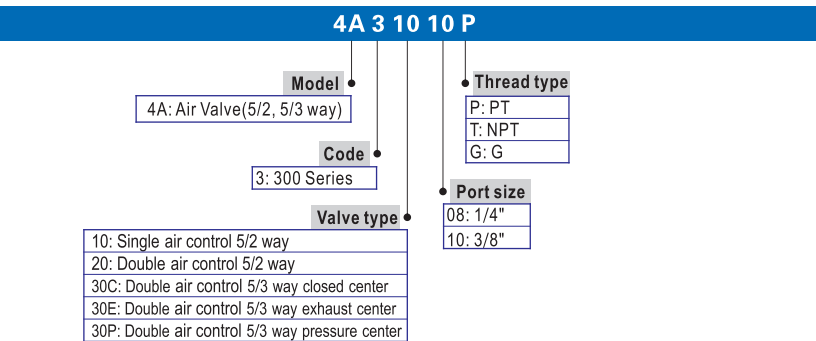


Specification

Model	4A310-08 4A320-08	4A330C-08 4A330E-08 4A330P-08	4A310-10 4A320-10	4A330C-10 4A330E-10 4A330P-10
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	Exterior control			
Port size ①	In=Out=Exhaust=1/4"		In=Out=3/8" Exhaust=1/4"	
Orifice size	25.0mm <sup>2</sup> (Cv=1.40)	18.0mm <sup>2</sup> (Cv=1.00)	30.0mm <sup>2</sup> (Cv=1.68)	18.0mm <sup>2</sup> (Cv=1.00)
Valve type	5 port 2 position	5 port 3 position	5 port 2 position	5 port 3 position
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.5MPa(215psi)			
Temperature ℃	-20~70			
Material of body	Aluminum alloy			
Lubrication ②	Not required			
Max. frequency ③	4 cycle/sec	3 cycle/sec	4 cycle/sec	3 cycle/sec
Weight (g)	4A310-08:275 4A320-08:365	505	4A310-10:275 4A320-10:365	505

- ① PT thread, NPT thread and G thread are available.
- ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.
- ③ The maximum actuation frequency of no-load state.

Ordering code



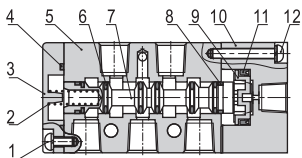
Please refer to 70 for manifold specification and the order way.

Air valve(5/2, 5/3 way)  
4A300 Series

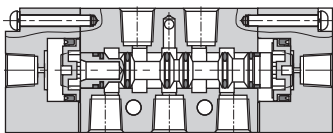


Inner structure

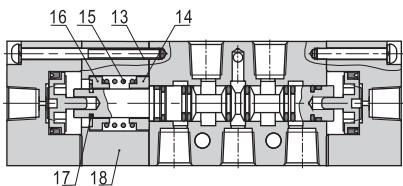
4A310



4A320



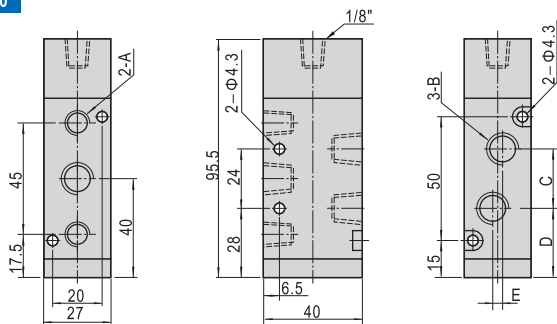
4A330C



No.	Item	No.	Item	No.	Item
1	Screw	7	Spool	13	Screw
2	Spring	8	Wear ring	14	Spring holder
3	Bottom cover	9	Piston	15	Return Spring
4	Bottom cover gasket	10	Pilot body	16	Spring holder
5	Body	11	O-ring	17	E Clip
6	O-ring	12	Screw	18	Side cover

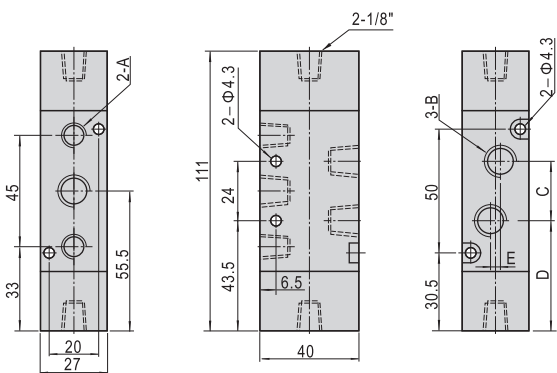
Dimension

4A310



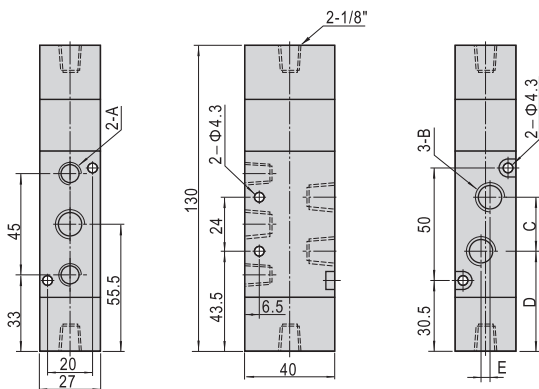
Model\Item	A	B	C	D	E
4A310-08	1/4"	1/4"	22	29	0
4A310-10	1/4"	3/8"	24	28	4

4A320



Model\Item	A	B	C	D	E
4A320-08	1/4"	1/4"	22	44.5	0
4A320-10	1/4"	3/8"	24	43.5	4

4A330



Model\Item	A	B	C	D	E
4A330-08	1/4"	1/4"	22	44.5	0
4A330-10	1/4"	3/8"	24	43.5	4

Air valve(5/2, 5/3 way)  
4A400 Series

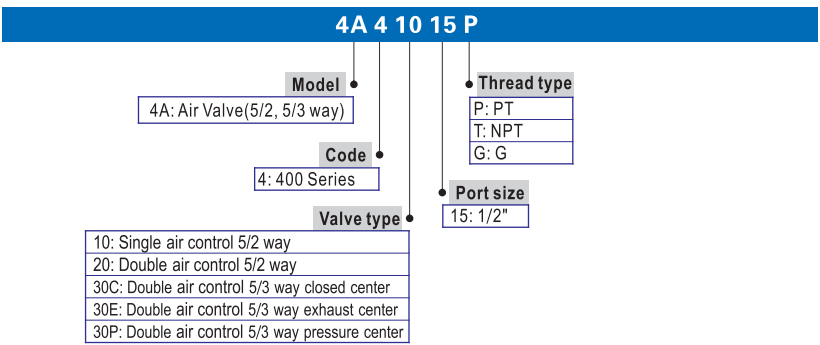


Specification

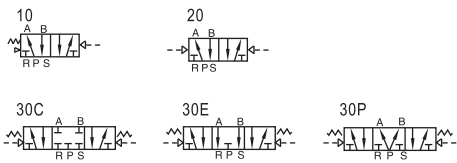
Model	4A410-15	4A420-15	4A430C-15	4A430E-15	4A430P-15
Fluid	Air(to be filtered by 40 μ m filter element)				
Acting	Exterior control				
Port size ①	In=Out=Exhaust=1/2"				
Orifice size	50.0mm <sup>2</sup> (Cv=2.79)		30.0mm <sup>2</sup> (Cv=1.68)		
Valve type	5 port 2 position		5 port 3 position		
Operating pressure	0.15~0.8MPa(21~114psi)				
Proof pressure	1.5MPa(215psi)				
Temperature °C	-20~70				
Material of body	Aluminum alloy				
Lubrication ②	Not required				
Max. frequency ③	3 cycle/sec				
Weight (g)	555	685	735		

- ① PT thread, NPT thread and G thread are available.  
② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.  
③ The maximum actuation frequency of no-load state.

Ordering code



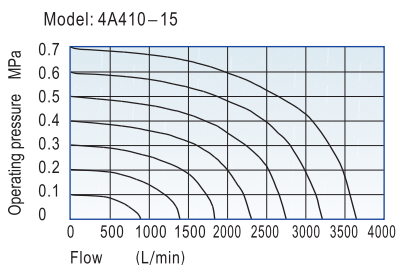
Symbol



Product feature

1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Three position air valves have three kinds of central function for your choice.
3. Double air control valves have memory function.
4. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
5. No need to add oil for lubrication.
6. Integrate with the manifold to save installation space.

Flow chart



Please refer to 70 for manifold specification and the order way.

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

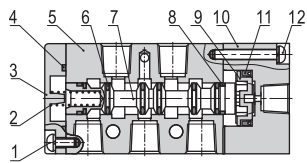
## 4A400 Series

**AIRTAC**

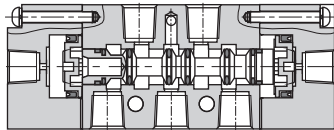


4A400

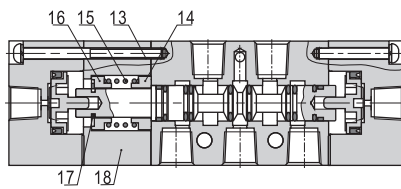
### Inner structure



4A410



4A420

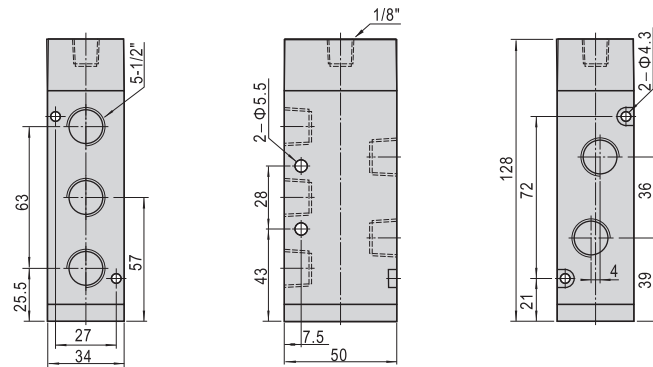


4A430C

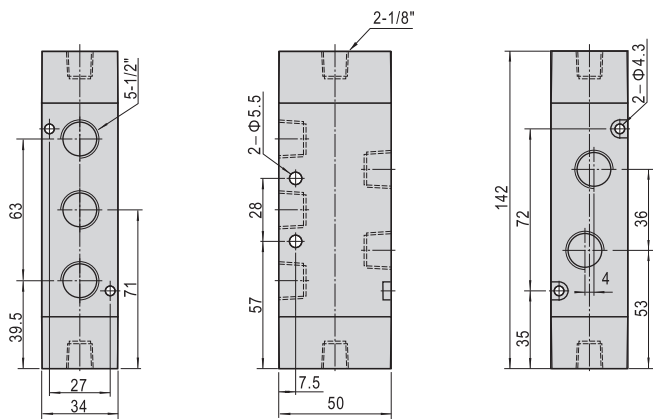
No.	Item	No.	Item	No.	Item
1	Screw	7	Spool	13	Screw
2	Spring	8	Wear ring	14	Spring holder
3	Bottom cover	9	Piston	15	Return Spring
4	Bottom cover gasket	10	Pilot body	16	Spring holder
5	Body	11	O-ring	17	E Clip
6	O-ring	12	Screw	18	Side cover

### Dimension

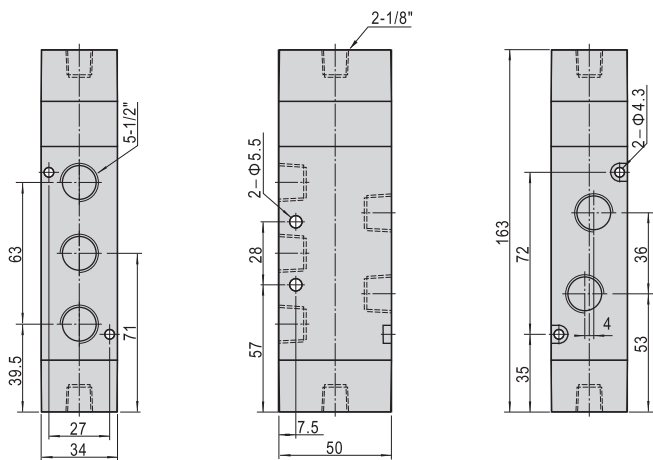
4A410



4A420



4A430





# Air valve(Accessories)

## Manifold

**AIRTAC**



### Product feature

1. It is available to integrate the direction control valves of the same series to form value 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.

### Specification

Item\Manifold Model	100M	200M	300M
Fluid	Air(to be filtered by 40 μ m filter element)		
Temperature °C	-20~70		
Adaptable valve's series	3A100 Series	3A200 Series	3A300 Series

### Ordering code

Ordering code contains the two parts of the manifold's and the blank plate's.

#### 1 Ordering code for manifold

3V100M 5F P		
Model	Thread type	
	P: PT	
	T: NPT	
	G: G	
Number of stations	1F: 1 Station	
	2F: 2 Station	
	.....	
	16F: 16 Station	

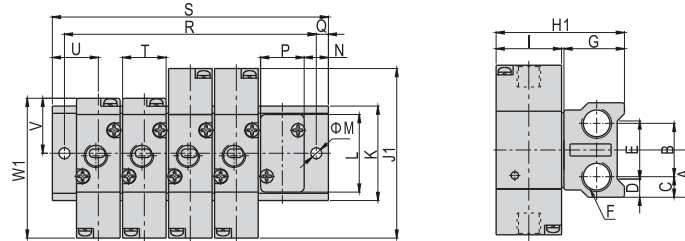
#### 2 Ordering code for blank plate

P-3V100M R2		
Model	Code	
	R2: Blank plate for manifold	
	3V100M: 100 Series Manifold	
	3V200M: 200 Series Manifold	
	3V300M: 300 Series Manifold	

Remark:1. Manifold kits contains manifold, seal and screw.  
2. Blank plate kits contains blank plate, and screw.

### Dimensions

#### With 3A air valve



Model\Item	A	B	C	D	E	F	G	H1	I	J1	K	L	M	N	P	Q	T	U	V	W1
3V100M	19.5	22	8.5	7.5	24	1/4"	25	53	27	70	39	32	4.5	10	18	5	18	19	22.7	57.7
3V200M	22.5	25	10	8	29	1/4"	25	61	35	84	45	40	4.5	12	22	6	22	23	27.7	69.7
3V300M	26	28	12	8	36	3/8"	29	70	40	96	52	47	4.5	13.5	27	6	27	27	32.5	80.5

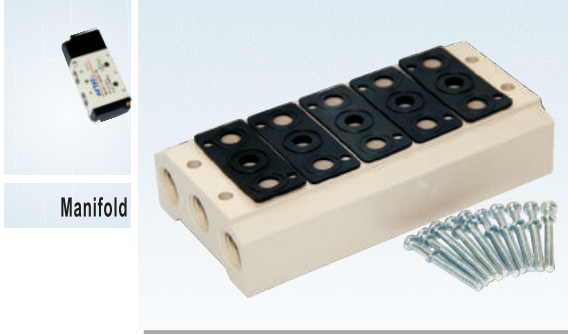
Model\Item	R															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
3V100M	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313
3V200M	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379
3V300M	42	70	98	126	154	182	210	238	266	294	322	350	378	406	434	462

Model\Item	S															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
3V100M	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323
3V200M	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391
3V300M	54	82	110	138	166	194	222	250	278	306	334	362	390	418	446	474

# Air valve(Accessories)

## Manifold

**AIRTAC**



### Specification

Item\Manifold Model	100M	200M	300M	400M
Fluid	Air(to be filtered by 40 μ m filter element)			
Temperature °C	-20~70			
Adaptable valve's series	4A100 Series	4A200 Series	4A300 Series	4A400 Series

### Ordering code

Ordering code contains the two parts of the manifold's and the blank plate's.

#### 1 Ordering code for manifold

100M 5F P		
<b>Model</b>	<b>Thread type</b>	
100M: 100 Series Manifold	P: PT	
200M: 200 Series Manifold	T: NPT	
300M: 300 Series Manifold	G: G	
400M: 400 Series Manifold		
<b>Number of stations</b>		
1F: 1 Station		
2F: 2 Station		
.....		
16F: 16 Station		

#### 2 Ordering code for blank plate

P-100M R2	
<b>Model</b>	<b>Code</b>
100M: 100 Series Manifold	R2: Blank plate for manifold
200M: 200 Series Manifold	
300M: 300 Series Manifold	
400M: 400 Series Manifold	

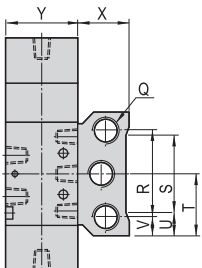
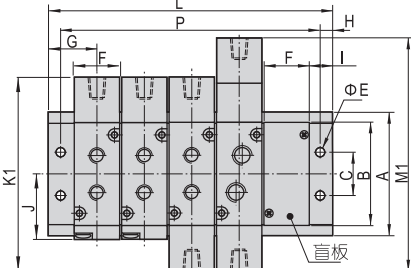
### Product feature

1. It is available to integrate the direction control valves of the same series to form value 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.

① 100M, 200M series have a maximum of 16 stations ; 300M series have a maximum of 12 stations;  
400M series have a maximum of 8 stations.

### Dimension

#### With 4A air valve

Model\Item	A	B	C	E	F	G	H	I	J	K1	M1	Q	R	S	T	U	V	X	Y
100M□F	58	43.2	20	4.5	18.3	19	5	10	28.2	81	96	1/4"	40	30	29	14	9	25	27
200M□F	61	50.7	21	4.5	22.4	23	6	12	31.7	92	111	1/4"	43	32	30.5	14.5	9	27	35
300M□F	75	64.8	26	4.5	27.3	27	6	13.5	40	111	130	3/8"	53	48	37.5	13.5	11	30	40
400M□F	104	94.5	32	5.5	34.3	31.5	7	14.5	57	142	163	1/2"	68	63	52	18.5	18	38	50

Model\Item	L															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
100M□F	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323
200M□F	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391
300M□F	54	82	110	138	166	194	222	250	278	306	334	362	-	-	-	-
400M□F	63	98	133	168	203	238	273	308	-	-	-	-	-	-	-	-

Model\Item	P															
	1F	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F
100M□F	28	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313
200M□F	34	57	80	103	126	149	172	195	218	241	264	287	310	333	356	379
300M□F	42	70	98	126	154	182	210	238	266	294	322	350	-	-	-	-
400M□F	49	84	119	154	189	224	259	294	-	-	-	-	-	-	-	-