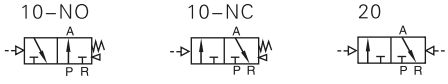
Specifications

Model	3A110-M5	3A120-M5	3A110-06	3A120-06
Fluid	Air (to be filtered by 40μm filter element)			
Acting	Exterior control			
Port size ①	M5		1/8"	
Orifice size	5.5mm²(Cv=0.31)		12.0mm²(Cv=0.67)	
Valve type	3 port 2 position			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.2MPa(175psi)			
Temperature (℃)	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

① PT thread, G thread and NPT 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.

Symbol



Ordering code

3A	1	10	06	NO	□

Model

3A	Air valve (3/2 way)

Code

1	100 Series

Valve type

10	Single air control
20	Double air control

Port size

M5	M5
06	1/8"

Acting type

Valve type	Acting type
10	NC: Normally close
	NC: Normally open
20	NO code

Thread type

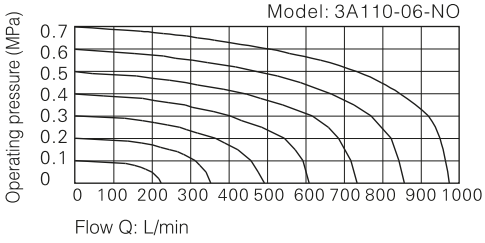
Port size	Thread type
1/8"	Blank: PT
	G: G
	T: NPT
M5	No this code

Please refer to 115 for manifold specification and the order way.

Product feature

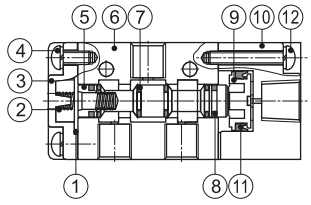
1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Double air control valves have memory function.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. No need to add oil for lubrication.
5.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

Flow chart

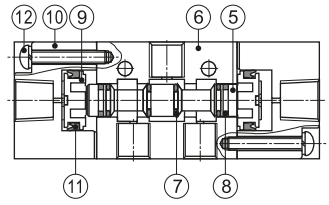


Inner structure

3A110



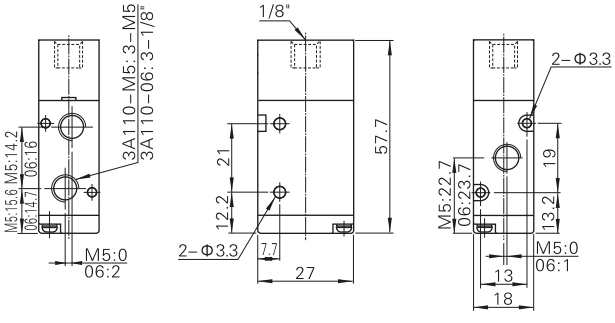
3A120



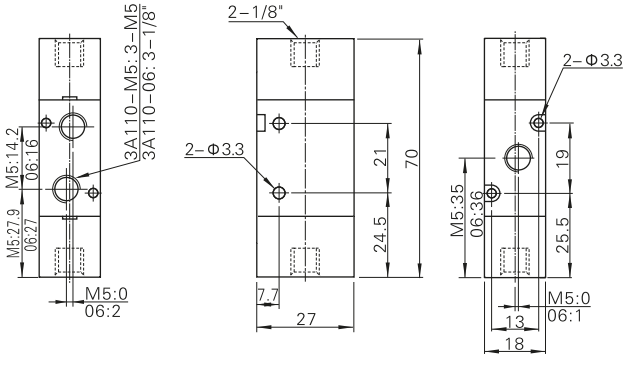
No.	Item	No.	Item	No.	Item
1	Bottom cover gasket	5	Spool	9	Piston
2	Spring	6	Body	10	Pilot body
3	Bottom cover	7	O-ring	11	Piston O-ring
4	Bottom cover screw	8	Wear ring	12	Piston screw

Dimensions

3A110



3A120

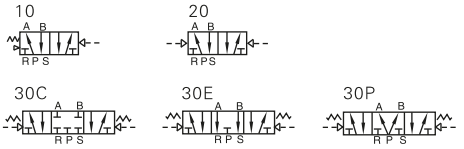


Specifications

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 40μm filter element)			
Acting	Exterior control			
Port size ①	In=Out=M5		In=Out=1/8"	
Orifice size	5.5mm²(Cv=0.31)	5.0mm²(Cv=0.28)	12.0mm²(Cv=0.67)	9.0mm²(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	1.2MPa(175psi)			
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, G thread and NPT 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.

Symbol



Product feature

1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Three position air valves have three kinds of central funcition 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.

Ordering code

4A — **1** — **10** — **06** — □

Model	
4A	Air valve (5/2, 5/3 way)

Code	
1	100 Series

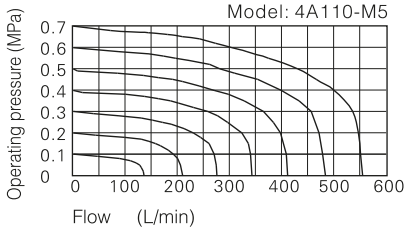
Valve type	
10	Single air control 5/2 way
20	Double air control 5/2 way
30C	Double air control 5/3 way closed center
30E	Double air control 5/3 way exhaust center
30P	Double air control 5/3 way pressure center

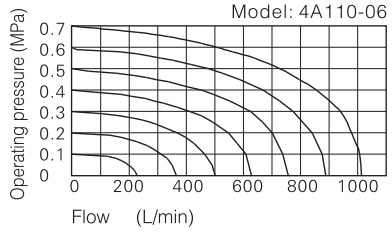
Port size	
M5	M5
06	1/8"

Thread type	
Port size	Thread type
1/8"	Blank: PT
	G: G
	T: NPT
M5	No this code

Please refer to 116 for manifold specification and the order way.

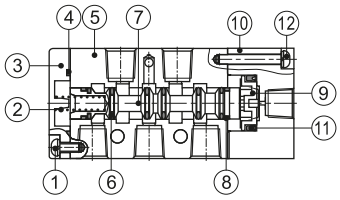
Flow chart



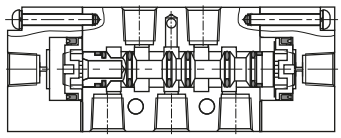


Inner structure

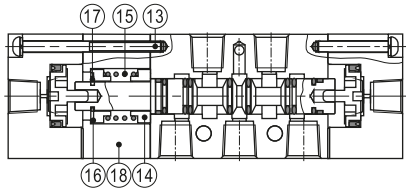
4A110



4A120



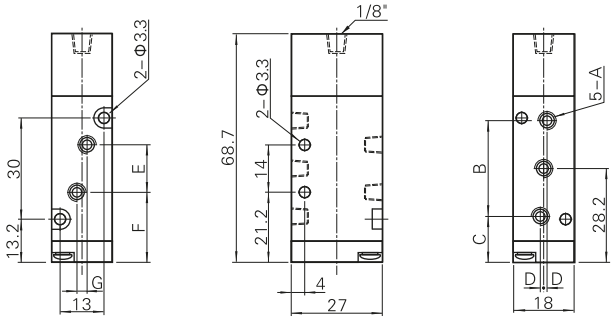
4A130C



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

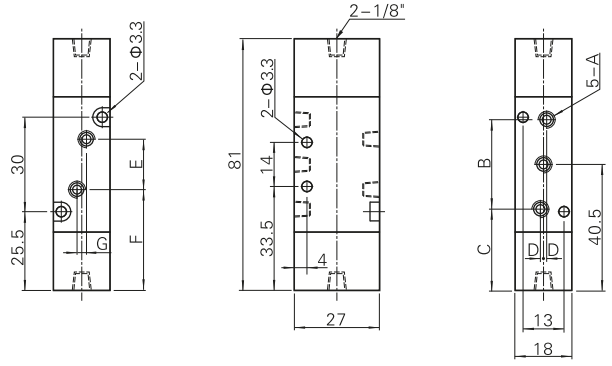
Dimensions

4A110



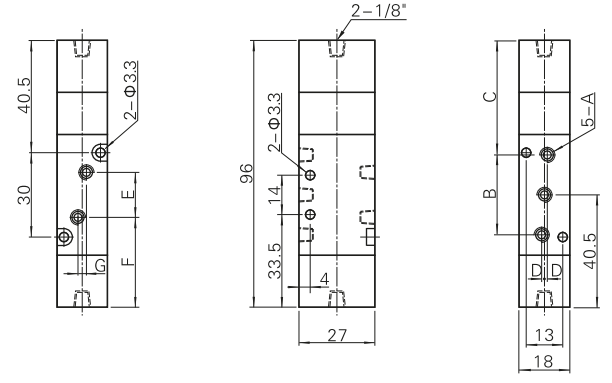
Model\Item	A	B	C	D	E	F	G
4A110-M5	M5×0.8	27	14.7	0	14	21.2	0
4A110-06	1/8"	28	14.2	1	16	20.2	3

4A120

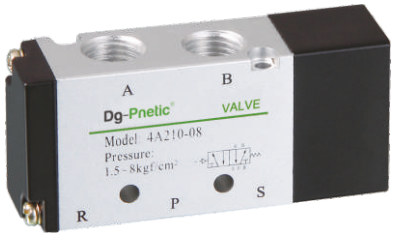


Model\Item	A	B	C	D	E	F	G
4A120-M5	M5×0.8	27	27	0	14	33.5	0
4A120-06	1/8"	28	26.5	1	16	32.5	3

4A130



Model\Item	A	B	C	D	E	F	G
4A130-M5	M5×0.8	27	42	0	14	33.5	0
4A130-06	1/8"	28	41.5	1	16	32.5	3

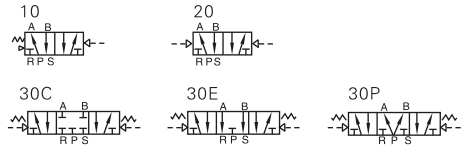


Specifications

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 40μm filter element)			
Acting	Exterior control			
Port size ①	In=Out=Exhaust=1/8"		In=Out=1/4" Exhaust=1/8"	
Orifice size	14.0mm²(Cv=0.78)	12.0mm²(Cv=0.67)	16.0mm²(Cv=0.89)	12.0mm²(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	1.2MPa(175psi)			
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)	4A210-06:185 4A220-06:285	365	4A210-08:185 4A220-08:285	365

① PT thread, G thread and NPT 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 funcition 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.

Ordering code

4A — **Model**

4A	Air valve (5/2, 5/3 way)

2 — **Code**

2	200 Series

10 — **Valve 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

08 — **Port size**

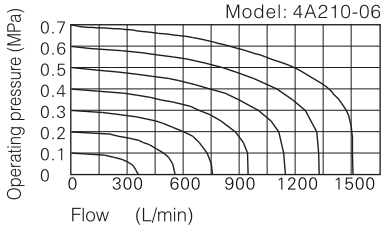
06	1/8"
08	1/4"

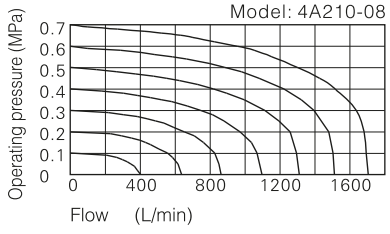
□ — **Thread type**

Blank	PT
G	G
T	NPT

Please refer to 116 for manifold specification and the order way.

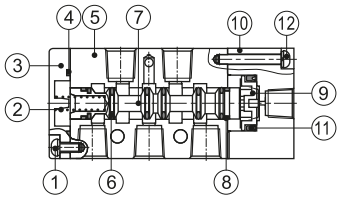
Flow chart



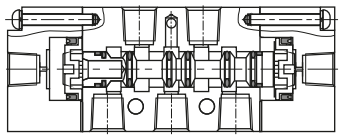


Inner structure

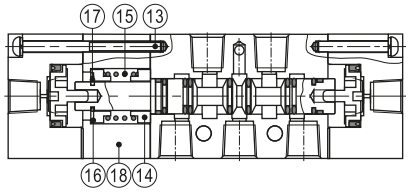
4A210



4A220



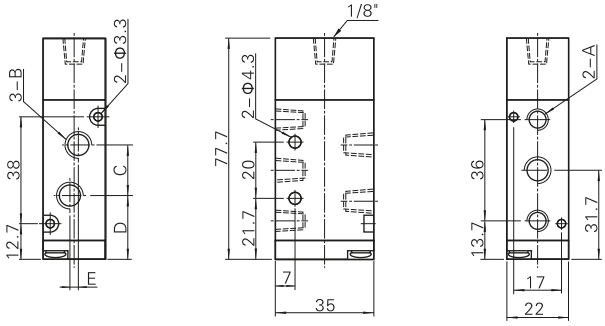
4A230C



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

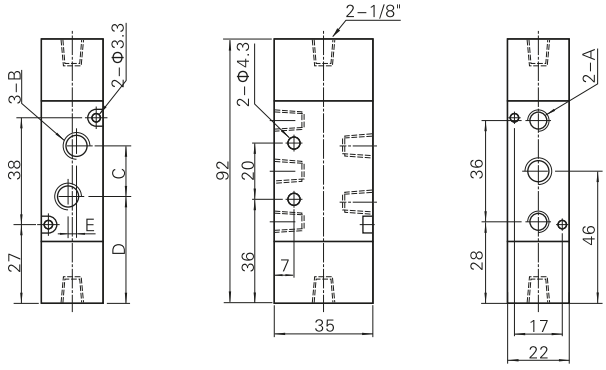
Dimensions

4A210



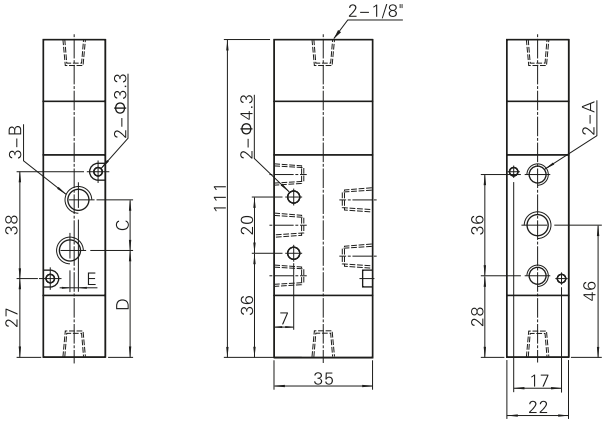
Model\Item	A	B	C	D	E
4A210-06	1/8"	1/8"	18	22.7	0
4A210-08	1/8"	1/4"	21	21.2	3

4A220

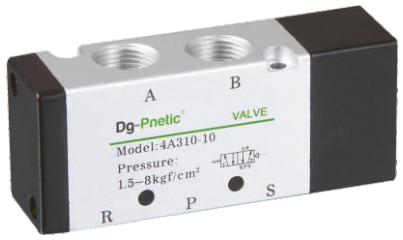


Model\Item	A	B	C	D	E
4A220-06	1/8"	1/8"	18	37	0
4A220-08	1/8"	1/4"	21	35.5	3

4A230C



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

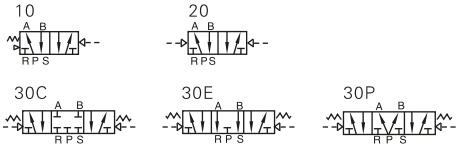


Specifications

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 40μm filter element)			
Acting	Exterior control			
Port size ①	In=Out=Exhaust=1/4"		In=Out=3/8" Exhaust=1/4"	
Orifice size	25.0mm²(Cv=1.40)	18.0mm²(Cv=1.00)	30.0mm²(Cv=1.68)	18.0mm²(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	1.2MPa(175psi)			
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, G thread and NPT 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 funcition 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.

Ordering code

4A — Model

4A	Air valve (5/2, 5/3 way)

3 — Code

3	300 Series

10 — Valve 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

10 — Port size

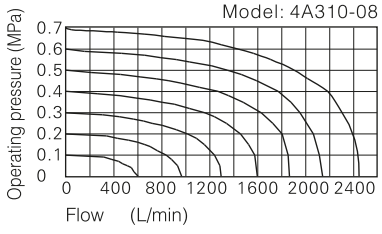
08	1/4"
10	3/8"

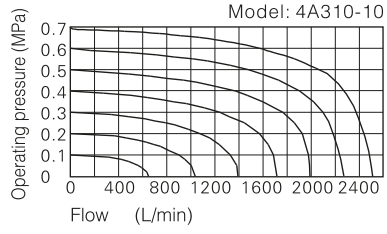
□ — Thread type

Blank	PT
G	G
T	NPT

Please refer to 116 for manifold specification and the order way.

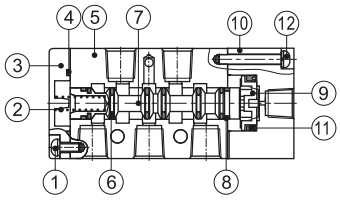
Flow chart



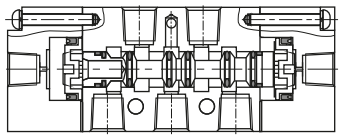


Inner structure

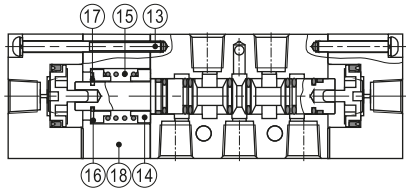
4A310



4A320



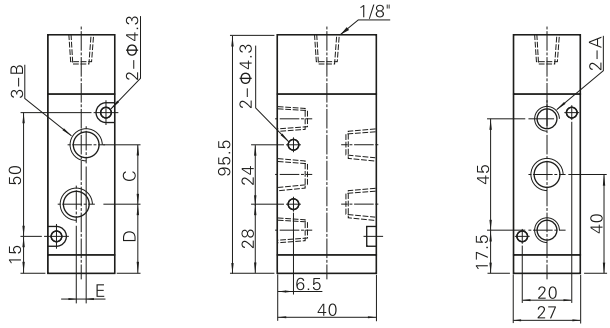
4A330C



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

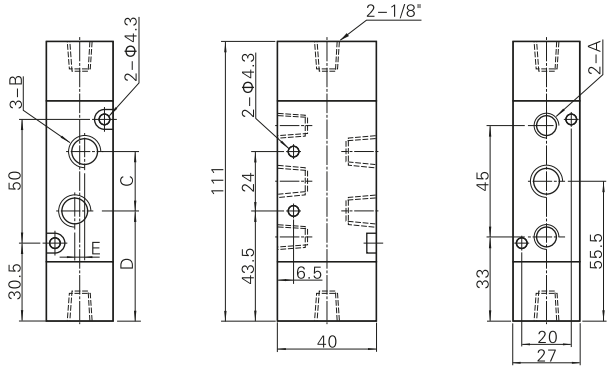
Dimensions

4A310



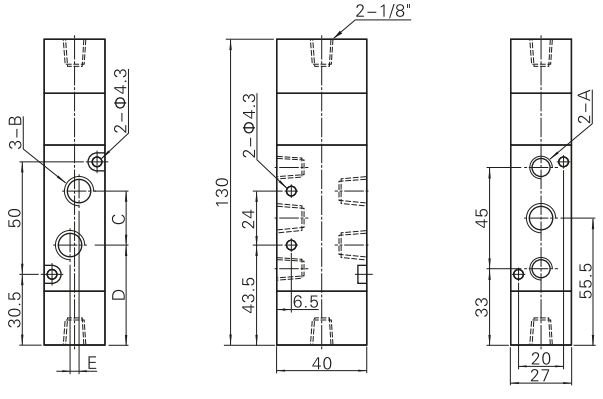
Model\Item	A	B	C	D	E
4A310-08	1/4"	1/4"	22	29	0
4A310-10	1/4"	3/8"	24	28	4

4A320

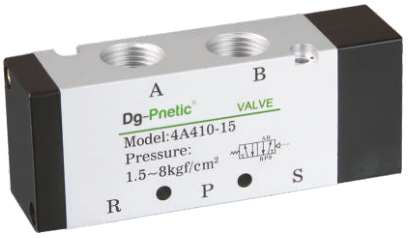


Model\Item	A	B	C	D	E
4A320-08	1/4"	1/4"	22	44.5	0
4A320-10	1/4"	3/8"	24	43.5	4

4A330C



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

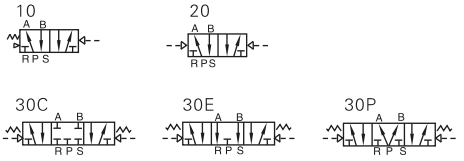


Specifications

Model	4A410-15	4A420-15	4A430C-15	4A430E-15	4A430P-15
Fluid	Air (to be filtered by 40μm filter element)				
Acting	Exterior control				
Port size ①	In=Out=Exhaust=1/2"				
Orifice size	50.0mm²(Cv=2.79)		30.0mm²(Cv=1.68)		
Valve type	5 port 2 position		5 port 3 position		
Operating pressure	0.15~0.8MPa(21~114psi)				
Proof pressure	1.2MPa(175psi)				
Temperature (℃)	-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, G thread and NPT 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 funcition 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.

Ordering code

4A — Model

4A	Air valve (5/2, 5/3 way)

4 — Code

4	400 Series

10 — Valve 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

15 — Port size

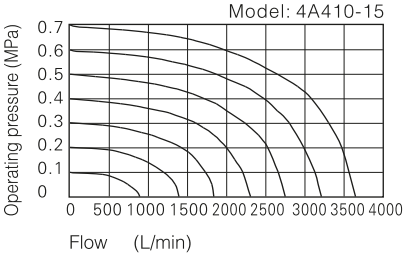
15	1/2"

□ — Thread type

Blank	PT
G	G
T	NPT

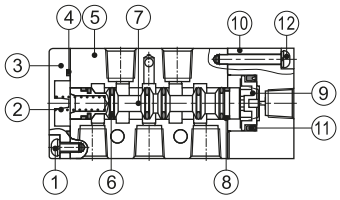
Please refer to 116 for manifold specification and the order way.

Flow chart

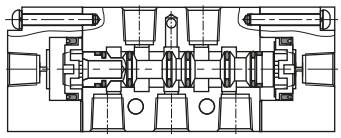


Inner structure

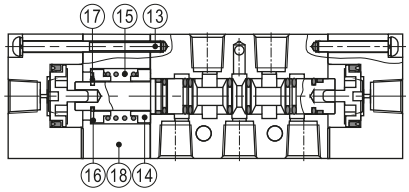
4A410



4A420



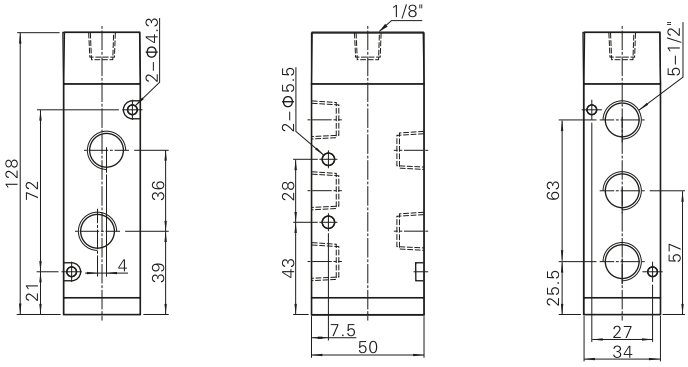
4A430C



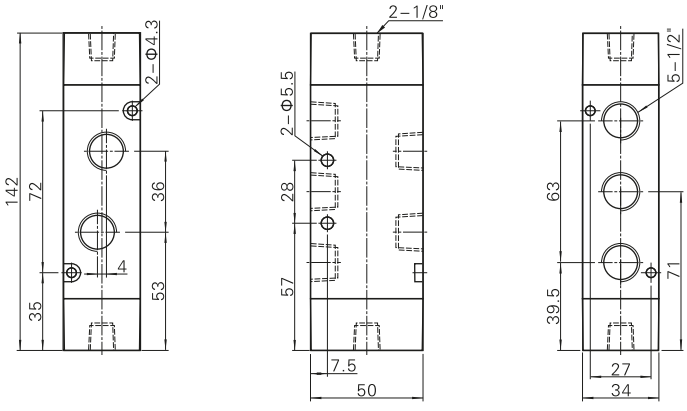
No.	Item	No.	Item	No.	Item	No.	Item	No.	Item
1	Screw	5	Body	9	Piston	13	Screw	17	E Clip
2	Spring	6	O-ring	10	Pilot body	14	Spring holder	18	Side cover
3	Bottom cover	7	Spool	11	O-ring	15	Return Spring		
4	Bottom cover gasket	8	Wear ring	12	Screw	16	Spring holder		

Dimensions

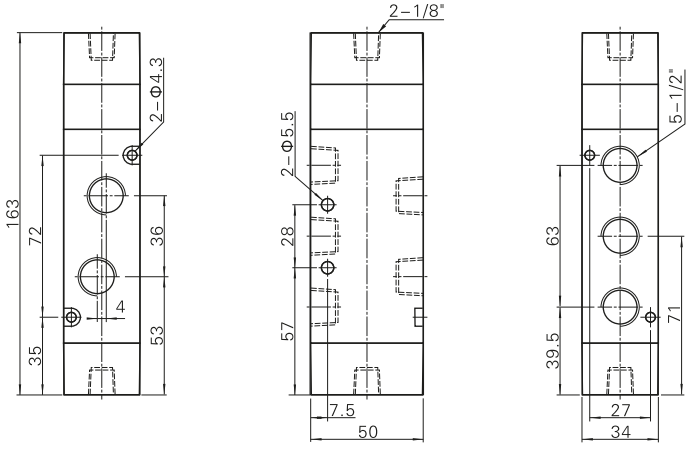
4A410



4A420



4A430C

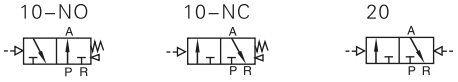


Specifications

Model	3A210-06	3A220-06	3A210-08	3A220-08
Fluid	Air (to be filtered by 40μm filter element)			
Acting	Exterior control			
Port size ①	In=Out=1/8"		In=Out=1/4"	
Orifice size	14.0mm²(Cv=0.78)		16.0mm²(Cv=0.89)	
Valve type	3 port 2 porsition			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.2MPa(175psi)			
Temperature (℃)	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

① PT thread, G thread and NPT 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.

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.

Ordering code

3A 2 10 08 NO □

Model

3A	Air valve (3/2 way)

Code

2	200 Series

Valve type

10	Single air control
20	Double air control

Port size

06	1/8"
08	1/4"

Acting type

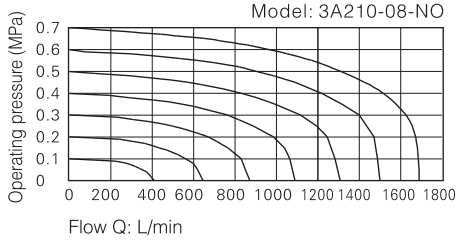
Valve type	Acting type
10	NC: Normally close
	NC: Normally open
20	NO code

Thread type

Blank	PT
G	G
T	NPT

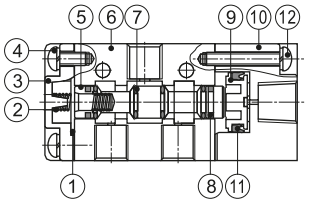
Please refer to 115 for manifold specification and the order way.

Flow chart

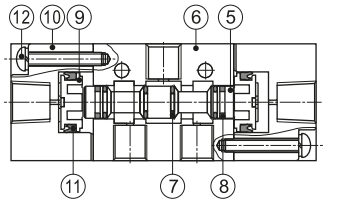


Inner structure

3A210



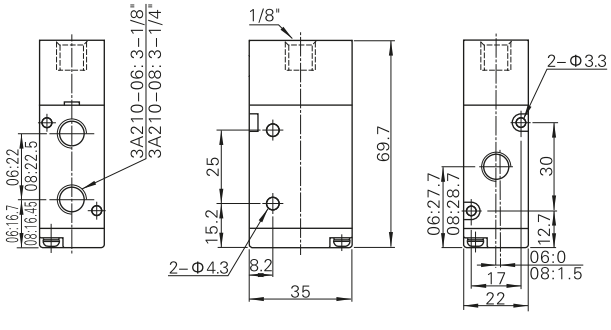
3A220



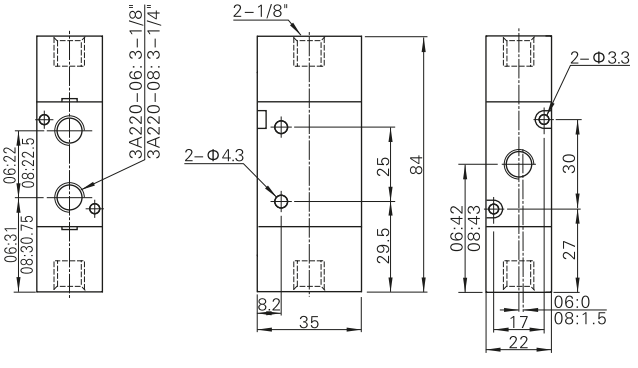
No.	Item	No.	Item	No.	Item
1	Bottom cover gasket	5	Spool	9	Piston
2	Spring	6	Body	10	Pilot body
3	Bottom cover	7	O-ring	11	Piston O-ring
4	Bottom cover screw	8	Wear ring	12	Piston screw

Dimensions

3A210



3A220

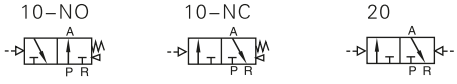


Specifications

Model	3A310-08	3A320-08	3A310-10	3A320-10
Fluid	Air (to be filtered by 40μm filter element)			
Acting	Exterior control			
Port size ①	In=Out=1/4"		In=Out=3/8"	
Orifice size	25.0mm²(Cv=1.35)		30.0mm²(Cv=1.67)	
Valve type	3 port 2 position			
Lubrication ②	Not required			
Operating pressure	0.15~0.8MPa(21~114psi)			
Proof pressure	1.2MPa(175psi)			
Temperature (℃)	-20~70			
Material of body	Aluminum alloy			
Max. frequency ③	5 cycle/sec			

① PT thread, G thread and NPT 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



Ordering code

3A	3	10	10	NO	□
Model	Code	Valve type	Port size	Acting type	Thread type

Model

3A	Air valve (3/2 way)

Code

3	300 Series

Valve type

10	Single air control
20	Double air control

Port size

08	1/4"
10	3/8"

Acting type

Valve type	Acting type
10	NC: Normally close
	NC: Normally open
20	NO code

Thread type

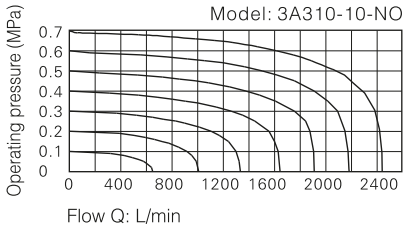
Blank	PT
G	G
T	NPT

Please refer to 115 for manifold specification and the order way.

Product feature

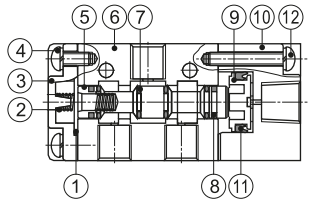
1. Structure in sliding column mode: good tightness and sensitive reaction.
2. Double air control valves have memory function.
3. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
4. No need to add oil for lubrication.
5.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

Flow chart

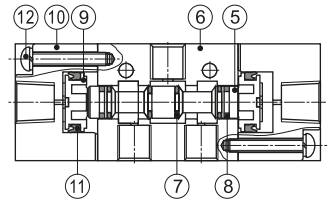


Inner structure

3A310



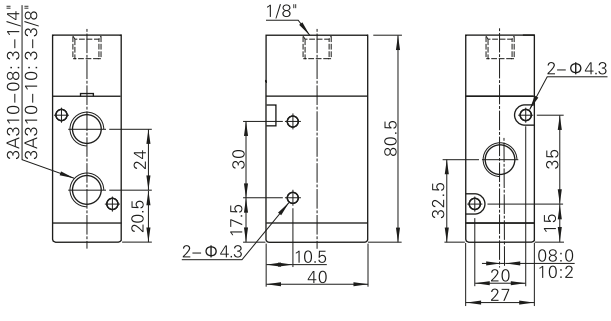
3A320



No.	Item	No.	Item	No.	Item
1	Bottom cover gasket	5	Spool	9	Piston
2	Spring	6	Body	10	Pilot body
3	Bottom cover	7	O-ring	11	Piston O-ring
4	Bottom cover screw	8	Wear ring	12	Piston screw

Dimensions

3A310



3A320