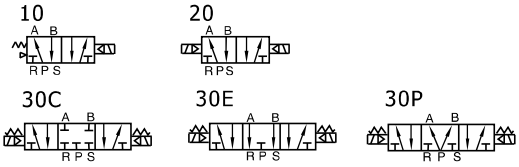
Solenoid valve(5/2 way, 5/3 way)

4V200 Series







Ordering code

4V	2	10	08	A	□	T
1	2	3	4	5	6	7

①Model
4V: Solenoid valve (5/2, 5/3 way)

②Code
2: 200 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 size
06: 1/8"
08: 1/4"

⑤Voltage
A: AC220V
B: DC24V
C: AC110V
E: AC24V
F: DC12V

⑥Electrical entry
Blank: Terminal
I: Flying leads

[Note]: The wire length is 0.5m.

⑦Thread type
T: NPT

Please refer to P114 for manifold specification and the order way.

Specification

Model	4V210-06 4V220-06	4V230C-06 4V230E-06 4V230P-06	4V210-08 4V220-08	4V230C-08 4V230E-08 4V230P-08
Fluid	Air(to be filtered by 40μm filter element)			
Acting	Internal pilot or external pilot			
Port size [Note1]	In=Out=Exhaust=1/8"		In=Out=1/4" Exhaust=1/8"	
Orifice size [Note4]	4V210-08,4V220-08:17.0mm²(Cv=1.0) 4V230C-08:13.6mm²(Cv=0.8)			
Valve type	5 port 2 position	5 port 3 position	5 port 2 position	5 port 3 position
Operating pressure	21~114psi(0.15~0.8MPa)			
Proof pressure	175psi(1.2MPa)			
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
Weight (g)	4V210-06:220 4V220-06:320	360	4V210-08:220 4V220-08:320	360

[Note1] NPT 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.

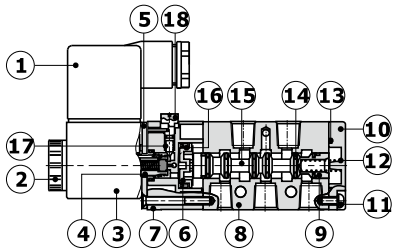
4V200 Series

Coil specification

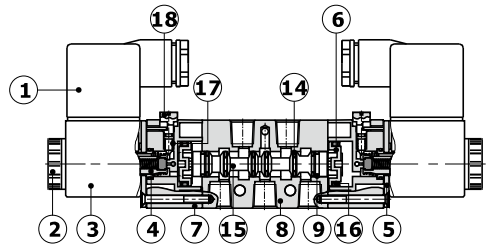
Item	specification				
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	4.5VA	4.5VA	5.0VA	3.0W	2.5W
Protection	IP65(DIN40050)				
Temperature classification	B Class				
Electrical entry	Terminal, Flying leads				
Activating time	0.05 sec and below				

Inner structure

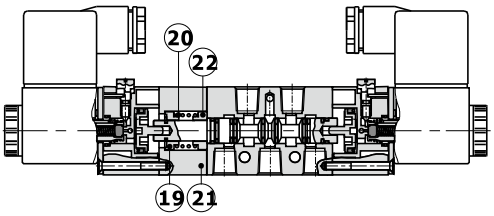
4V210



4V220



4V230C

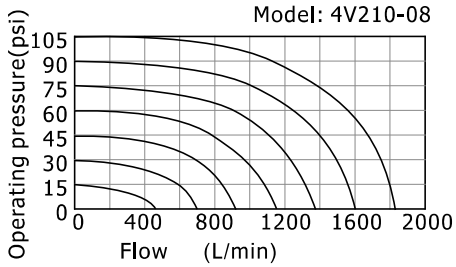


No.	Item	No.	Item	No.	Item
1	Connector	9	Wear ring	17	Override spring
2	Coil nut	10	Bottom cover	18	Manual override
3	Coil	11	Fixed screw	19	Spring holder
4	Armature	12	Spool spring	20	Return spring
5	Fixed plate	13	Bottom cover gasket	21	Side cover
6	Piston	14	Spool O-ring	22	Spring holder
7	Pilot kit	15	Spool		
8	Body	16	Piston O-ring		

Product feature

1. Pilot-oriented mode: Internal pilot or external pilot.
2. Structure in sliding column mode: good tightness and sensitive reaction .
3. Three position solenoid valves have three kinds of central function for your choice.
4. Double control solenoid valves have memory function.
5. Internal hole adopts special processing technology which has little attrition friction, low start pressure and long service life.
6. No need to add oil for lubrication.
7. It is available to form integrated valve group with the base to save installation space.
8. Affiliated manual devices are equipped to facilitate installation and debugging.
9. Several standard voltage grades are optional.

Flow chart



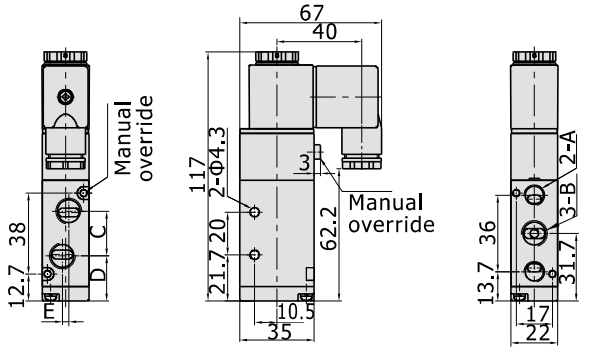
The data in flow rate chart are obtained from AirTAC lab.

4V200 Series

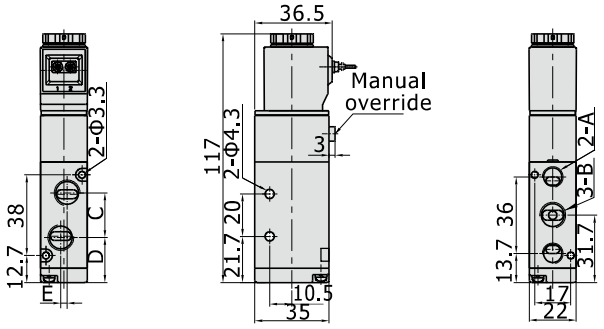
Dimensions

4V210(Terminal)

[Unit: mm]

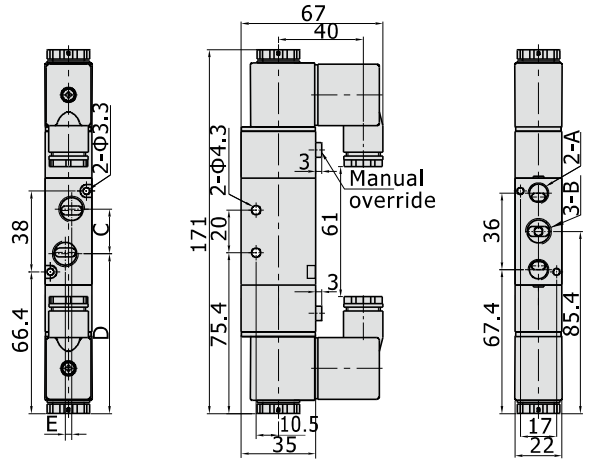


4V210(Flying leads)

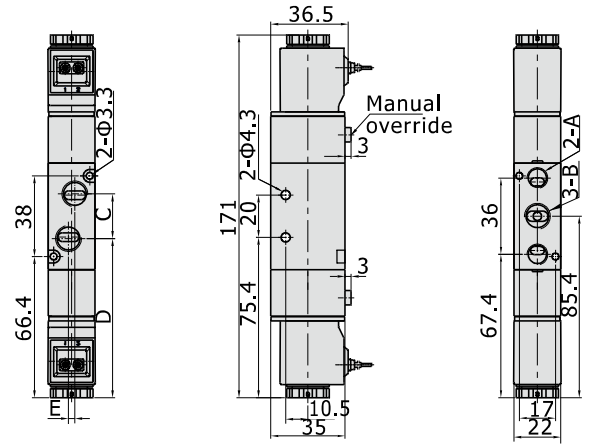


Model\Item	A	B	C	D	E
4V210-06	1/8"	1/8"	18	22.7	0
4V210-08	1/8"	1/4"	21	21.2	3

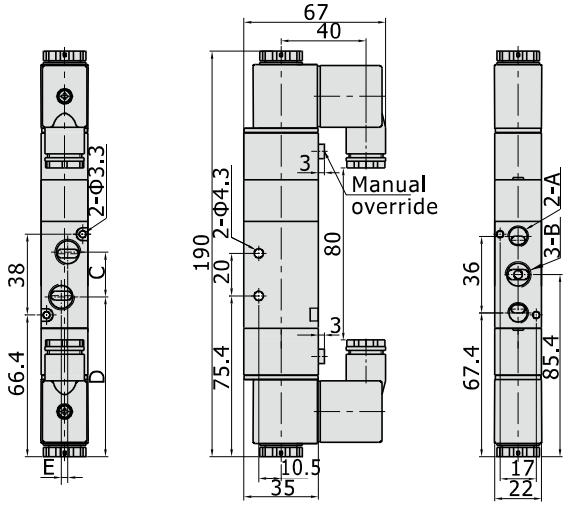
4V220(Terminal)



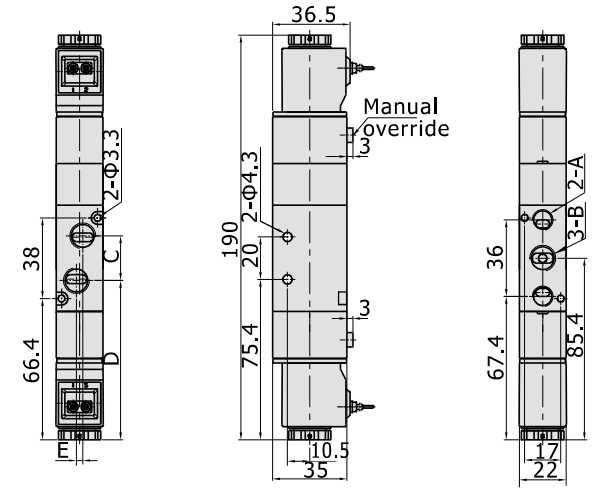
4V220(Flying leads)



4V230(Terminal)



4V230(Flying leads)



Model\Item		A	B	C	D	E
4V220-06	4V230-06	1/8"	1/8"	18	76.4	0
4V220-08	4V230-08	1/8"	1/4"	21	74.9	3