

# Solenoid valve ( 3/2 way )

3V1 Series

Series connection

Dimensions(3F)

How to joint

Dimensions(1F)

Product structure

Connection Amount	Q.TY	3V1	3V1-P30	3V1-P31	3V1-P32
3V1-□-□-1F	1	1	0	0	1
3V1-□-□-2F	2	2	1	1	1
3V1-□-□- <i>n</i> F	<i>n</i>	<i>n</i>	1	<i>n</i> -1	2

Note: *n* is the number of junction valve, and  $n \geq 3$



3V1

## Ordering code for series

3V1 — 06 — A — □ — 3F — P

**Model**

3V1: Solenoid valve (3/2 way)

**Port size**

M5: M5  
06: 1/8"

**Voltage**

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

**Electric entry**

Blank: Terminal  
I: Grommet

**Number of stations**

1F: 1 Station  
2F: 2 Stations  
3F: 3 Stations  
.....  
20F: 20 Stations

**Thread type**

P: PT  
T: NPT  
G: G

① When the thread is M5 type, the code is blank.

The above codes have included the series accessories, so it is unnecessary to order the accessories specially. But if you like, you could order as follows.

Code of accessories	Accessory name	Part code	Part name	Quantity
3V1-P30	Coupling screw assembly	F-3V1002N	Coupling screw(S)	2
		F-3V1003N	Coupling screw(M)	2
3V1-P31	Coupling screw assembly	GOR20008N75	O-Ring	1
		F-3V1004N	Coupling screw(L)	2
3V1-P32	Bracket assembly	F-3V1001N	Fixed mounting	1
		GSDA04008WA	Cross round head screw	2



# Solenoid valve ( 3/2 way )

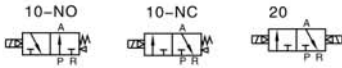
3V100 Series



3V100



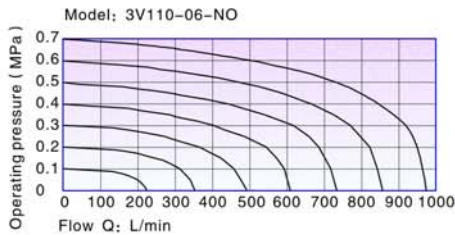
## Symbol



## Product feature

- 1、Pilot-oriented mode: internally piloted
- 2、Structure in sliding column mode: good tightness and sensitive reaction;
- 3、Double control solenoid 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、Affiliated manual devices are equipped to facilitate installation and debugging;
- 7、Several standard voltage grades are optional;

## Flow chart



## Specification

Model	3V110-M5	3V120-M5	3V110-06	3V120-06
Fluid	Air( to be filtered by 40um filter element)			
Acting	Internally piloted			
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 °C	-20-70			
Material of body	Aluminum alloy			

① PT thread、NPT thread and G thread are available;

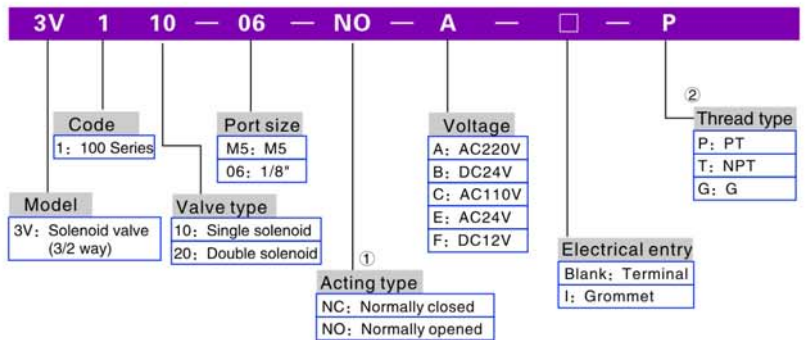
② It can not stop in the midway of lubricating. Lubricants like ISO VG32 or equivalent are recommended.

## Coil specification

Item	Specification
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V
Scope of voltage	AC: ±15% DC: ±10%
Power consumption	AC: 2.5VA DC : 2.5W
Protection	IP65 ( DIN40050 )
Temperature classification	B Class
Electrical entry	Terminal、Grommet
Activating time	0.05 sec and below
Max. frequency ①	5 cycle/sec

① The maximum actuation frequency is in the no-load state.

## Ordering code



①Remark: 2 position double control solenoid valves have no differences between normally opened and normally closed state, thus this code is blank.

②When the thread is M5 type, the code is blank.



# Solenoid valve ( 3/2 way )

## 3V100 Series

### Inner structure

### ■ Dimensions

**3V110**

**3V120**

NO.	Item	NO.	Item	NO.	Item
1	Fixed plate	8	O-ring	15	Piston
2	Manual override	9	Body	16	Pilot screw
3	Override spring	10	Spool spring	17	O-ring
4	Piston O-ring	11	Bottom cover gasket	18	Armature
5	Pilot body	12	Bottom cover	19	Coil
6	Spool packing	13	Screw	20	Coil nut
7	Spool	14	Wearing ring	21	Connector

**3V110(Terminal)**

**3V110(Grommet)**

**3V120(Terminal)**

**3V120(Grommet)**



3V100



# Solenoid valve ( 3/2 way )

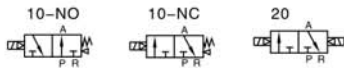
3V200 Series



3V200



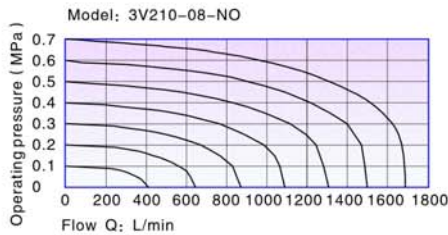
## Symbol



## Product feature

- 1、Pilot-oriented mode: internally piloted;
- 2、Structure in sliding column mode: good tightness and sensitive reaction;
- 3、Double control solenoid 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、Affiliated manual devices are equipped to facilitate installation and debugging;
- 7、Several standard voltage grades are optional;

## Flow chart



## Specification

Model	3V210-06	3V220-06	3V210-08	3V220-08
Fluid	Air( to be filtered by 40um filter element)			
Acting	Internal piloted			
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			

① PT thread、NPT thread and G thread are available;

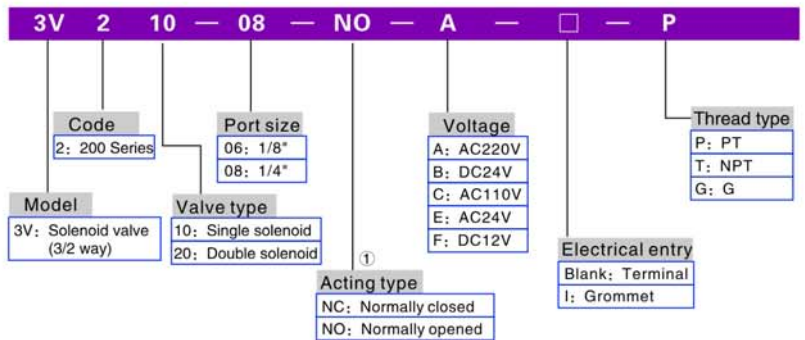
② It can not stop in the midway of lubricating. Lubricants like ISO VG32 or equivalent are recommended.

## Coil specification

Item	Specification
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V
Scope of voltage	AC: ±15% DC: ±10%
Power consumption	AC: 3.5VA DC : 3.0W
Protection	IP65 ( DIN40050 )
Temperature classification	B Class
Electrical entry	Terminal、Grommet
Activating time	0.05 sec and below
Max. frequency ①	5 cycle/sec

① The maximum actuation frequency is in the no-load state.

## Ordering code



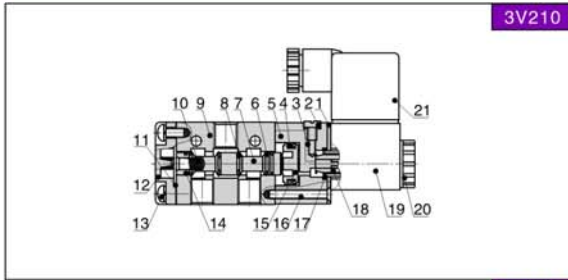
①Remark: 2 position double control solenoid valves have no differences between normally opened and normally closed state, thus this code is blank.

# Solenoid valve ( 3/2 way )

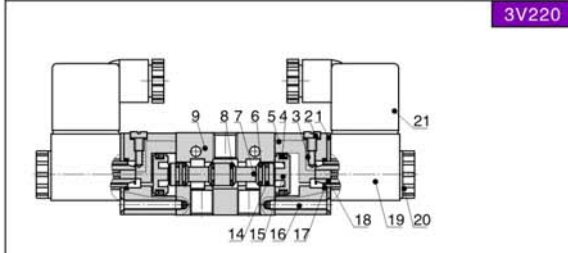
## 3V200 Series

### Inner structure

### Dimensions



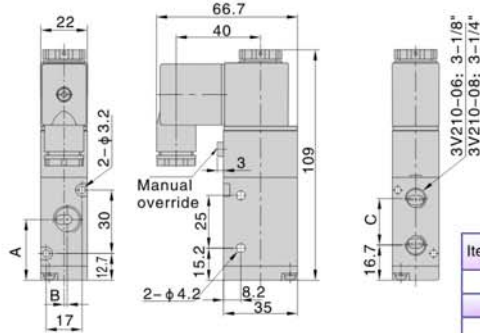
3V210



3V220

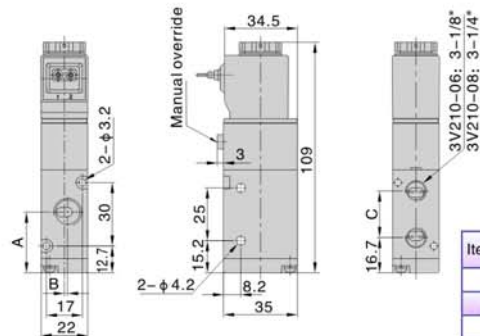
NO.	Item	NO.	Item	NO.	Item
1	Fixed plate	8	O-ring	15	Piston
2	Manual override	9	Body	16	Pilot screw
3	Override spring	10	Spool spring	17	O-ring
4	Piston O-ring	11	Bottom cover gasket	18	Armature
5	Pilot body	12	Bottom cover	19	Coil
6	Spool packing	13	Screw	20	Coil nut
7	Spool	14	Wearing ring	21	Connector

3V210(Terminal)



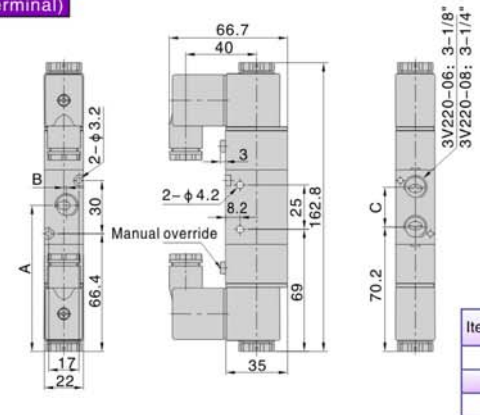
Item \ Model	3V210-06	3V210-08
A	27.7	28.7
B	0	1.5
C	22	22.5

3V210(Grommet)



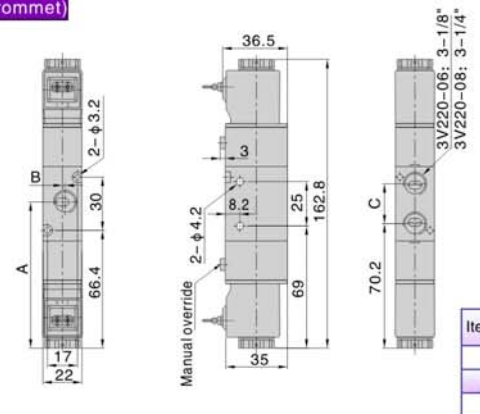
Item \ Model	3V210-06	3V210-08
A	27.7	28.7
B	0	1.5
C	22	22.5

3V220(Terminal)



Item \ Model	3V220-06	3V220-08
A	81.4	82.4
B	0	1.5
C	22	22.5

3V220(Grommet)



Item \ Model	3V220-06	3V220-08
A	81.4	82.4
B	0	1.5
C	22	22.5



3V200

# Solenoid valve ( 3/2 way )

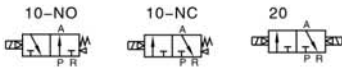
3V300 Series



3V300



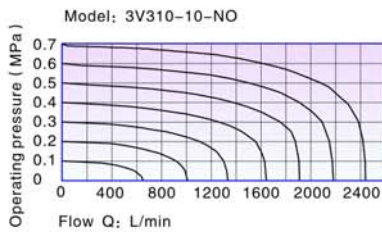
## Symbol



## Product feature

- 1、Pilot-oriented mode: internally piloted;
- 2、Structure in sliding column mode: good tightness and sensitive reaction;
- 3、Double control solenoid 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、Affiliated manual devices are equipped to facilitate installation and debugging;
- 7、Several standard voltage grades are optional;

## Flow chart



## Specification

Model	3V310-08	3V320-08	3V310-10	3V320-10
Fluid	Air( to be filtered by 40um filter element)			
Acting	Internal piloted			
Port size ①	In=Out=1/4"		In=Out=3/8"	
Orifice size	25.0mm <sup>2</sup> (Cv=1.39)		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 °C	-20-70			
Material of body	Aluminum alloy			

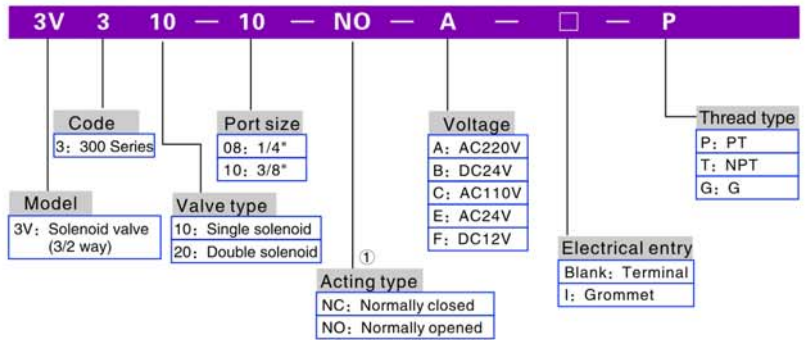
- ① PT thread、NPT thread and G thread are available;  
 ② It can not stop in the midway of lubricating. Lubricants like ISO VG32 or equivalent are recommended.

## Coil specification

Item	Specification
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V
Scope of voltage	AC: ±15% DC: ±10%
Power consumption	AC: 3.5VA DC : 3.0W
Protection	IP65 ( DIN40050 )
Temperature classification	B Class
Electrical entry	Terminal、Grommet
Activating time	0.05 sec and below
Max. frequency ①	5 cycle/sec

① The maximum actuation frequency is in the no-load state.

## Ordering code



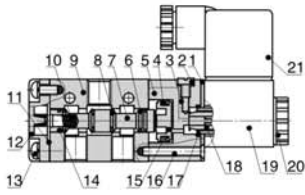
① Remark: 2 position double control solenoid valves have no differences between normally opened and normally closed state, thus this code is blank.



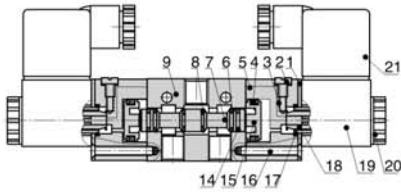
# Solenoid valve ( 3/2 way )

## 3V300 Series

### Inner structure



3V310

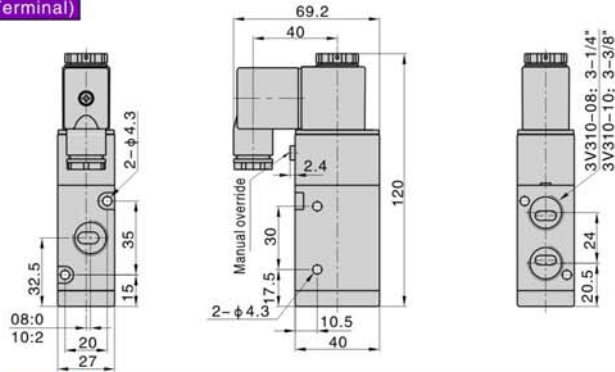


3V320

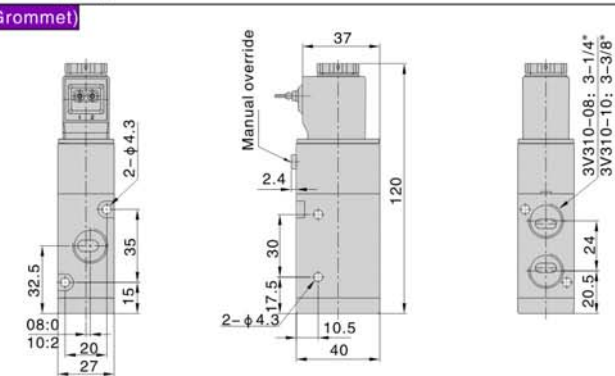
NO.	Item	NO.	Item	NO.	Item
1	Fixed plate	8	O-ring	15	Piston
2	Manual override	9	Body	16	Pilot screw
3	Override spring	10	Spool spring	17	O-ring
4	Piston O-ring	11	Bottom cover gasket	18	Armature
5	Pilot body	12	Bottom cover	19	Coil
6	Spool packing	13	Screw	20	Coil nut
7	Spool	14	Wearing ring	21	Connector

### Dimensions

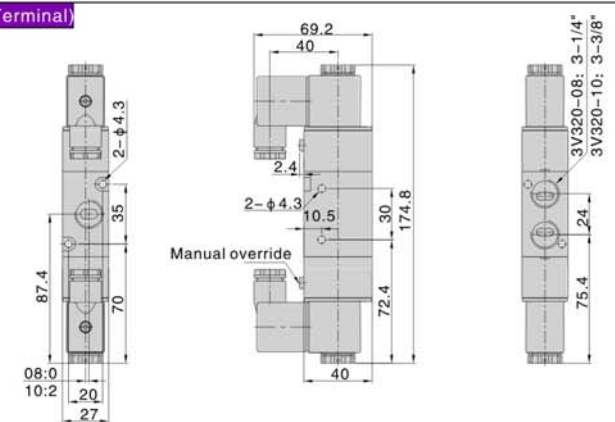
3V310(Terminal)



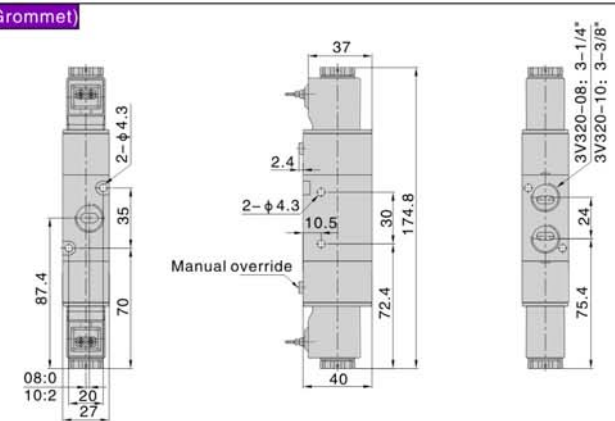
3V310(Grommet)



3V320(Terminal)



3V320(Grommet)



3V300

