

# Solenoid valve(3/2 way)



## 3V1 Series



### Specification

Model	3V1-M5	3V1-06
Fluid	Air(to be filtered by 40 μm filter element)	
Acting	Direct acting	
Port size ①	M5	1/8"
Valve type	3 port 2 position	
Lubrication	Not required	
Operating pressure	0~0.8MPa(0~114psi)	
Proof pressure	1.5MPa(215psi)	
Temperature °C	-20~70	
Orifice size	Φ 1.2mm	
Material of body	Aluminum alloy	

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

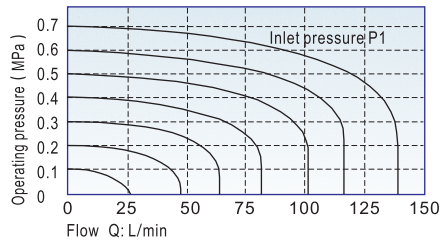
### Symbol



### Product feature

1. Direct acting type and normally closed mode, flexible in direction change.
2. No need to add oil for lubrication.
3. Several valves can be installed integrately to save installation space.
4. Affiliated manual devices are equipped to facilitate installation and debugging.
5. Several standard voltage grades are optional.

### Flow chart

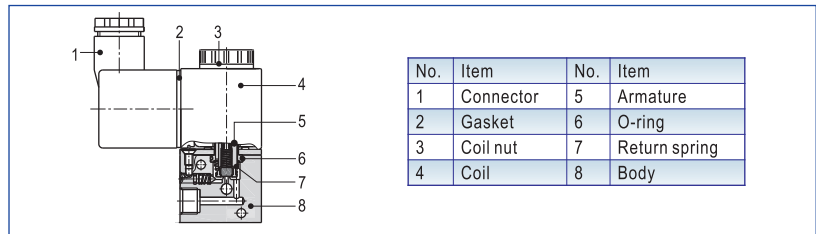


### Coil specification

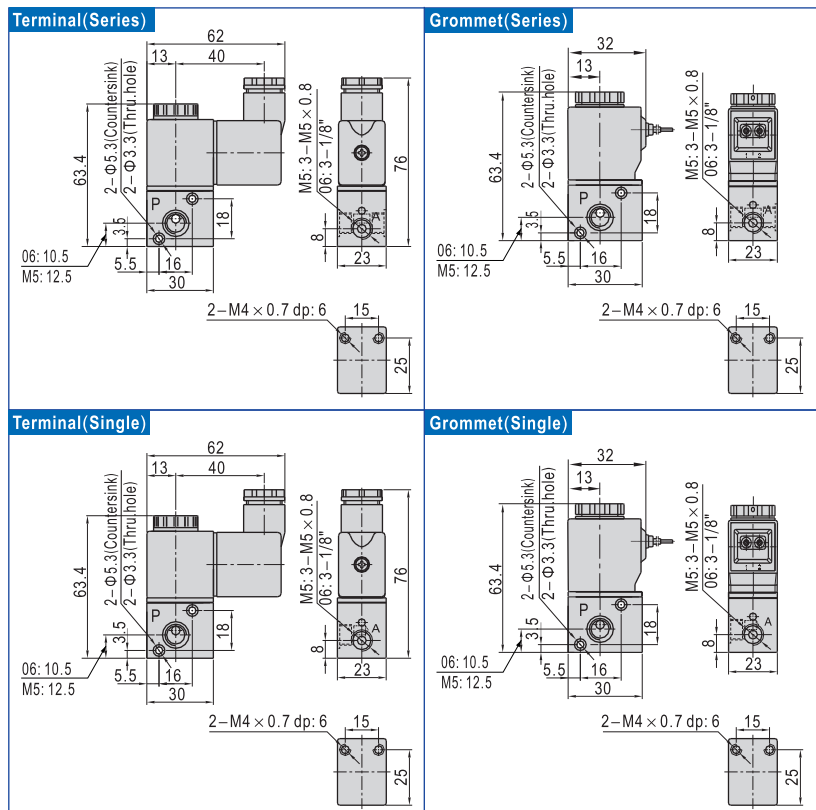
Item	Specification
Standard voltage	AC220V, AC110V, AC24V, DC24V, DC12V
Scope of voltage	AC: ± 15% DC: ± 10%
Power consumption	AC:3.5VA DC:3.0W
Protection	IP65(DIN40050)
Temperature classification	B Class
Electrical entry	Terminal, Grommet
Activating time	0.05 sec and below
Max. frequency ①	10 cycle/sec

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

### Inner structure



### Dimensions



### Ordering code

**3V 1 06 A □ P □**

- Model:** 3V: Solenoid valve (3/2 way)
- Code:** 1: 1 Series
- Port size:** M5: M6, 06: 1/8"
- Voltage:** A: AC220V, B: DC24V, C: AC110V, E: AC24V, F: DC12V
- Valve's code:** Blank: Use for series, D: Use for single
- Thread type:**

Port size	Thread type
1/8"	P: PT, T: NPT, G: G
M5	Not this code
- Electrical entry:** Blank: Terminal, I: Grommet

# Solenoid valve(3/2 way)



## 3V1 Series

### Series connection

#### Dimensions(3F)

#### Dimensions(1F)

#### How to joint

#### Product structure

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

3V: Solenoid valve(3/2 way)

**Port size**

M5: M6  
06: 1/8"

**Voltage**

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

**Electrical entry**

Blank: Terminal  
I: Grommet

**Thread type**

Port size	Thread type
1/8"	P: PT
	T: NPT
	G: G
M5	Not this code

**Number of stations**

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

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
		F-3V1001N	Fixed mounting	1
3V1-P32	Bracket assembly	GSDA04008WA	Cross round head screw	2

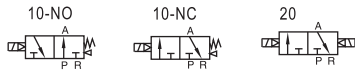
# Solenoid valve(3/2 way)



## 3V100 Series



### Symbol

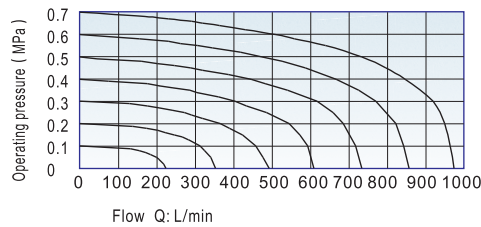


### Product feature

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.
8. Integrate with the manifold to save installation space.

### Flow chart

Model: 3V110-06-NO



### Specification

Model	3V110-M5	3V120-M5	3V110-06	3V120-06
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	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 Once lubricated air is used, continue with same medium to optimise valve life span. 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

**3V 1 10 06 NO A □ P**

- Model**: 3V: Solenoid valve(3/2 way)
- Code**: 1: 100 Series
- Valve type**: 10: Single solenoid, 20: Double solenoid
- Port size**: M5: M6, 06: 1/8"
- Acting type**:
 

Valve type	Acting type
10	NC: Normally closed NO: Normally opened
20	Not code
- Thread type**:
 

Port size	Thread type
1/8"	P: PT
	T: NPT
	G: G
M5	Not this code
- Electrical entry**: Blank: Terminal, I: Grommet
- Voltage**: A: AC220V, B: DC24V, C: AC110V, E: AC24V, F: DC12V

Please refer to 36 for manifold specification and the order way.

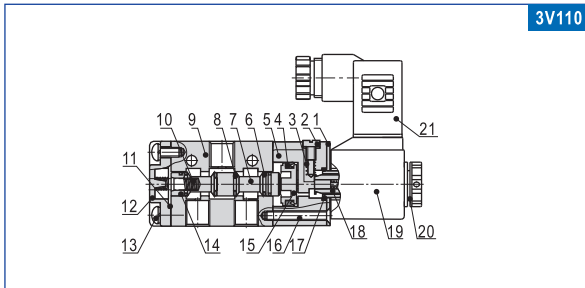


# Solenoid valve(3/2 way)

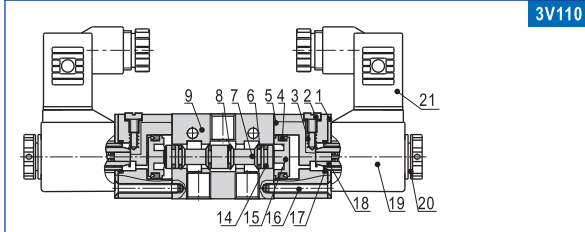


## 3V100 Series

### Inner structure



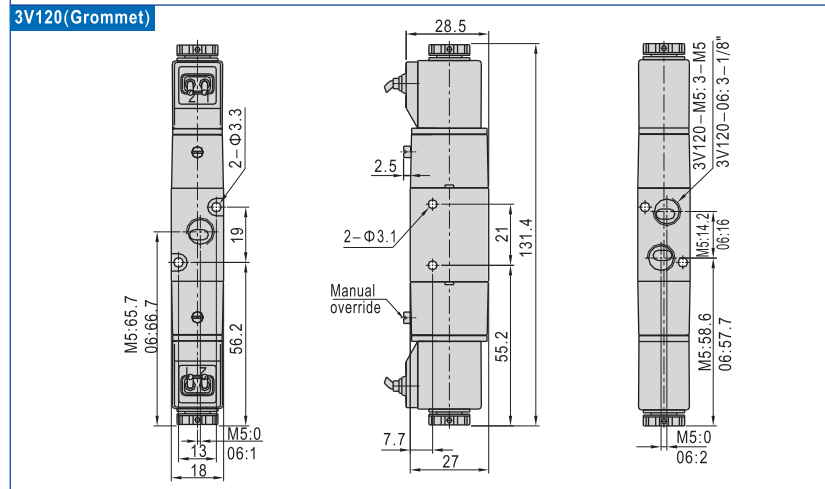
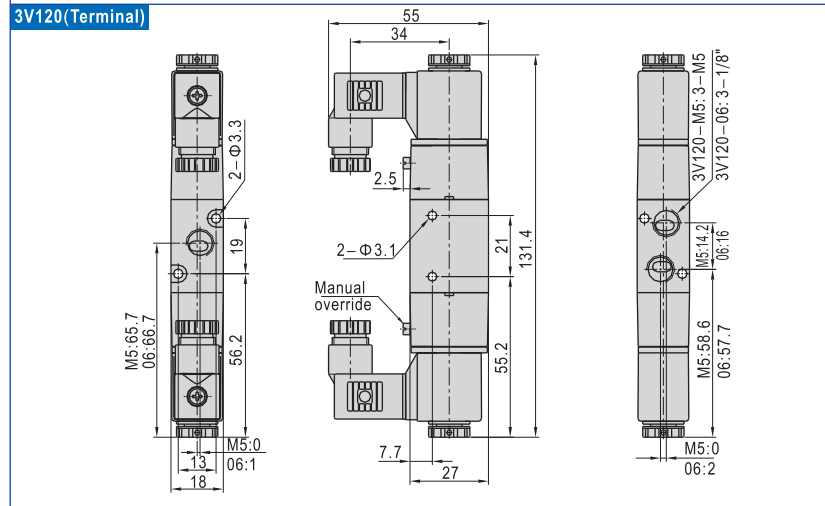
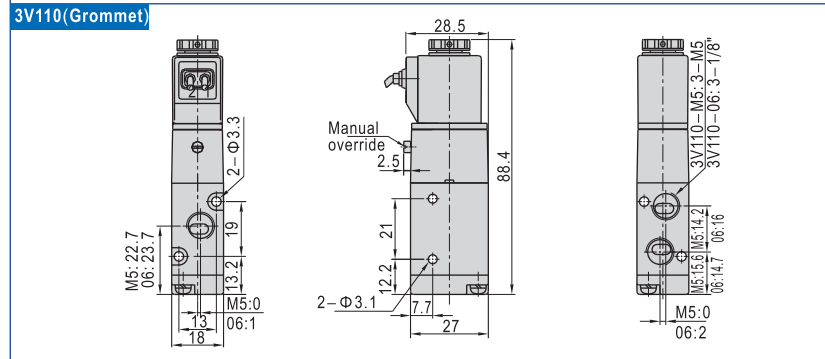
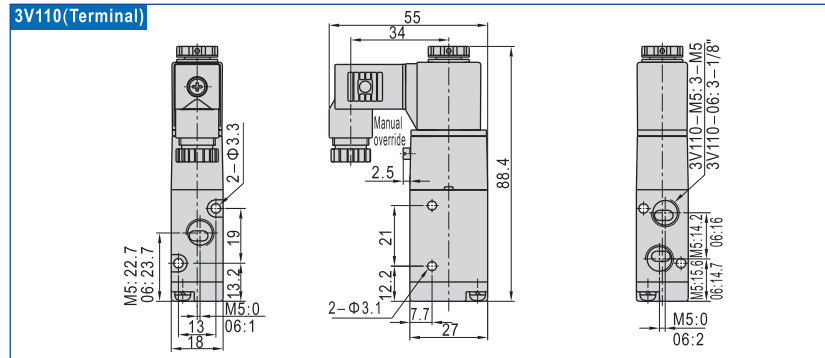
3V110



3V110

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 net
7	Spool	14	Wear ring	21	Connector

### Dimensions



3V100



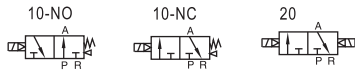
# Solenoid valve(3/2 way)



## 3V200 Series



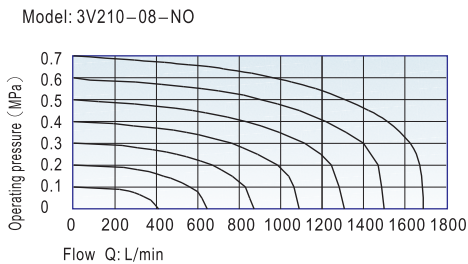
### Symbol



### 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.
8. Integrate with the manifold to save installation space.

### Flow chart



### Specification

Model	3V210-06	3V220-06	3V210-08	3V220-08
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	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 Once lubricated air is used, continue with same medium to optimise valve life span. 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

**3V 2 10 08 NO A □ P**

- Model**: 3V: Solenoid valve(3/2 way)
- Code**: 2: 200 Series
- Valve type**: 10: Single solenoid, 20: Double solenoid
- Port size**: 06: 1/8", 08: 1/4"
- Acting type**:
 

Valve type	Acting type
10	NC: Normally closed NO: Normally opened
20	Not code
- Thread type**: P: PT, T: NPT, G: G
- Electrical entry**: Blank: Terminal, I: Grommet
- Voltage**: A: AC220V, B: DC24V, C: AC110V, E: AC24V, F: DC12V

Please refer to 36 for manifold specification and the order way.



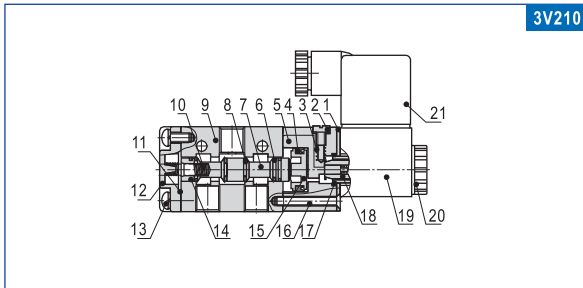


# Solenoid valve(3/2 way)

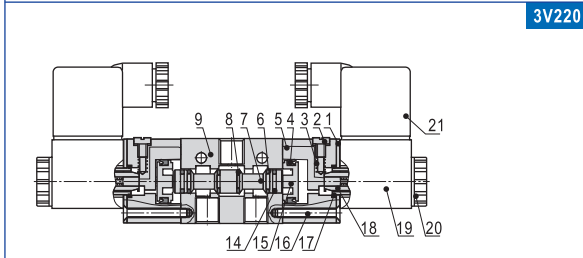


## 3V200 Series

### Inner structure



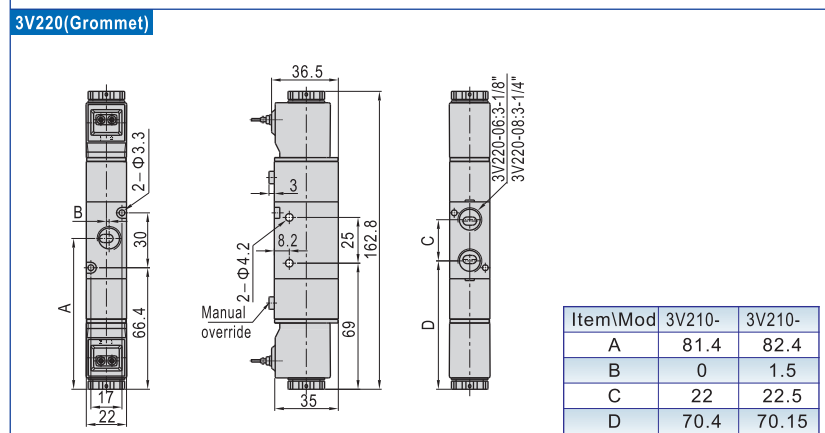
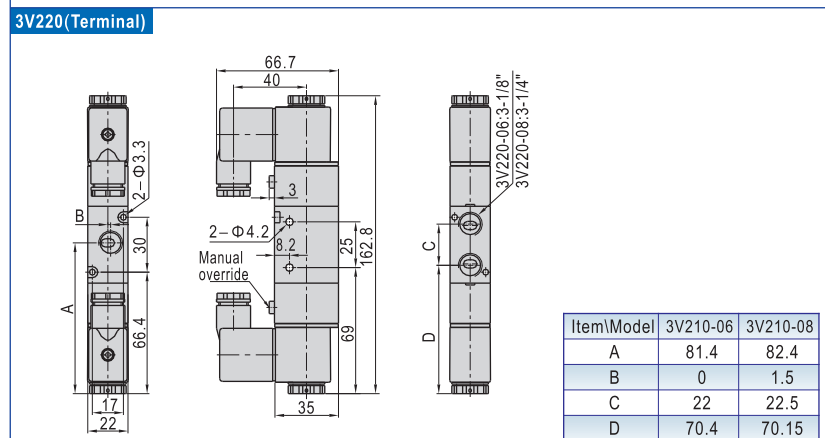
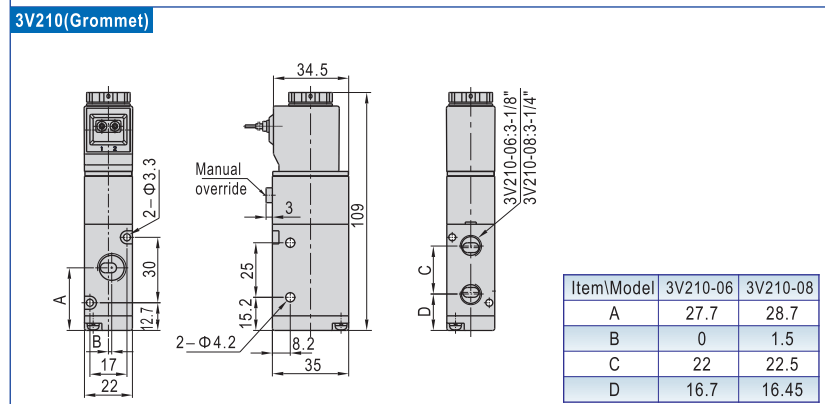
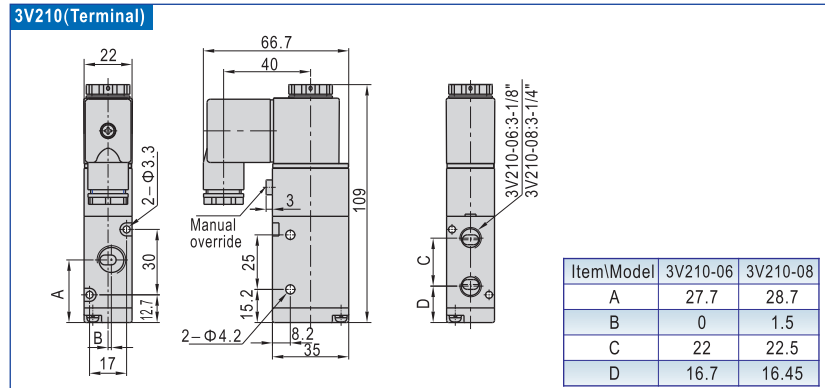
3V210



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 net
7	Spool	14	Wear ring	21	Connector

### Dimensions



3V200

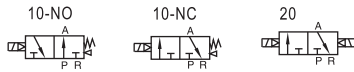
# Solenoid valve(3/2 way)



## 3V300 Series



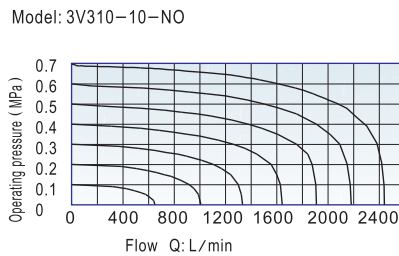
### Symbol



### 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.
8. Integrate with the manifold to save installation space.

### Flow chart



### Specification

Model	3V310-08	3V320-08	3V310-10	3V320-10
Fluid	Air(to be filtered by 40 μ m filter element)			
Acting	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 ℃	-20~70			
Material of body	Aluminum alloy			

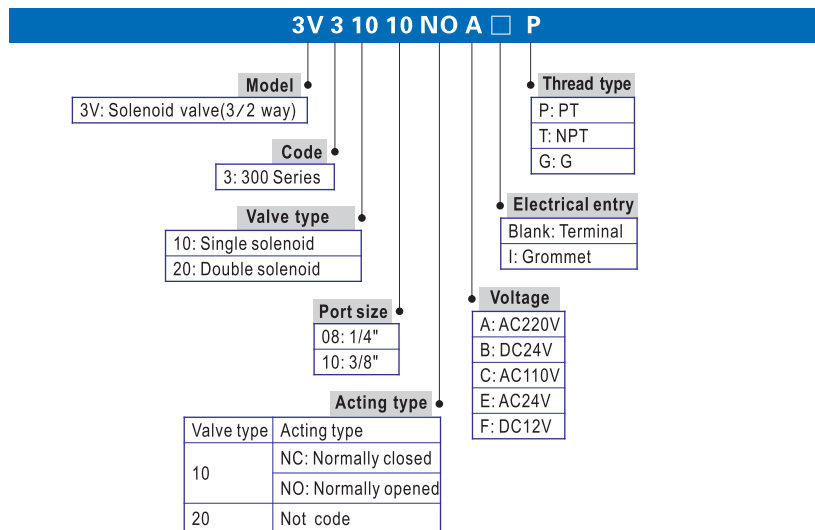
- ① PT thread, NPT thread and G thread are available.  
 ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

### 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



Please refer to 36 for manifold specification and the order way.

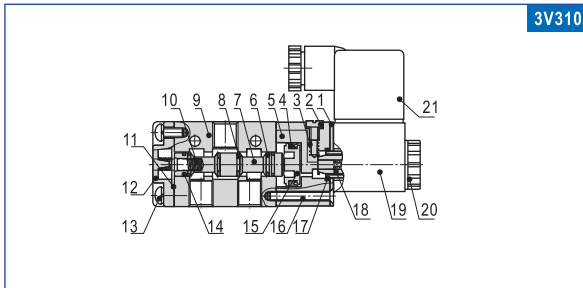


# Solenoid valve(3/2 way)

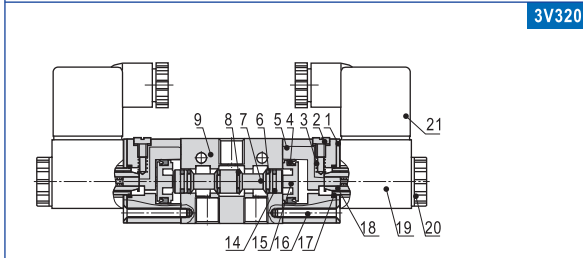


## 3V300 Series

### Inner structure



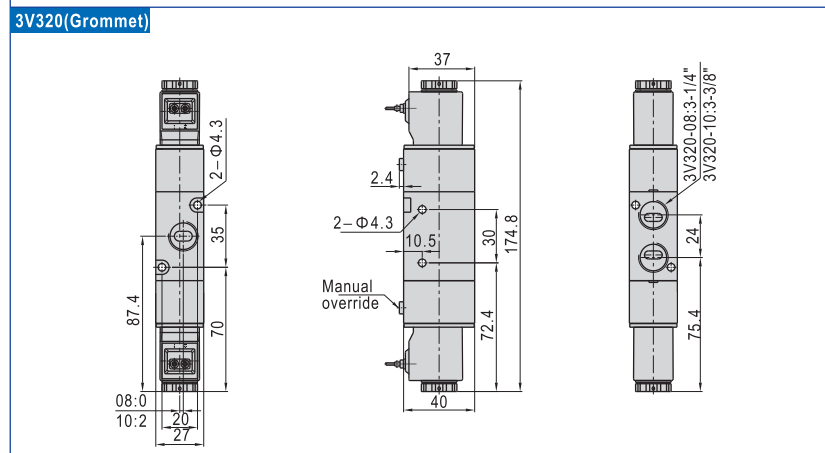
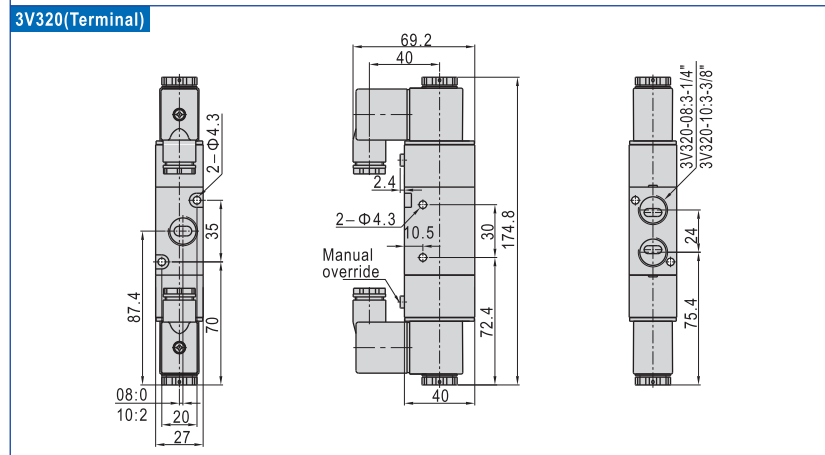
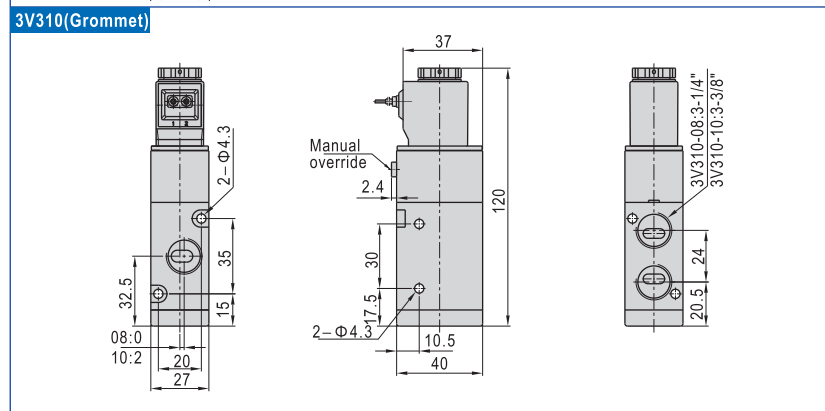
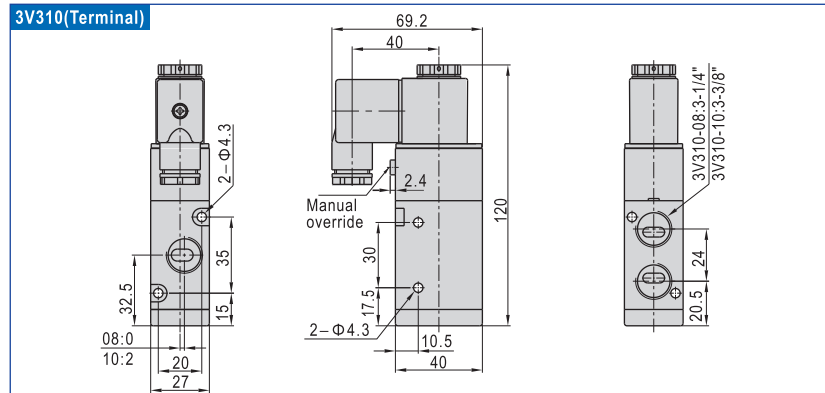
3V310



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 net
7	Spool	14	Wear ring	21	Connector

### Dimensions



3V300