



Specifications

Model	3V1-M5	3V1-06	
Fluid	Air(to be filered by	40µm filter element)	
Acting	Direct	acting	
Port size ①	M5	PT1/8	
Valve type	3 port 2 position		
Lubrication	Not required		
Operating pressure	0~0.8MPa(0~114psi)		
Proof pressure	1.2MPa(175psi)		
Temperature ℃	-20~70		
Orifice size	Φ1.2mm		
Material of body	Aluminum alloy		

¹⁾ PT thread, G thread and NPT 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 dubugging.

 5. Several standard voltage grades are optional.

Coil specifications

specifications				
AC220V	AC110V	AC24V	DC24V	DC12V
AC: ±15% DC: ±10%				
4.5VA 4.5VA 5.0VA 3.0W 3.0W				
IP65(DIN40050)				
B class				
Terminal, Grommet				
0.05 sec and below				
10 cycle/sec				
		AC220V AC110V AC: ± 4.5VA 4.5VA IF	AC220V AC110V AC24V AC: ±15% DC: 4.5VA 4.5VA 5.0VA IP65(DIN4005 B class Terminal, Grome 0.05 sec and be	AC220V AC110V AC24V DC24V AC: ±15% DC: ±10% 4.5VA 4.5VA 5.0VA 3.0W IP65(DIN40050) B class Terminal, Grommet 0.05 sec and below

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

Ordering code





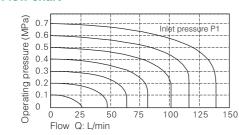
06				
M5	M5			
06	PT1/8			

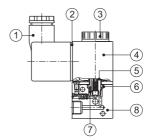
A	A		
Volt	age		
Α	AC220V		
В	DC24V		
С	AC110V		
Е	AC24V		
F	DC12V		



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

Flow chart

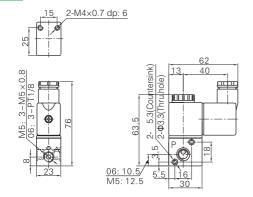


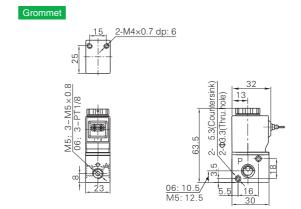


No.	Item	No.	Item
1	Connector	5	Armature
2	Gasket	6	O-ring
3	Coil nut	7	Return spring
4	Coil	8	Body

Dimensions

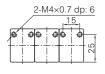
Terminal

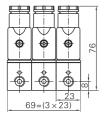




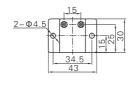
Series connection

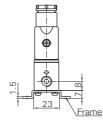
Dimensions(3F)



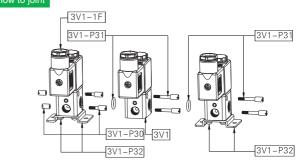


Dimensions(1F)





How to joint

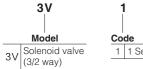


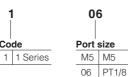
Product structure

3V1	3V1-P30	3V1-P31	3V1-P32
1	0	0	1
2	1	1	1
n	1	n-1	2
	1 2	1 0 2 1	1 0 0 2 1 1

Note: n is the number of junction valve, and $n \ge 3$.

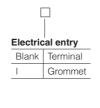
Ordering code for series





06

	A				
	Volt	age			
	Α	AC220V			
_	В	DC24V			
	С	AC110V			
	Е	AC24V			
	F	DC12V			



	3F				
Nu	mk	per of stations			
1F		1 Station			
2F		2 Station			
3F	3F 3 Station				
20	F	20 Station			

Thread ty	pe
Port size	Thread type
	BlankP: T
1/8"	G: G
	T: NPT
M5	Not this code

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
0)/4 D00	Coupling screw assembly	F-3V1002N	Coupling screw(S)	2
3V1-P30	Coupling screw assembly	F-3V1003N	Coupling screw(M)	2
	3V1-P31 Coupling screw assembly	GOR20008N75	O-Ring	1
3V1-P31		F-3V1004N	Coupling screw(L)	2
3V1-P32	Proglet accomply	F-3V1001N	Fixed mounting	1
	Bracket assembly	GSDA04008WA	Cross round head screw	2





Specifications

Model 3V206		3V208	
	Air(to be filtered by 40µm filter element)		
	Direct acting		
	PT1/8 PT1/4		
	3 port 2 position		
	3.2mm²(Cv=0.18) 3.4mm²(Cv=0.19)		
	Not required		
Common	0~0.8MPa	(0~114psi)	
Operating Pressure Vacuum -102.2kPa		Pa(-1.45~14.2psi)	
ure	1.2MPa(175psi)		
e °C	-20~70		
oody	Aluminum alloy		
	Vacuum ure e °C	Air(to be filtered by Direct PT1/8 3 port 2 3.2mm²(Cv=0.18) Not re Common 0~0.8MPa Vacuum -102.2kPa~0.1MF ure 1.2MPar e °C -20	

1) PT thread, G thread and NPT thread are avlil.

Symbol





Product feature

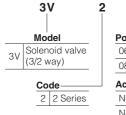
- Direct acting type and normally closed mode, flexible in direction change.
- 2. Normally closed and normally open types are optional.
- Structure in coaxial blanking mode: leakage proof and large air flow.
- 4. No need to add oil for lubrication.
- 5. Affiliated manual devices are equipped to facilitate installation and debugging.
- 6. Several standard voltage grades are optional.
- 7. Can be used under vacuum condition.

Coil specifications

Item	specifications				
Standard voltage	AC220V AC110V AC24V DC24V DC			DC12V	
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	AC: 7VA DC: 7.0W				
Protection	IP65(DIN40050)				
Temperature classification	B class				
Electrical entry	Terminal, Grommet				
Activating time	0.05 sec and below				
Max. frequency ①	10 cycle/sec				

 $\ensuremath{\textcircled{\scriptsize 1}}$ The maximum actuation frequency is in the no-load state

Ordering code



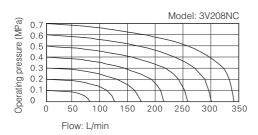
2	0	8 N	С	ļ	A
	Port	size		Volt	age
	06	1/8"		Α	AC220V
	08	1/4"		В	DC24V
	Acti	ng type		С	AC110V
		Normally clo	sed	Е	AC24V
	NO	Normally op	ened	F	DC12V

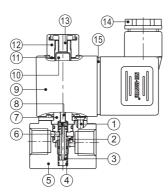
[Electric		
Electric		
Blank	Terminal	
I	Grommet	
Thread	type	
Blank	PT	
G	G	
Т	NPT	

Ordering code of accessories



Flow chart

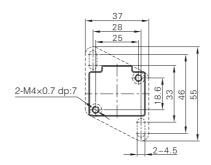


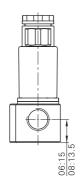


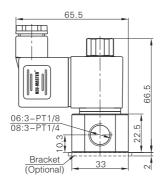
No.	Item	No.	Item
1	Pilot screw	9	Coil
2	Spacer	10	Armature
3	Spool	11	Washer
4	Spring	12	Coil nut
5	Body	13	Manual button
6	Washer	14	Connector
7	Electromagnet set	15	Gasket
8	Man drill		

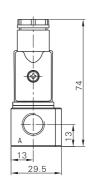
Dimensions

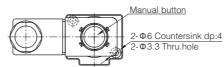
Terminal



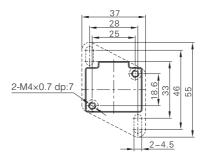


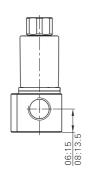


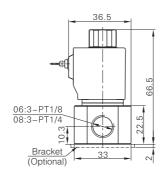


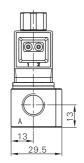


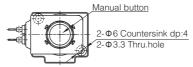
Grommet

















Product feature

- 1. Direct acting type and normally closed mode, flexible in direction change.
- 2. Normally closed and normally open types are optional.
- 3. Structure in coaxial blanking mode: leakage proof and large air flow.
- 4. No need to add oil for lubrication.
- Affiliated manual devices are equipped to facilitate installation and debugging.
- Valve needs to be used with the sub-base and allows various connection combinations to save space.
- It is easy to examine when there are faults owning to the nuified air intake and exhaust and unified wiring.
- Flexible combination and strong expansion capability can make any combination or expansion of the numbers of direction control valves that are connected.
- Can adjust the installation direction of special sub-base seal for NO or NC functions.

Specifications

Model	3V2M	
Fluid	Air (to be filtered by 40µm filter element)	
Acting	Direct acting	
Port size 1	1/8"	
Valve type	3 port 2 position	
Orifice size	1.7mm ² (Cv=0.1)	
Exhaust type	Centralized exhaust, Separated exhaust	
Operating pressure	0~0.8MPa(0~114psi)	
Proof pressure	1.2MPa(175psi)	
Temperature ℃	-20~70	
Material of body	Aluminum alloy	

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

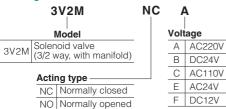
Coil specifications

Item	Specification				
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	AC: 7VA DC: 7.0W				
Protection	IP65(DIN40050)				
Temperature classification	B Class				
Electrical entry	Terminal, Grommet				
Activating time	0.05 sec and below				
Max. frequency ①	10 cvcle/sec				

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

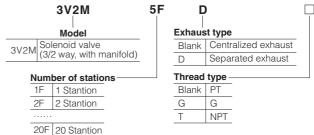
Ordering code





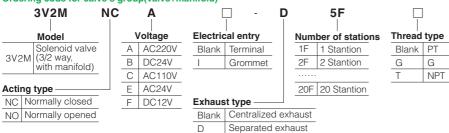
 Electrical entry					
Blank	Terminal				
T	Grommet				

Ordering code formanifold

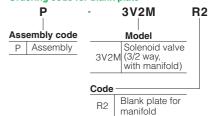


Note: Manifold kits contains manifold, seal and screw. The port size is only 1/8".

Ordering code for calve's group(valve+manifold)

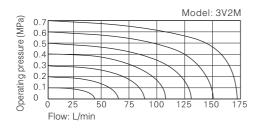


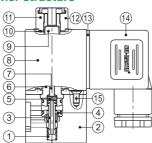
Ordering code for blank plate



Note: Manifold kits contains manifold, seal and screw. The port size is only 1/8".

Flow chart

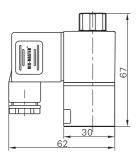


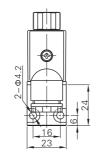


No.	Item	No.	Item
1	Spring	9	Armature
2	Body	10	Washer
3	Spool	11	Coil nut
4	Spacer	12	Manual button
5	Washer	13	Gasket
6	Electromagnet set	14	Connector
7	Man drill	15	Pilot screw
8	Coil		

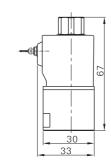
Dimensions

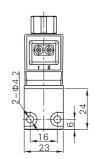
Valve (Terminal)



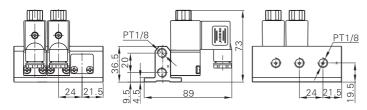


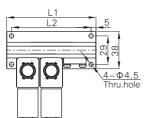
Valve (Grommet)





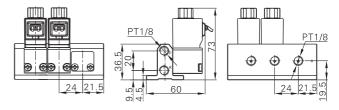
Valve's group (Terminal, Centralized exhaust)

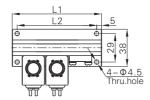




L1=24Xn+19, L2=24Xn+9
"N" means number of stations.

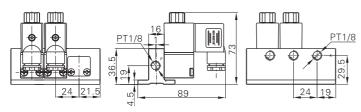
Valve's group (Terminal, Separated exhaust)

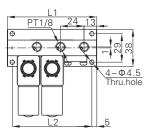




L1=24Xn+19, L2=24Xn+9 "N" means number of stations.

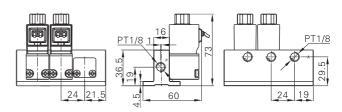
Valve's group (Grommet, Centralized exhaust)

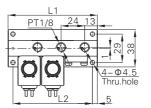




L1=24Xn+19, L2=24Xn+9
"N" means number of stations.

Valve's group (Grommet, Separated exhaust)





L1=24Xn+19, L2=24Xn+9 "N" means number of stations.



Specifications

Model		3V308	
Fluid		Air(to be filtered by 40µm filter element)	
Acting		direct acting	
Port size ①)	PT1/4	
Vave type		3 port 2 position	
Orifice size		11mm²(Cv=0.62)	
Lubrication		Not required	
Operating	Common	0~0.8MPa(0~114psi)	
Pressure	Vacuum	-102.2kPa~0.1MPa(-1.45~14.2psi)	
Proof press	ure	1.2MPa(175psi)	
Temperature ℃		-20~70	
Material of	body	Aluminum alloy	

1) PT thread, G thread and NPT thread are avlil.

Symbol





Product feature

- Direct acting type and normally closed mode, flexible in direction change.
- 2. Normally closed and normally open types are optional.
- Structure in coaxial blanking mode: leakage proof and large air flow
- 4. No need to add oil for lubrication.
- 5. Affiliated manual devices are equipped to facilitate installation and debugging.
- 6. Several standard voltage grades are optional.
- 7. Can be used under vacuum condition.

Coil specifications

Item	specifications				
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	AC: 10VA DC: 6.5W				
Protection	IP65(DIN40050)				
Temperature classification	B class				
Electrical entry	Terminal, Grommet				
Activating time	0.05 sec and below				
Max. frequency ①	10 cycle/sec				

 $\ensuremath{\textcircled{\scriptsize 1}}$ The maximum actuation frequency is in the no-load state.

Ordering code



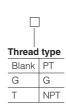




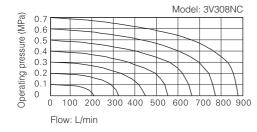


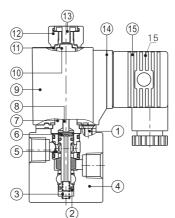
•	Volt	age
Illy closed	Α	AC220
Illy opened	В	DC24V
	С	AC110
	Е	AC24V
	F	DC12V

1	4	[
lt	age	Electric	al entry
1	AC220V	Blank	Terminal
3	DC24V	T	Grommet
)	AC110V		



Flow chart

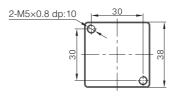


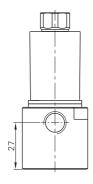


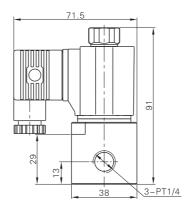
No.	Item	No.	Item
1	Pilot screw	9	Coil
2	Spool	10	Armature
3	Spring	11	Washer
4	Body	12	Coil nut
5	Washer	13	Manual button
6	Spacer	14	Gasket
7	Electromagnet set	15	Connector
8	Man drill		

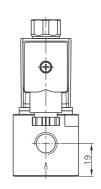
Dimensions

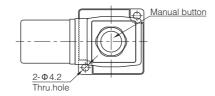
Terminal



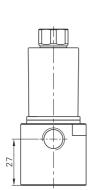


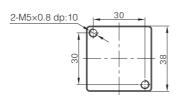


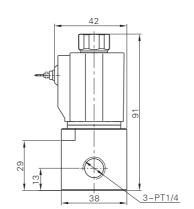


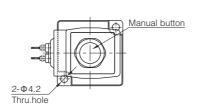


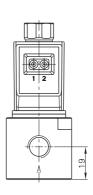
Grommet





















Product feature

- 1. Pilot-oriented mode: Internal pilot or external pilot.
- 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.
- 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.

Specifications

Model	3V110-M5	3V120-M5	3V110-06	3V120-06		
Fluid	Air	(to be filtered by	40µm filter eleme	ent)		
Acting		Internal pilot or external pilot				
Port size ①	N	15	PT	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					

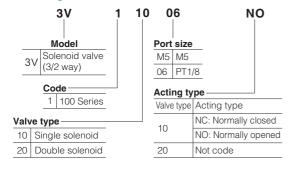
- 1) PT thread, G thread and NPT thread are available.
- ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

Coil specifications

Item		:	specifications	6	
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	3.5VA 3.5VA 4.0VA 2.5W 2.5V				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				

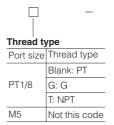
 $\ensuremath{\textcircled{\scriptsize 1}}$ The maximum actuation frequency is in the no-load state

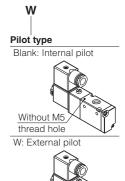
Ordering code



	A			
/ol	tage		Electri	cal entry
Α	AC220V		Blank	Terminal
В	DC24V		I	Gromme
С	AC110V			
E	AC24V			

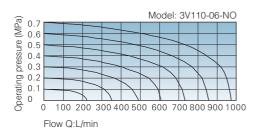
F DC12V



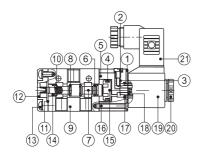


With M5 thread hole

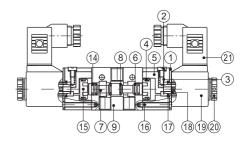
Flow chart



Inner structure 3V110



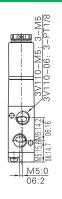
3V120

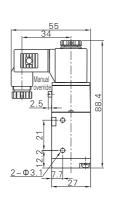


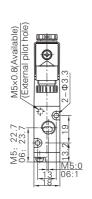
No.	Item	No.	Item	No.	Item
1	Fixed plate	8	O-ring	15	Piston
2	Manual override	9	Body	16	Pilot screw
3	Override spring	10	Spool spring	17	O-ring
4	Piston O-ring	11	Bottom cover gasket	18	Armature
5	Pilot body	12	Bottom cover	19	Coil
6	Spool packing	13	Screw	20	Coil net
7	Spool	14	Wear ring	21	Connector

Dimensions

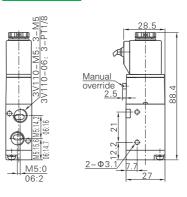
3V110(Terminal)

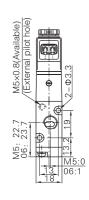




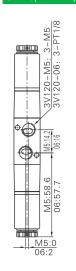


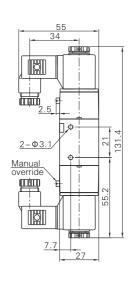
3V110(Grommet)

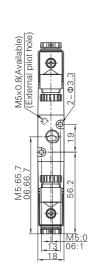




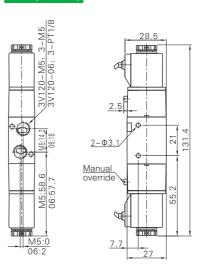
3V120(Terminal)

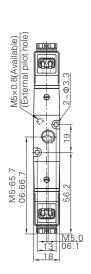






3V120(Grommet)















Product feature

- 1. Pilot-oriented mode: Internal pilot or external pilot.
- 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.
- 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.

Specifications

Model	3V210-06	3V220-06	3V210-08	3V220-08	
Fluid	Air	(to be filtered by	40µm filter eleme	ent)	
Acting	Internal pilot or external pilot				
Port size 1	In=Out	=PT1/8	In=Out	=PT1/4	
Orifice size	14.0mm²(Cv=0.78)	16.0mm²(Cv=0.89)		
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				

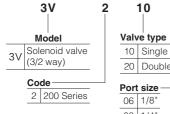
- 1) PT thread, G thread and NPT thread are available.
- ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 orequivalent are recommended.

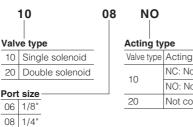
Coil specifications

Item		:	specifications	6	
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	4.5VA 4.5VA 5.0VA 3.0W 3.0W				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				

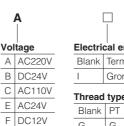
 $\ensuremath{\textcircled{\scriptsize 1}}$ The maximum actuation frequency is in the no-load state.

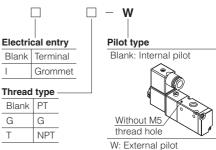
Ordering code

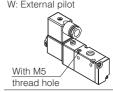




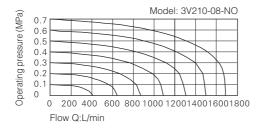
NO	
Acting ty	·
Valve type	Acting type
10	NC: Normally closed
10	NO: Normally opened
20	Not code
	·





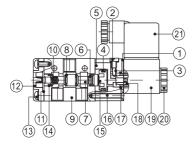


Flow chart

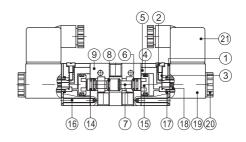


Inner structure

3V210



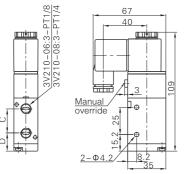
3V220



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

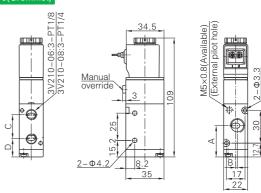
3V210(Terminal)



B 17

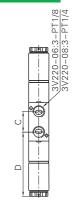
Item\Model	3V210-06	3V210-08
А	27.7	28.7
В	0	1.5
С	22	22.5
D	16.7	16.5

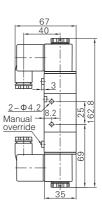
3V210(Grommet)

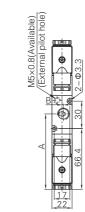


Item\Model	3V210-06	3V210-08
А	27.7	28.7
В	0	1.5
С	22	22.5
D	16.7	16.5

3V220(Terminal)

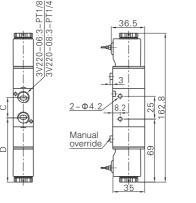






Item\Model	3V220-06	3V220-08	
Α	81.4	82.4	
В	0	1.5	
С	22	22.5	
D	70.4	70.2	

3V220(Grommet)



M5×0.8(Available) (External pilot hole)	
A	547

Item\Model	3V220-06	3V220-08
А	81.4	82.4
В	0	1.5
С	22	22.5
D	70.4	70.2











Product feature

- 1. Pilot-oriented mode: Internal pilot or external pilot.
- 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.
- 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.

Specifications

Model	3V310-08	3V320-08	3V310-10	3V320-10
Fluid	Air(to be filtered by 40µm filter element)			
Acting	Internal pilot or external pilot			
Port size ①	In=Out=PT1/4		In=Out=PT3/8	
Orifice size	25.0mm²(Cv=1.39)		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			

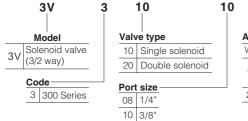
- 1) PT thread, G thread and NPT thread are available.
- ② Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 orequivalent are recommended.

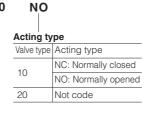
Coil specifications

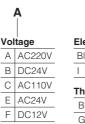
Item	specifications				
Standard voltage	AC220V	AC110V	AC24V	DC24V	DC12V
Scope of voltage	AC: ±15% DC: ±10%				
Power consumption	4.5VA	4.5VA	5.0VA	3.0W	3.0W
Protection	IP65(DIN40050)				
Temperature classification	B Class				
Electrical entry	Terminal, Grommet				
Activating time	0.05 sec and below				
Max. frequency ①	5 cycle/sec				

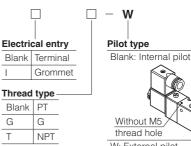
 $\ensuremath{\textcircled{\scriptsize 1}}$ The maximum actuation frequency is in the no-load state

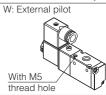
Ordering code



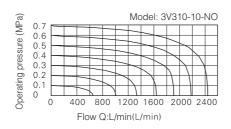




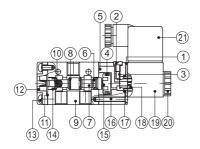




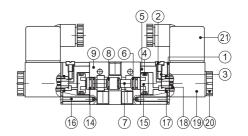
Flow chart



Inner structure 3V310



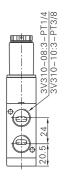
3V320

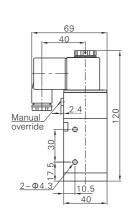


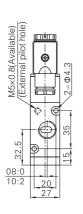
No.	Item	No.	Item	No.	Item
1	Fixed plate	8	O-ring	15	Piston
2	Manual override	9	Body	16	Pilot screw
3	Override spring	10	Spool spring	17	O-ring
4	Piston O-ring	11	Bottom cover gasket	18	Armature
5	Pilot body	12	Bottom cover	19	Coil
6	Spool packing	13	Screw	20	Coil net
7	Spool	14	Wear ring	21	Connector

Dimensions

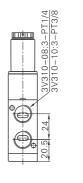
3V310(Terminal)

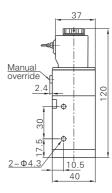


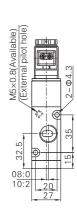




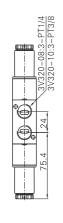
3V310(Grommet)

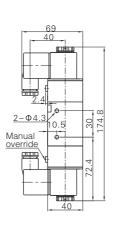


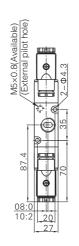




3V320(Terminal)







3V320(Grommet)

