Integrated solenoid valve (3/2 way)

CPV15S Series(NPT)

Ordering code

CPV15S	B	20F	T
①	②	③	④

①Model	②Voltage	③Number of stations	④Thread type
CPV15S: CPV15S series integrated solenoid valve	B: DC24V F: DC12V	2F: 2 stations 3F: 3 stations 4F: 4 stations …… 20F: 20 stations	T: NPT

Specification

Model		CPV15SB	CPV15SF
Integrated solenoid valve	Fluid	Air(to be filtered by 40μm filter element)	
	Acting	Direct acting	
	Number of stations	2~20 stations only available in even stations	
	Electrical entry	Terminal, 25pin D-Sub	
	Port size	P/R: NPT1/8 A: Φ5/32"(Push in fittings)	
	The type of Inlet and exhaust	Centralized inlet and exhaust	
	Operating pressure	21~114psi(0.15~0.8MPa)	
	Proof pressure	175psi(1.2MPa)	
	Temperature	-20~70℃	
Coil	Protection	Dustproof	
	Standard voltage	DC24V	DC12V
	Scope of voltage	DC±10%	
	Temperature classification	F Class	
	Power consumption	DC: 1.6W	

Product feature

1. Integrated installation centralizes air intake, exhaust and power(25pin D-Sub)to save space and reduce additional accessories.
2. Flexible combination and expandability for various applications. Blank plates are optional.
3. Equipped with manual override for quick air circuit checking.
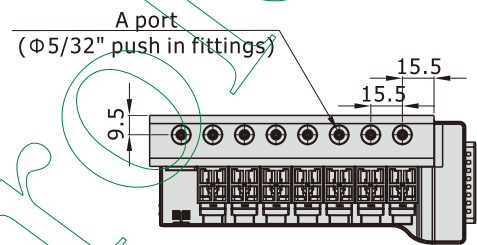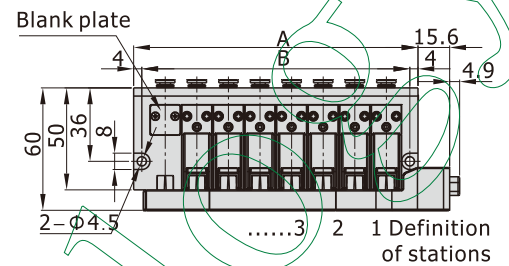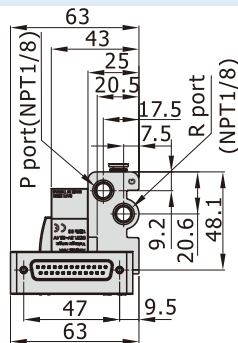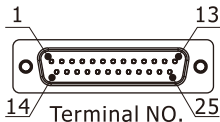4. Low starting voltage and long service life.

CPV15S Series(NPT)

Dimensions

NPT thread

P port(NPT1/8)
R port (NPT1/8)

63
43
25
20.5
17.5
7.5
9.2
20.6
48.1
47
9.5
63

Blank plate

A
B
4
15.6
4
4.9
60
50
36
8
2－Φ4.5
......3   2   1 Definition of stations

A port
(Φ5/32" push in fittings)

15.5
15.5
9.5

Explain of connection pin

1   13

14   Terminal NO.   25

Terminal no.	Polarity		Control object	Terminal no.	Polarity		Control object
	-COM	+COM			-COM	+COM	
1	(+)	(-)	13 station	14	(+)	(-)	1 station
2	(+)	(-)	14 station	15	(+)	(-)	2 station
3	(+)	(-)	15 station	16	(+)	(-)	3 station
4	(+)	(-)	16 station	17	(+)	(-)	4 station
5	(+)	(-)	17 station	18	(+)	(-)	5 station
6	(+)	(-)	18 station	19	(+)	(-)	6 station
7	(+)	(-)	19 station	20	(+)	(-)	7 station
8	(+)	(-)	20 station	21	(+)	(-)	8 station
9		Void		22	(+)	(-)	9 station
10		Void		23	(+)	(-)	10 station
11		Void		24	(+)	(-)	11 station
12		Void		25	(+)	(-)	12 station
13	(-)	(+)	COM				

[Note] The D-sub cable of the corresponding Pin no. 13 (COM) should be less than or equal to 22AWG.

Item\Number of stations	2F	4F	6F	8F	10F
A	46.5	77.5	108.5	139.5	170.5
B	38.5	69.5	100.5	131.5	162.5

Item\Number of stations	12F	14F	16F	18F	20F
A	201.5	232.5	263.5	294.5	325.5
B	193.5	224.5	255.5	286.5	317.5

Installation and Application

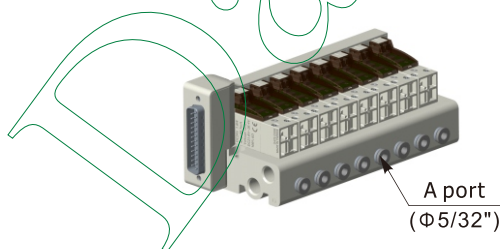| Assembly of micro-solenoid valve (blank plate) and manifold	Expansion of micro-solenoid valve
Mount micro-solenoid valve and manifold by two M2.5 screws as following . Mount blank plate and manifold by two M2.5 countersunk screws as following .	Remove blank plate and install solenoid valve by the assembly instruction.

Solenoid valve:
Fixed by two M2.5 screws

Manifold:
Fixed by two M2.5 screws

Replace blank plate
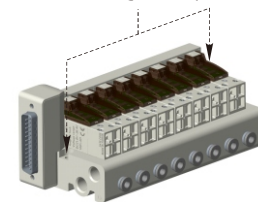with solenoid valve
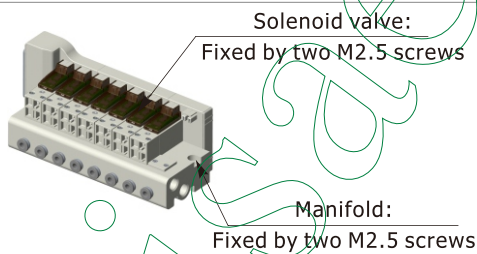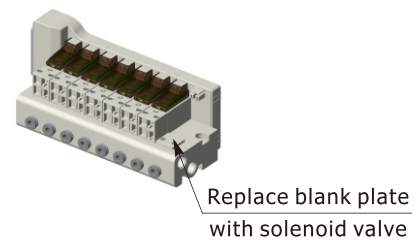
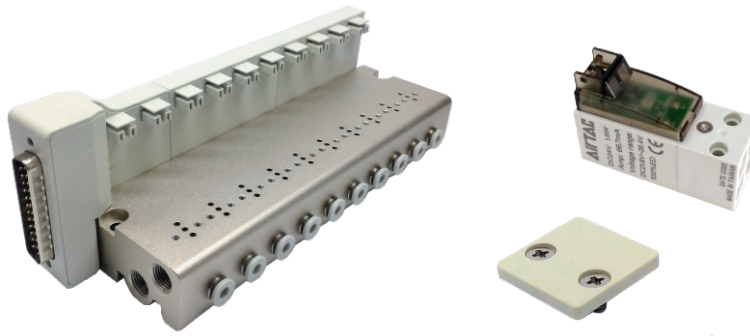| A port tubing	Manifold mounting
A port is at the side of manifold, port size is "NPT1/16-27"	Both sides of manifold attach two installing through-holes, using two M4 hexagon cap screws to fix.

A port
(Φ5/32")
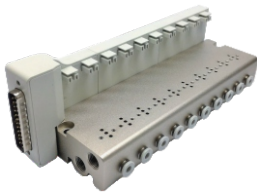
Installing through-holes
(using two M4 hexagon cap screws to fix)

Ordering code

Ordering code for manifold

CPV15S 20F T

1   2   3

①Model		
CPV15S: CPV15S series integrated solenoid valve		

②Number of stations	③Thread type
2F: 2 stations 4F: 4 stations 6F: 6 stations …… 20F: 20 stations	T: NPT

Ordering code for valve

CPV15 B P

1   2   3

①Model	②Voltage
CPV: CPV series micro-solenoid valve	B: DC24V F: DC12V

③Code of manual override	
P: With manual override	

Ordering code for blank plate

P-CPV15S–R2

1   2

①Model
CPV15S: CPV15S series integrated solenoid valve

②Code
R2: Blank plate for manifold

[Note] Blank plate kits contains blank plate, gasket and screw.

[Note] 1. Ordering code contains solenoid valve, manifold, and blank plate.
2. Maximum station up to 20 stations.

Integrated solenoid valve (3/2 way)

## CPV15S Series (NPT)—— Manifold, solenoid valve and blank plate

AirTAC

Specification

Model	CPV15S
Fluid	Air(to be filtered by 40μm filter element)
Number of stations	2 stations ~20 stations, only available in even stations
Electrical entry	Terminal, 25pin D-Sub
Port size	P/R: NPT1/8 A: Φ5/32"(Push in fittings)
The type of Inlet and exhaust	Centralized inlet and exhaust
Operating pressure	21~114psi(0.15~0.8MPa)
Proof pressure	175psi(1.2MPa)
Temperature	-20~70℃
Weight — Integrated valve of 2 stations	158.5g(not include CPV15 valve)
Weight — Increase when add 2 satations	+97.65g
Weight — Blank plate kits	0.65g

Product feature

1. Integrated installation centralizes air inlet, exhaust and power (25pin D-Sub)to save space and reduce additional accessories.
2. Flexible combination and expandability for various applications. Blank plates are optional.
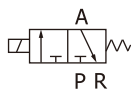
Dimensions

NPT thread
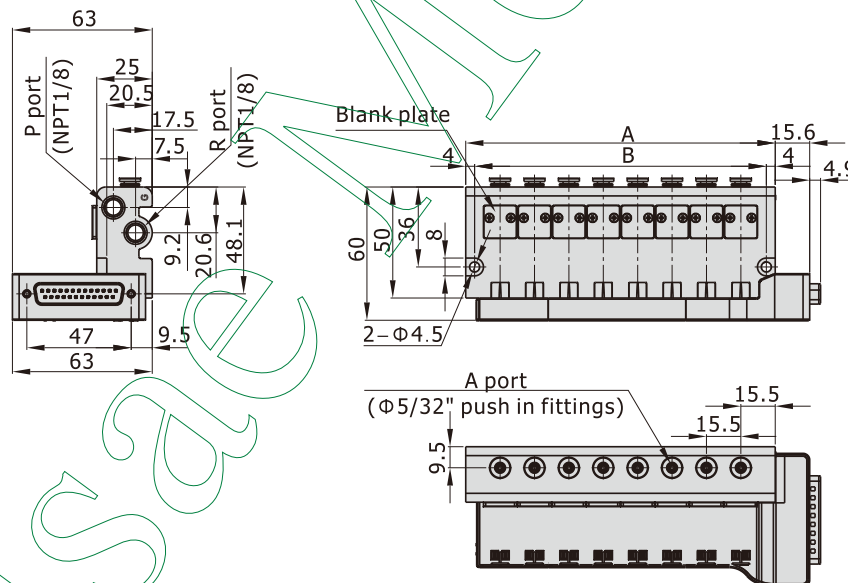
Item\Number of stations	2F	4F	6F	8F	10F	12F	14F	16F	18F	20F
A	46.5	77.5	108.5	139.5	170.5	201.5	232.5	263.5	294.5	325.5
B	38.5	69.5	100.5	131.5	162.5	193.5	224.5	255.5	286.5	317.5

Installation and Application

Please refer to the "Installation and Application " instruction of Integrated solenoid valve(NPT thread) .

CPV15 Series

Ordering code

Ordering code of valve's body

CPV	15	B	P-050
1	2	3	4 5

① Model	② Width of body	③ Voltage
CPV: CPV series Micro-solenoid valve	15: 15mm	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V

④ Code of manual pin	⑤ Line's length [Note1]
P: With manual override	050: 0.5m 200: 2.0m

[Note1] Attach the two M2.5 screws.

Ordering code of terminal line

CPV	T 050
1	2 3

① Model	③ Line's length
CPV: CPV series Micro-solenoid valve	050: 0.5m 200: 2.0m

② Terminal line
T: Terminal line

Specification

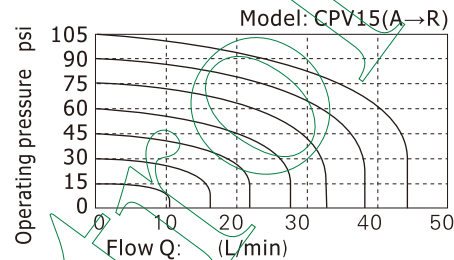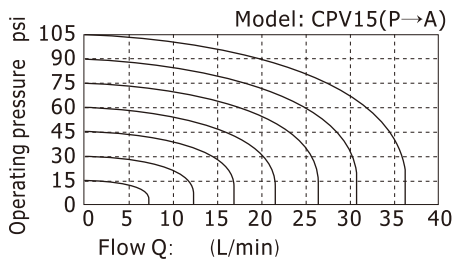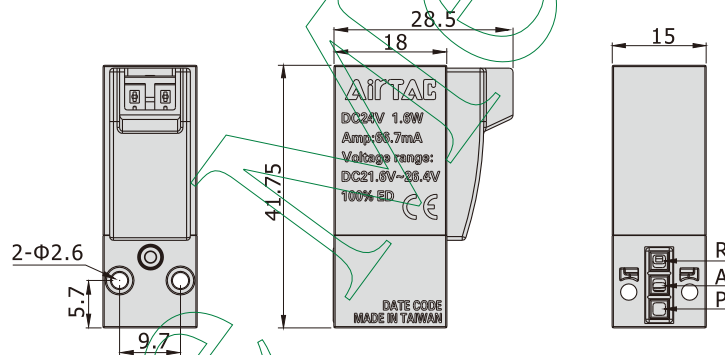| Model		CPV15
Fluid		Air(to be filtered by 40 μm filter element)
Acting		Direct acting
Orifice size		Φ0.8mm
Valid area or section		P to A:0.44mm^2(Cv=0.024); A to R:0.55mm^2(Cv=0.03)
Valve type		3 port 2 position
Weight	micro-solenoid valve	33.2g
	Terminal line	050: 4.6g 200: 21.4g
	Screw(2pcs)	1.45g
Operating pressure		21~114psi(0.15~0.8MPa)
Proof pressure		175psi(1.2MPa)
Temperature		-20~70℃
Standard voltage		AC220V AC110V AC24V DC24V DC12V
Scope of voltage		Dc±10%; AC+15%~-10%
Protection		Dustproof
Temperature classification		F Class
Power consumption		DC: 1.6W; AC: 2.0VA
Electrical entry		Terminal
Activating time		on<10ms; off<10ms

CPV15 Series

Product feature

1. No polarity input design in the DC circuit, the direction(verticalor horizontal) of terminal line can be adjusted freely according to the demand of installation or line.
2. Low start pressure and long service life.
3. There is no buzzing by the usage of AC power supply .
4. With eliminate surge's device, which can avoid the damage of solenoid valve by surge voltage.
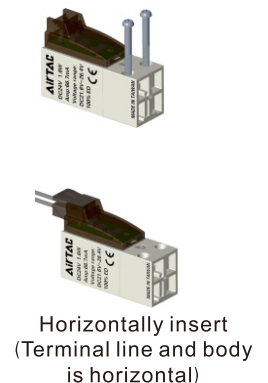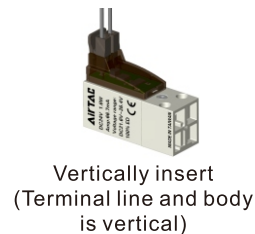
Flow chart

Model: CPV15(P→A)

Operating pressure   psi
105
90
75
60
45
30
15
0
Flow Q: (L/min)
0 5 10 15 20 25 30 35 40

Model: CPV15(A→R)

Operating pressure   psi
105
90
75
60
45
30
15
0
Flow Q: (L/min)
0   10   20   30   40   50

Dimensions

28.5
18
41.75
2-Φ2.6
5.7
9.7

AirTAC
DC24V 1.6W
Amp:66.7mA
Voltage range:
DC21.6V~26.4V
100% ED
DATE CODE
MADE IN TAIWAN
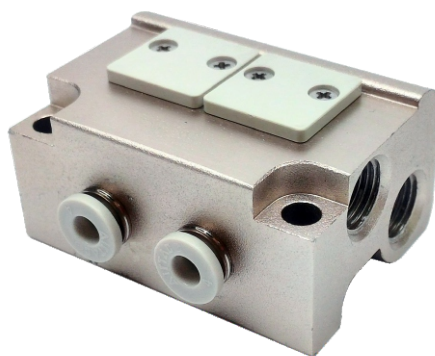
15
R
A
P

Installation and Application

1. The way to install of valve's body
   Use two M2.5X19(long) screw to fix the valve by 0.4~0.45N.m moment of force.
2. Inserting methods of terminal line
   Vertical and horizontal insertion share the same terminal line, inserting as pictures according to the practical situation.
   Note: There is no the positive and negative polarity for terminal line.
3. Series connection between AC coil and other devices is forbidden.

M2.5×19(long)
Screw

Vertically insert
(Terminal line and body
is vertical)

Horizontally insert
(Terminal line and body
is horizontal)

Ordering code

Ordering code for manifold

CPV15M 20F T

① **②** **③**

① Model	② Number of stations	③ Thread type
CPV15M: CPV15 series manifold	2F: 2 station 3F: 3 station 4F: 4 station …… 20F: 20 station	T: NPT

Ordering code for blank plate

P-CPV15S–R2

① **②**

① Model	② Code
CPV15S: CPV15S series integrated solenoid valve	R2: Blank plate for manifold

[Note] 1. Ordering code contains manifold and blank plate.
       2. Maximum station up to 20 stations.
       3．Blank plate kits contain blank plate, gasket and screw.

Specification

| Model	CPV15M2F	CPV15M3F	CPV15M4F	……	CPV15M20F
Fluid	Air(to be filtered by 40μm filter element)				
Temperature	-20~70℃				
Port size	P/R: NPT1/8 A: Φ5/32"(Push in fittings)				
Applicable valves	CPV15 series micro–solenoid valve				

Product feature

1. Integrated installation saves space and reduces additional accessories.
2. Centralized air intake, exhaust, and wiring for quick air circuit checking.
3. Flexible combination and expandability for various applications.
   Blank plates are optional.

Dimensions

NPT thread
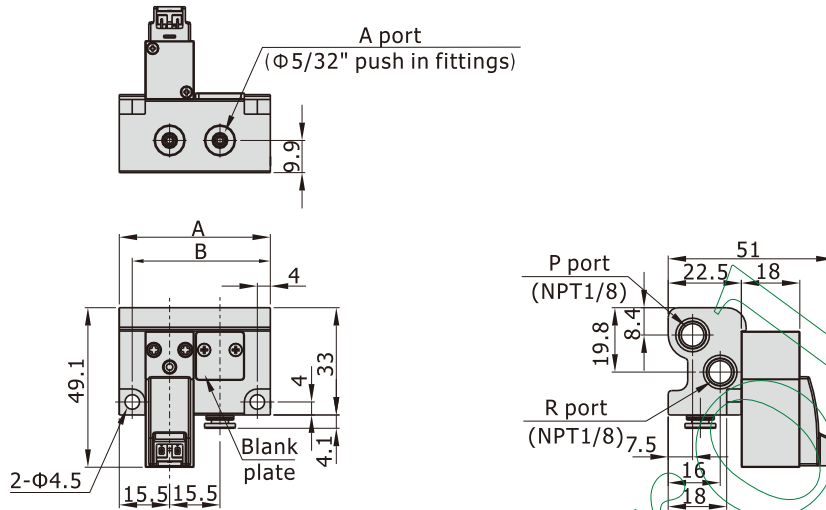
Item\Number of stations	2F	3F	4F	5F	6F	7F	8F	9F	10F
A	46.5	62	77.5	93	108.5	124	139.5	155	170.5
B	38.5	54	69.5	85	100.5	116	131.5	147	162.5

Item\Number of stations	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
A	186	201.5	217	232.5	248	263.5	279	294.5	310	325.5
B	178	193.5	209	224.5	240	255.5	271	286.5	302	317.5

Installation and Application

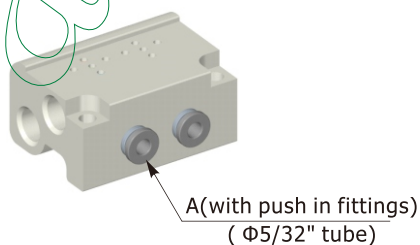| Assembly of micro-solenoid valve (blank plate) and manifold	Expansion of micro-solenoid valve
Mount micro-solenoid valve and manifold by two M2.5 screws as following . Mount blank plate and manifold by two M2.5 countersunk screws as following .	Remove blank plate and install solenoid valve by the assembly instruction.
Solenoid valve: Fixed by two M2.5 screws Manifold: Fixed by two M2.5 screws 	replace blank plate with solenoid valve
A port tubing	**Manifold mounting**
A port is at the side of manifold, port size is "Φ5/32""	Both sides of manifold attach two installing through-holes, using two M4 hexagon cap screws to fix.
A(with push in fittings) (Φ5/32" tube)	Installing through-holes (using two M4 hexagon cap screws to fix)