

Integrated solenoid valve (3/2 way)

CPV15S Series



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.

Specification

Model		CPV15SB	CPV15SF
Integrated solenoid valve	Fluid	Air(to be filtered by 40 μm filter element)	
	Acting	Direct acting	
	Number of stations	2 stations ~20 stations, only available in even stations	
	Electrical entry	Terminal, 25pin D-Sub	
	Port size	P/R ports	1/8" [Note1]
		A Port PT thread	Φ4mm(Push in fittings)
		G thread	Φ4mm(Push in fittings)
		NPT thread	Φ5/32"(Push in fittings)
Coil	The type of Inlet and exhaust		Centralized inlet and exhaust
	Operating pressure		0.15~0.8MPa(21~114psi)
	Proof pressure		1.2MPa(175psi)
	Temperature		-20~70℃
	Protection		Dustproof
	Standard voltage	DC24V	DC12V
	Scope of voltage	DC±10%	
	Temperature classification	F Class	
	Power consumption	DC: 1.6W	

[Note1] PT thread, G thread and NPT thread are available.

Ordering code

CPV15S B 20F □

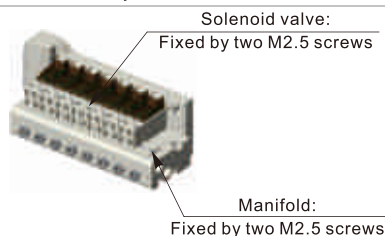
① ② ③ ④

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

Installation and Application

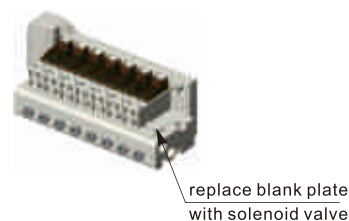
Assembly of micro-solenoid valve (blank plate) and manifold

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 .



Expansion of micro-solenoid valve

Remove blank plate and install solenoid valve by the assembly instruction.



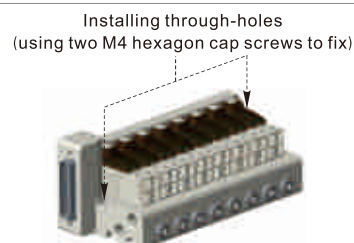
A port tubing

A port is at the side of manifold with push in fittings.



Manifold mounting

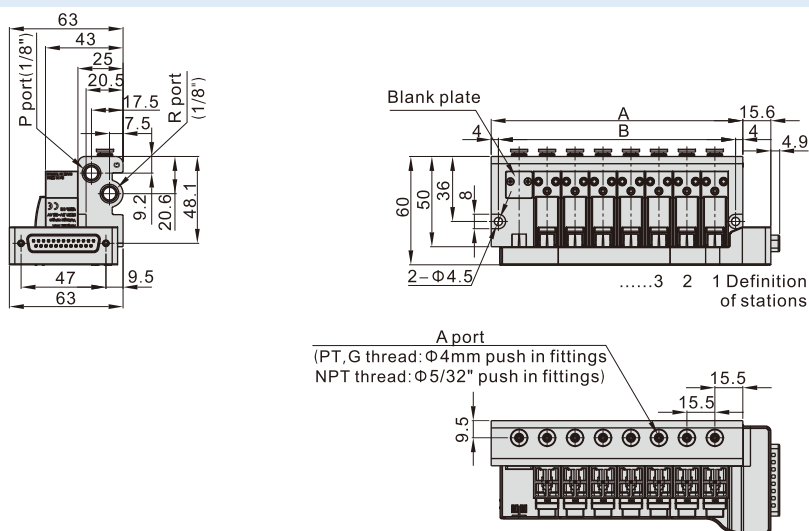
Both sides of manifold attach two installing through-holes, using two M4 hexagon cap screws to fix.



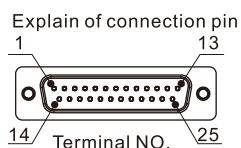
Integrated solenoid valve (3/2 way)

CPV15S Series

Dimensions



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

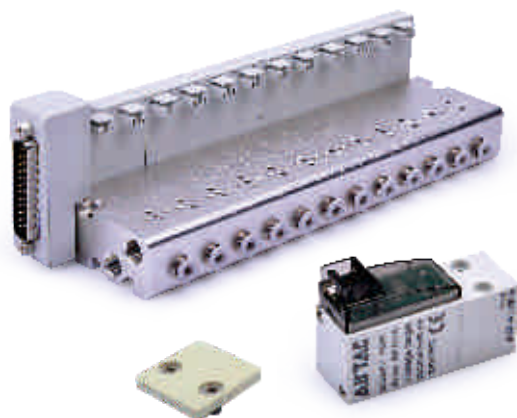


Terminal no.	Polarity		Control object	Terminal no.	Polarity		Control object
	-COM	+COM			-COM	+COM	
1	(+)	(-)	13 station	14	(+)	(-)	1 station
2	(+)	(-)	14 station	15	(+)	(-)	2 station
3	(+)	(-)	15 station	16	(+)	(-)	3 station
4	(+)	(-)	16 station	17	(+)	(-)	4 station
5	(+)	(-)	17 station	18	(+)	(-)	5 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.

Integrated solenoid valve (3/2 way)

CPV15S Series——Manifold, solenoid valve and blank plate



Specification

Model			CPV15S
Fluid			Air(to be filtered by 40 μ m filter element)
Number of stations			2 stations ~20 stations, only available in even stations
Electrical entry			Terminal, 25pin D-Sub
Port size	P/R ports		1/8" [Note1]
	A Port	PT ththread	Φ4mm(Push in fittings)
		G ththread	Φ4mm(Push in fittings)
		NPT ththread	ø5/32"(Push in fittings)
The type of Inlet and exhaust			Centralized inlet and exhaust
Operating pressure			0.15~0.8MPa(21~114psi)
Proof pressure			1.2MPa(175psi)
Temperature			-20~70℃
Weight	Integrated valve of 2 stations		158.5g(not include CPV15 valve)
	Increase when add 2 satations		+97.65g
	Blank plate kits		0.65g

[Note1] PT thread, G thread and NPT thread are available.

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.

Ordering code

Ordering code for manifold

CPV15S 20F ☐

①Model	②Number of stations	③Thread type
CPV15S: CPV15S series integrated olenoid valve	2F: 2 stations 4F: 4 stations 6F: 6 stations 20F: 20 stations	Blank: PT G: G T: NPT

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

Ordering code for valve

CPV15 B P

①Model	②Voltage	③Code of manual override
CPV: CPV series micro-solenoid valve	B: DC24V F: DC12V	P: With manual override

Ordering code for blank plate

P-CPV15S-R2

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

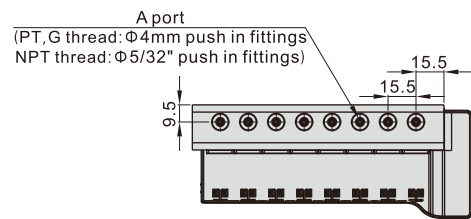
[Note] Blank plate kits contains blank plate, gasket and screw.

Installation and Application

Please refer to the "Installation and Application " instruction of Integrated solenoid valve.

AirTAC

Dimensions



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

Micro-solenoid valve(3/2 way)

CPV15 Series



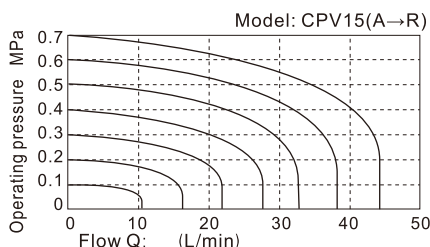
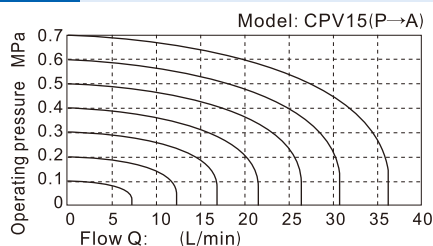
Symbol



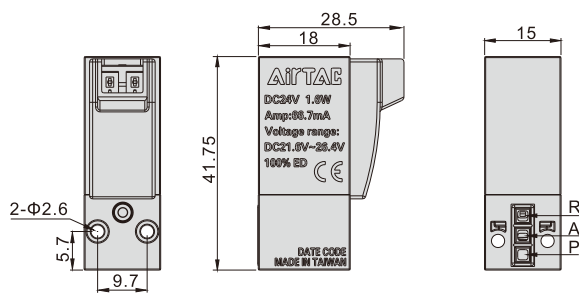
Product feature

1. None polarity design of DC circuit, the direction(vertical or horizontal) of wiring can be adjusted freely according to the installation demand.
2. Low starting voltage and long service life.
3. There is no buzzing by the usage of AC power supply .
4. With surge device can avoid the damage of solenoid valve by surge voltage.

Flow chart



Dimensions



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→A: 0.44mm ² (Cv=0.024); A→P: 0.55mm ² (Cv=0.03)
Valve type	3 port 2 position
Weight	micro-solenoid valve 33.2g
Wire	050: 4.6g 200: 21.4g
Screw(2pcs)	1.45g
Operating pressure	0.15~0.8MPa(21~114psi)
Proof pressure	1.2MPa(175psi)
Temperature	-20~70°C
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

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	④ Code of manual override	⑤ Wire length [Note1]
CPV: CPV series micro-solenoid valve	15: 15mm	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	P: With manual override	050: 0.5m 200: 2.0m

[Note1] Attach the two M2.5 screws.

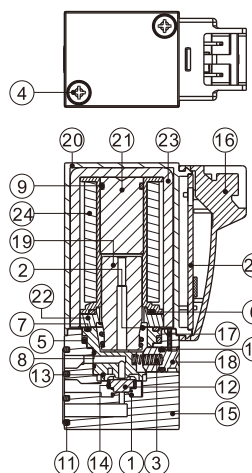
Ordering code of wire

CPV T 050

① ② ③

① Model	② Wire	③ Wire length
CPV: CPV series micro-solenoid valve	T: Wire	050: 0.5m 300: 3.0m 200: 2.0m 500: 5.0m

Inner structure



No.	Item	Material	No.	Item	Material
1	Spring	Stainless steel	14	mandril	Resin
2	Spring	Stainless steel	15	Body	Resin
3	Spring	Stainless steel	16	Connector shell	Resin
4	Screw	Carbon steel	17	Manual pin plate	Stainless steel
5	O-ring	NBR	18	Manual pin	Brass
6	O-ring	NBR	19	Movable core	Stainless steel
7	O-ring	NBR	20	Cover	Resin
8	O-ring	NBR	21	Electromagnet	Stainless steel
9	O-ring	NBR	22	Plate	Carbon steel
10	O-ring	NBR	23	U shape bracket	Carbon steel
11	Gasket	NBR	24	Coil	
12	Gasket	NBR	25	PCB assembly	
13	Crater	Resin			

Installation and Application

1. Valve body installation:
Use two M2.5 X 19 screws to mount the valve by 0.4~0.45N.
2. Wiring instruction:
Vertical and horizontal insertion share the same terminal port for different practical applications.
Note: There is no polarity for terminal wire.
3. AC coil is forbidden to connect with other devices.

M2.5 × 19(long)
Screw



Vertically insert
(Wire and body
is vertical)

Horizontally insert
(Wire and body
is horizontal)

Micro-solenoid valve(3/2 way)

CPV15 Series — Manifold



Specification

Model		CPV15M2F	CPV15M3F	CPV15M4F	CPV15M20F
Fluid		Air(to be filtered by 40 μm filter element)				
Temperature		-20~70℃				
Port size	P/R ports		1/8"[Note1]			
	A port	PT thread	Φ4mm(Push in fittings)			
		G thread	Φ4mm(Push in fittings)			
		NPT thread	Φ5/32"(Push in fittings)			
Applicable valves		CPV15 series micro-solenoid valve				

[Note1] PT thread, G thread and NPT thread are available.

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.

Ordering code

Ordering code for manifold

CPV15M 20F □		
	①	② ③
① Model	② Number of stations	③ Thread type
CPV15M: CPV15 series manifold	2F: 2 stations 3F: 3 stations 4F: 4 stations 20F: 20 stations	Blank: PT G: G 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.



Installation and Application

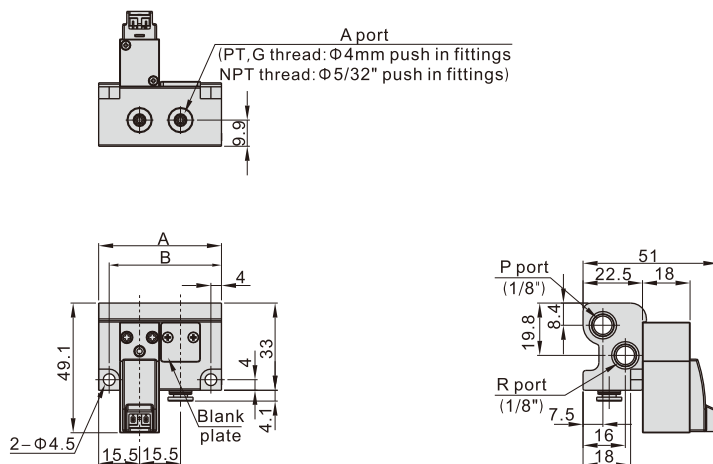
Assembly of micro-solenoid valve (blank plate) and manifold	Expansion of micro-solenoid valve
Mount micro-solenoid valve and manifold by two M2.5 screws as following . Mount blank plate and manifold by two M2.5 countersunk screws as following .	Remove blank plate and install solenoid valve by the assembly instruction.
<p>Solenoid valve: Fixed by two M2.5 screws</p> <p>Manifold: Fixed by two M2.5 screws</p>	<p>replace blank plate with solenoid valve</p>

A port tubing	Manifold mounting
A port is at the side of manifold with push in fittings	Both sides of manifold attach two installing through-holes, using two M4 hexagon cap screws to fix.
<p>A(with push in fittings) (PT, G thread: Φ4mm NPT thread: Φ5/32" tube)</p>	<p>Installing through-holes (using two M4 hexagon cap screws to fix)</p>

Micro-solenoid valve(3/2 way)

CPV15 Series — Manifold

Dimensions



Item\Number of stations	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
A	46.5	62	77.5	93	108.5	124	139.5	155	170.5	186	201.5	217	232.5	248	263.5	279	294.5	310	325.5
B	38.5	54	69.5	85	100.5	116	131.5	147	162.5	178	193.5	209	224.5	240	255.5	271	286.5	302	317.5