

## CPV10S Series



## Ordering code

CPV10S J5/32 B 12F

① ② ③ ④

① Model	② Port size	③ Voltage	④ Number of stations [Note]
CPV10S: CPV10S series integrated solenoid valve	J1/8: $\Phi 1/8"$ J5/32: $\Phi 5/32"$	B: DC24V F: DC12V	4F: 4 stations 6F: 6 stations 8F: 8 stations ..... 24F: 24 stations
[Note] About stations as follow.			
23F: The 12th mini solenoid valve on the left(12A) .....			24F: The 12th mini solenoid valve on the right(12B) .....
3F: The second mini solenoid valve on the left(2A) .....			4F: The second mini solenoid valve on the right(2B) .....
1F: The first mini solenoid valve on the left(1A)			2F: The first mini solenoid valve on the right(1B)

## Specification

Model		CPV10SB	CPV10SF
Integrated solenoid valve	Fluid	Air(to be filtered by 40 $\mu$ m filter element)	
	Acting		
	Number of stations	4~24 stations	
	Electrical entry	Terminal, 25pin D-Sub	
	Port size	P/R: M5 A: $\Phi 1/8"/\Phi 5/32"$ (Push in fittings)	
	The type of Inlet and exhaust	Centralized inlet and exhaust	
	Operating pressure	0~114psi(0~0.8MPa)	
	Proof pressure	175psi(1.2MPa)	
Coil	Temperature	-10~50°C	
	Protection	Dustproof	
	Standard voltage	DC24V	DC12V
	Scope of voltage	DC $\pm$ 10%	
	Temperature classification	F Class	
	Power consumption	DC: 0.7W	

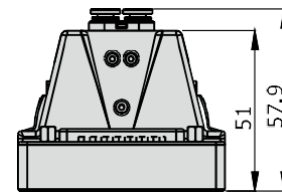
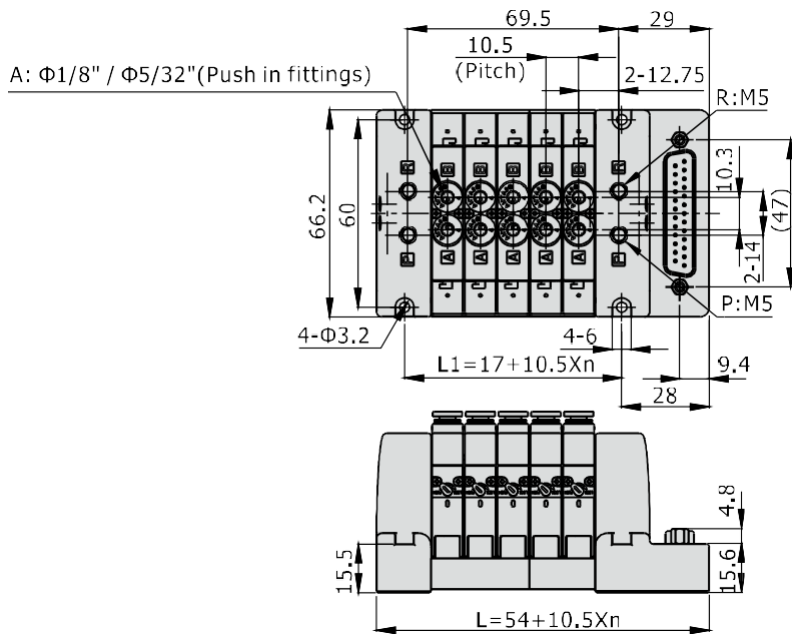
## Product feature

1. Integrated installation of air inlet/exhaust and power socket(25pin D-Sub) to save space and reduce additional accessories.
2. Equipped with manual override for adjustment and troubleshooting.
3. Low starting voltage and long service life.

# Integrated solenoid valve (3/2 way)

## CPV10S Series

### Dimensions



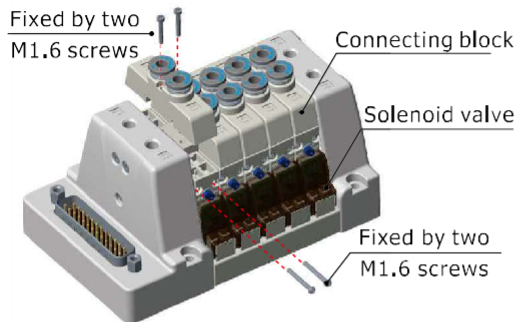
[Unit: mm]

Item \ Number of stations	4F	6F	8F	10F	12F	14F	16F	18F	20F	22F	24F
L	75	85.5	96	106.5	117	127.5	138	148.5	159	169.5	180
L1	38	48.5	59	69.5	80	90.5	101	111.5	122	132.5	143

### Installation and Application

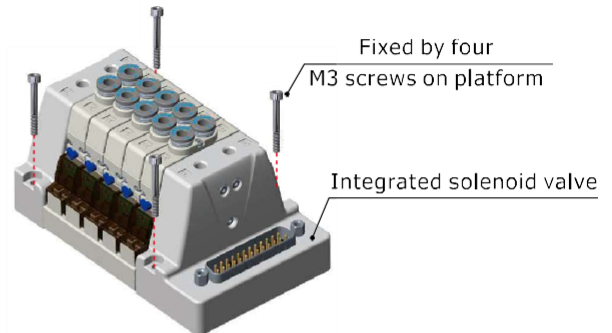
#### Assembly of connecting block and micro-solenoid valve

Mount micro-solenoid valve and connecting block with torque of 0.1~0.15N.m by two M1.6 screws as following.

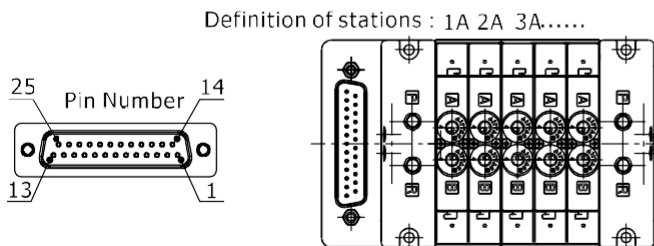


#### Mounting of integrated solenoid valve

Mount integrated solenoid valve by four M3 screws on platform as following.



#### Pin Assignment



Definition of stations : 1B 2B 3B.....

Note: Gauge number of cable connecting to D-Sub pin No.13(COM) must be ≤22AWG

Pin NO.	Polarity		Control target	Pin NO.	Polarity		Control target
	-COM	+COM			-COM	+COM	
1	(+)	(-)	1A	14	(+)	(-)	1B
2	(+)	(-)	2A	15	(+)	(-)	2B
3	(+)	(-)	3A	16	(+)	(-)	3B
4	(+)	(-)	4A	17	(+)	(-)	4B
5	(+)	(-)	5A	18	(+)	(-)	5B
6	(+)	(-)	6A	19	(+)	(-)	6B
7	(+)	(-)	7A	20	(+)	(-)	7B
8	(+)	(-)	8A	21	(+)	(-)	8B
9	(+)	(-)	9A	22	(+)	(-)	9B
10	(+)	(-)	10A	23	(+)	(-)	10B
11	(+)	(-)	11A	24	(+)	(-)	11B
12	(+)	(-)	12A	25	(+)	(-)	12B
13	(-)	(+)	COM				

# Micro-solenoid valve(3/2 way)

## CPV10 Series



### Ordering code

#### Ordering code of valve



**CPV 10 B P-050**

① ② ③ ④ ⑤

① <b>Model</b>	② <b>Width of body</b>	③ <b>Voltage</b>
CPV: CPV series Micro-solenoid valve	10: 10mm	A: AC220V B: DC24V C: AC110V F: DC12V
④ <b>Code of manual override</b>	⑤ <b>Wire length [Note1]</b>	
P: With manual override	050: 0.5m 200: 2.0m	

[Note1] Contain two M1,6 screws.

#### Ordering code of terminal wire



**CPV T 050**

① ② ③

① <b>Model</b>	③ <b>Wire length</b>	
CPV: CPV series Micro-solenoid valve	050: 0.5m	200: 2.0m
② <b>Terminal wire</b>		
T: Terminal wire		

### Specification

Model	CPV10	
Fluid	Air(to be filtered by 40μm filter element)	
Acting		
Nominal diameter	Φ0.55mm	
Effective area	P to A:0.25mm <sup>2</sup> (Cv=0.014) ; A to R:0.35mm <sup>2</sup> (Cv=0.02)	
Valve type	3/2 way	
Weight	micro-solenoid valve	15g
	Terminal wire	050: 4.6g 200: 21.4g
	Screw(2pcs)	0.46g
Operating pressure	0~114psi(0~0.8MPa)	
Proof pressure	175psi(1.2MPa)	
Temperature	-10~50°C	
Standard voltage	AC220V AC110V DC24V DC12V	
Scope of voltage	DC±10%; AC+15%~-10%	
Protection	Dustproof	
Temperature classification	F Class	
Power consumption	DC·0.7W; AC·1.5VA	
Electrical entry	Terminal	
Activating time	on<7ms; off<7ms	

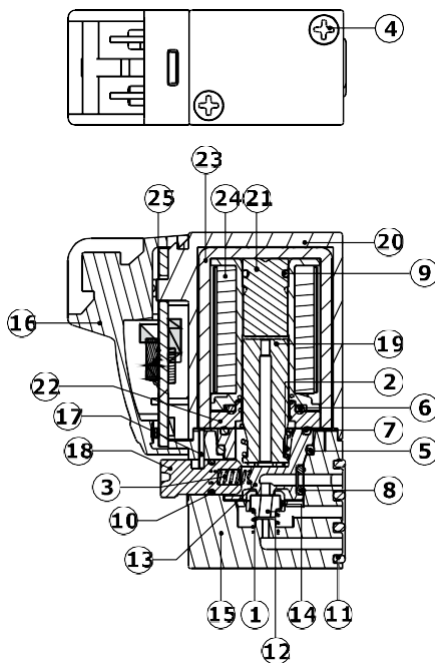
# Micro-solenoid valve(3/2 way)

## CPV10 Series

### Product feature

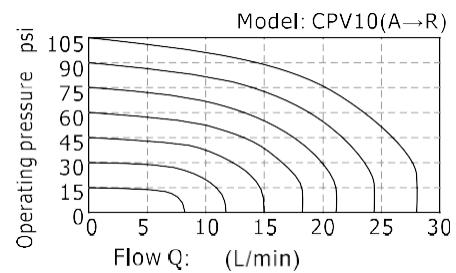
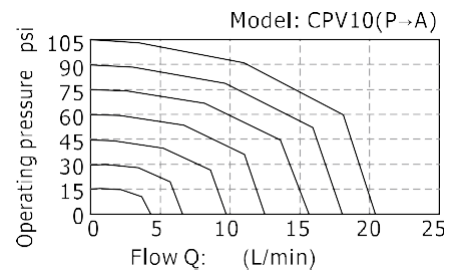
1. With anti-surge component can avoid the damage of solenoid valve.
2. Multi-direction installation and polarless circuit design.
3. AC voltage models possess a built-in full wave rectifier circuit to reduce the noise effectively.
4. Various of standard voltages: AC220V, AC110V, DC24V, DC12V.
5. Low starting voltage and long service life.
6. Equipped with a push-turn locking manual override for adjustment and troubleshooting.

### Inner structure

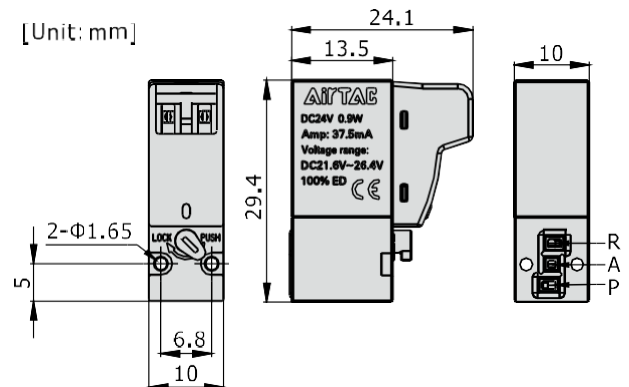


No.	Item	No.	Item
1	Spring	14	mandril
2	Spring	15	Body
3	Spring	16	Connector shell
4	Screw	17	Manual pin plate
5	O-ring	18	Manual pin
6	O-ring	19	Armature
7	O-ring	20	Cover
8	Gasket	21	Electromagnet
9	O-ring	22	Plate
10	O-ring	23	U shape bracket
11	Gasket	24	Coil
12	Gasket	25	PCB assembly
13	Crater		

### Flow chart

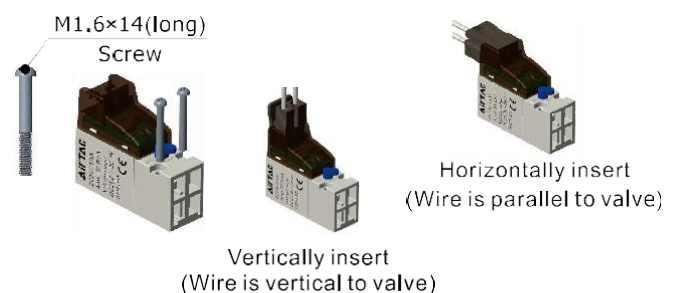


### Dimensions



### Installation and Application

1. Micro-solenoid valve assembly  
Fastened with torque of 0.1~0.15N.m by two M1.6 x14L screws.
2. Wiring instruction  
Multi-direction installation and polarless circuit design.  
Note: The terminal wire is non-polarity.
3. Prevent to connect AC coils in series with other devices.



# Micro-solenoid valve(3/2 way)

## CPV10 Series——Manifold and blank plate



### Ordering code

#### Ordering code of manifold

**CPV10M J1/8-20F**

①

②

③



#### ① Model

CPV10M: CPV10 series Manifold

#### ② Port size

J1/8:  $\Phi 1/8"$   
J5/32:  $\Phi 5/32"$

#### ③ Number of stations

2F: 2 stations  
4F: 4 stations  
6F: 6 stations  
.....  
20F: 20 stations

#### Ordering code of blank plate

**P-CPV10M-R2**

①

②



#### ① Model

CPV10M: CPV10 series Manifold

#### ② Code

R2: Blank plate for manifold

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

### Specification

Model	CPV10MJ□□2F	CPV10MJ□□3F	.....	CPV10MJ□□20F
Fluid	Air(to be filtered by 40 $\mu$ m filter element)			
Temperature	-10~50°C			
Port size	P/R: M5 A: $\Phi 1/8"$ / $\Phi 5/32"$ (Push In fittings)			
Applicable valves	CPV10 series micro-solenoid valve			

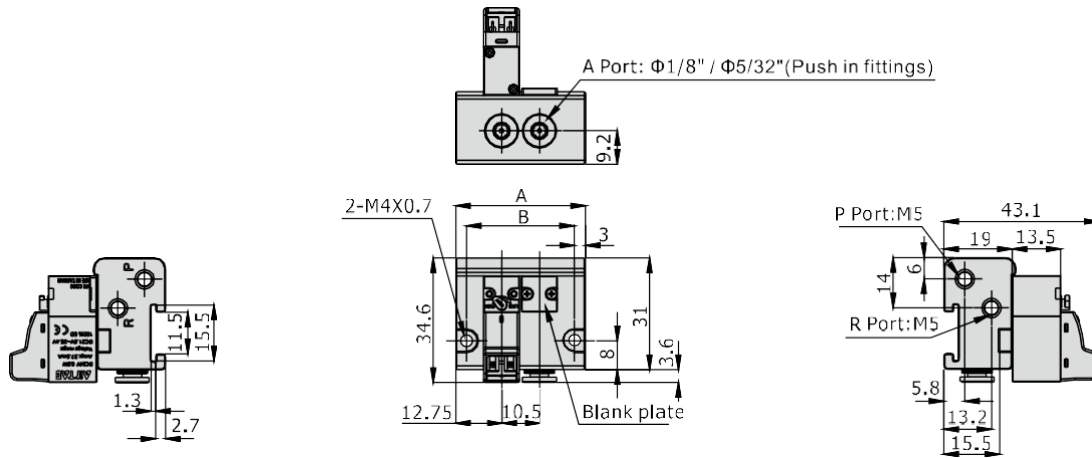
### Product feature

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

# Micro-solenoid valve(3/2 way)

## CPV10 Series——Manifold and blank plate

### Dimensions

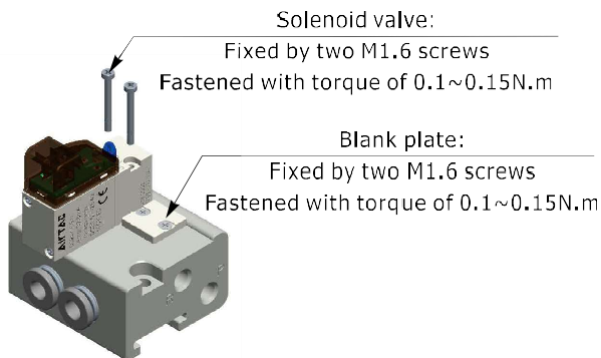


[Unit: mm]

Dim. \ Number of stations	2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F	13F	14F	15F	16F	17F	18F	19F	20F
A	36	46.5	57	67.5	78	88.5	99	109.5	120	130.5	141	151.5	162	172.5	183	193.5	204	214.5	225
B	30	40.5	51	61.5	72	82.5	93	103.5	114	124.5	135	145.5	156	166.5	177	187.5	198	208.5	219

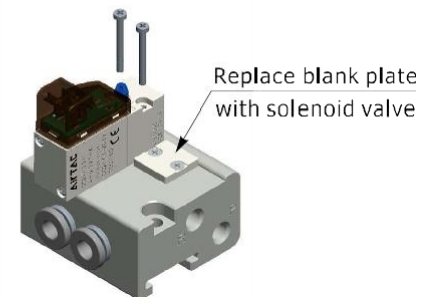
### Installation and Application

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



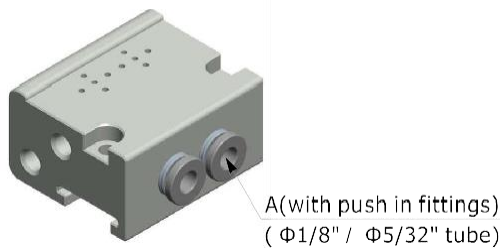
#### Expansion of micro-solenoid valve

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



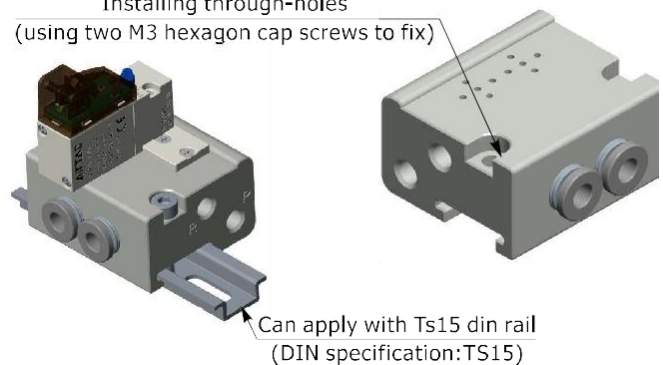
#### A port tubing

A port is at the side of manifold, port size is "Φ1/8" / Φ5/32"



#### Manifold mounting

Installing through-holes  
(using two M3 hexagon cap screws to fix)



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