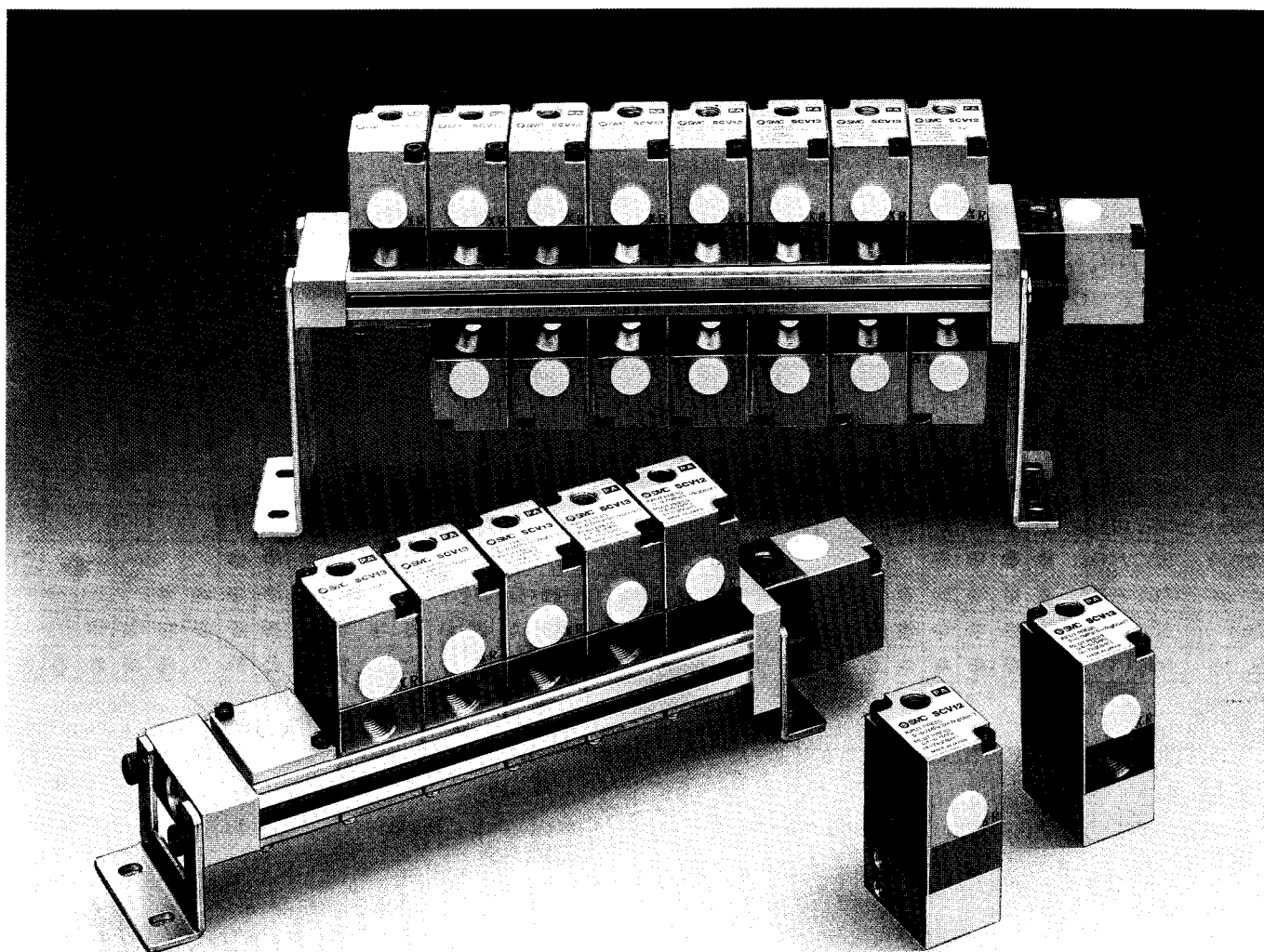


# Air Operated Valve for Solvent Based Paint *Series SCV*



## Number of changeable paint colors / Up to 15 colors

- One side valve mounting - up to 7 colors
- Both side valve mounting - up to 15 colors

## Excellent corrosion resistance

Main valve, diaphragm : PTFE  
Carlets® ( from DU PONT )

## High washing efficiency allows for reduction in the quantity of solvent required.

Designed with a minimum amount of internal dead space to prevent paint build up.  
Special surface treatment used to prevent paint from adhering to the valve.

## Valves for washing and painting are integrated onto the same manifold.

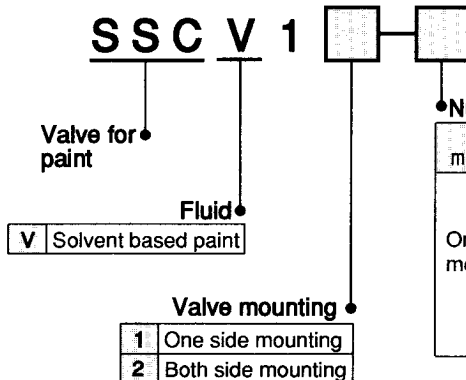
All the valves necessary for changing paint colors can be mounted on the same manifold base.

## Long life

The moving part of the valve does not contact the fluid thanks to diaphragm construction that enables the valve to be lubricated.

# Air Operated Valve For Solvent

## How to Order Manifold Base



### Number of valves to be mounted (Number of available colors)

Valve mounting	Number of valves (Number of available colors)	Symbol	Valve mounting	Number of valves (Number of available colors)	Symbol
One side mounting	1	1	Both side mounting	3	3
	2	2		5	5
	3	3		7	7
	4	4		9	9
	5	5		11	11
	6	6		13	13
	7	7		15	15

\* When ordering a manifold base, specify both model no. and quantity of valves to be mounted.

\* A thinner valve for washing, an air valve for washing (SCV12) and mounting brackets are already assembled onto the manifold base.

## Maximum Number of Valves for Painting to be Mounted (Number of available colors)

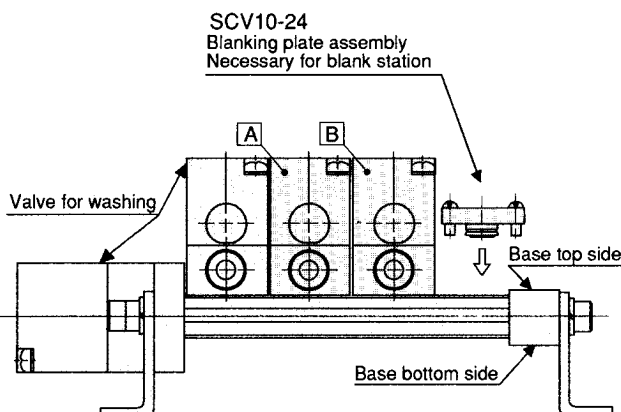
### One side mounting

Specifications	Model no.	Number of valves (Number of available colors)						
		1	2	3	4	5	6	7
1-station	SSCV11-1	●						
2-station	SSCV11-2	●	●					
3-station	SSCV11-3	●	●	●				
4-station	SSCV11-4	●	●	●	●			
5-station	SSCV11-5	●	●	●	●	●		
6-station	SSCV11-6	●	●	●	●	●	●	
7-station	SSCV11-7	●	●	●	●	●	●	●

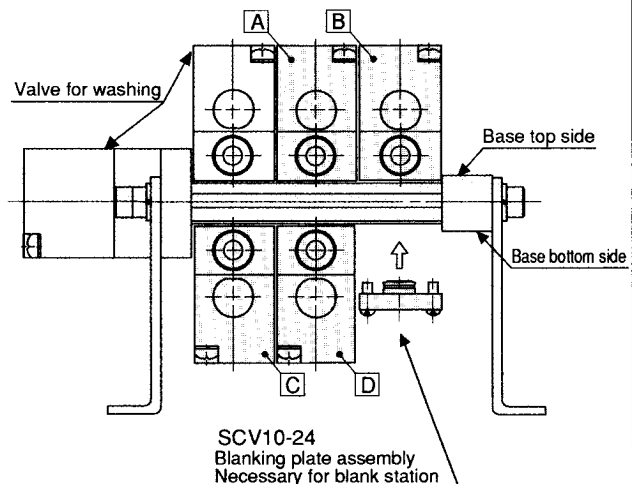
### Both side mounting

Specifications	Model no.	Number of valves (Number of available colors)														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3-station	SSCV12-3	●	●	●												
5-station	SSCV12-5	●	●	●	●	●										
7-station	SSCV12-7	●	●	●	●	●	●									
9-station	SSCV12-9	●	●	●	●	●	●	●	●							
11-station	SSCV12-11	●	●	●	●	●	●	●	●	●						
13-station	SSCV12-13	●	●	●	●	●	●	●	●	●	●					
15-station	SSCV12-15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Example 1)  
2 paint colors, 3-station base, one side mounting  
**SSCV11-3**

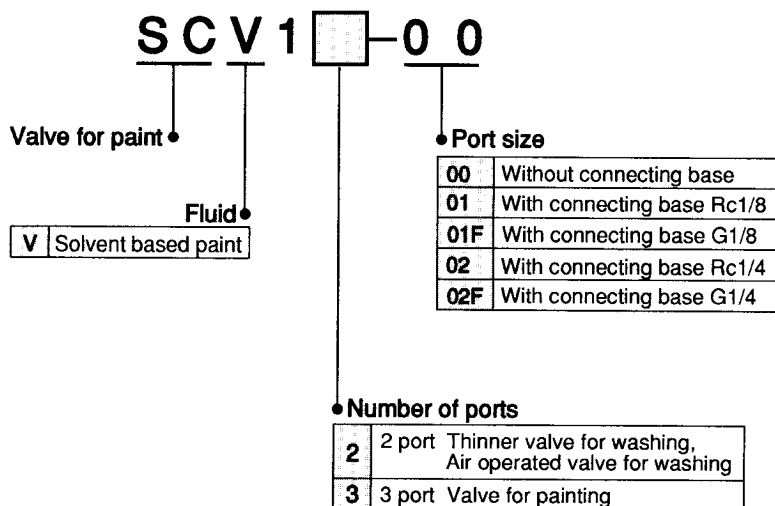


Example 2)  
4 paint colors, 5-station base, both side mounting  
**SSCV12-5**



# Based Paint *Series SCV*

## How to Order Valve



## Part No.

Blanking plate	SCV10-24 (With O-ring, screws, plug)
Bracket	SCV10-23-S (For one side mounting manifold base)
	SCV10-23-L (For both side mounting manifold base)

## Ordering

Specify model no. of the base, valve(s) for painting and blanking plate if required.

Example 1) 2 colors of paint, 3-station, one side mounting

### 1. Manifold base

Refer to page 1 "Maximum number of valves for painting to be mounted."

●SSCV11-3 — 1 pc.

### 2. Valve for painting

●SCV13-00 — 2 pcs.

### 3. Blanking plate

When only 2 valves are mounted on a 3 station manifold a blanking plate is required on the third station.

●SCV10-24 — 1 pc.

{Model}	{Quantity}
SSCV11-3	1
SCV13-00	2
SCV10-24	1

Example 2) 4 colors of paint, 5-station, both side mounting

### 1. Manifold base

Refer to page 1 "Maximum number of valves for painting to be mounted."

●SSCV12-5 — 1 pc.

### 2. Valve for painting

●SCV13-00 — 4 pcs.

### 3. Blanking plate

In this example only 4 valves are mounted on a 5 station manifold, therefore, a blanking plate is required on the fifth station.

●SCV10-24 — 1 pc.

{Model}	{Quantity}
SSCV12-5	1
SCV13-00	4
SCV10-24	1

## Piping

- Threads for IN port and OUT port are different.  
IN port : G1/4  
Circulation port : Rc1/4
- Use special insert fitting at the IN piping for maximum washing performance.  
(Contact SMC when fittings other than the special design model are required.)
- When screwing a pipe or fitting into a port, ensure that chips or sealing materials do not enter the air passage.
- Only Teflon (PTFE) tubing should be used with the paint valve.
- Filter solid materials more than 150  $\mu$ m out of the fluid. Ignoring this precaution may result in valve malfunction.
- Paint should not be exposed to air for long periods of time.
- When the paint valves are not operated for long periods of time, often the paint will harden and prevent the valve from operating properly. The following are some of the reasons why the paint will harden and countermeasures to prevent it from occurring.

Reason	Countermeasure
Percentage of solvent in the paint is reduced.	A decrease in solvent is caused by evaporation. To prevent this keep the system free of leaks and keep the valve full of paint to prevent any air from becoming trapped within the valve.
Resin within the paint crystallizes.	Use only fresh paint.
Ambient temperature is too high.	Adjust ambient temperature to match the temperature specifications of the paint being used.

## Special Fitting

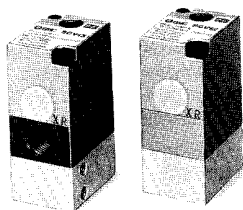
Type	Model no.	Size (O.D. / I.D.)	Port size
Half union	IN-273-11	$\phi 4 / \phi 2$	G1/4
	IN-273-13	$\phi 6 / \phi 4$	
	IN-273-15	$\phi 8 / \phi 6$	
Long half union	IN-273-12	$\phi 4 / \phi 2$	
	IN-273-14	$\phi 6 / \phi 4$	
	IN-273-16	$\phi 8 / \phi 6$	
	IN-273-24	$\phi 10 / \phi 8$	
Elbow union	IN-273-17	$\phi 4 / \phi 2$	
	IN-273-19	$\phi 6 / \phi 4$	
	IN-273-21	$\phi 8 / \phi 6$	
	IN-273-25	$\phi 10 / \phi 8$	
Long elbow union	IN-273-18	$\phi 4 / \phi 2$	
	IN-273-20	$\phi 6 / \phi 4$	
	IN-273-22	$\phi 8 / \phi 6$	
	IN-273-26	$\phi 10 / \phi 8$	
With check valve	INA-14-112	—	

Note 1) Use series KF insert fitting at circulation port.  
Note 2) Use KQ one-touch fitting or KF insert fitting at pilot port.

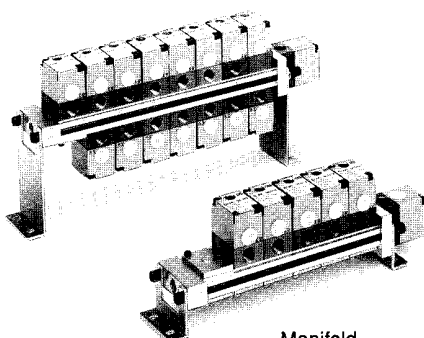
## Air Operated Valve

# Series SCV

## For Solvent Based Paint



Single



Manifold

### Specifications/Valve

Model no.	SCV12	SCV13
Port	2 port	3 port
Fluid	Note1) Paint, Thinner, Air	
Action	Air operated type	
※ Manifold base specification	Valve for washing	Valve for painting
Port size	IN port	G 1/4
	Circulation (return) port	Rc 1/4
	Pilot port	Rc 1/8
Operating fluid pressure	0~0.7MPa {0~7.1kgf/cm <sup>2</sup> }	
Pilot pressure	0.4~0.7MPa {4.1~7.1kgf/cm <sup>2</sup> }	
Effective area	9 mm <sup>2</sup> (Cv : 0.5)	
Ambient temperature	5~60°C	
Weight	0.15kg	

※ When only one valve is required for a painting application, the valve is available mounted on a special base.  
Note 1) This valve can only be used with solvent based paints.

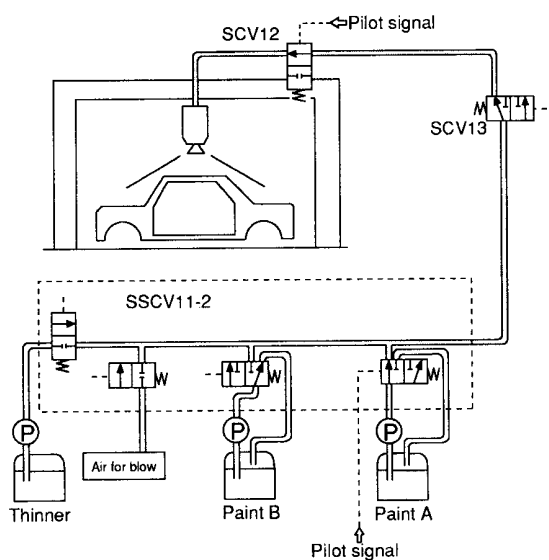
### Specifications/Manifold Base

Valve mounting	One side mounting	Both side mounting
Base model	SSCV11	SSCV12
Number of changeable paint colors	1 ~ 7 (colors)	1~15 (colors)
Manifold type	B mount	
Port size OUT port	G1/4	
Base material	Aluminum	
Seal material	Zalak® ※	
Standard attachment	Thinner valve for washing (SCV12-00) Air valve for washing (SCV12-00) , Bracket	

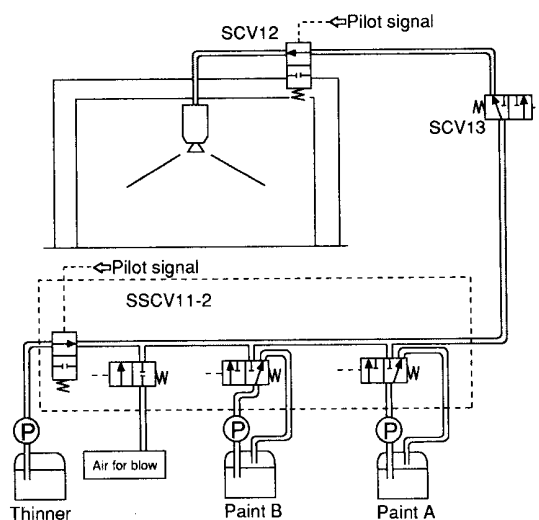
※Zalak® is a registered trademark of DU PONT.

## Application Examples of Valves for Painting

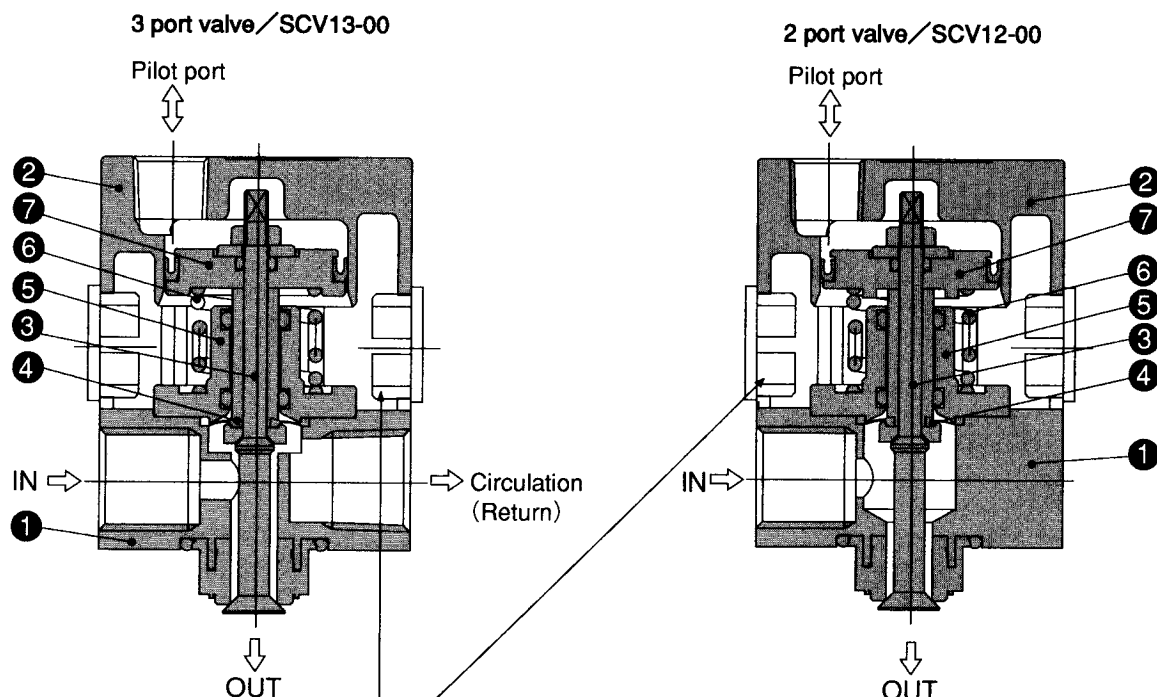
### 1. Painting with paint A



### 2. Washing with thinner

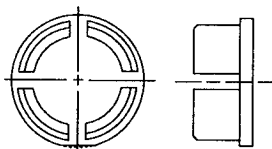


## Construction



### Maintenance port

Enables visual inspection of the internal workings of the valve.



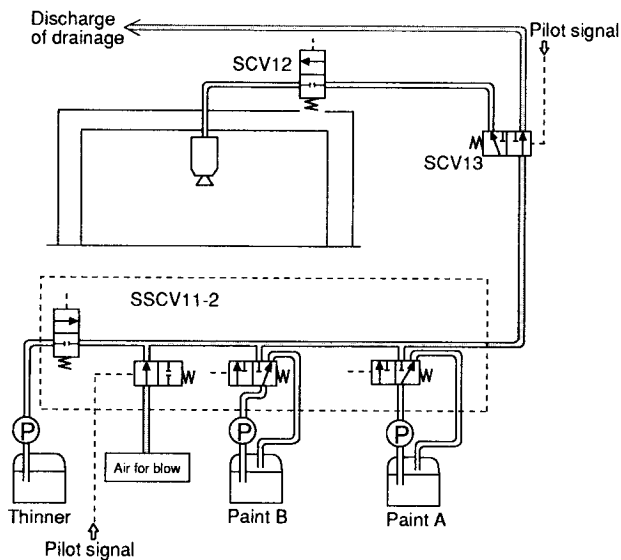
**SCV010-11**  
Blanking plug

### Main Parts List

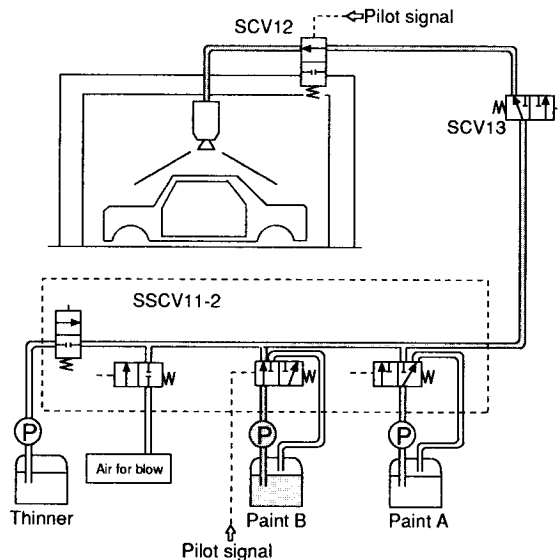
No.	Description	Material
1	Body assembly	Aluminum, PTFE, Zalak® *
2	Pilot cover	Aluminum
3	Valve	Stainless steel
4	Diaphragm	PTFE
5	Support assembly	Aluminum, Polypropylene, FPM
6	Spring	Stainless steel
7	Piston assembly	Aluminum, FPM

※ Zalak® is registered trademark of DU PONT.

### 3. Air blow and discharge of drainage



### 4. Painting with paint B

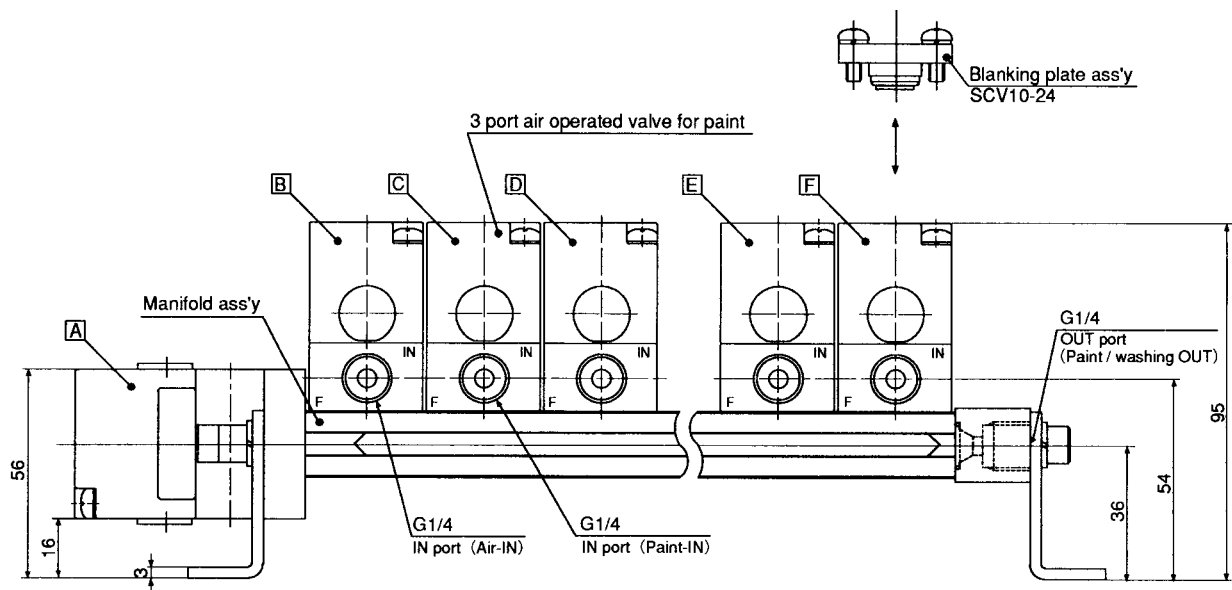
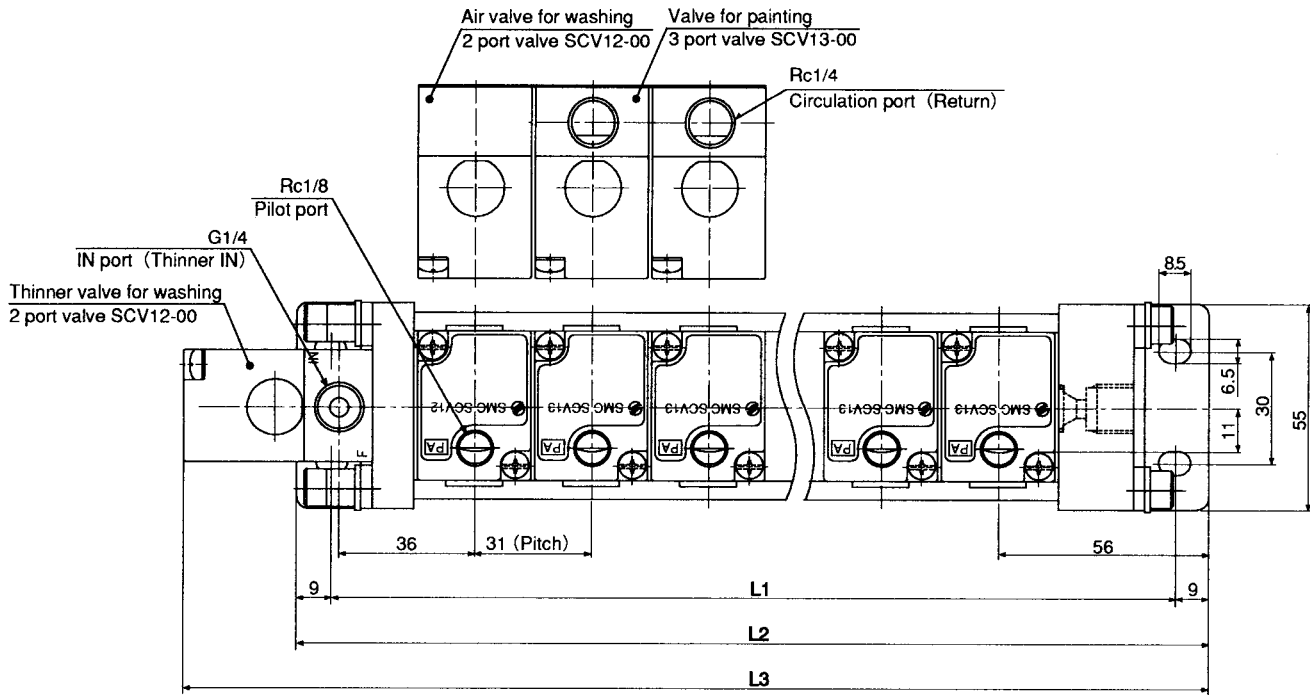
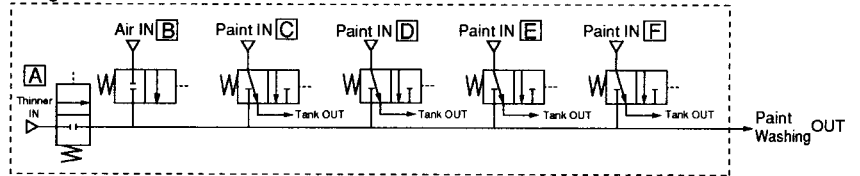


## Dimensions / One Side Mounting Type

(mm)

SSCV11-□

Diagram



### Dimensions

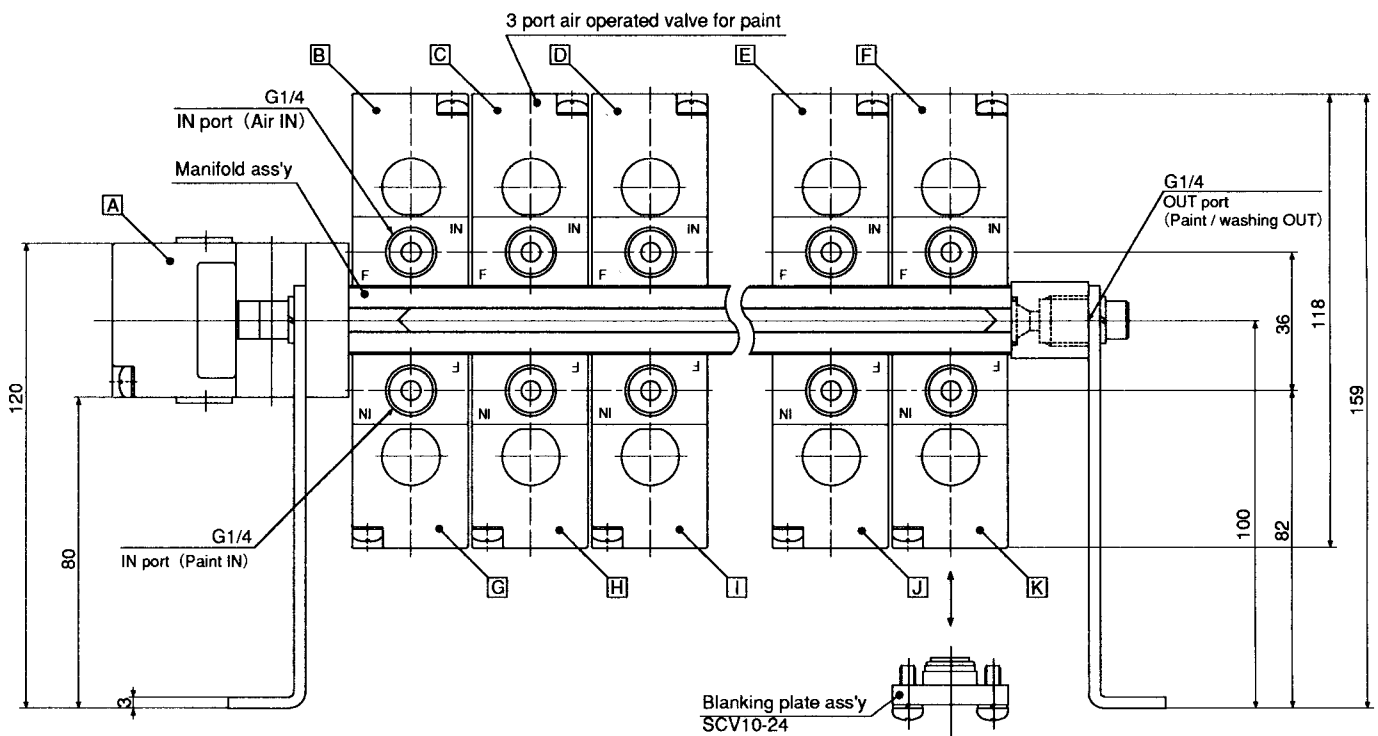
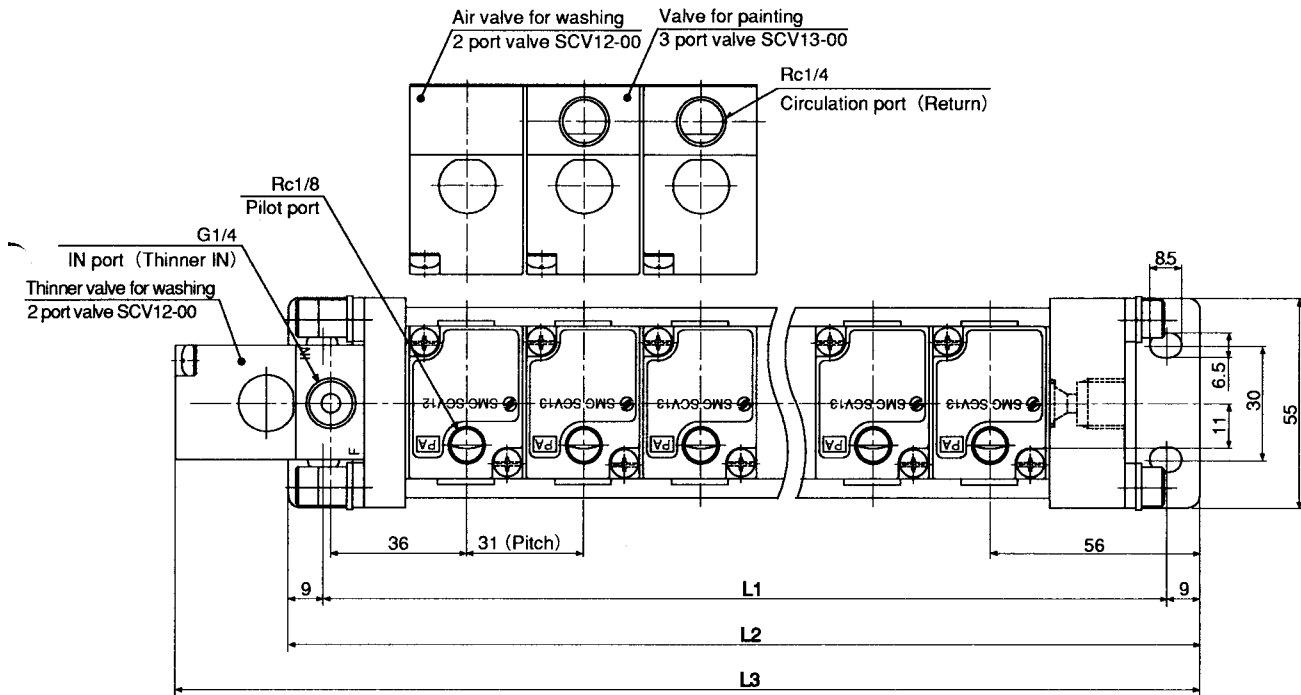
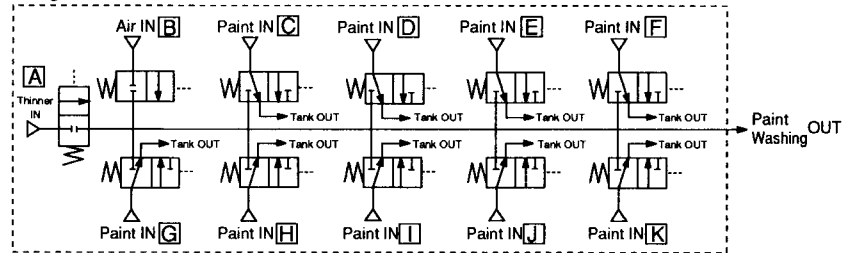
Base	1 pc.	2 pcs.	3 pcs.	4 pcs.	5 pcs.	6 pcs.	7 pcs.
L1	116	147	178	209	240	271	302
L2	134	165	196	227	258	289	320
L3	164	195	226	257	288	319	350
Max. number of available colors n	1	2	3	4	5	6	7

## Both Side Mounting Type

(mm)

SSCV12-□

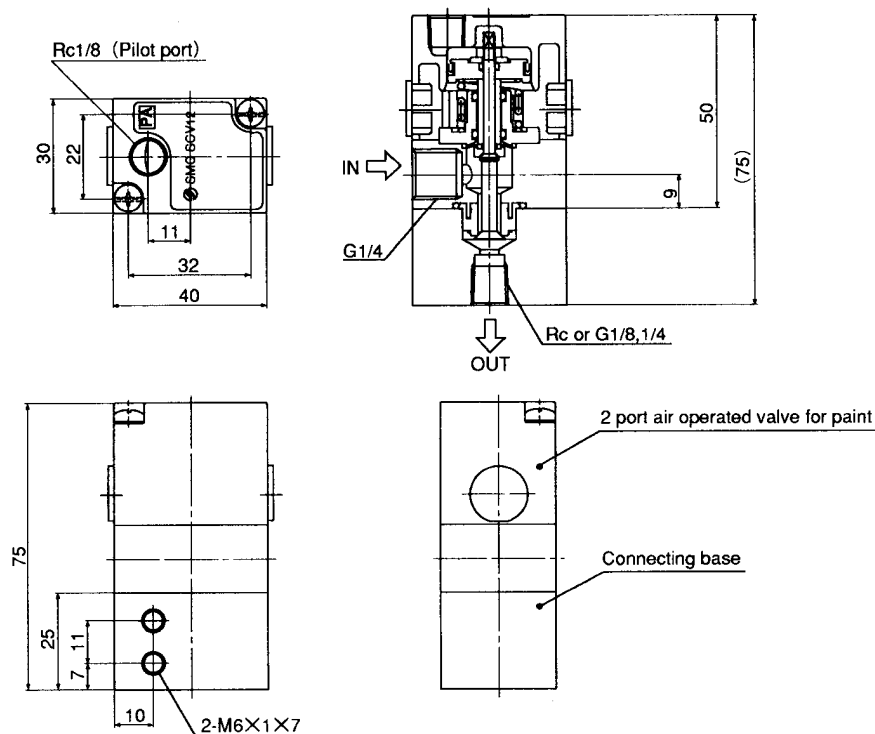
Diagram



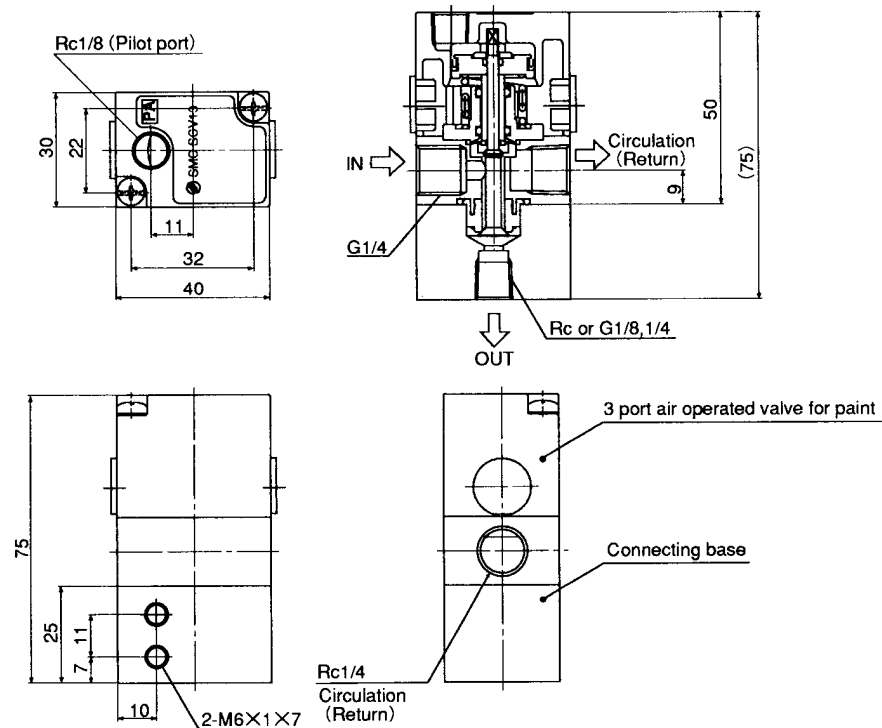
### Dimensions

Base	3 pcs.	5 pcs.	7 pcs.	9 pcs.	11 pcs.	13 pcs.	15 pcs.
L1	116	147	178	209	240	271	302
L2	134	165	196	227	258	289	320
L3	164	195	226	257	288	319	350
Max. number of available colors n	3	5	7	9	11	13	15

### SCV12-□□



### SCV13-□□



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