

# 06, 10, 15, 20 Series

## Speed control valve

### SP-06

Straight type

### SPE-06

Elbow type

### SP-10

Elbow type

### SP-15

Straight type

### SP-20

Straight type



## Specifications

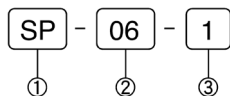
| Model No.                | Unit            | SP-06-1          | SP-06-2          | SPE-06-1            | SPE-06-2            | SPE-10-3            | SPE-10-34                                                      |
|--------------------------|-----------------|------------------|------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------|
| Port size                |                 | Rc $\frac{1}{8}$ | Rc $\frac{1}{4}$ | R, Rc $\frac{1}{8}$ | R, Rc $\frac{1}{4}$ | R, Rc $\frac{3}{8}$ | Male thread Rc $\frac{1}{2}$<br>Female thread Rc $\frac{3}{4}$ |
| Effective area           | mm <sup>2</sup> | 14               | 17               | 9                   | 12                  | 39                  | 45                                                             |
| Cv value (fully open)    |                 | 0.78             | 0.94             | 0.5                 | 0.67                | 2.17                | 2.5                                                            |
| Fluid                    |                 | Air              |                  |                     |                     |                     |                                                                |
| Operating pressure range | MPa             | 0~1              |                  |                     |                     |                     |                                                                |
| Ambient temperature      | °C              | -5~60            |                  |                     |                     |                     |                                                                |
| Weight                   | g               | 205              | 200              | 84                  | 85                  | 190                 | 195                                                            |

| Model No.                | Unit            | SP-15-3          | SP-15-4          | SP-15-46                                                              | SP-15-6          | SP-20-6          | SP-20-8 |
|--------------------------|-----------------|------------------|------------------|-----------------------------------------------------------------------|------------------|------------------|---------|
| Port size                |                 | Rc $\frac{3}{8}$ | Rc $\frac{1}{2}$ | Free flow rate Rc $\frac{1}{2}$<br>Control flow rate Rc $\frac{3}{4}$ | Rc $\frac{3}{4}$ | Rc $\frac{3}{4}$ | Rc1     |
| Effective area           | mm <sup>2</sup> | 64               | 69               | 69                                                                    | 70               | 155              | 174     |
| Cv value (fully open)    |                 | 3.56             | 3.83             | 3.83                                                                  | 3.89             | 8.61             | 9.67    |
| Fluid                    |                 | Air              |                  |                                                                       |                  |                  |         |
| Operating pressure range | MPa             | 0~1              |                  |                                                                       |                  |                  |         |
| Ambient temperature      | °C              | -5~60            |                  |                                                                       |                  |                  |         |
| Weight                   | g               | 195              | 185              | 173                                                                   | 160              | 625              | 600     |

Note) Effective area: value measured when flow rate of speed controller is fully open.

When the temperature falls below 5 °C, please provide air dryer to prevent water frozen.

## Representation



### ① Type

SP : Straight type

SPE : Elbow type

### ② Series

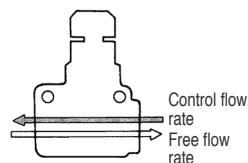
### ③ Port size

1 : R, Rc $\frac{1}{8}$ 2 : R, Rc $\frac{1}{4}$ 3 : R, Rc $\frac{3}{8}$ 34: Male thread Rc $\frac{1}{2}$ Female thread Rc $\frac{3}{4}$ 4 : Rc $\frac{1}{2}$ 46: Free flow rate Rc $\frac{1}{2}$ Control flow rate Rc $\frac{3}{4}$ 6 : Rc $\frac{3}{4}$ 

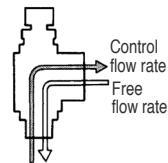
8 : Rc1

## Control Method

●SP-06, 15, 20



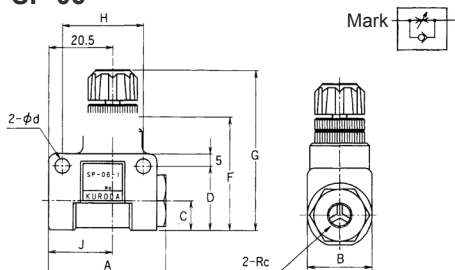
●SPE-06, 10



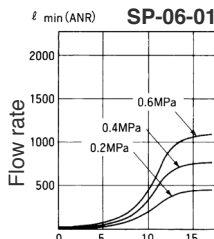
## ⚠ Caution

Before using speed control valve, please check the flowing direction first.

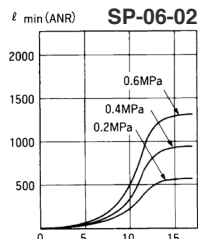
(Unit: mm)

**SP-06**

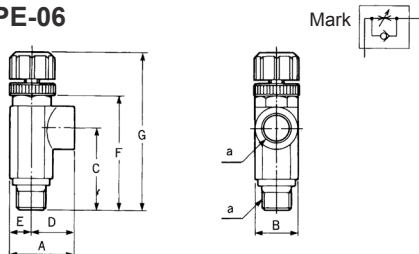
| Model No. | A    | B  | C  | D  | F  | G            | H  | J  | a Rc | d |
|-----------|------|----|----|----|----|--------------|----|----|------|---|
| SP-06-1   | 47.7 | 26 | 13 | 27 | 47 | MAX74, MIN66 | 33 | 26 | 1/8  | 6 |
| SP-06-2   | 47.7 | 26 | 13 | 27 | 47 | MAX74, MIN66 | 33 | 26 | 1/4  | 6 |

**Characteristic of the flow rate**

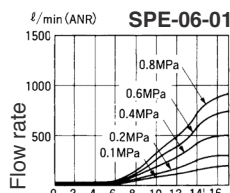
Turns of the ejector pin



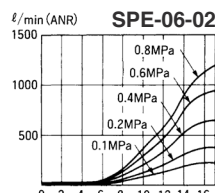
Turns of the ejector pin

**SPE-06**

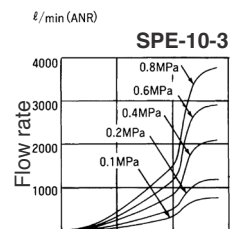
| Model No. | A    | B  | C    | D  | E   | F  | G              | a R · Rc |
|-----------|------|----|------|----|-----|----|----------------|----------|
| SPE-06-1  | 28.5 | 19 | 33.5 | 19 | 9.5 | 47 | MAX74.5, MIN66 | 1/8      |
| SPE-06-2  | 28.5 | 19 | 37.5 | 19 | 9.5 | 51 | MAX78.5, MIN70 | 1/4      |



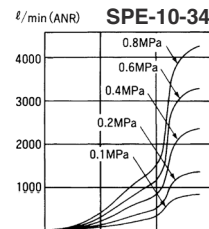
Turns of the ejector pin



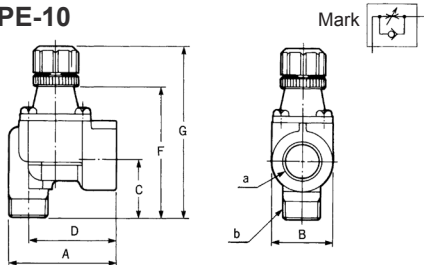
Turns of the ejector pin



Turns of the ejector pin

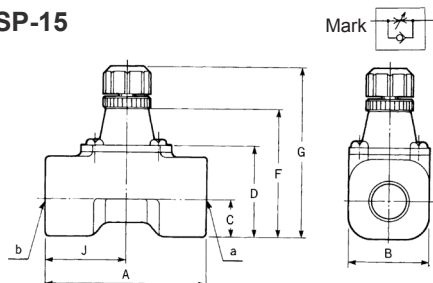


Turns of the ejector pin

**SPE-10**

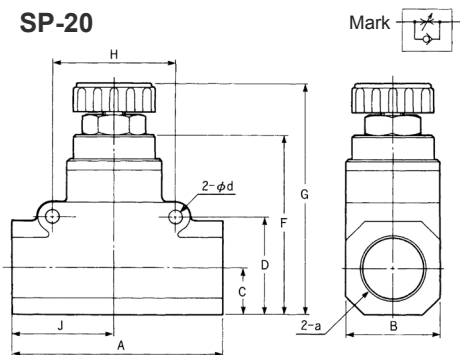
| Model No. | A    | B  | C  | D  | F  | G            | a Rc | b Rc |
|-----------|------|----|----|----|----|--------------|------|------|
| SPE-10-3  | 47.7 | 27 | 26 | 39 | 58 | MAX83, MIN76 | 3/8  | 3/8  |
| SPE-10-34 | 49.5 | 27 | 28 | 39 | 60 | MAX85, MIN78 | 3/8  | 1/2  |

# SP-15



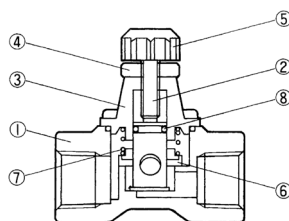
| Model No. | A  | B  | C  | D  | F  | G            | J  | a<br>Rc | b<br>Rc |
|-----------|----|----|----|----|----|--------------|----|---------|---------|
| SP-15-3   | 68 | 34 | 16 | 39 | 55 | MAX85, MIN73 | 34 | 3/8     | 3/8     |
| SP-15-4   | 68 | 34 | 16 | 39 | 55 | MAX85, MIN73 | 34 | 1/2     | 1/2     |
| SP-15-46  | 68 | 34 | 16 | 39 | 55 | MAX85, MIN73 | 34 | 1/2     | 3/4     |
| SP-15-6   | 68 | 34 | 16 | 39 | 55 | MAX85, MIN73 | 34 | 3/4     | 3/4     |

# SP-20



| Model No. | A   | B  | C  | D  | F  | G                  | H  | J  | a<br>Rc | d   |
|-----------|-----|----|----|----|----|--------------------|----|----|---------|-----|
| SP-20-6   | 103 | 46 | 23 | 48 | 88 | MAX132.5, MIN113.5 | 60 | 50 | 3/4     | 6.5 |
| SP-20-8   | 103 | 46 | 23 | 48 | 88 | MAX132.5, MIN113.5 | 60 | 50 | 1       | 6.5 |

## Structure



## Main Components

| No. | Component Name   |
|-----|------------------|
| 1   | Body             |
| 2   | Ejector pin      |
| 3   | Top cap          |
| 4   | Mounting nut     |
| 5   | Knob             |
| 6   | Check valve seat |
| 7   | Spring           |
| 8   | O-ring           |

## Characteristic of the flow rate

