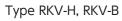
# CHANGEOVER VALVES, ELECTRONIC EXPANSION VALVES / Type RKV







Type RKV-C

### High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately



### **FEATURES**

- Highly durable (Operating life of 300,000 cycles at full stroke).
- Energy-saving design (No holding power required).
- Capable of regulating multiple flow settings (Open, closed, lowflow).
- Standards: UL, cUL (Please contact us for details.)

# **APPLICATIONS**

- Household refrigerators
- Commercial refrigerators / freezers
- Vending machines, etc.

# **COMMON SPECIFICATIONS**

- Max. working pressure : 3.0 MPaFluid temperature : -30 to 65℃
  - (It should be 50% or less on energizing ratio)
- Ambient temperature : -30 to 65℃
  - (It should be 50% or less on energizing ratio)
- Ambient humidity : 95%RH or less
- Excitation method: 1-2 phase, Uni-polar

# DESCRIPTION OF CATALOG NO.

 $\frac{RKV}{I} - \frac{C}{II} \frac{08}{III} \frac{D}{IV} \frac{\Box}{V}$ 

| I  | Туре            |
|----|-----------------|
| I  | Function        |
| Ш  | Port size       |
| IV | Connection type |
| V  | Serial number   |

<sup>\*</sup> Coil is not included with the valve body. Please purchase it separately.

### TYPE NUMBER SELECTION

| Catalog No. | Function                                       | * 1<br>Refrigerant | Port size ant $\phi$ (mm) | Connection (Solder)<br>(mm) |                     | M.O.P.D. | * 2<br>Wt. |
|-------------|--|--------------------|---------------------------|-----------------------------|---------------------|----------|------------|
| Catalog No. | Function                                       |                    |                           | Inlet<br>(A)                | Outlet<br>(B, C, D) | (MPa)    | (kg)       |
| RKV-H06D    | Expansion valve                                |                    | 0.6                       |                             | φ 2.2 ID            | 1.0      |            |
| RKV-B10D    | 2-way<br>changeover valve                      | R134a<br>R600a     | 1.0                       |                             | φ 1.9 ID            | 1.8      | 0.03       |
| RKV-C08D    | 3-way<br>changeover valve                      |                    | 0.8                       |                             |                     | 2.8      |            |
| RKV-C10D    |  |                    | 1.0                       | φ 2.1 ID                    |                     | 1.8      |            |
| RKV-C08DWL  | 3-way changeover valve with expansion function |                    | 0.8                       |                             |                     | 1.0      | 0.04       |
| RKV-K10D    | 4-way<br>changeover valve                      |                    | 1.0                       |                             | φ 2.2 ID            | 1.8      |            |

- \* 1 For other refrigerants, please contact us.
- \* 2 Valve only. (without coil)

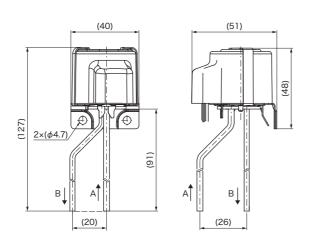
### **COIL SPECIFICATIONS**

| Catalog No. (Coil) | Rated voltage | Current              | * 1 Insulation class | Enclosure | * 2 Wt.<br>(kg) |
|--------------------|---------------|----------------------|----------------------|-----------|-----------------|
| RKV- R □□□         | 12V.DC ± 10%  | 0.26A / Phase (20°C) | Class E molded       | IP66      | 0.1             |

- \* 1 Compliant with IEC60085, 60335-2-40.
- \* 2 For lead wire length of 300mm.

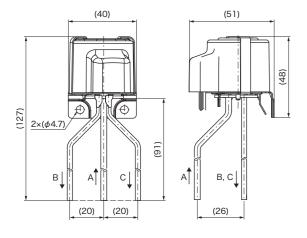
# **DIMENSIONS**

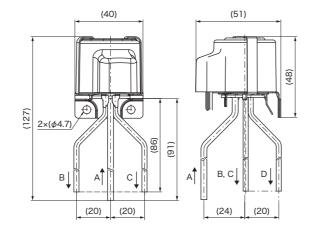
# $(40) \qquad (51) \qquad (26) \qquad (26)$



Type RKV-H06D

Type RKV-B10D





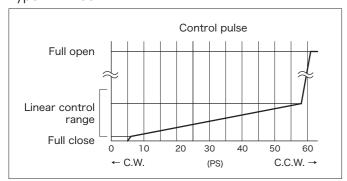
Type RKV-K10D

Type RKV-C

Unit: mm

# VALVE OPERATION CHARACTERISTICS

### Type RKV-H06D

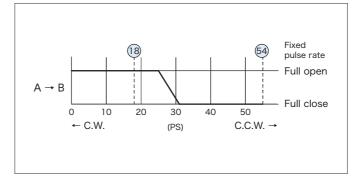


### Control pulse

| Pulse   | Flow direction |
|---------|----------------|
| ruise   | A → B          |
| 0       | Full close     |
| 5 to 55 | Linear control |
| 64      | Full open      |

# VALVE OPERATION CHARACTERISTICS

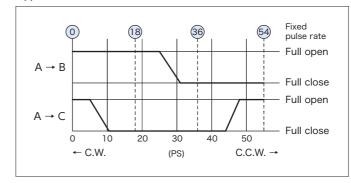
# Type RKV-B10D\*



### Flow direction (Fixed pulse rate)

| Mode | Pulse | Flow direction |  |
|------|-------|----------------|--|
| Mode | ruise | A → B          |  |
| 1    | 18    | Full open      |  |
| 2    | 54    | Full close     |  |

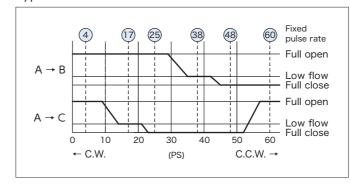
# Type RKV-C08D, C10D\*



### Flow direction (Fixed pulse rate)

| Mode | Pulse | Flow direction |            |  |  |
|------|-------|----------------|------------|--|--|
| Mode |       | A → B          | A → C      |  |  |
| 1    | 0     | Full open      | Full open  |  |  |
| 2    | 18    | Full open      | Full close |  |  |
| 3    | 36    | Full close     | Full close |  |  |
| 4    | 54    | Full close     | Full open  |  |  |
|      |       |                |            |  |  |

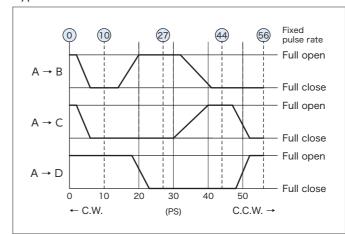
### Type RKV-C08DWL\*



### Flow direction (Fixed pulse rate)

| Mode | Pulse | Flow direction    |              |  |  |
|------|-------|-------------------|--------------|--|--|
| Mode |       | $A \rightarrow B$ | A → C        |  |  |
| 1    | 4     | Full open         | Full open    |  |  |
| 2    | 17    | Full open         | Minimal open |  |  |
| 3    | 25    | Full open         | Full close   |  |  |
| 4    | 38    | Minimal open      | Full close   |  |  |
| 5    | 48    | Full close        | Full close   |  |  |
| 6    | 60    | Full close        | Full open    |  |  |
|      |       |                   |              |  |  |

# Type RKV-K10D\*



<sup>\*</sup> Type RKV-B, C and K can be used only at fixed pulse rate.

### ГІо

### Flow direction (Fixed pulse rate)

| Mode | Pulse | Flow direction |            |                   |  |
|------|-------|----------------|------------|-------------------|--|
| Mode |       | A → B          | A → C      | $A \rightarrow D$ |  |
| 1    | 0     | Full open      | Full open  | Full open         |  |
| 2    | 10    | Full close     | Full close | Full open         |  |
| 3    | 27    | Full open      | Full close | Full close        |  |
| 4    | 44    | Full close     | Full open  | Full close        |  |
| 5    | 56    | Full close     | Full close | Full open         |  |