



Tap water control valve (approved by JWWA)

# RSV-W Series

- For water supply control of tap water
- Continuously energized, latch
- Pilot operated diaphragm

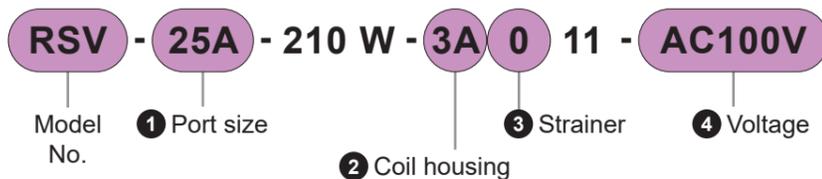
## Applications

- Applications of attaching a solenoid valve on a tap water pipe
- Controlling the water supply of a pool, bath, shower, toilet, etc.
  - Controlling the water supply of cleaning equipment
  - Watering of rooftops and gardens

## Overview and Features

- Low water hammer
- A type equipped with a strainer for the main flow path to prevent the entry of trash can also be made. (15A to 25A)
- An outdoor type is also available (3A, 7A, 7L type)

## Model No. Notation



### ① Port size

| Code | Description |
|------|-------------|
| 15A  | Rc1/2       |
| 20A  | Rc3/4       |
| 25A  | Rc1         |
| 32A  | Rc1 1/4     |
| 40A  | Rc1 1/2     |
| 50A  | Rc2         |

### ② Coil housing

| Code | Description                                         | Selection example                                                             | Shape | Remarks                                                                          |
|------|-----------------------------------------------------|-------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------|
| 2G   | Coil with DIN terminal box (for housing facilities) | For indoor housing facilities (drainage)                                      |       |                                                                                  |
| 3A   | Coil with open frame (for greenery)                 | For outdoor drainage:                                                         |       |                                                                                  |
| 00   | Grommet lead (for housing facilities)               | For indoor housing facilities (drainage)                                      |       | ● ④ Only AC voltage is available.                                                |
| 7A   | Low-watt coil - 3W (for greenery)                   | For installation within manholes for urban greenery, etc:                     |       | ● ① Port size "20A" or more is available.                                        |
| 7L   | Latch coil (for greenery)                           | Battery controller for controlling solar controllers for urban greenery, etc. |       | ● ① Port size "20A" or more is available.<br>● ④ Select "6 VDC" for the voltage. |

### ③ Strainer

| Code | Description | Remarks                                     |
|------|-------------|---------------------------------------------|
| 0    | None        | -                                           |
| 2    | Yes         | ● ① Available for port size "15A" to "25A". |

### ④ Voltage

| Code   | Description        | Remarks                                       |
|--------|--------------------|-----------------------------------------------|
| AC100V | 100 VAC 50 / 60 Hz |                                               |
| AC200V | 200 VAC 50 / 60 Hz |                                               |
| DC24V  | 24 VDC             | ● ② Cannot be selected for coil housing "00". |
| DC6V   | 6 VDC              | ● ② For coil housing "7L" only.               |

## Specifications

| Item                              | RSV-15A-210W-3A011                   | RSV-20A-210W-3A011 | RSV-25A-210W-3A011 | RSV-32A-210W-3A011 | RSV-40A-210W-3A011 | RSV-50A-210W-3A011 |
|-----------------------------------|--------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Working fluid                     | Tap water                            |                    |                    |                    |                    |                    |
| Max. working pressure MPa         | 1                                    |                    |                    |                    |                    |                    |
| Working pressure differential MPa | 0.02 to 1                            |                    |                    |                    |                    |                    |
| Structural proof pressure MPa     | 1.75                                 |                    |                    |                    |                    |                    |
| Fluid temperature °C              | 5 to 60 (no freezing)                |                    |                    |                    |                    |                    |
| Ambient temperature °C            | 0 to 60                              |                    |                    |                    |                    |                    |
| Ambient humidity %                | 95 or less                           |                    |                    |                    |                    |                    |
| Orifice size mm                   | 15.5                                 | 25.5               |                    | 50.5               |                    |                    |
| Cv value                          | 3.4                                  | 10.1               | 12.0               | 25.0               | 34.0               | 41.0               |
| Kv value *1                       | 3                                    | 9                  | 10                 | 22                 | 29                 | 36                 |
| Frequency cycles/min.             | 1 or less                            |                    |                    |                    |                    |                    |
| Mounting orientation              | Horizontal position with coil on top |                    |                    |                    |                    |                    |
| Port size                         | Rc1/2                                | Rc 1/4             | Rc1                | Rc1 1/4            | Rc1 1/2            | Rc2                |
| Weight kg                         | 1.5                                  | 2.0                |                    | 4.2                |                    |                    |

## Electrical specifications

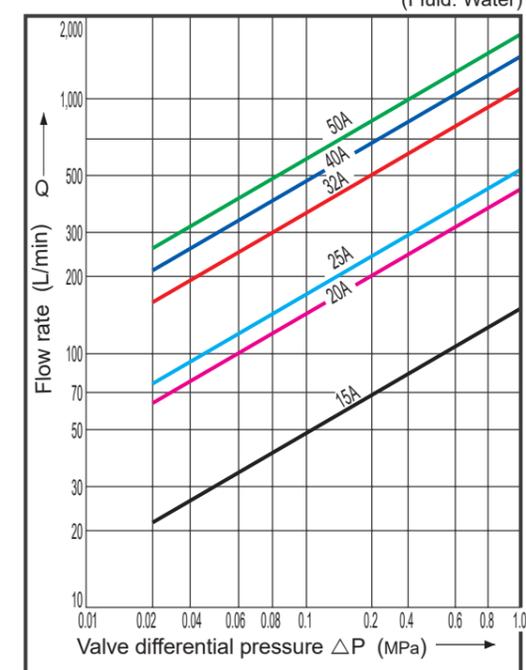
|                      |                                                                                          |
|----------------------|------------------------------------------------------------------------------------------|
| Drive method/voltage | Continuously energized: 24 VDC, 100:200 VAC (50 / 60 Hz) *2<br>Latch pulse signal: 7L *3 |
| Power consumption W  | 100 VAC/ 200 VAC:5.2 / 3.8 (50 / 60 Hz) 24 VDC:11                                        |
| Thermal class        | Class 130 (B)                                                                            |
| Apparent power VA    | When holding: 12 / 10 (50 / 60Hz) , When starting: 17 / 14 (50 / 60Hz)                   |
| Leakage current mA   | 6 or less / 100 VAC, 3 or less / 200 VAC, 1 or less / 24 VDC                             |

\*1 : Refer to the Intro page of "Fluid control valves" (RJ-013AA) for Kv value.

\*2 : ② When the coil housing code "00" is selected, only AC voltage is available.

\*3 : The latch coil shape "7L" is dedicated for use with controllers manufactured by CKD. In Model No. Notation, the voltage is "6 VDC".

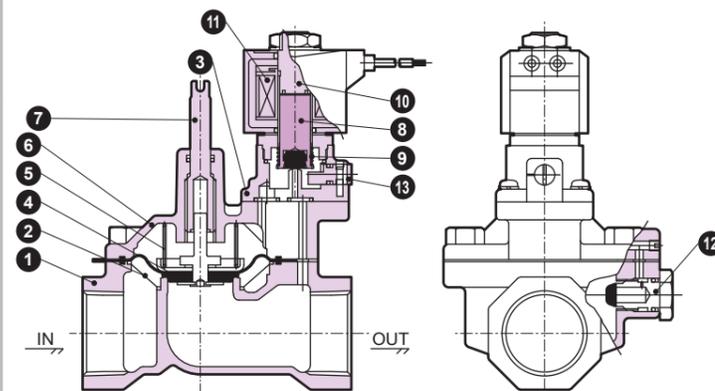
## Flow characteristics



## Applicable controller series

- RSC-S5 type P. 4
- RSC-G type P. 6
- RSC-1WP type P. 8
- RSC-2WP type P. 12

Internal structure / material

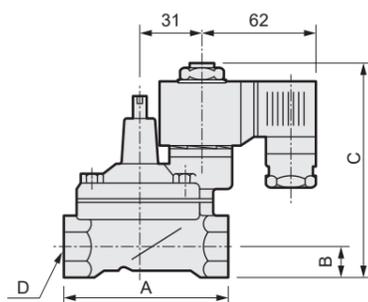
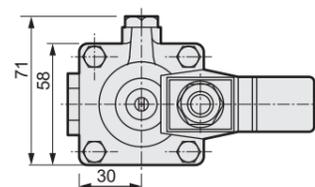


**Do not disassemble**

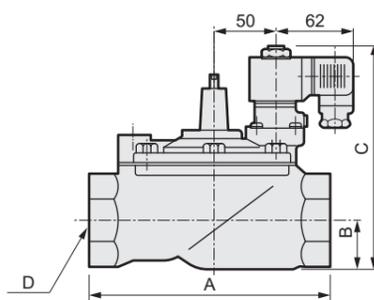
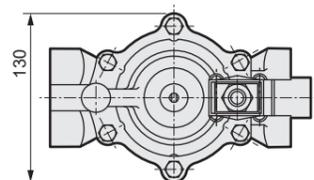
| Part No. | Part name               | Material                                    |
|----------|-------------------------|---------------------------------------------|
| 1        | Valve body              | Bronze casting                              |
| 2        | Strainer                | Stainless copper wire (available up to 25A) |
| 3        | Pilot valve seat        | Bronze casting                              |
| 4        | Diaphragm               | Ethylene propylene rubber                   |
| 4        | Diaphragm assembly      | Cold-rolled stainless steel plates          |
| 5        | Spring                  | Stainless steel wire for springs            |
| 6        | Pilot valve body        | Bronze casting                              |
| 7        | Flow rate adjusting bar | Stainless copper bar                        |
| 8        | Plunger                 | Stainless copper bar                        |
| 8        | Valve seat              | Nitrile rubber                              |
| 9        | Spring                  | Stainless steel wire for springs            |
| 10       | Core assembly           | Stainless steel bar                         |
| 11       | Coil                    | -                                           |
| 12       | Bleed orifice           | Free machining brass bar                    |
| 13       | Manual cock             | Stainless steel bar                         |

dimensions

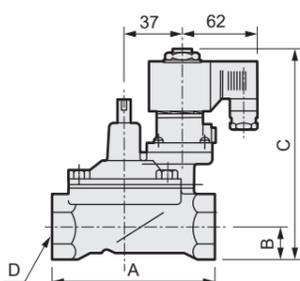
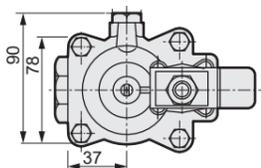
- DIN terminal box (2G type) housing
- RSV-15A-210W



- RSV-20A-210W
- RSV-25A-210W
- RSV-32A-210W
- RSV-40A-210W
- RSV-50A-210W



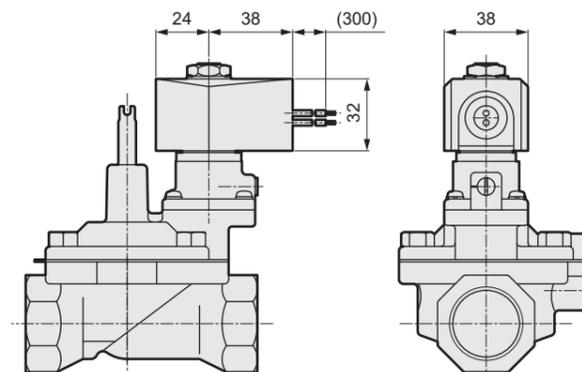
- RSV-20A-210W



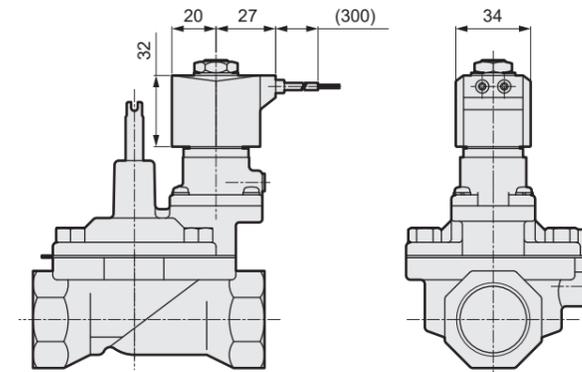
| Model No.    | A   | B  | C   | D      |         |
|--------------|-----|----|-----|--------|---------|
|              |     |    |     | 7A, 7L |         |
| RSV-15A-210W | 80  | 15 | 102 | -      | Rc1/2   |
| RSV-20A-210W | 100 | 18 | 135 | 163    | Rc3/4   |
| RSV-25A-210W | 105 | 22 | 141 | 169    | Rc1     |
| RSV-32A-210W | 168 | 29 | 154 | 182    | Rc1 1/4 |
| RSV-40A-210W | 176 | 34 | 164 | 192    | Rc1 1/2 |
| RSV-50A-210W | 180 | 39 | 174 | 202    | Rc2     |

Optional dimensions

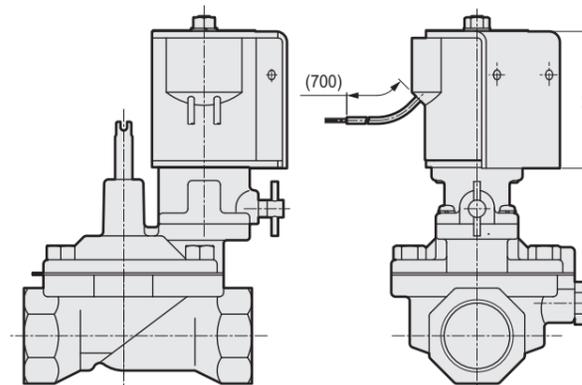
- Open frame (3A type) greenery



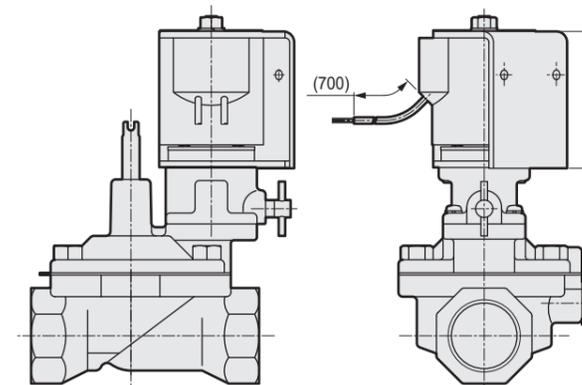
- Grommet lead (00 type) housing



- Low-watt type (7A type) greenery
- Continuous energizing



- Latch (7L) Greenery



⚠ Always read the precautions in the instruction manual before starting use.



Fluid control valves

# Safety Precautions

Be sure to read this section before use.

Read safety precautions for "Fluid control valves (RJ-013AA)" as well.

Product-specific cautions: Tap water control valve (approved by JWWA) RSV-W Series

## Design / selection

### ⚠ CAUTION

- This product cannot be used as an emergency shut-off valve.

The solenoid valves listed in this catalog are not designed as valves to ensure safety such as emergency shutoff valves. When using in such a system, always take separate measures that will ensure safety.

- This product cannot be used in an explosion-proof atmosphere.

Select products from the explosion-proof solenoid valve series for use within an explosion-proof atmosphere.

- Working fluids

Do not use any fluid other than the working fluids specified in the catalog.

- Fluid temperature

Be sure to use the coolant check valve within the specified fluid temperature range.

- Ambient environment

① Do not use this product in a corrosive gas atmosphere or an atmosphere that could affect the component materials.

- ② Do not use this product near a heat generating source or in a location where it may be exposed to radiant heat.
- ③ Use this product within the operating ambient temperature.
- ④ When using this product in a cold climate, take necessary measures to prevent freezing by wrapping the product with insulation or heating tape. However, refrain from wrapping insulation, etc., around the coil.
- ⑤ Although solenoid valves with a protection grade of IP67 have a structure capable of withstanding temporary submersion in water, be sure to ensure proper drainage of water to prevent deterioration of insulation. In addition, avoid direct exposure to sunlight.

- Securing maintenance space

Secure sufficient space for maintenance and inspection.

- Leakage current

When using a PLC with a CR circuit to absorb the surge voltage generated from switching elements, etc., the leakage current could adversely affect the operation of the solenoid valve. Use the products with a leakage current which is less than the values listed in this catalog for each product.

- Min. working pressure differential

Use the products at a pressure higher than the min. working pressure differentials within the specifications listed in the catalog.

MEMO

For cautions for mounting, installation, adjustment, use, and maintenance, refer to CKD Component Product Site (<https://www.ckd.co.jp/kiki/en/>) → "Model No." → [Instruction manual](#) for details.