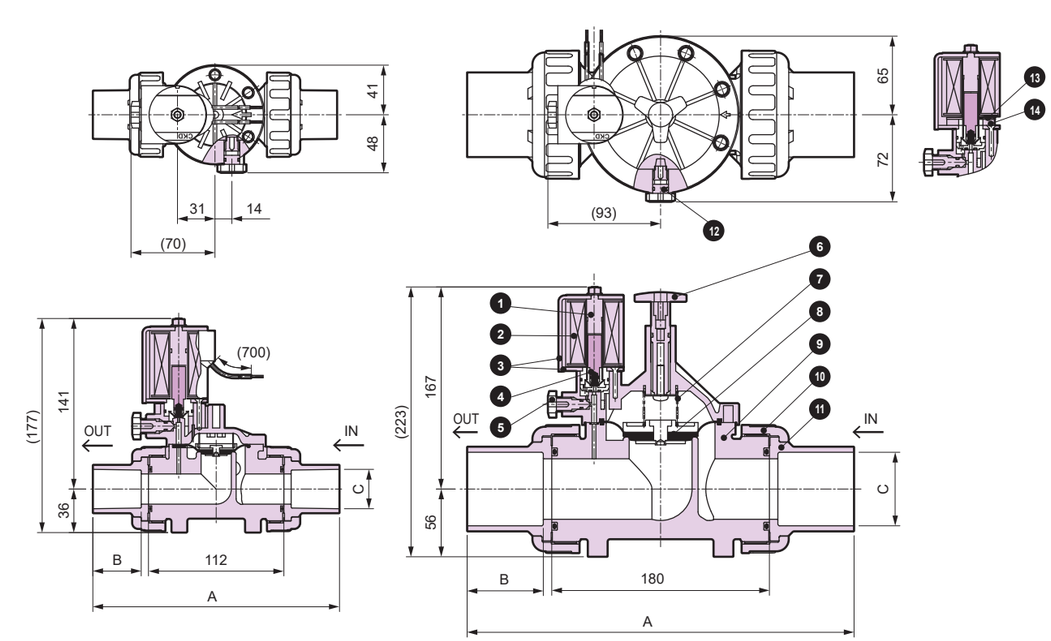
Internal structure and dimensions

●GSV2-25U ●GSV2-50U ●P: Latch



Model No.	A	B	C
GSV2-20U	190	35	ø26.5
GSV2-25U	204	40	ø32.6
GSV2-40U	304	55	ø48.7
GSV2-50U	320	63	ø60.8
GSV2-20A	174	-	Rc3/4
GSV2-25A	174	-	Rc1
GSV2-40A	266	-	Rc1 1/2
GSV2-50A	266	-	Rc2

Part No.	Part name	Material
1	Core assembly	SUS
2	Coil assembly	-
3	Core A / B	SUS
4	Plunger	SUS, NBR
5	Manual operation needle	PP
6	Flow rate adjusting handle	PP
7	Spring	SUS
8	Diaphragm assembly	NBR, PP, SUS
9	Body	PP
10	Union nut	PP
11	Union end	PVC (HITS), SUS
12	Pilot filter	PP, SUS
13	Ring plate	SUS (latch only)
14	Magnet	DPM-2 (latch only)

For maintenance parts, refer to CKD Components Product Site (https://www.ckd.co.jp/kiki/en/) → "Model No."→ Maintenance parts for details.

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: Resin solenoid valve for automatic watering GSV2 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
①Do not use this product in a corrosive gas atmosphere or an atmosphere that could affect the component materials.
②Do not use this product near a heat generating source or in a location where it may be exposed to radiant heat.
③Use this product within the operating ambient temperature.
④When 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.
⑤Although 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.

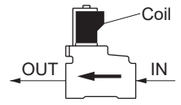
■ Leakage current
When using a PLC with a CR circuit to absorb the surge voltage generated from switching elements, etc., the leakage current could adversely affect the operation of the solenoid valve. Use the products with a leakage current which is less than the values listed in this catalog for each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

When using the product

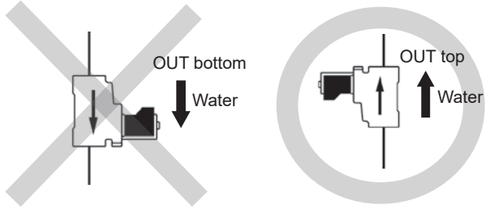
1. Piping

■ Ensure that the piping is performed so that the flow of the fluid is consistent with the arrow direction of the body.



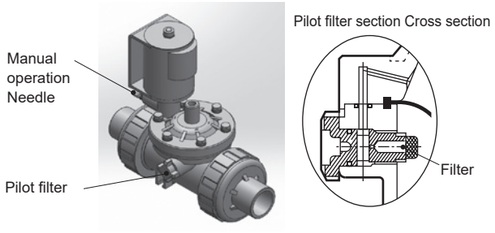
When piping the solenoid valve horizontally as seen in the left diagram, be sure to set the coil area facing upwards.

■ Take note of the following points when piping the solenoid valve vertically.
When the solenoid valve OUT port is facing downward, the air in the valve cannot be drawn out, and may cause faulty operation and vibrations. To stabilize solenoid valve operations, be sure to set the piping with the OUT port facing upward when performing vertical piping as seen in the below diagram.



2. When inspecting the filter

■ A filter is integrated to the pilot filter section to prevent malfunctions of the solenoid valve due to foreign materials. Perform filter inspection after closing the IN side of the water control valve, loosening the manual operation needle, and lowering the pressure. Lightly tighten the needle by hand upon reassembly. The tightening torque is 0.8 to 1.2 N·m. Note that damage may occur if tightened excessively.



3. When using the product

■ Use the product within the working pressure differential ranges.
• GSV2 type: 0.03 to 0.75 MPa

■ Avoid direct exposure to sunlight.

■ Use the following formula to calculate the flow rate.

$$Q \approx 45.58\ Cv \sqrt{\frac{\Delta P}{G}}$$

Q : Flow rate L/min
ΔP : Primary pressure - Secondary pressure (MPa)
G : Specific gravity (water = 1)
Cv : Flow coefficient

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.