

# Regulators

## **RV** series

Thank you for selecting KONAN product.

Before installation and use of the products, please read this Service Instructions for proper handling.

### Standard Specifications

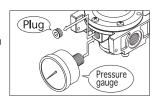
Model code	Standard type	RV2-02		RV2-03		RV21-04		RV2-08		RV2-14		RV2-20	
	Panel-mount type			RV2P-03		RV21P-04							
	Corrosion-resistant type			RV2S-03		RV21S-04		RV2S-08		RV2S-14		RV2S-20	
Port size		6A	8A	8A	10A	10A	15A	20A	25A	32A	40A	50A	65A
		Rc 1/8	Rc 1/4	Rc 1/4	Rc <sup>3</sup> / <sub>8</sub>	Rc <sup>3</sup> / <sub>8</sub>	Rc 1/2	Rc 3/4	Rc1	Rc1 1/4	Rc1 1/2	Rc2	Rc21/2
Operating pressure	Primary side (IN)	Max.1MPa											
	Secondary side (OUT)	0.05~0.7MPa											
Proof pressure		1.5MPa (primary side only)											
Operating temperature		-20~60°C   General purpose : -20~60°C / Heat-resistant : 5~100°C / Freeze-resistant : -40~45°C   -20~60°C											
Mass		0.2	0.25kg 0.58kg		0.8	0.84kg 2.5k		ikg	5.1kg		5.2kg		

- NPT type pipe screw is available.
- For specifications other than those listed above, please contact us.

### Before Installation

- Do not leave the units unpacked at the place where they are exposed to water and dusts.
- Do not remove the plugs at the ports until just before piping.
- Pressure gauge and bracket are optionally available. Mount a pressure gauge and a bracket as instructed below before installation of the unit:
  - (1) Mounting a pressure gauge:

Remove hex socket plug at the mounting port and mount the pressure gauge. Torque of the gauge:  $7.8 \sim 12.7 \text{ N} \cdot \text{m}$ Excessive screwing may damage the regulator body.



### (2) Mounting a bracket:

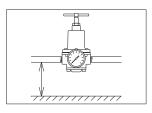
Remove small screws from the regulator and mount the bracket with attached small screws. Fasten the screws alternately to avoid uneven clamping.

Clamping torque: 0.98 N·m

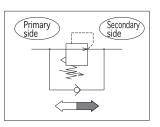


### **Installation Precautions**

- Install the unit so that the cover can be removed for disassembly or parts replacement. Refer to the product drawing for the length needed for removing the cover.
- Do not install the unit behind a lubricator. Drain may be accumulated at the bottom of the regulator to disturb smooth operation.

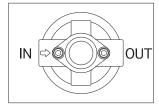


- If air flow is reversed from secondary side to primary side in the circuit, install a check valve in parallel or use the unit with check valve.
- Installation position is not specified. However, for the unit with high drain volume install the unit so that the handle is placed downward.



## Piping Precautions

- Make sure to properly connect the ports, checking air flow direction (specified with arrow mark under the port). (Refer to the figure.)
- When connecting piping elements (pipes and joints), be careful not to screw in excessively (4- to 5-thread screwing is enough).
- After piping sufficiently perform air flushing to remove dusts, rusts, sealing scraps, oil, etc.



## **Pressure Setting**

- (1) Pressure at secondary side
  - Adjust the pressure to the predetermined value while watching the pressure gauge needle. operate the unit 2 to 3 cycles, and then reconfirm if the pressure is as predetermined.
- (2) Pressure fluctuation at secondary side
  - Set pressure may slightly change due to pressure fluctuation at the primary side. For accurate pressure setting reduce the pressure fluctuation at the primary side. For details refer to the pressure characteristics chart in the Line Components catalogue.

- See back page for disassembly/ assembly procedure.
- For questions please contact the nearest Konan branch office.

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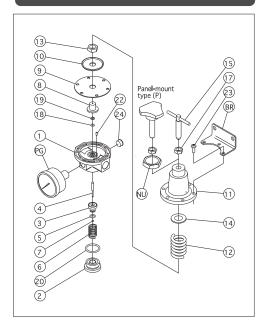
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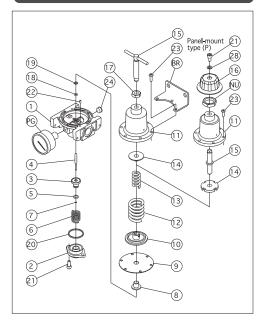
## RV2-03 · RV2P-03 · RV2S-03



### ■Parts List

	2.01	
No.	Description	Q'ty
1	Body	1
2	Cover	1
3	Valve	1
4	Valve shaft	1
5	O-ring	1
6	Spring	1
7	Stop ring	1
8	Diaphragm seat	1
9	Diaphragm	1
10	Diaphragm clamp	1
11	Spring case	1
12	Spring	1
13	Locknut	1
14	Spring retainer	1
15	Adjustment screw	1
17	Locknut	1
18	O-ring	1
19	Packing retainer	1
20	Gasket	1
22	Syphon tube	1
23	Cross-recessed pan head machine screw	6
24	Hex socket plug	2
BR	Bracket	1
PG	Pressure gauge	1
NU	Nut	1

## RV21-04 · RV21P-04 · RV21S-04

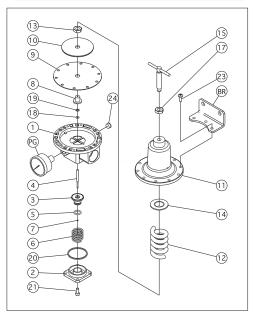


### ■Parts List

Description	Q'ty
Body	1
Cover	1
Valve	1
Valve shaft	1
O-ring	1
	1
Stop ring	1
Diaphragm seat	1
Diaphragm	1
Diaphragm clamp	1
Spring case	1
Spring	1
Spring	1
Spring retainer	1
Adjustment screw	1 (%1)
	1 (%2)
	1
O-ring	1
Packing retainer	1
Packing	1
Hey socket head can screw	2(%1)
Tiex socket fiedd dap screw	3 (%2)
Syphon tube	1
Cross-recessed pan head machine screw	6
Hex socket plug	2
Conical spring washer	1 (%2)
Bracket	1
Nut	1 (%2)
Pressure gauge	1
	Body Cover Valve Valve shaft O-ring Spring Stop ring Diaphragm seat Diaphragm clamp Spring case Spring Facking Hex socket head cap screw Syphon tube Cross-recessed pan head machine screw Hex socket plug Conical spring washer Bracket Nut

(%1) For RV21 & RV21S (%2) For RV21P

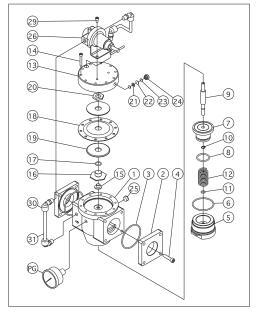
## RV2-08 · RV2S-08



### ■Parts List

No.	Description	Q'ty
1	Body	1
2	Cover	1
3	Valve	1
4	Valve shaft	1
5	O-ring	1
6	Spring	1
7	Stop ring	1
8	Diaphragm seat	1
9	Diaphragm	1
10	Diaphragm clamp	1
11	Spring case	1
12	Spring	1
13	Nut	1
14	Spring retainer	1
15	Adjustment screw	1
17	Locknut	1
18	O-ring	1
19	Packing retainer	1
20	Gasket	1
21	Hex socket head cap screw	4
23	Cross-recessed pan head machine screw	10
24	Hex socket plug	2
BR	Bracket	1
PG	Pressure gauge	1

## RV2-14 · RV2S-14 · RV2-20 · RV2S-20



### ■Parts List

1 Body 2 Flange 3 O-ring 4 Hex socket head cap screw 5 Bottom cover 6 O-ring	Q'ty 1 2 2
2 Flange 3 O-ring 4 Hex socket head cap screw 5 Bottom cover 6 O-ring	2
3 O-ring 4 Hex socket head cap screw 5 Bottom cover 6 O-ring	
4 Hex socket head cap screw 5 Bottom cover 6 O-ring	2
6 O-ring	_
6 O-ring	8
	1
7 \/ah/a	1
7 Valve	1
8 O-ring	1
9 Valve shaft	1
10 Stop ring	1
11 O-ring	2
12 Spring	1
13 Top cover	1
14 Hex socket head cap screw	10
15 Relief valve seat	1
16 Diaphragm seat	1
17 O-ring	1
18 Diaphragm	1
19 Diaphragm weight	2
20 Nut	1
21 Orifice	1
22 Packing	1
23 Filter element	2
24 plug	1
25 Hex socket plug	3
26 Pilot regulator	1
29 Hex socket head cap screw	2
30 Elbow	4
31 Tube	2
PG Pressure gauge	1