



Vacuum Regulator

VRA2000 Series

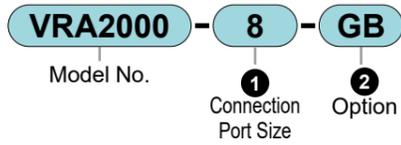
● Connection Port Size: Rc1/4, Rc3/8, G1/4, G3/8, 1/4NPT, 3/8NPT



VRA2000 Series

External Dimensions

Model No. Notation



① Connection Port Size

Code	Content
8	Rc1/4
10	Rc3/8
8 g	G 1/4
10 g	G 3/8
8N	1/4 NPT
10N	3/8 NPT

② Option

Code	Content
Blank	None
*2 G	Pressure Gauge
*2 P	Pressure Switch
B	C-Bracket
B3	L-Bracket
B4	B-Bracket
*2 R2	Digital Pressure Sensor

Specifications

Model No.	VRA2000-8	VRA2000-10
Set Pressure (kPa)	-100 to -1	
Ambient/Fluid Temperature °C	5 to 50	
Balance Leak Flow Rate L/min (ANR)	1 *3	
Max. Flow Rate L/min (ANR)	200 *1	
Connection Port Size	IN/OUT 1/4	3/8
	Gauge 1/8	
Weight	kg 0.29	

*1: Max. flow rate is the flow rate when the secondary side is fully opened after closing the secondary side completely, adjusting primary pressure to -101.3 kPa and secondary pressure to -100 kPa.
 *2: Selectable only when the connection port size is Rc thread.
 *3: This is the flow rate when the secondary pressure is set to closed state, primary pressure is ≤ -95 kPa, and secondary pressure is set to -45 kPa.

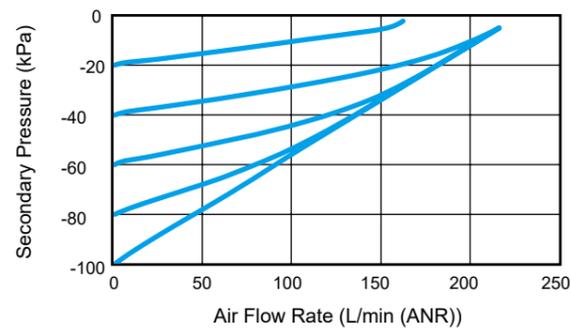
Rechargeable Battery Compatible Specification (Catalog No. CC-1226AA)

• Structure usable in rechargeable battery manufacturing processes

VRA2000 - P4*

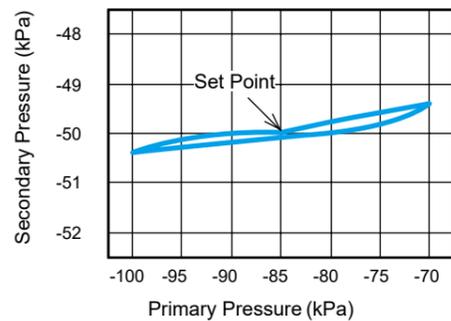
*Please inquire for details.

Flow Characteristics

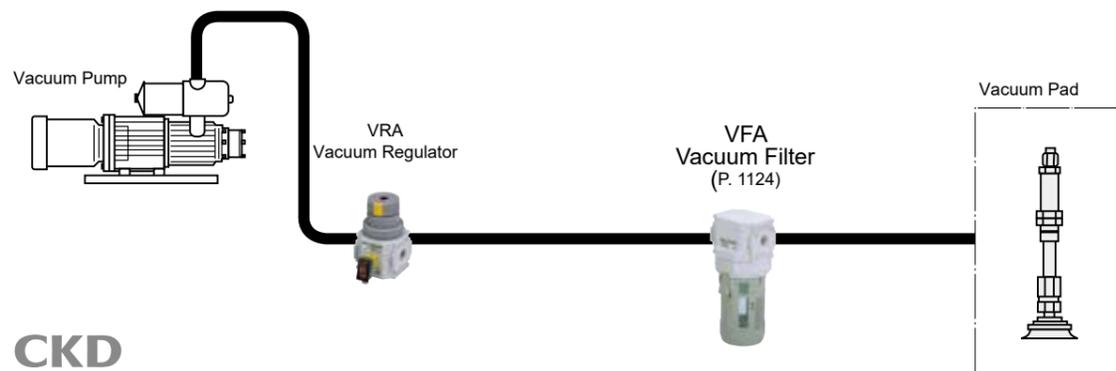


*1: Measured using a primary side vacuum pump with an exhaust capacity of 500 L/min.

Pressure Characteristics

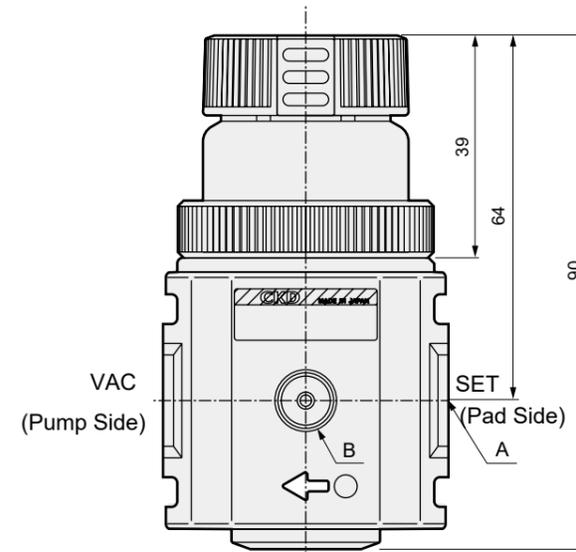
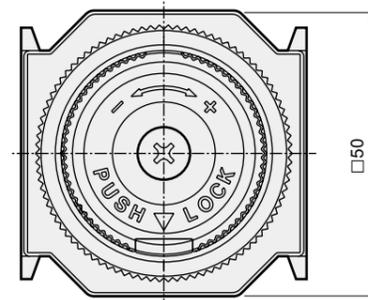


Application Example



External Dimension Drawings

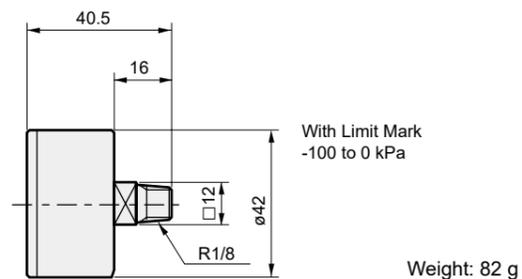
● VRA2000-8, VRA2000-10



Panel mounting hole dimensions during panel mount: ø38.5

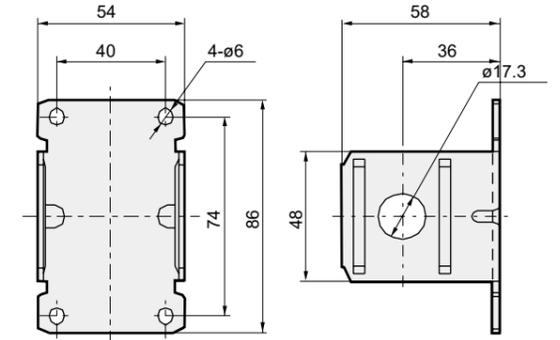
Model No.	A	B
VRA2000-8	Rc1/4	Rc1/8
VRA2000-10	Rc3/8	Rc1/8

● Pressure gauge(G)
VG41D-6-P01



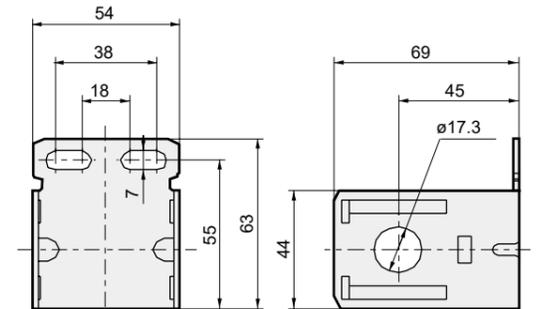
Weight: 82 g

● B-bracket(B4)
B240



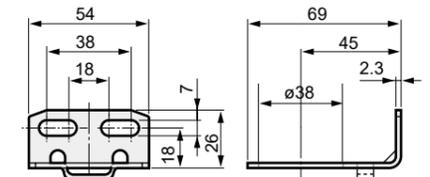
Weight: 0.16 kg
Material: Steel
Zinc Plated Treatment

● C-bracket(B)
B220



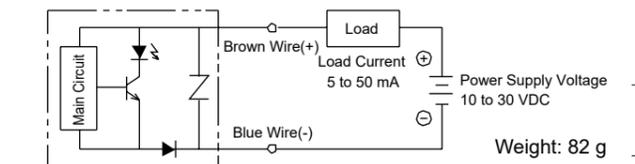
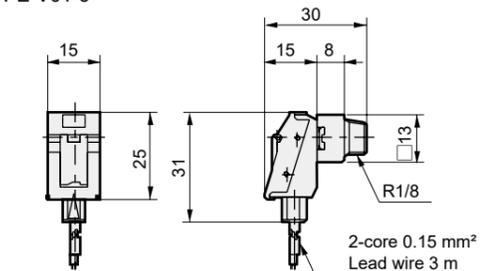
Weight: 0.15 kg
Material: Steel
Zinc Plated Treatment

● L-bracket(B3)
B230



Weight: 60 g
Material: Steel
Zinc Plated Treatment

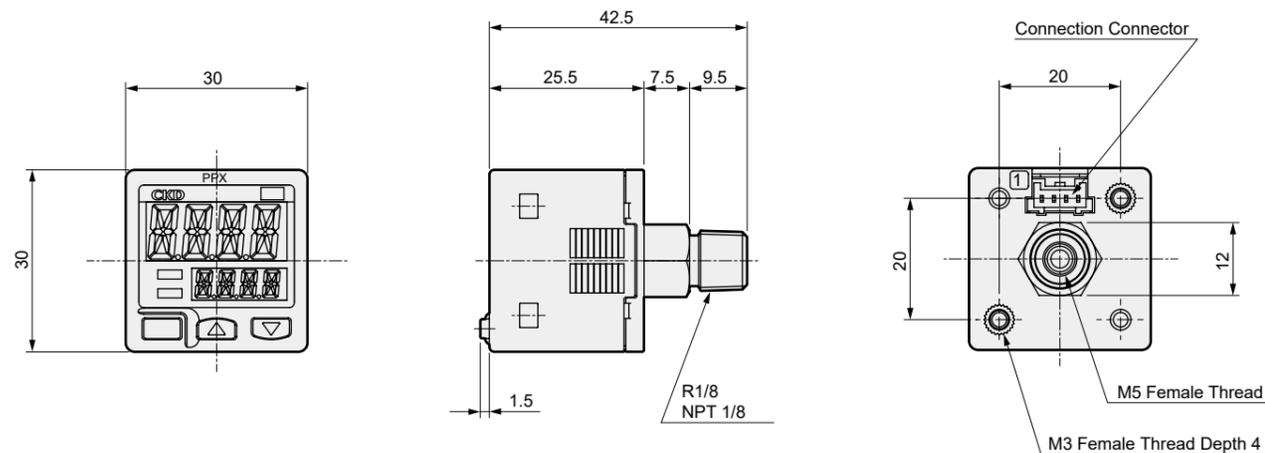
● Pressure switch(P)
PPE-V01-6



Weight: 82 g

External Dimension Drawings

● Digital Pressure Sensor
PPX-R01N-6M

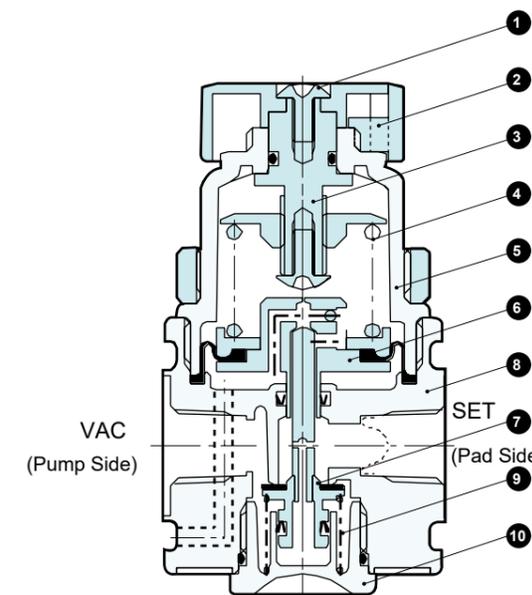


* For details on the Digital Pressure Sensor PPX series, please refer to "Sensors/Controllers" (No. RJ-008AA).

Weight: 40 g

Internal Structure Diagram / Materials / Precautions for Use

Internal Structure Diagram/Materials



No.	Part Name	Material
1	Phillips truss head machine screw	Steel
2	Knob Assembly	Polybutylene terephthalate
3	Adjusting Screw Assembly	Copper Alloy / Steel / Nitrile Rubber
4	Adjusting Spring	Stainless steel
5	Cover Assembly	Aluminum Alloy / Polybutylene terephthalate
6	Diaphragm Assembly	Aluminum Alloy / Steel / Nitrile Rubber
7	Valve Assembly	Aluminum Alloy / Copper Alloy / Hydrogenated Nitrile Rubber
8	Body Assembly	Aluminum Alloy / Stainless Steel / Nitrile Rubber
9	Bottom Spring	Stainless steel
10	Bottom Plug Assembly	Polybutylene terephthalate / Nitrile Rubber

⚠ Precautions for Use

⚠ Warning

- 1 Use the product within the specified range.
- 2 The product is a vacuum regulator. Cannot be used for pressurization.
- 3 Install the product avoiding direct sunlight.
- 4 Do not use the product in atmospheres containing corrosive gases, chemicals, or seawater, or in locations where these may adhere, nor in vacuum circuits intended for sucking these substances.
- 5 Avoid mounting in locations subject to vibration or shock.

- 6 Turning the knob in the + direction from the set pressure 0 activates the stopper, preventing the knob from turning. Be careful, as applying excessive torque in the + direction can lock the knob, making it inoperable.

- 7 Tighten with the appropriate torque during piping connection.
- 8 During installation, ensure the bending moment due to piping load is ≤ 50 N·m.

Connection Thread	Tightening Torque N·m
Rc1/4	6 to 8
Rc3/8	13 to 15

⚠ Caution

- 1 The set pressure changes from the initial set value due to the operating environment, conditions, aging of component materials, etc. Check the pressure periodically and reset it if it has changed.
- 2 This product regulates pressure by constantly leaking air, so when using a small-capacity vacuum pump, the vacuum pressure may not rise. Please be careful.

- 3 An O-ring groove for module connection is provided on the pump side of the product. Select piping that can seal with a diameter less than or equal to the O-ring groove diameter.

Series Name	VRA2000
Groove Diameter	$\phi 25.4$

Vacuum Components
Vacuum Related Components

VSRL

VSECV

VSRVV

VRA2000

VSLF

VSFB, VSFU, VSFJ

FSL

VFA

VSUS

VST

Ending

Vacuum Components
Vacuum Related Components

VSRL

VSECV

VSRVV

VRA2000

VSLF

VSFB, VSFU, VSFJ

FSL

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