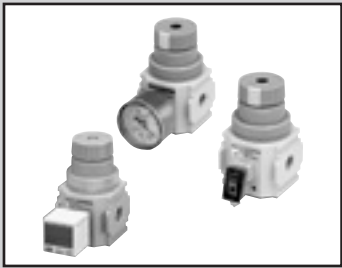


F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve
SlowStart
Anti-bac/Bac-
remove Filt
Film
Resist FR
Oil-ProhrR
Med
Press FR
No Cu/
PTFE FRL
Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneUR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro
Press SW
ContactSW
AirSens
PresSW
Cool
Air Flo
Sens/Ctrl
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

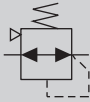


Vacuum regulator

VRA2000 Series

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

JIS symbol



Specifications

1 MPa = 10 bar

Model No.	VRA2000-8	VRA2000-10
Set pressure	kPa -100 (≈-15 psi) to -1 (≈-0.2 psi)	
Ambient / fluid temperatures	°C 5 (41°F) to 50 (122°F)	
Balance leak flow rate	ℓ/min(ANR) 1 *3	
Max. flow rate	ℓ/min(ANR) 200 *1	
Port size	IN/OUT	1/4 3/8
	Gauge	1/8
Weight	kg 0.29	

*1: The max. flow rate is the flow rate when the secondary side is completely closed and the primary pressure is at -101.3 kPa, and then after adjusting the secondary pressure to -100kPa, the secondary side is fully opened.
*2: Available only for port size Rc.
*3: Flow rate when primary pressure is set to -95 kPa or less and secondary pressure to -45 kPa while closed.

Specifications for rechargeable battery (Catalog No. CC-1226A)

● Structure compatible with rechargeable battery manufacturing process

VRA2000-.....- P4

How to order

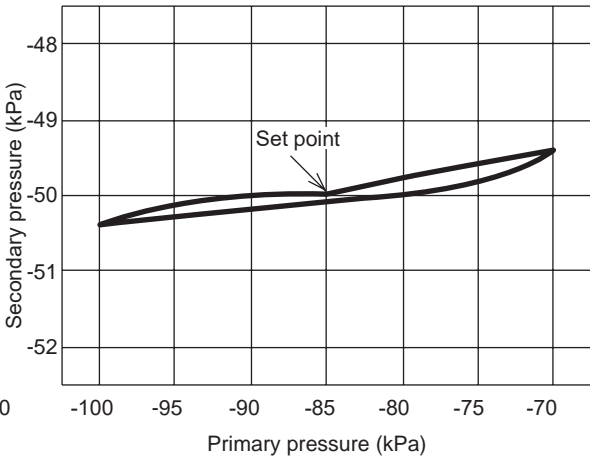
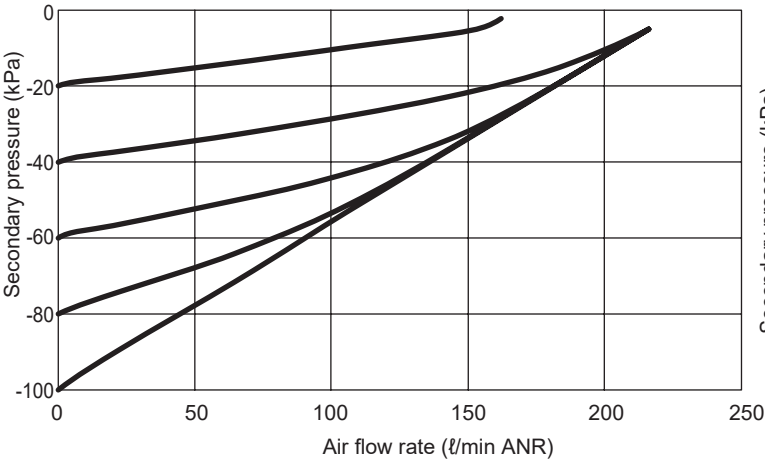
VRA2000 - 8 - GB

A Port size

B Option
(Enclosed product)

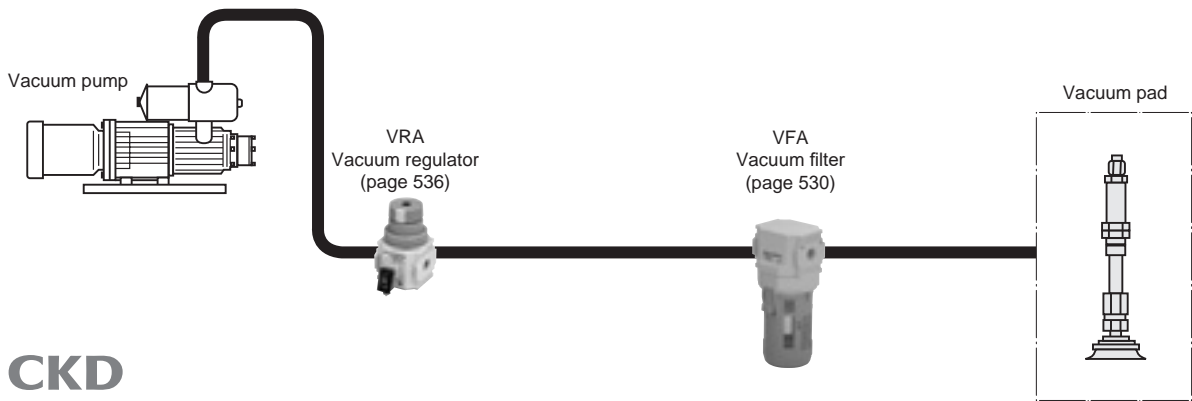
Code	Description
A Port size	
8	Rc1/4
10	Rc3/8
8G	G 1/4
10G	G 3/8
8N	1/4NPT
10N	3/8NPT
B Option	
Blank	None
G	Pressure gauge *2
P	Pressure switch *2
B	C-bracket
B3	L-bracket
B4	B-bracket
R2	Digital pressure sensor *2

Characteristic curve

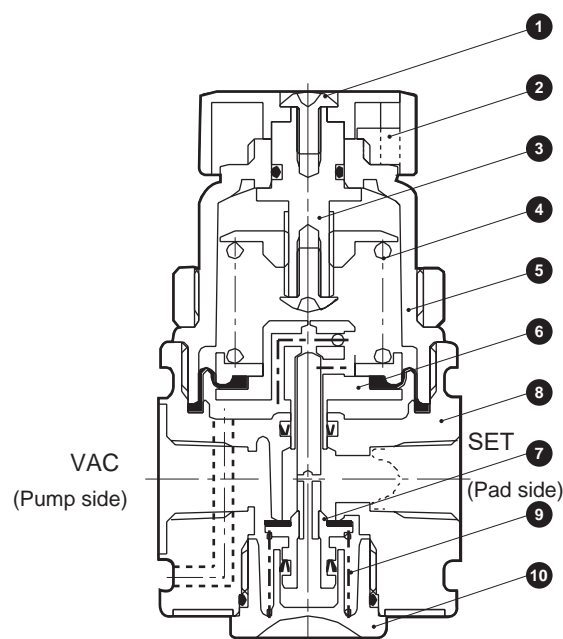


*1: The primary side vacuum pump is measured with using discharge rate 500 ℓ/min.

Applications



Internal structure and parts list



Parts list

No.	Part name	Material
1	Cross-recessed truss 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/PBT
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

Repair parts list

Part name	Model No.
Diaphragm assembly	VRA2000-D
Valve assembly	VRA2000-V

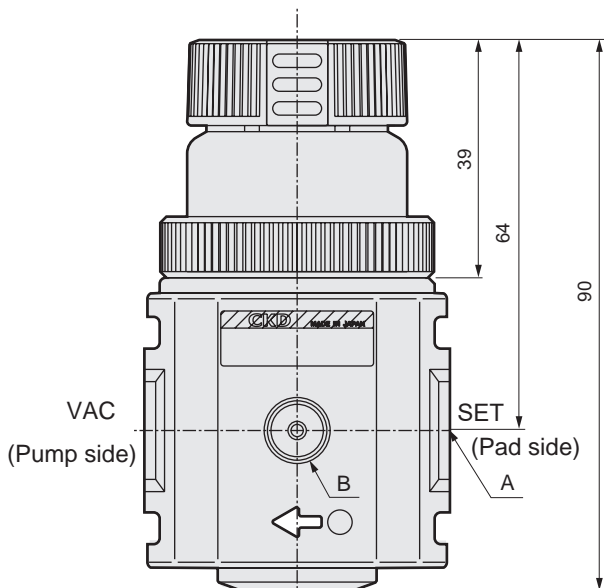
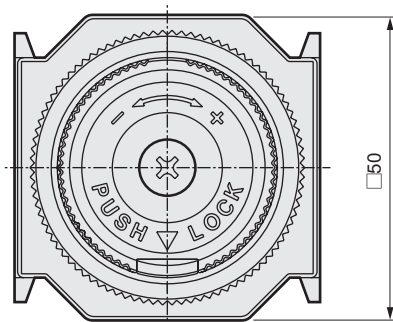
F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filt
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PresCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

VRA2000 Series

F.R.L. Dimensions



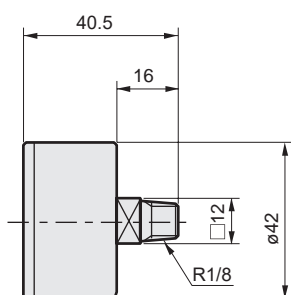
● VRA2000-8/VRA2000-10



Hole dimension for panel mount: $\varnothing 38.5$

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

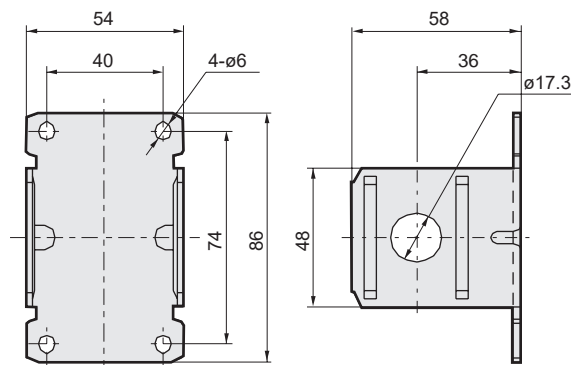
● Pressure gauge (G) VG41D-6-P01



With limit marker
-100 to 0 kPa

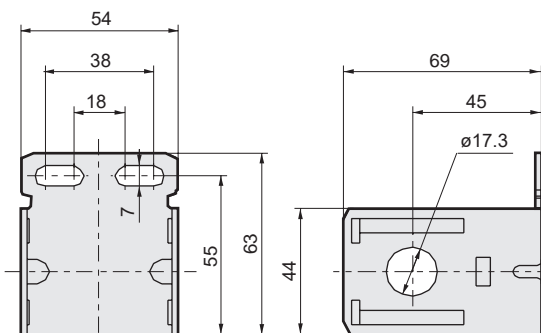
Weight: 82g

● B-bracket (B4) B240



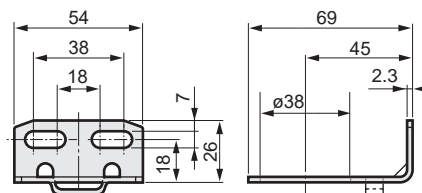
Weight : 0.16kg
Material : Steel
Zinc plated

● C-bracket (B) B220



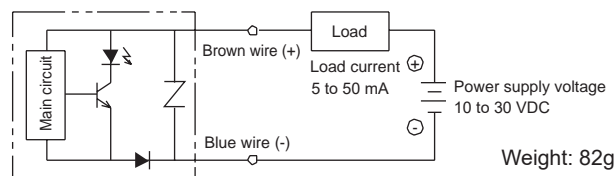
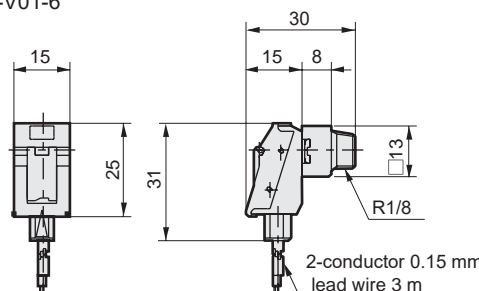
Weight : 0.15kg
Material : Steel
Zinc plated

● L-bracket (B3) B230



Weight : 60g
Material : Steel
Zinc plated

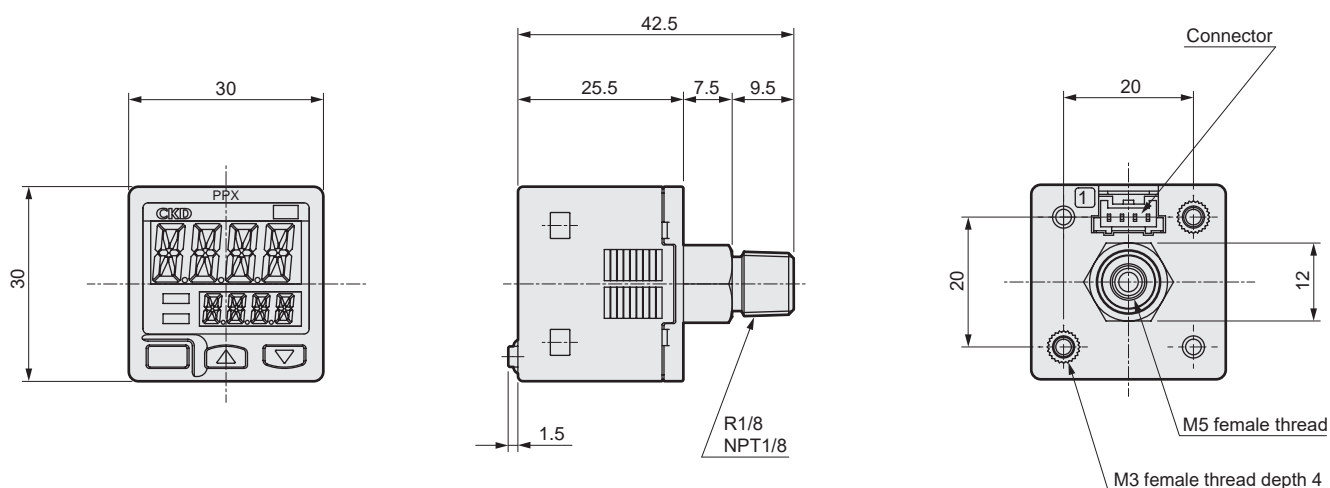
● Pressure switch (P) PPE-V01-6



Weight: 82g

Dimensions

- Digital pressure sensor
PPX-R01N-6M



Note: Refer to page 1150 for details of digital pressure sensor PPX Series.

Weight: 40g

⚠ Safety precautions

⚠ WARNING

- 1 Use the product within specifications.
- 2 The product is a regulator for vacuum. Do not use in a pressurized state.
- 3 Install the product where it is not exposed to direct sunlight.
- 4 Do not use this product in an atmosphere containing corrosive gas, chemicals, or sea water, or where these could come in contact with it, and do not use as a vacuum circuit for these substances.
- 5 Do not install this product in a location where it may be subject to vibrations or shocks.
- 6 Tighten pipes with the appropriate torque.
- 7 Limit bending moment arising from the weight of pipelines to 50 N·m or less when installing.
- 8 Turning the knob in the + direction from the set pressure 0 activates the stopper and the knob does not turn.
Note that if torque is forcibly applied in the + direction, the knob may lock and become inoperable.

Port thread	Tightening torque N·m
Rc1/4	6 to 8
Rc3/8	13 to 15

⚠ CAUTION

- 1 Install this product vertically with the knob facing upward or downward.
- 2 Before connecting to devices, flush piping with air blow to remove foreign matter.
- 3 The set pressure changes from the initial set point based on working environment and conditions, as well as aging of part materials. Check the pressure regularly, and reset if conditions have changed.
- 4 When screwing in piping or fittings, check that swarf from port threads or sealant does not get inside.
- 5 Check IN and OUT side direction before piping.
- 6 This product is adjusted with constant air leakage, so vacuum pressure may not rise if the vacuum pump capacity is too small. Please be careful.
- 7 The product has an O-ring groove for modular connection on its pump side. Select piping that can be sealed at or below the O-ring groove diameter.

Series	VRA2000
Groove diameter	ø25.4

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L (Lub)
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Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filt
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PresCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
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Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending