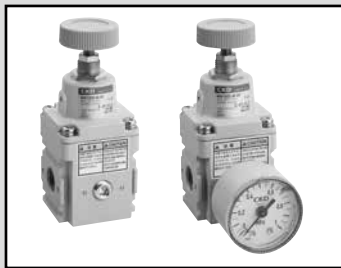


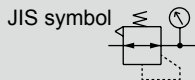
F.R.L.  
F.R.  
F (Filtr)  
R (Reg)  
L (Lub)  
Drain  
Separ  
Mech  
Press SW  
Res press  
exh valve  
SlowStart  
Anti-bac/Bac-  
remove Filt  
Film  
Resist FR  
Oil-Prohr  
Med  
Press FR  
No Cu/  
PTFE FRL  
Outdrs FRL  
Adapter  
Joiner  
Press  
Gauge  
CompFRL  
LgFRL  
PrecsR  
VacF/R  
Clean FR  
ElecPneR  
AirBoost  
Speed Ctrl  
Silncr  
CheckV/  
other  
Fit/Tube  
Nozzle  
Air Unit  
PresCompn  
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



Precision regulator

# RPE1000 Series

● Port size: 1/4



## Specifications

| Item                         |            | RPE1000-8-07                                                        |
|------------------------------|------------|---------------------------------------------------------------------|
| Working fluid                |            | Compressed clean air (refer to recommended air circuit on page 514) |
| Max. working pressure        | MPa        | 1.0 (≈150 psi, 10 bar)                                              |
| Min. working pressure        | MPa        | Set pressure +0.1 (≈15 psi, 1 bar) *1                               |
| Proof pressure               | MPa        | 1.5 (≈220 psi, 15 bar)                                              |
| Ambient / fluid temperatures | °C         | -5 (23°F) to 60 (140°F) (no freezing)                               |
| Set pressure                 | MPa        | 0.01 (≈1.5 psi, 0.1 bar) to 0.7 (≈100 psi, 7 bar)                   |
| Sensitivity                  |            | Within 0.2% of full scale                                           |
| Repeatability                |            | Within ±0.5% of full scale                                          |
| Air consumption *2           | l/min(ANR) | 0.2 or less                                                         |
| Port size *4                 | Rc, NPT, G | 1/4                                                                 |
| Pressure gauge port size     | Rc, NPT, G | 1/8                                                                 |
| Weight                       | g          | 250 *3                                                              |

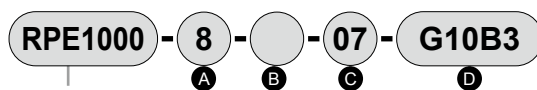
\*1: Flow rate of the secondary side is to be zero.

\*2: Conditions where the primary pressure is 0.7 MPa and air is consumed in the secondary side. Air is released to the atmosphere at 1 l/min or less from EXH port when there is no air consumption.

\*3: For weight when ● attachment is included, add the following weight. Pressure gauge: 74 g, bracket: 30 g

\*4: When selecting G thread, the OUT side screw depth is 6 mm.

## How to order



Model  
RPE1000:  
Precision regulator

| A Port size |     | B Port thread/pressure indication |                            | C Set pressure range |              | D Other attachments |                             |
|-------------|-----|-----------------------------------|----------------------------|----------------------|--------------|---------------------|-----------------------------|
| 8           | 1/4 | Blank                             | Rc thread, MPa display     | 07                   | Max. 0.7 MPa | Blank               | None                        |
|             |     | N                                 | NPT thread, psi display *4 |                      |              | G02                 | Pressure gauge (G45D-6-P02) |
|             |     | G                                 | G thread, bar display      |                      |              | G04                 | Pressure gauge (G45D-6-P04) |
|             |     |                                   |                            |                      |              | G10                 | Pressure gauge (G45D-6-P10) |
|             |     |                                   |                            |                      |              | B3                  | L type bracket (B131)       |

\*1: A pressure gauge and a bracket are enclosed.

\*2: The pressure gauge range is to be selected.

Do not apply pressure exceeding the pressure gauge's MAX range.

\*3: One plug (1/8) is included with the product. (G thread is not included.)

\*4: In compliance with the Measurement Act, the psi display cannot be used in Japan.

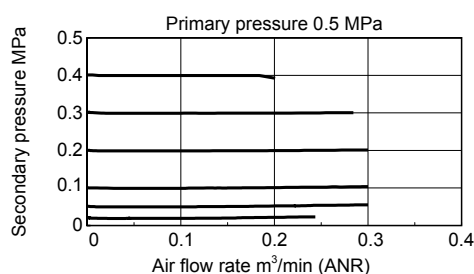
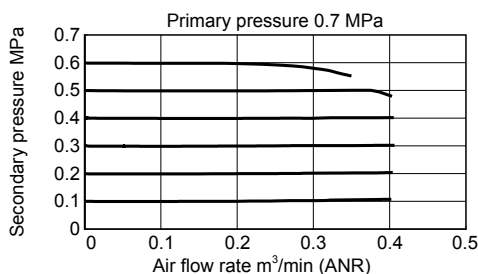
\*5: The pressure gauge and digital pressure sensor (included) can be selected only when Port thread is Rc thread.

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

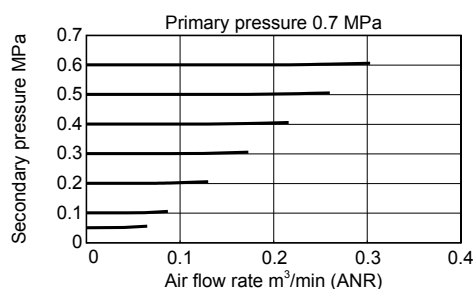
● Structure compatible with rechargeable battery manufacturing process

RPE1000 ..... P4

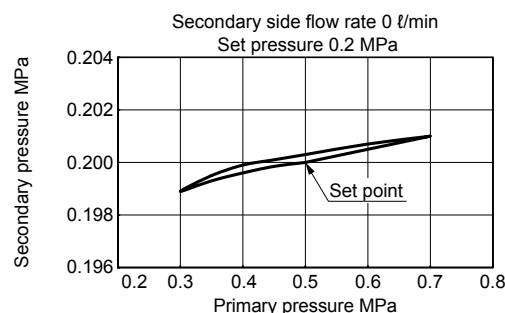
## Flow characteristics



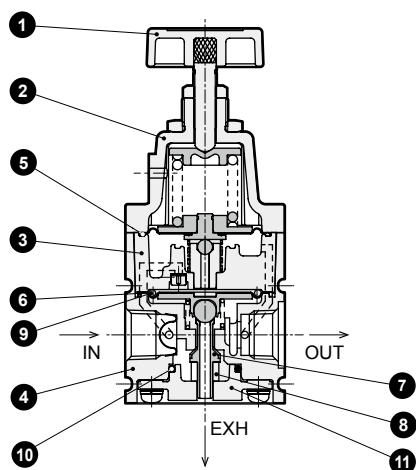
### Relief flow characteristics



### Pressure characteristics

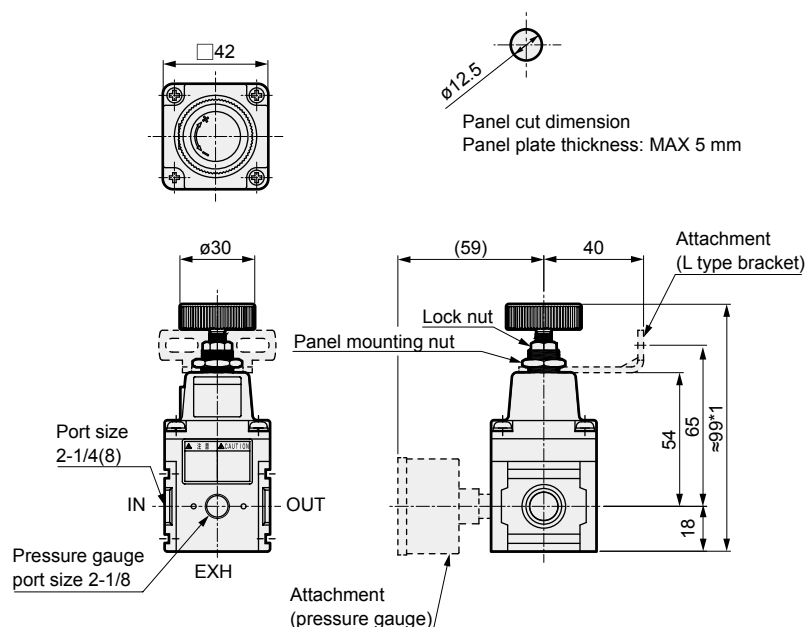


### Internal structure and parts list



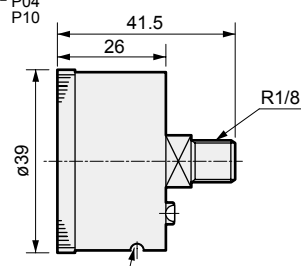
| No. | Part name                | Material                                            |
|-----|--------------------------|-----------------------------------------------------|
| 1   | Pressure adjustment knob | Polyacetal resin, stainless steel                   |
| 2   | Cover                    | Aluminum alloy die-casting                          |
| 3   | Pilot body assembly      | Aluminum alloy die-casting, etc.                    |
| 4   | Body                     | Aluminum alloy die-casting                          |
| 5   | Pilot diaphragm assembly | Hydrogenated nitrile rubber, zinc alloy die-casting |
| 6   | Main diaphragm assembly  | Hydrogenated nitrile rubber, zinc alloy die-casting |
| 7   | Valve                    | Hydrogenated nitrile rubber, stainless steel        |
| 8   | Bottom rubber            | Silicone rubber                                     |
| 9   | O-ring                   | Nitrile rubber                                      |
| 10  | O-ring                   | Hydrogenated nitrile rubber                         |
| 11  | Bottom plug              | Polybutylene terephthalate resin                    |

### Dimensions



### Pressure gauge

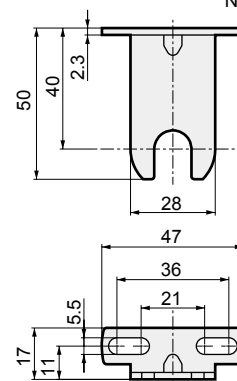
· G45D-6-  
P02  
P04  
P10



### L type bracket

· B131

· Weight: 29 g  
· Material: Steel  
Nickel plated



\*1: Dimensions at the setting pressure of 0 MPa

\*2: Pressure gauge and bracket are optional.

### (Reference) Guideline for cylinder operation speed

| Cylinder bore size (mm) | Recommended operation speed (mm/s) |
|-------------------------|------------------------------------|
| ø40                     | 500 or less                        |
| ø50                     | 320 or less                        |
| ø63                     | 200 or less                        |
| ø80                     | 130 or less                        |
| ø100                    | 80 or less                         |

This is a guideline for operation speed obtained by calculating the air supply and exhaust flow rate of the precision regulator mounted directly to the cylinder and the required consumption flow rate at one cylinder PUSH/PULL. Using at a higher capacity than the capacity of the precision regulator may cause malfunctions.