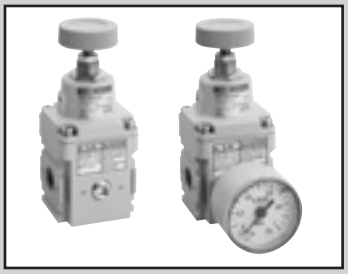
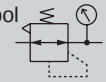


Precision regulator

# RPE1000 Series

● Port size: 1/4

JIS symbol 

RoHS CAD

## Specifications

| Item | RPE1000-8-07 |
|---|---|
| Working fluid | Compressed clean air (refer to recommended air circuit on page 514) |
| Max. working pressure MPa | 1.0 |
| Min. working pressure MPa | Set pressure +0.1 *1 |
| Proof pressure MPa | 1.5 |
| Ambient/fluid temperatures °C | -5 to 60 (no freezing) |
| Set pressure MPa | 0.01 to 0.7 |
| 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 gage 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

**RPE1000 - 8 - ( ) - 07 - G10B3**
(A) (B) (C) (D)

Model
RPE1000:
Precision regulator

| Ⓐ Port size | | Ⓑ Port thread/pressure indication | | Ⓒ Set pressure range | | Ⓓ Attachment (attachedwith) | |
|---|---|---|---|---|---|---|---|
| **8** | 1/4 | **Blank** | Rc thread, MPa display | **07** | MAX.0.7MPa | **Blank** | Without attachment |
| | | **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** | LModelBracket (B131) |

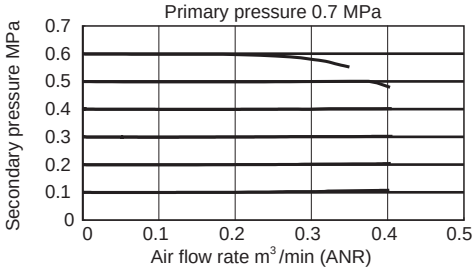
*1: A pressure gauge and a bracket are enclosed.
*2: The pressure gauge range is to be selected.
Do not apply pressure exceeding the pressure gauge's MAX range.
*3: One plug (1/8) is included with the product. (G thread is not included.)
*4: In compliance with the Measurement Act, the psi display cannot be used in Japan.
*5: The pressure gauge and digital pressure sensor (included) can be selected only when Port thread is Rc thread.

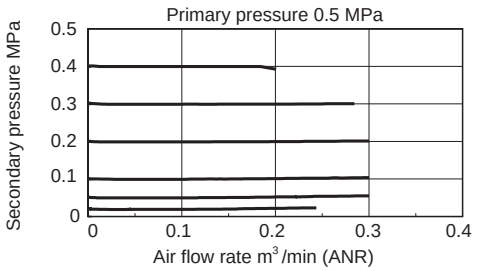
**Specifications for rechargeable battery** (Catalog No. CC-1226A)

● Structure compatible with rechargeable battery manufacturing process

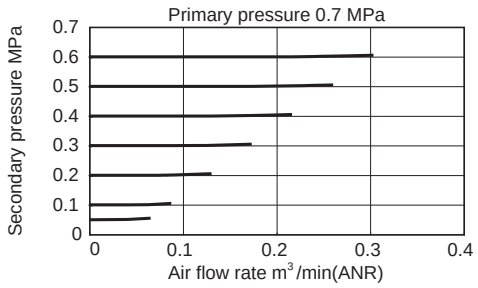
**RPE1000** ..... **P4**

## Flow characteristics

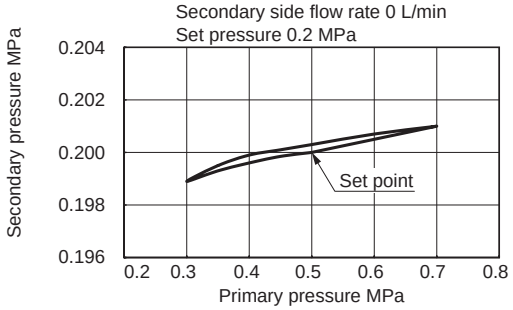


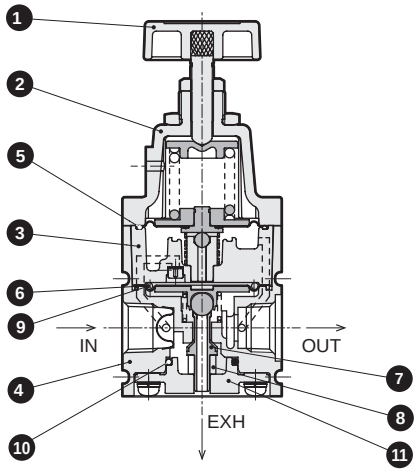
## Relief flow characteristics




## Pressure characteristics

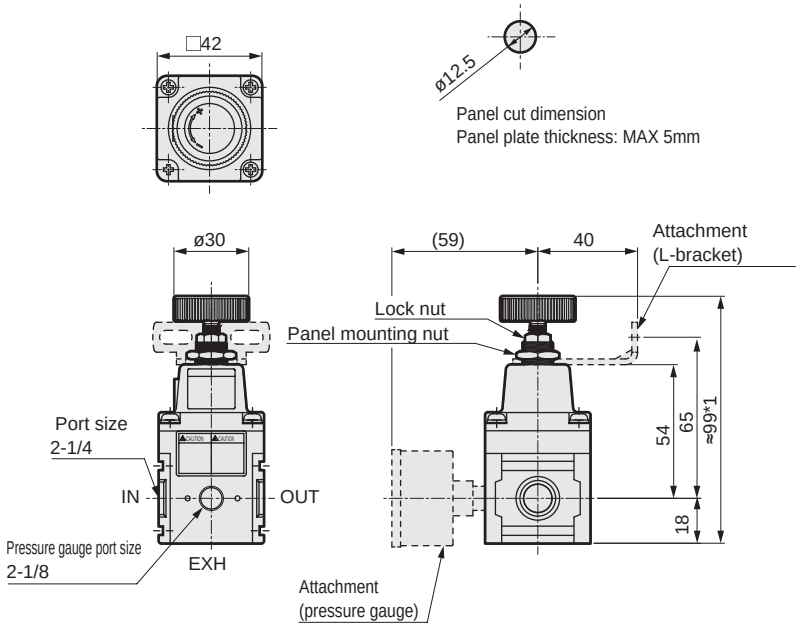



## Internal structure diagram and parts list



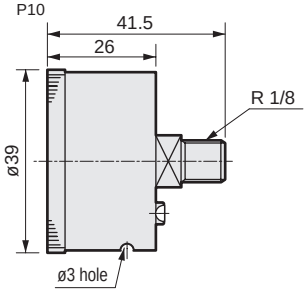

| Part No. | Part name | Material |
|---|---|---|
| 1 | Pressure adjustment knob | Polyacetal resin, stainless steel |
| 2 | Cover | Aluminum alloy die-casting |
| 3 | Pilot body assembly | Aluminum alloy die-casting, etc. |
| 4 | Body | Aluminum alloy die-casting |
| 5 | Pilot diaphragm assembly | Hydrogenated 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

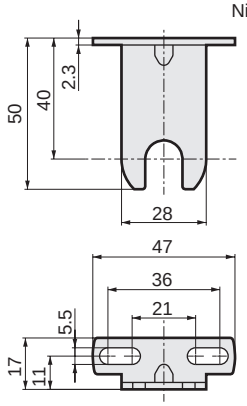



*1: Dimensions at the set pressure of 0MPa
*2: Pressure gage and bracket are included options.

Pressure gauge
・G45D-6- P02 P04 P10




L-bracket
・B131
・Weight: 29 g
・Material: Steel
Nickel plated




## (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.