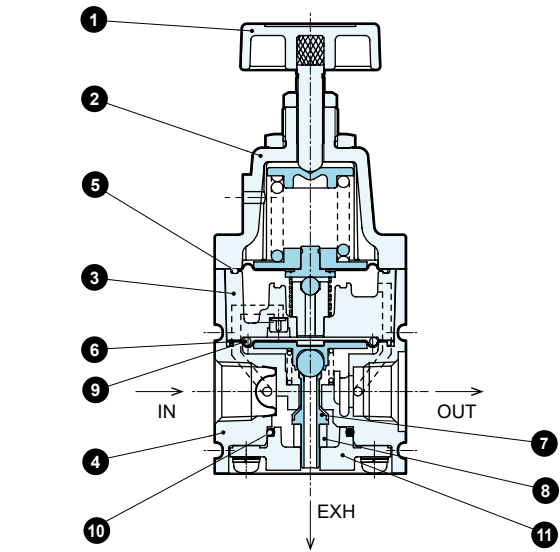


(Reference) Guide for cylinder operating speed

Cylinder tube I.D. (mm)	Recommended operating speed (mm/s)
ø40	500 or less
ø50	320 or less
ø63	200 or less
ø80	130 or less
ø100	80 or less

This guide indicates the approximate operating speed calculated from the supply and exhaust flow rates when the precision regulator is directly mounted on the cylinder, and the consumption flow rate required for PUSH/PULL of one cylinder. If used beyond the capacity of the precision regulator, malfunction may occur.

Internal Structure Diagram / Material



Part No.	Part Name	Material
1	Pressure adjustment knob	Polyacetal resin, Stainless steel
2	Cover	Aluminum alloy die-cast
3	Pilot body assembly	Aluminum alloy die-casting, etc.
4	Body	Aluminum alloy die-cast
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

For maintenance parts, please visit the CKD Components Product Site (<https://www.ckd.co.jp/kiki/en/>) → "model No." → Maintenance Parts.



Pneumatic components (F.R.L. unit (Precision type))

To Use This Product Safely

Be sure to read this before use.
For general pneumatic components precautions, see Intro 27 for details.

Individual Precautions : Precision regulator RPE1000 Series

Design / Selection

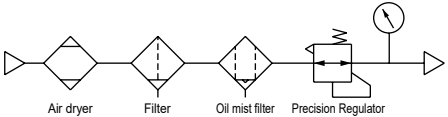


Warning

■ Use within the product-specific specification range.

■ **Operating fluid must be clean air from which solids, water and oil have been sufficiently removed using an air dryer, filter and oil mist filter.** Never use lubricated air.

Also, when lowering the secondary pressure, the air on the secondary side is discharged from the EXH port through the inside of the regulator. Therefore, if the secondary piping or the inside of the load side is dirty, it may cause malfunction or deterioration of characteristics, so please strive to clean the inside of the piping.



CAUTION

■ Use with a pressure difference between the primary side and secondary side of 0.1 MPa or more.
Depending on the circuit used and usage conditions, pulsation or noise may occur due to the resonance of the airflow (especially when blowing air). In this case, increase the secondary side capacity or use the primary pressure as low as possible.

■ Pulsation may occur when the volume is small, such as when a switching valve is installed immediately after the secondary side of the regulator. In such cases, increase the secondary volume of the regulator.

■ Repeated ON/OFF operation using a directional control valve on the primary side of the regulator causes large changes in the set pressure, so it is recommended to install the directional control valve on the secondary side of the regulator.

■ Be sure to install a safety device if output pressure exceeding the set pressure value of the regulator causes damage or malfunction of the secondary side device.

■ Do not operate the pressure adjustment knob when the primary side is at atmospheric pressure, as this may cause performance deterioration.

■ If the maximum flow rate and maximum relief flow rate of the regulator are exceeded, select the RP2000 series.

■ An O-ring groove for module connection is provided on the OUT side of each product. Select piping that can be sealed with a diameter smaller than the O-ring groove diameter.

Series name	RPE1000
Groove diameter	ø17.6

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Components Product Site (<https://www.ckd.co.jp/kiki/en/>) → 'model No.' → Instruction Manual.