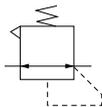


# SMALL-SIZED PRECISION REGULATOR

PR100



## Symbol

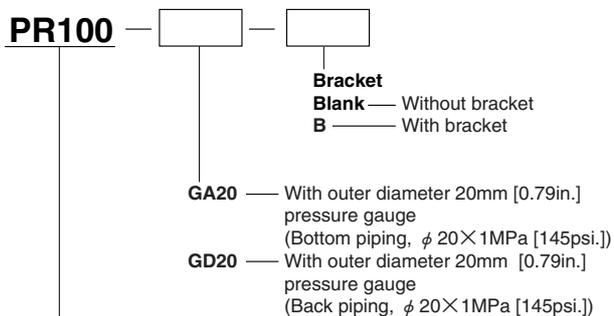


## Specifications

Item	Model	PR100
Media		Air
Port size	Rc	1/8
Sensitivity	MPa [psi.]	0.001 [0.15]
Pressure setting range	MPa [psi.]	0.02~0.5 [2.9~72.5]
Maximum operating pressure	MPa [psi.]	0.93 [135]
Proof pressure	MPa [psi.]	1.5 [218]
Operating temperature range (atmosphere and media)	°C [°F]	5~60 [41~140]
Air consumption <sup>Note</sup>	ℓ /min [ft <sup>3</sup> /min.] (ANR)	1.5 [0.053]
Lubrication		Not required
Mass	kg [lb.]	0.07 [0.15]
Materials		Aluminum

Note: Value when secondary air pressure is set to 0.5MPa [72.5psi].

## Order Codes



Small-sized precision regulator

Note: The pressure gauge with optional setting is JIS class 3.  
 For situations requiring more precise pressure regulation, use a pressure gauge in or near the JIS class 1.5.  
 For pressure gauge specifications and dimensions, see p.171.

## Options

With outer diameter 20mm [0.79in.] pressure gauge



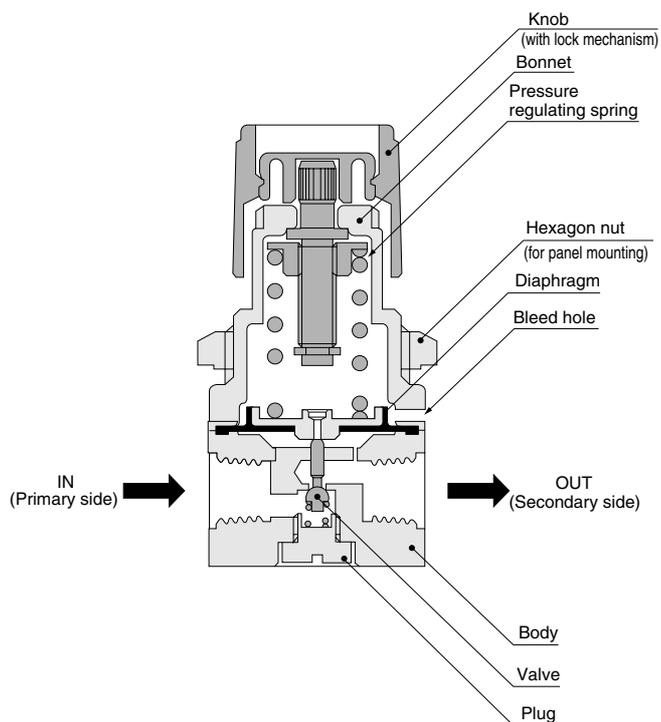
● Bottom piping ● Back piping

**Bracket**  
**● 8-10Z**

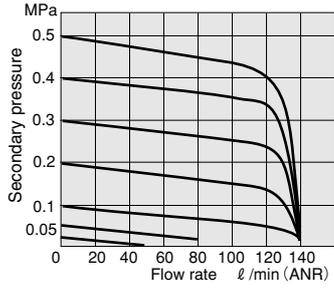
With bracket



## Inner Construction

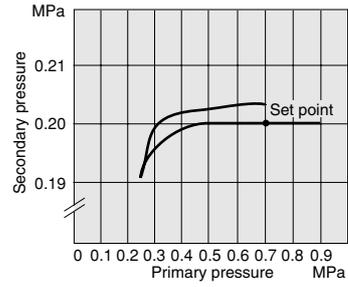


## Flow Rate Characteristics



Remark: Graph shows flow rate characteristics when the primary pressure is fixed at 0.7MPa [102psi].

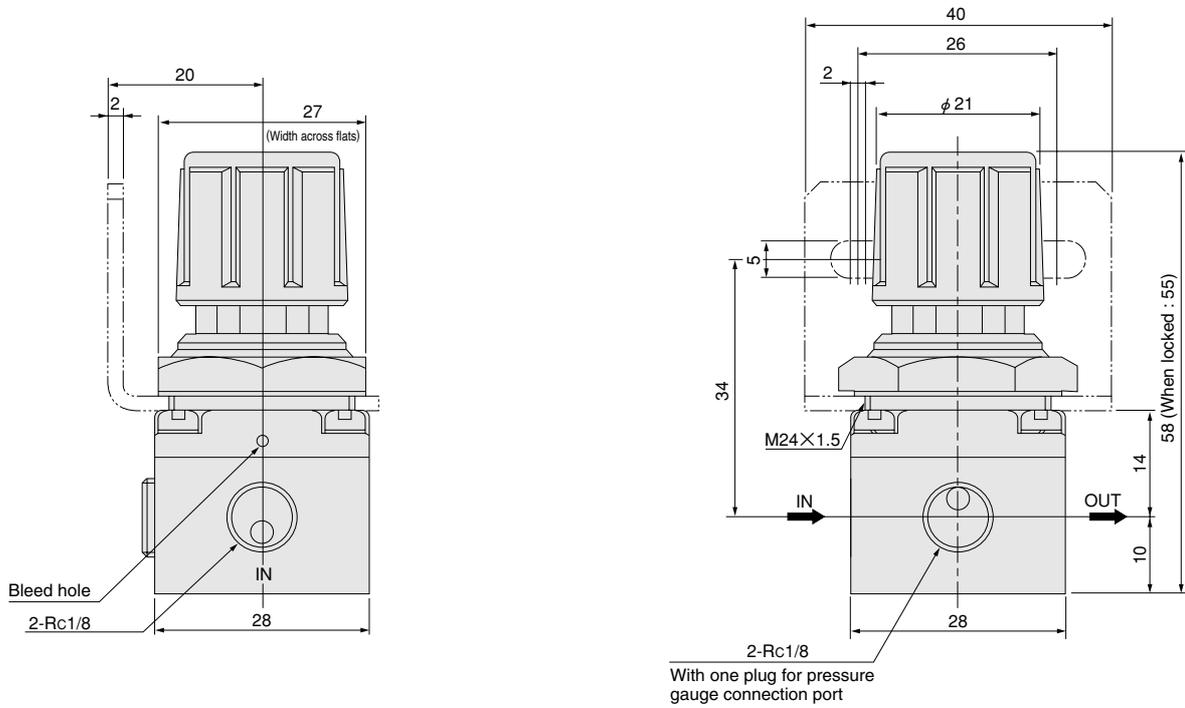
## Pressure Characteristics



1MPa = 145psi. 1 l/min = 0.0353ft<sup>3</sup>/min.

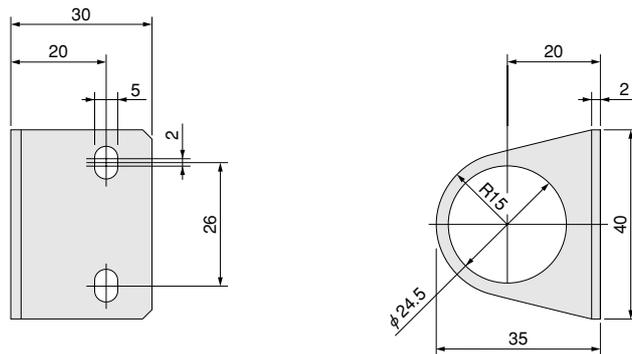
## Dimensions (mm)

### PR100



Remark: Mounting holes for installing PR100 on a panel are  $\phi$  24.5.

### 8-10Z



# Handling Instructions and Precautions



## Mounting and piping

1. If mounting the precision regulator as a single unit, use a bracket (optional). A ring nut for panel mounting can also be used. Mounting holes for mounting the precision regulator on a panel are  $\phi 24.5$  [0.965in.].
2. For piping to the precision regulator, plumb the piping so that the air supply side connects to the IN port and the actuator side connects to the OUT port.



- Cautions:**
1. The regulator cannot be used with the IN port and the OUT port in the reversed positions.
  2. Avoid a mounting position that blocks the bleed hole. Blocking the bleed hole could prevent pressure regulating.



## Pressure regulation

1. Perform pressure regulation by pulling out firmly on the knob. Rotating it to the right (clockwise) increases the pressure, and rotating to the left (counterclockwise) reduces the pressure. After regulating pressure, push the knob back into the body and lock it in place.



- Cautions:**
1. The precision regulator is a bleed type, which means that a slight amount of air constantly bleeds out from the bleed hole while the secondary side is under pressure regulation. This is a normal situation.
  2. The air bleed amount was adjusted at time of shipment from the Koganei. Absolutely never attempt to loosen the plug.



2. Avoid applications that involve setting a valve in the primary side of the precision regulator and repeatedly switching the primary pressure.



## General precautions

1. Always thoroughly blow off (use compressed air) the piping before plumbing. Entering chips, sealing tape, rust, etc., generated during plumbing could result in air leaks or other defective operation.
2. Use air for the media. For the use of any other media, consult us. Use clean air that does not contain deteriorated compressor oil or other contaminants. Install an air filter (with filtration of a minimum  $5\mu m$ ) close to a pressure reducing valve to eliminate any air line condensate or dust. Moreover, clean the air filter at regular intervals. The entering of condensates or other particles, etc., into the small-sized precision regulator could result in defective operation.
3. The product cannot be used when the media or the ambient atmosphere contains any of the substances listed below. Organic solvents, phosphate ester type hydraulic oil, sulphur dioxide, chlorine gas, or acids, etc.
4. If using in locations subject to dripping water, dripping oil, etc., or to large amounts of dust, use something to cover and protect the unit.