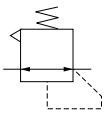
PRECISION REGULATOR

PR200-F11

- Single diaphragm type achieves high-precision pressure regulation in a compact size.
- Push lock type regulator knob for light, smooth pressure regulation.

Symbol



Specifications

Item \ Model		PR200-F11
Media		Air
Port size	NPT	1/4
Sensitivity	MPa [psi.]	0.001 [0.15]
Pressure setting range	MPa [psi.]	0.005～0.25 [0.7～36]
Maximum operating pressure	MPa [psi.]	0.73 [106]
Proof pressure	MPa [psi.]	1.03 [149]
Operating temperature range (atmosphere and media)	˚C [˚F]	5～60 [41～140]
Air consumption[Note]	ℓ /min [ft³/min] (ANR)	5 [0.18]
Lubrication		Not required
Mass	kg [lb.]	0.29 [0.64]
Materials		Aluminum die-casting

Note: Values are at secondary air pressure 0.25MPa [36psi.].

Order Codes

PR200-F11 — □ — □

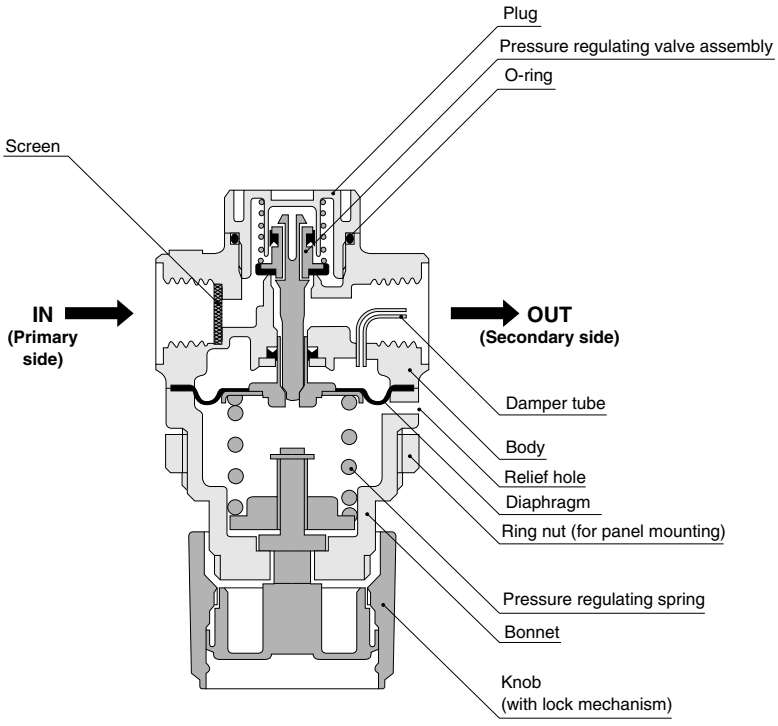
Bracket
Blank — No bracket
B — With bracket

Pressure gauge specification
Blank — No pressure gauge
G3P — With small precision pressure gauge (0.3MPa [44psi.])[Note 1]
G3PS — With small precision pressure gauge (with throttle valve) (0.3MPa [44psi.])
G3 — With pressure gauge[Note 2] (0.3MPa [44psi.])

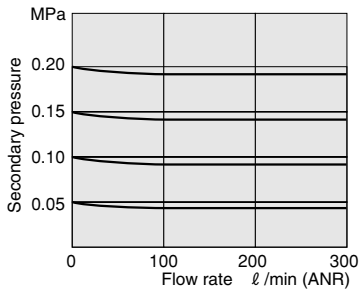
Precision regulator with NPT thread

Notes: 1. For details about the **G3P** small precision pressure gauge, see p.174.
2. For details about the **G3** pressure gauge, see p.172.
3. For specifications and dimensions of the pressure gauge with electronic switches, see p.177～181.

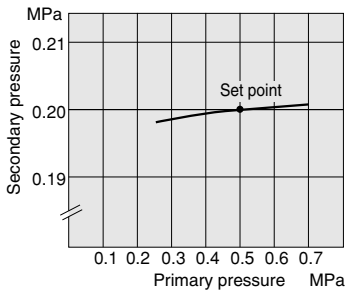
Inner Construction



Flow Rate Characteristics



Pressure Characteristics

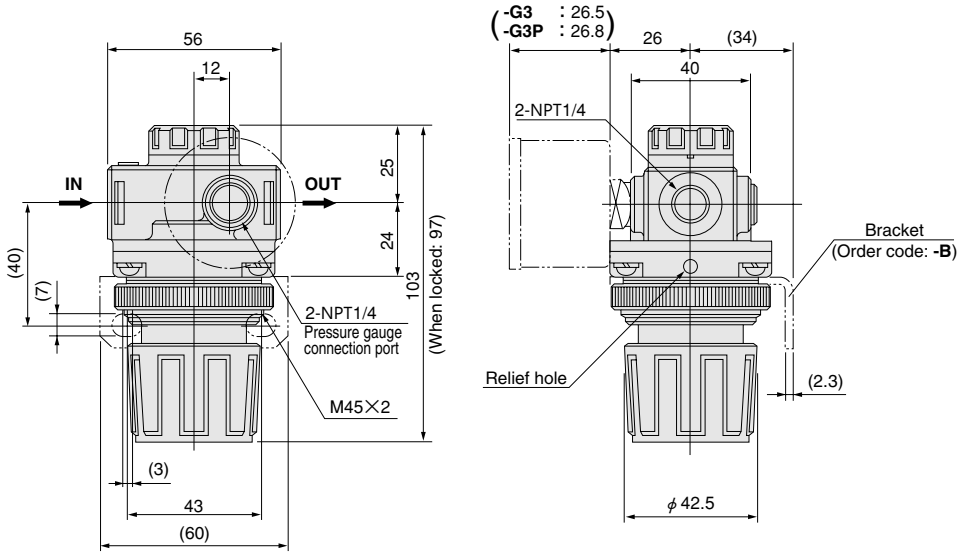


Remark: Graph shows flow rate characteristics when the primary pressure is fixed at 0.7MPa [102psi.].

1MPa = 145psi. 1 ℓ/min = 0.0353ft³/min.

Dimensions of Precision Regulator (mm)

PR200



Note: The mounting hole for attaching the regulator on a panel, etc. is ϕ 46. A panel thickness of 1.5～6mm is required for mounting. Use the ring nuts provided to mount.

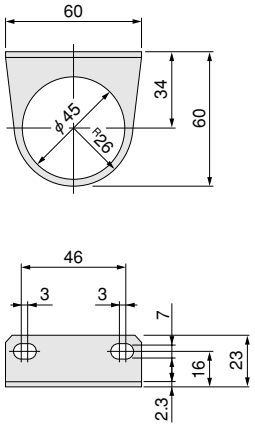
BRACKETS

Bracket Models and Applicable Components

Components type		Bracket model	Remark
Precision regulator	PR200-F11	**8-21Z**	Body supporting type, optional

For Precision Regulator

8-21Z



Mass: 42g

Pressure regulation

Caution: Perform the setting while checking the primary pressure and secondary pressure gauge displays. Rotating the knob too far could cause damage to the internal parts. Be particularly careful not to rotate it too far during depressurization, since time is required for relief.

●Precision Regulator

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

Remark: When regulating pressure, connect a pressure gauge of a class JIS 1.5 or equivalent to the Precision Regulator's pressure gauge connection port (NPT1/4).

Cautions: 1. To maintain accurate pressure adjustment conditions while locked, the Precision Regulator knob includes a free (neutral) state between the lock state and pressure adjustment state. To switch between the regulating pressure and lock states, pull the knob firmly out or push it in until a clicking sound shows that it has firmly arrived in the lock state or pressure adjustment state.

2. The Precision Regulator is a bleed type, which means that a slight amount of air constantly bleeds out of the bleed hole while the secondary side is undergoing pressure adjustment. This is a normal situation.

3. The internal pilot type uses a metal contact seal on the pilot regulator portion that causes it to bleed a slight amount of air. This is a normal situation.

General precautions

1. Always thoroughly blow off (use compressed air) the tubing before piping. Entering chips, sealing tape, rust, etc., generated during piping work could result in air leaks or other defective operation.

2. Use clean air for the media. Install an air filter (with filtration of a minimum 5μm). For the use of any other media, consult us.

3. The product cannot be used when the media or the ambient atmosphere contains any of the substances listed below.
Organic solvents, phosphorate acid ester type hydraulic oil, sulphur dioxide, chlorine gas, acids, or alkali.

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.