

AIR UNIT (PRECISION REGULATOR)

Air Supply

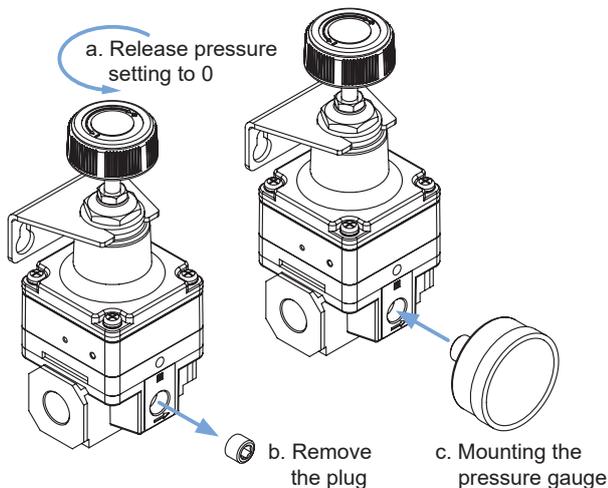
⚠️ Caution

- 1 If the air supply line contains drain or particulate, etc., the primary pressure fixed throttle can become clogged leading to malfunction, and therefore, be sure to use an air filter (MAF or MAM*) & mist separator.
- 2 Never use a lubricator on the primary side of the regulator, as this will positively cause the fixed throttle to become clogged and result in a malfunction. If lubrication is required for terminal devices, connect a lubricator on the secondary side.

Maintenance

⚠️ Warning

- 1 When to be during maintenance, first reduce the precision regulator set pressure to zero, and completely shut off the supply pressure.
- 2 When a pressure gauge is to be mounted, remove the plug after reducing the regulator pressure set pressure to zero. (Step a→b→c)



MAIR300 Product Precautions

⚠️ Caution

- 1 The primary pressure is relatively high (approx. 0.5 MPa or more), the set pressure is low (approx. 0.1 MPa or less), and when operated with the secondary side released to the atmosphere, there may be pulsations in the setting pressure. In this kind of situation, operate with the primary pressure reduced as much as possible, or increase the set pressure somewhat and restrict the secondary side line (add and adjust a stop valve, etc.)
- 2 When used for the purpose of a relief function, and capacity of the precision regulator is large, the exhaust sound will be loud when being relieved. the operation with a silencer (MSR*) mounted on the exhaust port (EXH port). (Silencer refer to Other Auxiliary Equipment)

Operation

⚠️ Caution

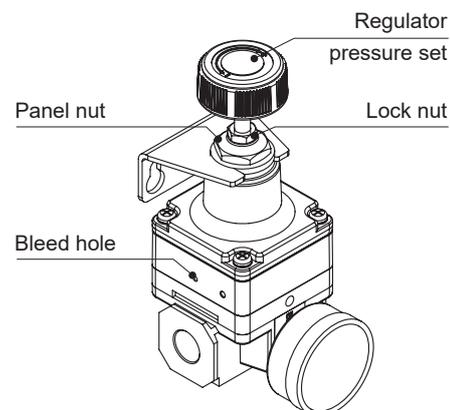
- 1 Do not use a precision regulator outside the range of its specifications as this can cause failure. (Refer to specifications.)
- 2 When mounting is performed, make connections while confirming port direction (indications).
- 3 Screw a panel nut with the proper torque when mounting onto a panel. (be listed as follows)

| Model | MAIR100 | MAIR200 | MAIR300 |
|--------------|---------|---------|---------|
| Torque (kgf) | 12.5 | 21 | 21 |

Looseness or faulty sealing will occur if tightening torque is insufficient, while thread damage will result if the torque is excessive.

⚠️ Warning

- 4 If a directional switching valve (solenoid valve, mechanical valve, etc.) is mounted on the primary side of the the precision regulator and repeatedly switched ON and OFF, wear of the nozzle/diaphragm section will be accelerated and a discrepancy in the setting value may occur. Therefore, avoid using a directional switching valve on the primary side. In the event a directional switching valve will be used, install it on the secondary side of the precision regulator.
- 5 Air is normally released from the bleed hole (the hole on the side of the body's mid-section). This is a necessary consumption of air based on the construction of the precision regulator, and is not an abnormality.
- 6 In order to avoid operation mistakes, make sure to tighten the lock nut after pressure adjustment.



MAIR100 series

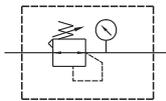
AIR UNIT (PRECISION REGULATOR)



mindman



Symbol



Specification

| Model | MAIR100 |
|--------------------------|---------------------------|
| Bore No. | 6A |
| Port size | 1/8 |
| Medium | Air |
| Max. operating pressure | 1 MPa |
| Min. operating pressure | Setting pressure+0.05 MPa |
| Proof pressure | 1.5 MPa |
| Regulated pressure range | 2K: 0.005~0.2 MPa |
| | 4K: 0.01~0.4 MPa |
| | 8K: 0.01~0.8 MPa |
| Sensitivity | 0.2% F.S. |
| Repeatability | ±0.5% F.S. |
| Air consumption (*) | 4.4 ℓ/min(ANR) |
| Ambient temperature | - 5~+60°C (No freezing) |
| Attachment | Bracket |
| Option | Pressure gauge (PG-33S) |
| Weight | 150 g |

Order example

MAIR100 - 6A - 2K - C □ - □

MODEL

PORT SIZE

6A: 1/8

ADJUSTABLE PRESS. RANGE

2K: 0.005~0.2 MPa

4K: 0.01~0.4 MPa

8K: 0.01~0.8 MPa

Blank: Without pressure gauge
C: Pressure gauge (PG-33S)

FLOW DIRECTION

Blank: Left to right

R: Right to left

PORT THREAD

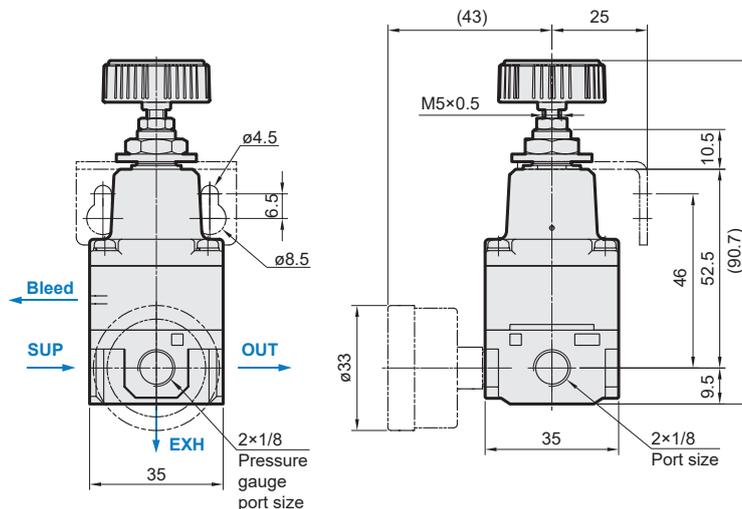
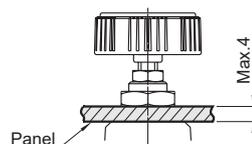
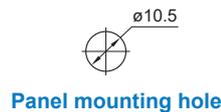
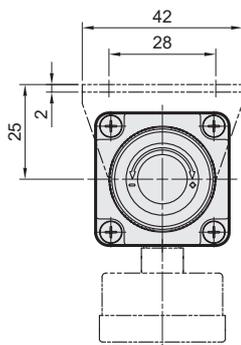
Blank: Rc thread

G: G thread

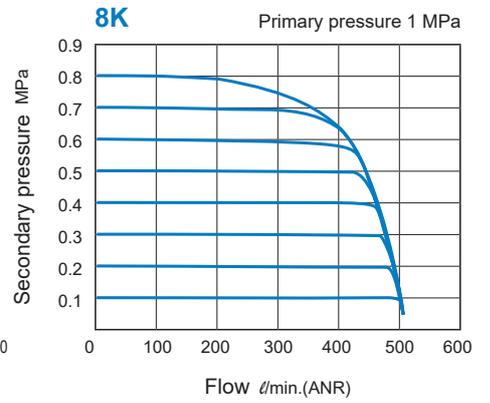
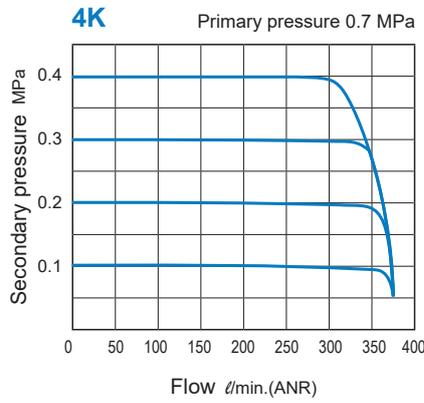
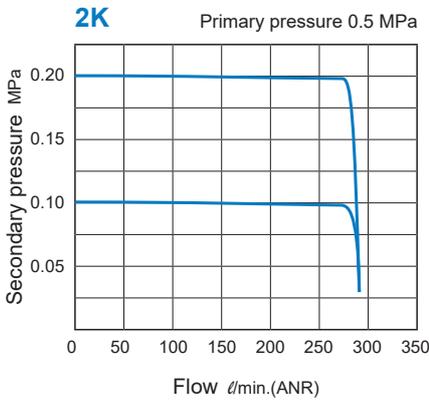
NPT: NPT thread

* For supply pressure 1 MPa.

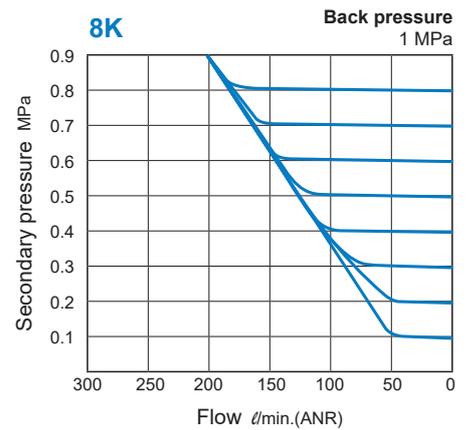
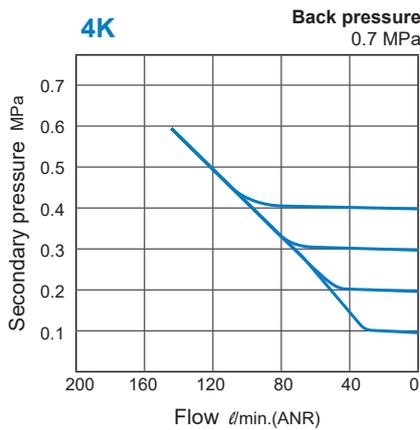
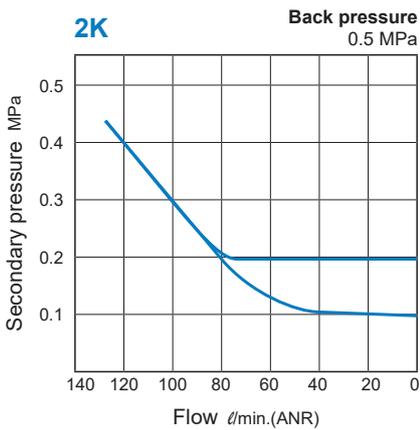
* Air is normally being discharged to the atmosphere from a bleed hole or an exhaust port.



Flow feature



Relief characteristics



Pressure characteristics

