



# Components for process gases

## Safety Precautions

Be sure to read this section before use.  
Refer to Intro Page 9 for general precautions.

Precautions for each model series and for individual products

### Regulator for process gas PGM Series

## Design/selection

### ⚠ WARNING

■ Output pressure exceeding the regulator's set pressure could result in damage or faulty operation of the secondary side devices. Be sure to install a safety device.

■ When installing, ensure that the piping is performed so that the flow of the fluid is consistent with the direction of the arrow.

## When using the product

### 1. Safety Precautions

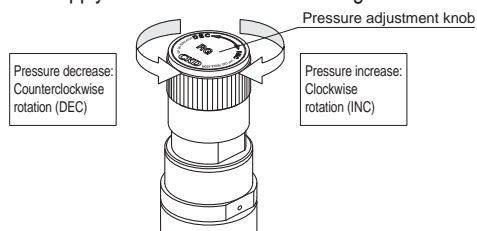
#### ⚠ CAUTION

- Before supplying gas to this product, completely loosen the pressure adjustment knob in the counterclockwise direction (DEC).
- Open the inlet side supply valve slowly and operate so as to be able to close it immediately if there is abnormal pressure rise or leakage.
- After supplying inlet side pressure, check that there is no outflow.
- Do not use as a residual pressure exhaust valve.
- Outlet pressure may wobble violently with metallic noises during use. (vibration phenomenon) After confirming this phenomenon, immediately close the inlet supply valve and cease use.

### 2. Operation mode

#### ⚠ CAUTION

- Turning the pressure control knob clockwise (INC) raises the set pressure.
- When gas is flowing, turning the pressure control knob counterclockwise (DEC) decreases the set pressure.
- Since this product does not have a relief function, gas must be vented when not flowing.
- When turning (closing) the pressure adjustment knob counterclockwise, be careful not to apply further force from the rotating end.



### 3. Outflow check method

#### ⚠ CAUTION

- (1) Open the inlet side gas supply valve slowly and supply inlet pressure.
- (2) Close the valve on the outlet and inlet sides, leave it for at least 10 minutes and check whether the outlet pressure has risen.

- (3) Rotate the pressure adjustment knob clockwise, adjust the outlet pressure within the adjusted pressure range, leave it for at least 10 minutes after the outlet pressure stabilizes, and check whether the outlet pressure has risen.
- (4) In (2) and (3) above, outflow is taking place when the outlet pressure continues to rise.

■ If outflow is confirmed, stop using the gas immediately, vent the gas, purge as necessary, remove the product, and replace the parts.

### 4. Airtight check method

#### ⚠ CAUTION

##### Product inlet side

- (1) After confirming that the pressure adjustment knob of this product has been turned fully in the counterclockwise direction, supply clean inert gas (N<sub>2</sub>, Ar, etc.) to the inlet side of the product.
- (2) After inlet pressure stabilizes, close the inlet side supply valve.
- (3) If the inlet pressure decreases gradually over time from the above state, leakage as far as the product is conceivable. (Given that there is no outflow.)

##### Product outlet side

- (1) After confirming that the pressure adjustment knob of this product has been turned fully in the counterclockwise direction, supply clean inert gas (N<sub>2</sub>, Ar, etc.) to the inlet side of the product.
- (2) Close the valve on the outlet side of the product and set the pressure with the pressure adjustment knob.
- (3) When the inlet/outlet pressure stabilizes, completely close the inlet side supply valve of the product.
- (4) If there are large fluctuations in inlet/outlet pressure over time from the above state, leakage from the product outlet side is conceivable. (Given that there is no outflow.)

■ If leakage is confirmed, stop using the gas immediately, vent the gas, purge as necessary, remove the product, and replace the parts.