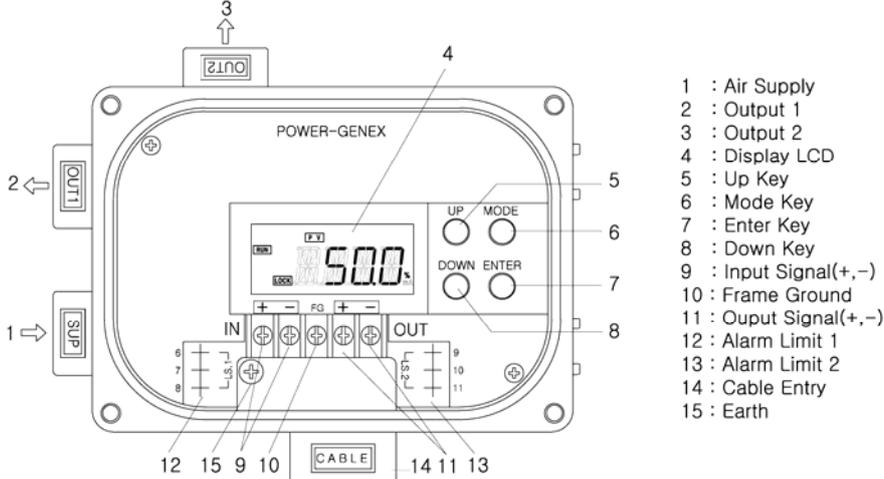


## ◆ Performing Quick Auto-Calibration

Quick Auto Calibration provides a good function that a user can set the valve positioner at the field easily and fast without unlocking its configuration. Please be advised that this function is limited only to setting of Span and P-Gain.

**▲ For setting of other parameters except Span and P-Gain. LOCK should be unlocked first.**



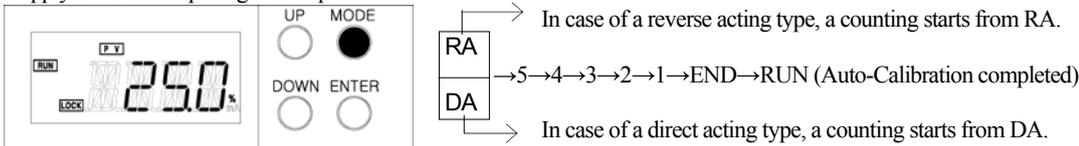
- **MODE:** This is to enter into the main menu.
- **ENTER:** This is to program the selected main menu.
- **UP:** This is to move a higher menu from a present menu and to change parameters and setting values.
- **DOWN:** This is to move a lower menu from a present menu and to change parameters and setting values.

### ▲ Checkpoints before performing Auto-Calibration

- a) Check if any oil, particles, water, and moisture are contained in supply air.
- b) Check if the pressure of the air filter regulator is set properly.
- c) Check if the operation of the actuator is Direct Acting (DA) or Reverse Acting (RA).
- d) Check if the feedback lever or shaft of the positioner is mounted properly.
- e) Check if + and - for input and output signals are connected properly.

## 1. Quick Auto-Calibration

Supply 4...20mA input signal and push MODE for more than 5 seconds.



**▲ Time required for this Quick Auto-Calibration process may be different according to the control valves, but it generally takes about 2~3 minutes. In case of a large-sized actuator, more time is required to wait.**

## 2. Span Adjustment (SPAN)

SPAN can be adjusted after Auto Calibration is completed.



Push DOWN button for more than 5 seconds, and SPAN will be displayed.

Push ENTER button, and 100.0 will be blinking. Adjust SPAN by pushing UP / DOWN button.

After SPAN reaches a desired position, push MODE button two times, and RUN mode will be performed.

Note) Above 98.5% is just an example to explain. This value can be different according to adjustment.

- ▲ 1. Keep pushing UP or DOWN button, and SPAN will be increased or decreased. 0.1% will be increased or decreased by every pushing.**
- 2. It is essential to re-adjust SPAN in case of the SSL positioner (linear type). But it is optional in case of the SSR positioner (rotary type) that operates 90° . If necessary, set it as advised above.**

### 3. P-Gain Adjustment (proportional control)

Please be sure if the valve works properly after Auto Calibration. If there happens any hunting, decrease P-Gain. If there happens any oscillation, increase P-Gain. It is recommended to increase or decrease 5...10 in case of a small actuator and 20...30 in case of a large actuator.



Push UP button for more than 5 seconds, and P-GN will be displayed.

Push ENTER button, and the first cipher will be blinking. Adjust value by pushing UP / DOWN button. Push MODE button one more time, and the setting ciphers will be moved to second or third.

After adjusting to a desired value, push ENTER button two times, and RUN mode will be displayed.

Note) Above 72% is just an example just to explain. This value can be different according to adjustment.

**▲ P-Gain value may be different according to the size and condition of the actuator. As the micro controller precisely calculates it, if there is not any big change in value, no modification is required.**

### 4. RA / DA Adjustment (reverse / direct acting)

RA (Reverse Acting) is a standard factory setting. Auto Calibration will be performed, even though the airlines are connected wrongly. If the rotation of the actuator doesn't match with the input signals, re-install Output 1 and 2 of the airlines and re-perform Auto Calibration.

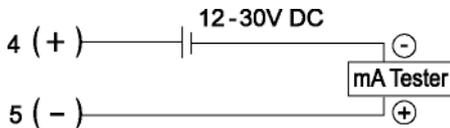
### 5. Measuring Position Feedback (4...20mA output signal)

**▲ Input signal should be provided for measurement of output signal.**

#### 1) With mA Calibrator

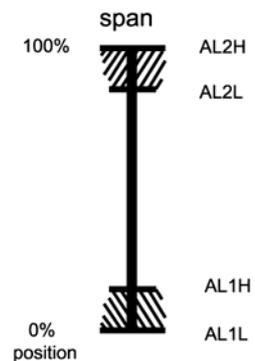
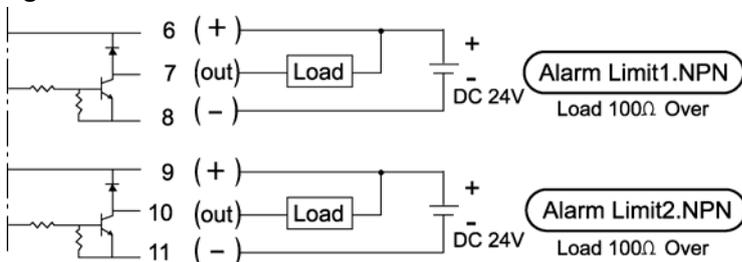
Select MEASUREMENT option in the calibrator and connect + to 4 and - to 5.

#### 2) With Multimeter Tester



- ▲ ① Please be sure that the power supply of DC 12 - 30V is supplied.**
- ② ZERO / SPAN of position feedback will be automatically set after Auto-Calibration is completed.**
- ③ Output signal is set to 4...20mA as a default. It can be set to 20...4mA (see 11-6-14 on page 18).**

### 6. Setting Alarm Limits



- ▲ ① Please be sure that the power supply of 24V DC is supplied.**
- ② Alarm limits were already set at the factory to 0...10% for AL1 (L,H) and 90...100% for AL2 (L, H) but they can be modified manually (see 11-6-11 on page 16).**