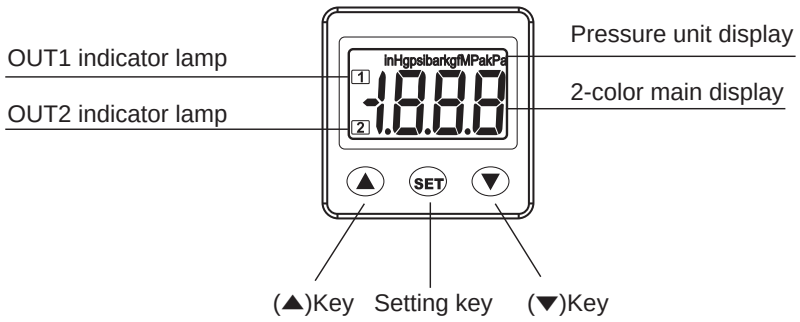
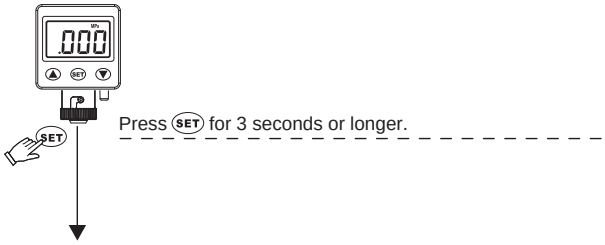
Names of display/operation sections

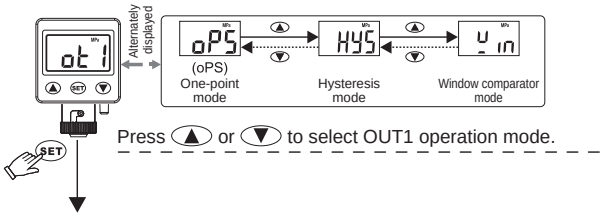


Initial setting mode

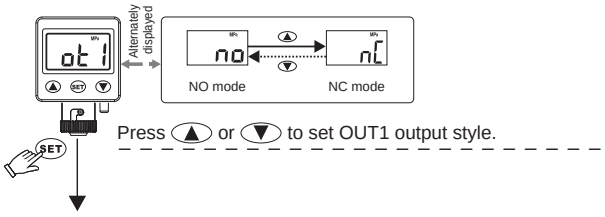
[Measurement mode]



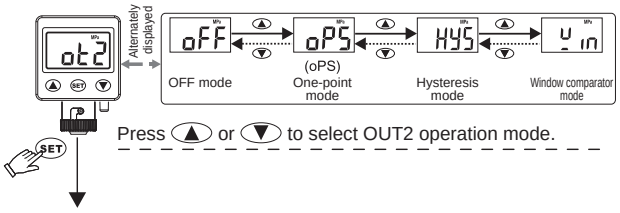
[OUT1 operation mode setting]



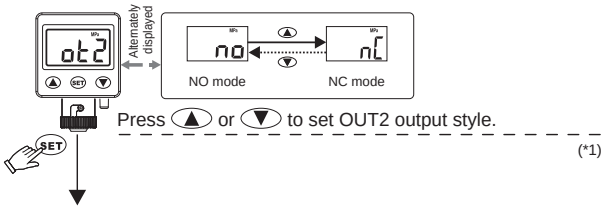
[OUT1 output style setting]



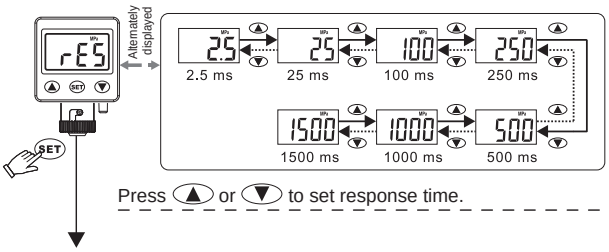
[OUT2 operation mode setting]



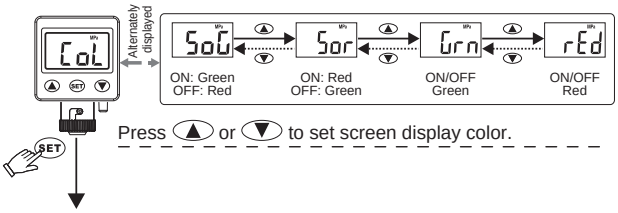
[OUT2 output style setting]



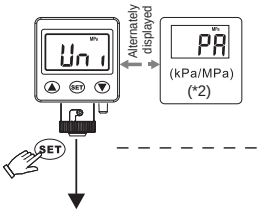
[Setting response time]



[Display color setting]

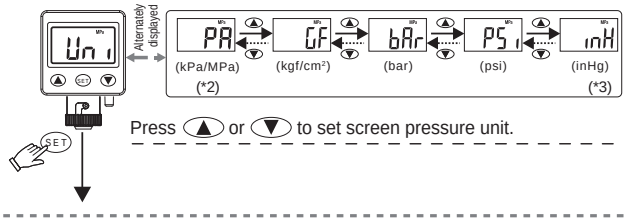


[Unit display]



***When with unit change function**

[Unit change]



[Measurement mode]

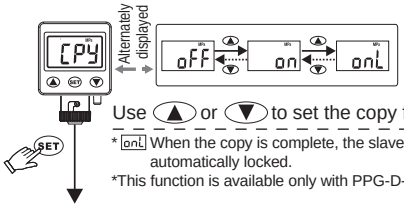
*1. This setting mode is not displayed when OUT2 is set to OFF.
*2. The pressure unit is MPa for positive pressure and kPa for vacuum pressure and compound pressure.
*3. Applicable only for vacuum pressure and compound pressure.

Applied setting modes

[Measurement mode]

Press (SET) for 5 seconds or longer.

[Copy function setting]

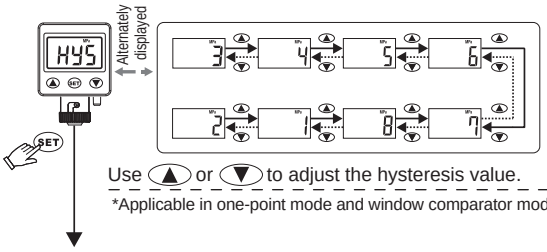


Use ▲ or ▼ to set the copy function.

* onL When the copy is complete, the slave sensor will be automatically locked. (*2)

*This function is available only with PPG-D-□NC□ and PPG-D-□PC-□.

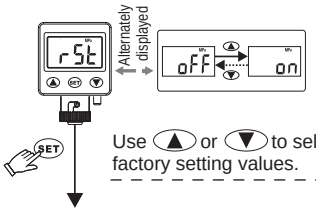
[Hysteresis value setting]



Use ▲ or ▼ to adjust the hysteresis value.

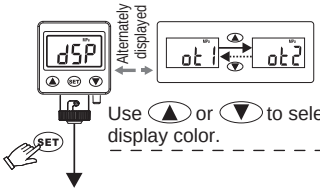
*Applicable in one-point mode and window comparator mode.

[Initialize setting]



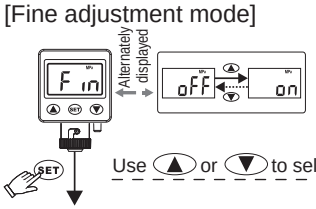
Use ▲ or ▼ to select whether to return to factory setting values.

[LCD display color setting]



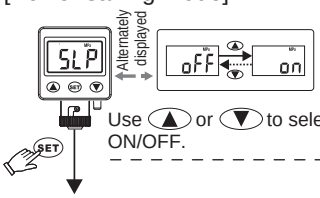
Use ▲ or ▼ to select OUT1 or OUT2 LCD display color.

[Fine adjustment mode]



Use ▲ or ▼ to select the fine adjustment function. (*3)

[Power saving mode]



Use ▲ or ▼ to select power saving mode ON/OFF. (*1)

[Measurement mode]

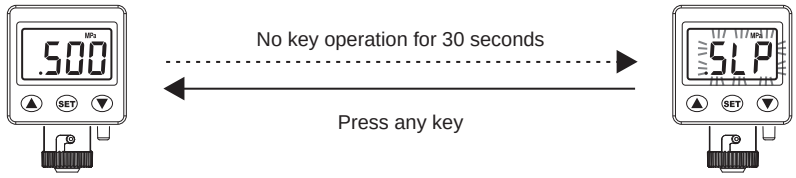
*1 Power saving mode will start when the setting is on.
Refer to "Power saving mode" for details.

*2 Display copy function will start when the setting is on or onL.
Refer to "Copy function setting" for details.

*3 Fine adjustment mode will start when the setting is on.
Refer to "Fine adjustment" for details.

Power saving mode

- With power saving mode set, the display will go out if there is no key operation for 30 seconds.
- Fine differentials may be generated in the pressure display during power saving mode. This is normal, and does not affect output operation.
- Press any key during power saving mode to return the main screen temporarily to measurement mode.

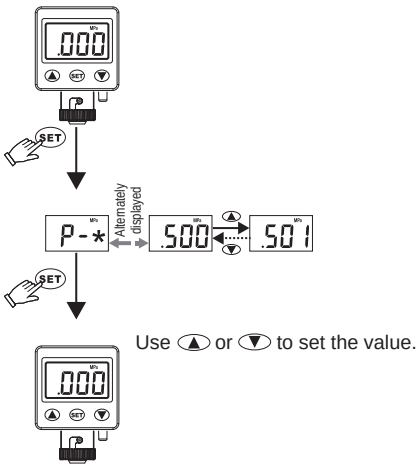


Measurement mode

Power saving mode
(power saving mode "SLP" blinks on main screen)

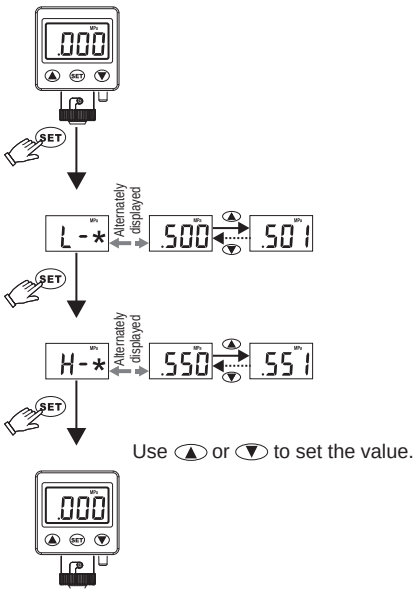
Pressure setting mode

One-point mode



*When setting OUT1, * displays 1.
When setting OUT2, * displays 2.

Hysteresis mode/window comparator mode

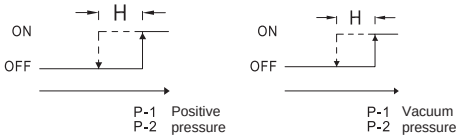


Output model No.

One-point mode

Normally open mode

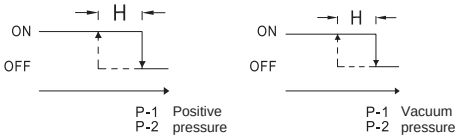
Positive pressure/compound pressure (PPG-D-P, PPG-D-R)



Vacuum pressure (PPG-D-V)

Normally closed mode

Positive pressure/compound pressure (PPG-D-P, PPG-D-R)

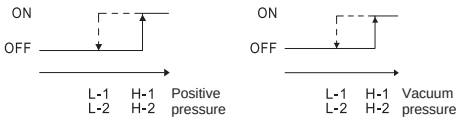


Vacuum pressure (PPG-D-V)

Hysteresis mode

Normally open mode

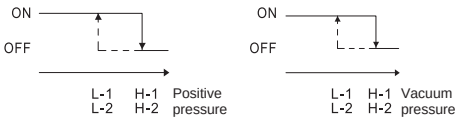
Positive pressure/compound pressure (PPG-D-P, PPG-D-R)



Vacuum pressure (PPG-D-V)

Normally closed mode

Positive pressure/compound pressure (PPG-D-P, PPG-D-R)

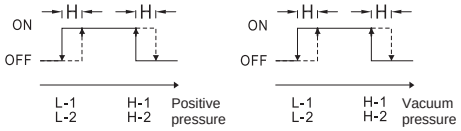


Vacuum pressure (PPG-D-V)

Window comparator mode

Normally open mode

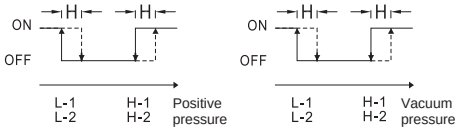
Positive pressure/compound pressure (PPG-D-P, PPG-D-R)



Vacuum pressure (PPG-D-V)

Normally closed mode

Positive pressure/compound pressure (PPG-D-P, PPG-D-R)



Vacuum pressure (PPG-D-V)

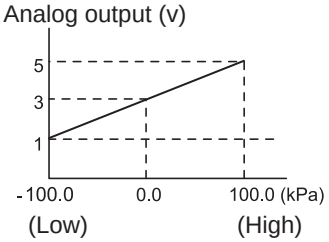
*1: When the hysteresis is set to 2 digits or less, if the input pressure is very close to the set pressure, malfunction may occur in the switch output.
*2: In window comparator mode, if the difference between the two set points is smaller than the fixed hysteresis set value, the switch output may malfunction.

Analog output

The applicable pressure range for analog output ranges of 1 to 5 V or 4 to 20 mA is shown in the graph below.

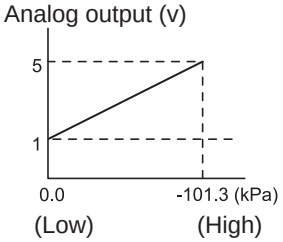
(Compound pressure)

Analog output (v)



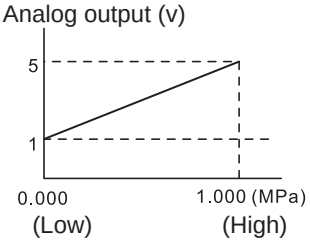
(Vacuum pressure)

Analog output (v)



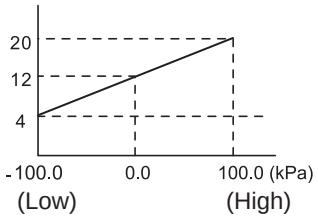
(Positive pressure)

Analog output (v)



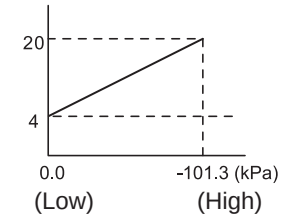
(Compound pressure)

Analog output (mA)



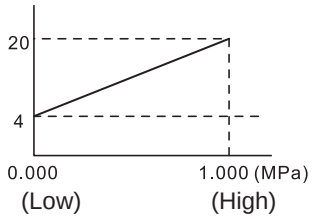
(Vacuum pressure)

Analog output (mA)



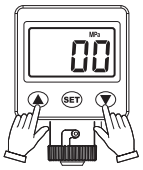
(Positive pressure)

Analog output (mA)



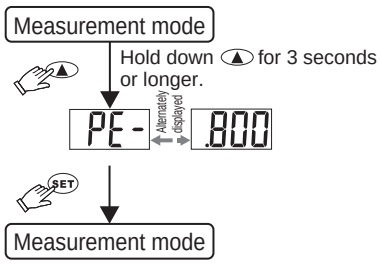
Zero value setting

In setting mode, hold down ▲ + ▼ simultaneously until "00" is displayed.
Exit the zero value setting by releasing the keys.

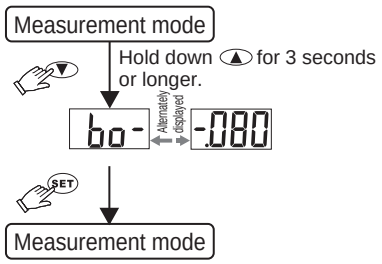


Maximum/minimum value display mode

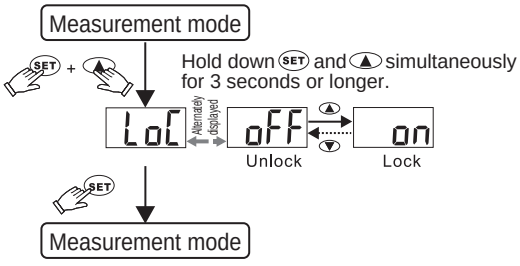
Maximum value display mode



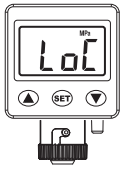
Minimum value display mode



Key lock/unlock



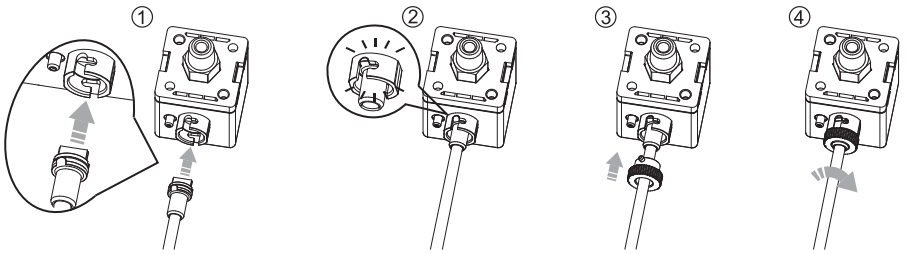
◎ Press any key while setting the lock function mode to display as in the image.
After a little while, the measurement mode will return.



Lead wire mounting procedure

Mount the lead wires as below.

- Set the terminal protrusion facing upward. (Refer to Fig. (1))
- Insert the terminal protrusion into the pressure sensor groove. (Refer to Fig. (2))
- Mount the terminal cover on the product. (Refer to Fig. (3))
- Rotate the terminal cover to lock. (Refer to Fig. (4))



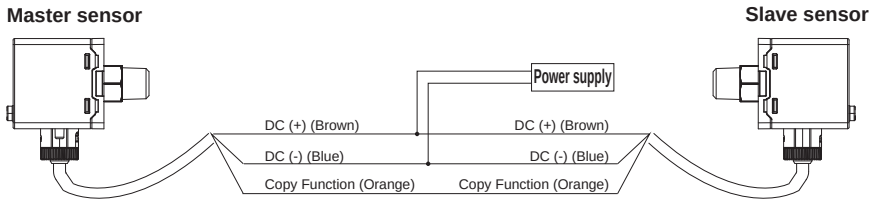
Note: Do not insert and remove 20 times or more.

Copy function setting

◎ The copy function enables copying pressure values from the master sensor to the slave sensor.
◎ Before copying, confirm the pressure sensor model number.
◎ This function cannot be used between different model numbers.
◎ This function copies from the master side sensor to one slave side sensor at a time.

[Setting procedure]

1. Set the on or onL copy function so that the master sensor is in copy status.
   Refer to the copy setting in "H. Applied setting modes."
2. Turn the master sensor and slave sensor power supply OFF.
3. Wire the master sensor to the slave sensor as shown in the figure below.



4. Turn ON the power for the master sensor and slave sensor simultaneously.
5. Wait 5 seconds for data transfer. When complete, the master sensor will display [CPY] and [Gd] alternately.
   The slave sensor will display [SLv] and [Gd] alternately.
6. When data transfer fails
   The master sensor will display [CPY] and [Gd] alternately.
   The slave sensor displays [Er8].
7. Turn the power OFF and remove the wiring.
   Failure to remove the wires could cause sensor failure.

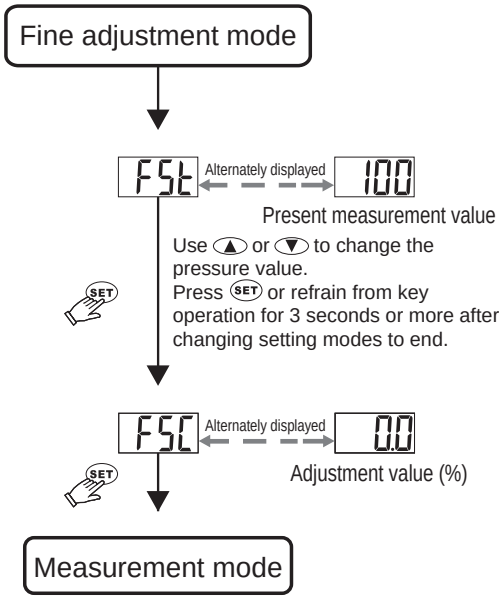
To copy again to different slave sensors, repeat steps (3) through (5).
This function is available only with PPG-D-□NC-□ and PPG-D-□PC-□.

*1: If the power is not turned ON simultaneously, the data may not be copied.
*2: If the data transfer fails, check that the wiring is correct.
Then repeat steps (3) through (5).

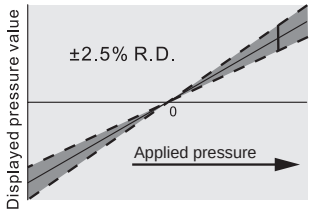
Changing the master sensor display to measurement mode

◎ When the master sensor displays [CPY] and [Gd] alternately, press ▼ to display measurement mode.

Fine adjustment mode



This function removes minimal differences in output value to display matched output values. The display value can be adjusted within a range of ±2.5% of actual measured values.



: The default setting is adjustment value 0.

: Fine adjustment range

R.D. (actual measured value)

1. Setting resolution is ±0.1% R.D.
2. Analog output will also be changed after adjustment.

Error display description

Error name		Error code	Error description	Troubleshooting
Overcurrent error	out1	Er 1	The load current of output 1 exceeds 125 mA.	Turn OFF the power and check the cause of the overcurrent. Next, lower the load current to 125 mA or less and then turn ON the power again.
	out2	Er2	The load current of output 2 exceeds 125 mA.	
Residual pressure error		Er3	Pressure value exceeds ±3% F.S. at zero reset.	Perform zero reset again after changing the input pressure.
Working pressure value error		HHH	Supply pressure exceeds the upper limit.	Adjust the pressure to within the working pressure range.
		LLL	Supply pressure exceeds the lower limit.	
System error		Er4	Internal system error	Turn OFF the power and then turn it ON again. If the error is not resolved, contact us.
		Er5	Internal system error	
		Er6	Internal data error	
		Er7	Internal data error	
Copy data error		Er8	Copy data error	Check the main body model and the lead wire connections. If the error is not resolved after turning the power ON again, contact us.