

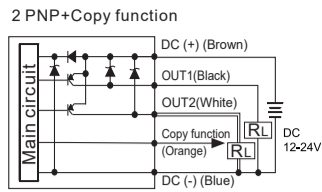
- For your safety, please read the following before using.**
- Do not use corrosive or flammable gas or liquid with this product.
  - Please use within the rating pressure range. Do not apply pressure beyond recommended maximum withstand pressure, permanent damage to the pressure sensor may occur.
  - Do not drop, hit or allow excessive shock. Even if switch body appears undamaged, internal components may be broken and can cause malfunction.
  - Turn power off before connecting wiring. Wrong wiring or short circuit will damage and / or cause malfunction.
  - Do not use in environment containing steam or oil vapor.
  - This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
  - Wiring for pressure sensor should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.

**A. SPECIFICATIONS**

TYPE	P43V-04-F3-QD (Vacuum)	
Rated pressure range	0.0~101.3 kPa	
Setting pressure range	10.0~101.3 kPa	
Withstand pressure	300 kPa	
Fluid	Filtered air, Non-corrosive / Non-flammable gas	
Set pressure resolution	kPa	0.1
	kgf/cm <sup>2</sup>	0.001
	bar	0.001
	psi	0.01
	inHg	0.1
	mmHg	1
Power supply voltage	12 to 24V DC ±10%, Ripple (P-P) 10% or less	
Current consumption	≤ 40mA (With no load)	
Switch output	PNP: open collector 2 outputs Max. load current: 125mA Max. supply voltage: 24V DC Residual voltage: ≤ 1.5V	
Repeatability(Switch output)	±0.2% F.S. ±1 digit	
Hysteresis	One point set mode	Adjustable (*1)
	Hysteresis mode	
	Window comparator mode	
Response time	≤ 2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selections)	
Output short circuit protection	Yes	
7 segment LCD display	Two color(Red/Green) main & unit display, Orange sub-display (Sampling rate: 5 times/1sec.)	
Indicator accuracy	±2% F.S. ±1 digit (ambient temperature: 25 ±3°C)	
Switch ON Indicator	Orange (1 & 2 Indicator) OUT1 OUT2	
Environment	Endosure	IP 40
	Ambient temp. Range	Operation: 0 ~ 50°C, Storage: -10 ~ 60°C (No condensation or freezing)
	Ambient humidity range	Operation/Storage: 35 ~ 85% RH (No condensation)
Withstand	Withstand voltage	1000V AC in 1-min (between case and lead wire)
	Insulation resistance	50MΩ (at 500V DC, between case and lead wire)
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z
	Shock	100m/s <sup>2</sup> (10G), 3 times each in direction of X, Y and Z
Temperature characteristic	±2.5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C	
Port size	F3: G1/8"(BSPP), M5	
Lead wire	Oil-resistance cable(0.15mm <sup>2</sup> )	
Weight	Approx. 80g (With 2 meter cable and M8 4Pin male QD connector)	

\*1. Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

**B. OUTPUT CIRCUIT WIRING DIAGRAMS**



**C. ORDERING INFORMATION**

**P 4 3 V - 0 4 - F 3 - Q D**

**Pressure Range**

V: Vacuum (10.0~-101.3kPa)

**Output Specifications**

04 : 2 PNP+Copy function

**Pressure Port**

F3 : G1/8"(BSPP), M5

**Cable Length / Connector**

QD : With 2 meter cable and M8 4Pin male QD connector

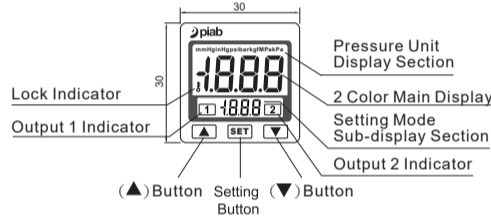
**Optional Parts**

BT-12 : Mounting bracket

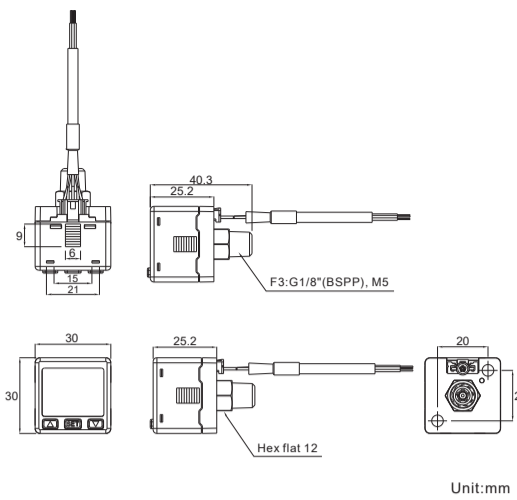
BT-13 : Mounting bracket

Model No.	Item No.
P43V-04-F3-QD	0212040

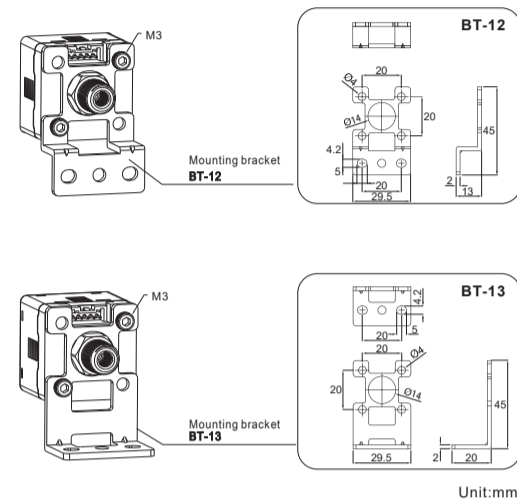
**D. PANEL DESCRIPTION**



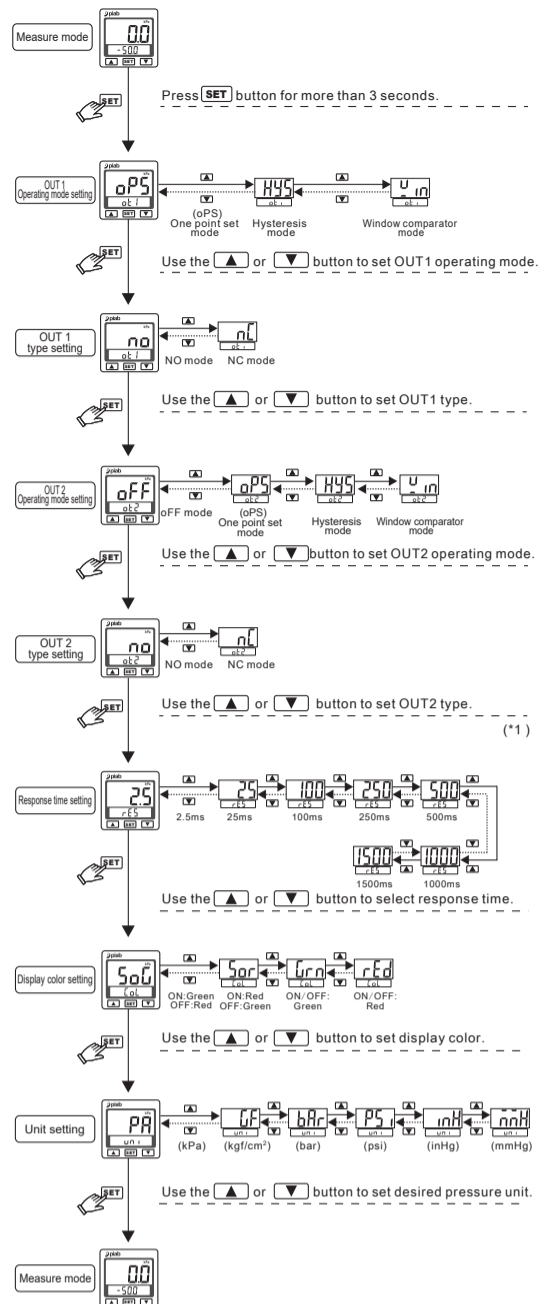
**E. DIMENSIONS**



**F. OPTIONAL PARTS DIMENSIONS**

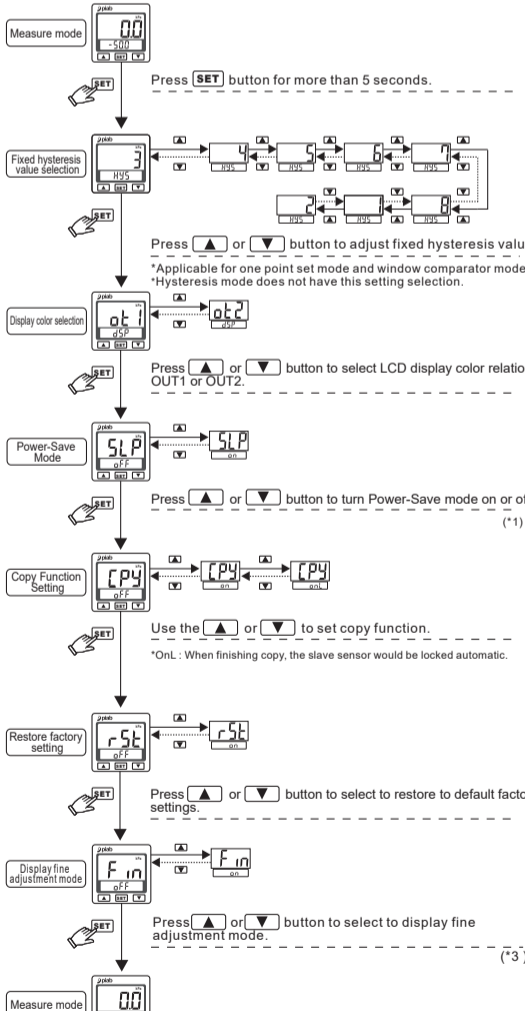


**G. INITIAL SETTING MODE**



**[ NOTE : ]**  
\*1. This setting mode will not display when output 2 is set to OFF.

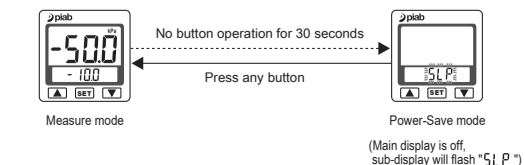
**H. ADVANCE SETTING MODE**



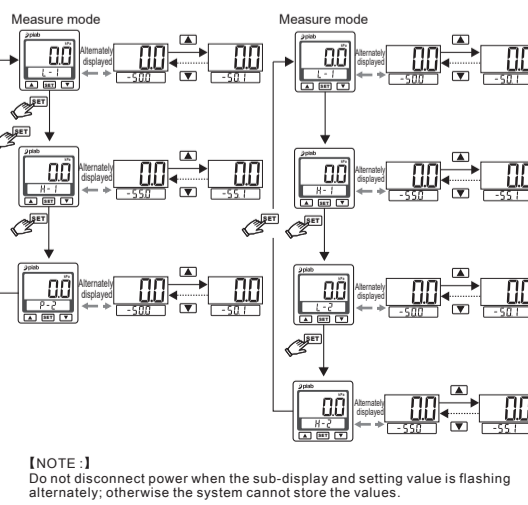
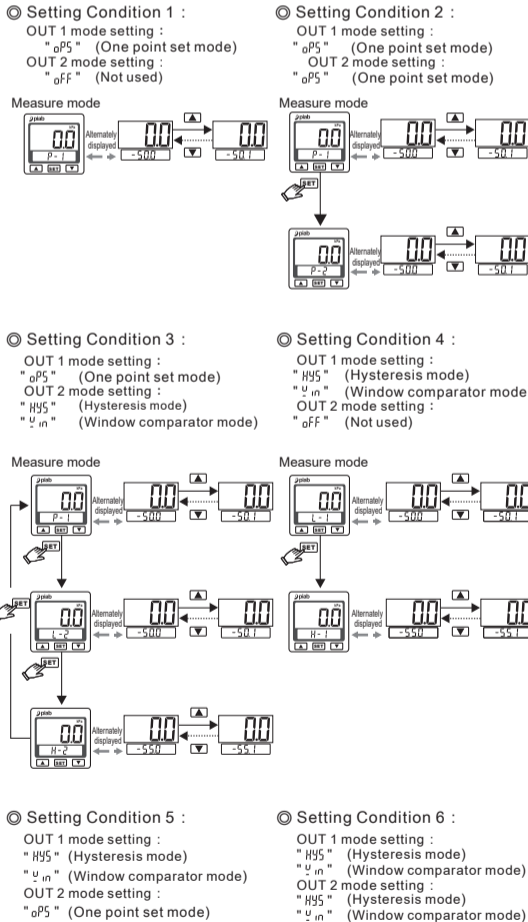
**[ NOTE : ]**  
\*1. When setting is "SLP", the power-save mode is active. Please refer to the item "I" in detailed.  
\*2. When setting is "F.in", the display fine adjustment mode is active. Please refer to the item "R" in detailed.

**I. POWER-SAVE MODE**

- During Power-Save mode, the main display will turned off if no buttons is pressed after 30 seconds.
- During Power-Save mode, the output LCD may not be synchronize with the output. It is normal and will not affect output operation.
- Press any button to turn-on main display temporarily.

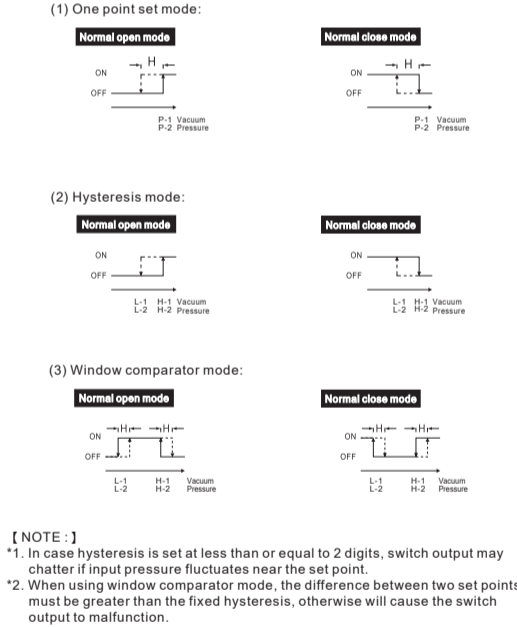


**J. PRESSURE SETTING MODE**



**[ NOTE : ]**  
Do not disconnect power when the sub-display and setting value is flashing alternately, otherwise the system cannot store the values.

**K. OUTPUT TYPE**

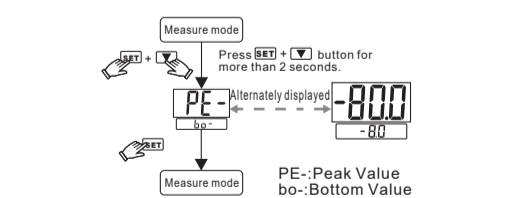


**[ NOTE : ]**  
\*1. In case hysteresis is set at less than or equal to 2 digits, switch output may chatter if input pressure fluctuates near the set point.  
\*2. When using window comparator mode, the difference between two set points must be greater than the fixed hysteresis, otherwise will cause the switch output to malfunction.

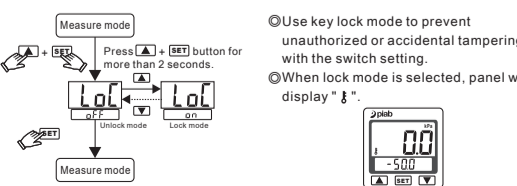
**L. ZERO POINT SETTING**



**M. PEAK/BOTTOM HOLD FUNCTION**

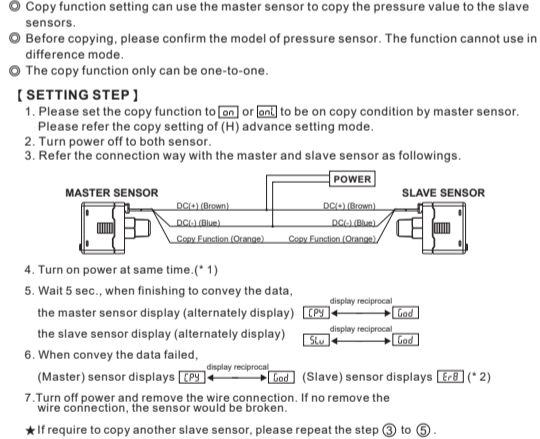


**N. KEY LOCK/UNLOCK MODE**



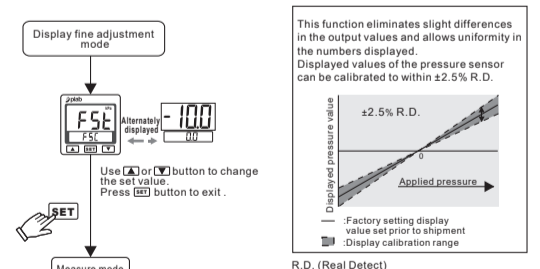
- Use key lock mode to prevent unauthorized or accidental tampering with the switch setting.
- When lock mode is selected, panel will display "LoL".

**O. COPY FUNCTION SETTING**



**[ NOTE ]**  
\*1. If turn on power is not synchronization, the data cannot be copied.  
\*2. When the data conveys failed, please check the wire connection. Then repeat the step ③ to ⑤.

**P. FINE ADJUSTMENT MODE**



**Q. ERROR CODE INSTRUCTION**

Error Type	Error Code	Error Condition	Troubleshooting
Excess load current error	Er 1	Output 1 load current is more than 125 mA	Turn power off and check the cause of overload current or lower the current load under 125 mA, then restart.
Residual pressure error	Er 2	Output 2 load current is more than 125 mA	Turn power off and check the cause of overload current or lower the current load under 125 mA, then restart.
Applied pressure error	WHH	Supply pressure exceeds the upper limit of pressure setting.	Change input pressure to ambient pressure and perform zero reset again.
System error	LLL	Supply pressure exceeds the lower limit of pressure setting.	Adjust the pressure within operating pressure range.
	Er 4	Internal system error	Turn power off, and then restart.
Copy data error	Er 5	Internal data error	If error condition remains, please return to factory for inspection.
	Er 6	Internal data error	
	Er 7	Internal data error	

**R. PRESSURE UNIT CONVERSION TABLE**

MPa	kPa	kgf/cm <sup>2</sup>	mmHg	psi	bar	inHg
1 MPa	1000.000	10.000	7500.618	145.038	10.000	29.9213
1 kPa	1.00000	0.0102	7.50062	0.145038	0.01000	0.295299
1 kgf/cm <sup>2</sup>	98.0665	1.00000	735.559	14.2233	0.980665	29.5299
1 mmHg	133.322	0.0133322	1.00000	0.0193335	0.00133322	0.0393701
1 psi	6.89476	0.070307	51.7149	1.00000	0.0689476	2.03306
1 bar	100.000	1.00000	750.062	14.5038	1.00000	29.5299
1 inHg	3386.39	33.8639	25.4000	0.491154	0.0338639	1.00000