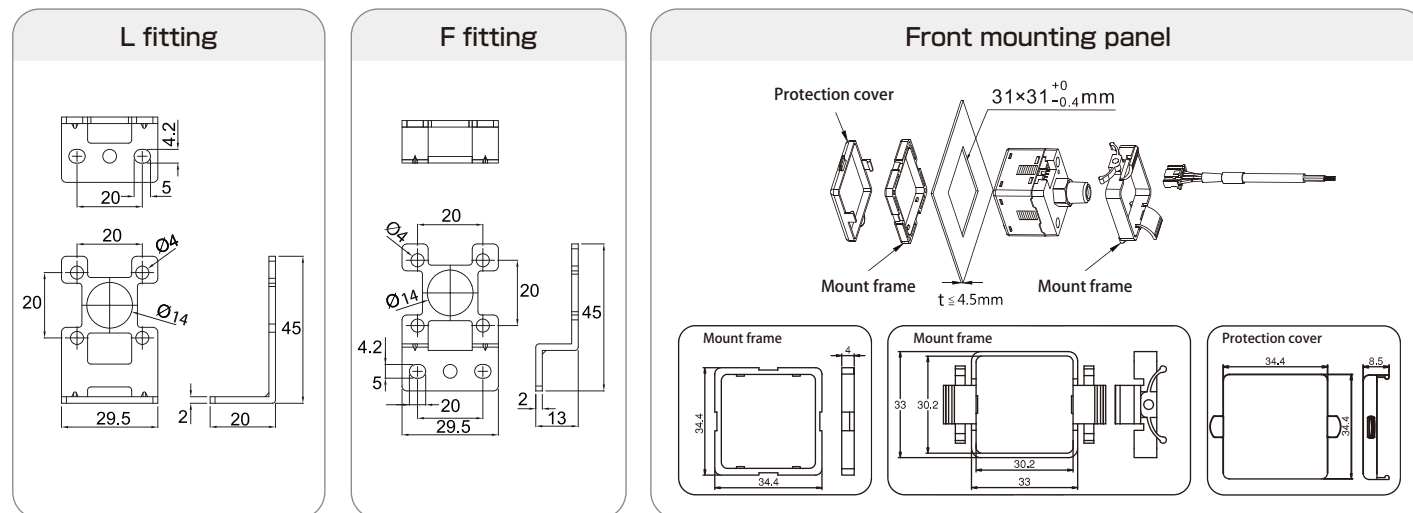
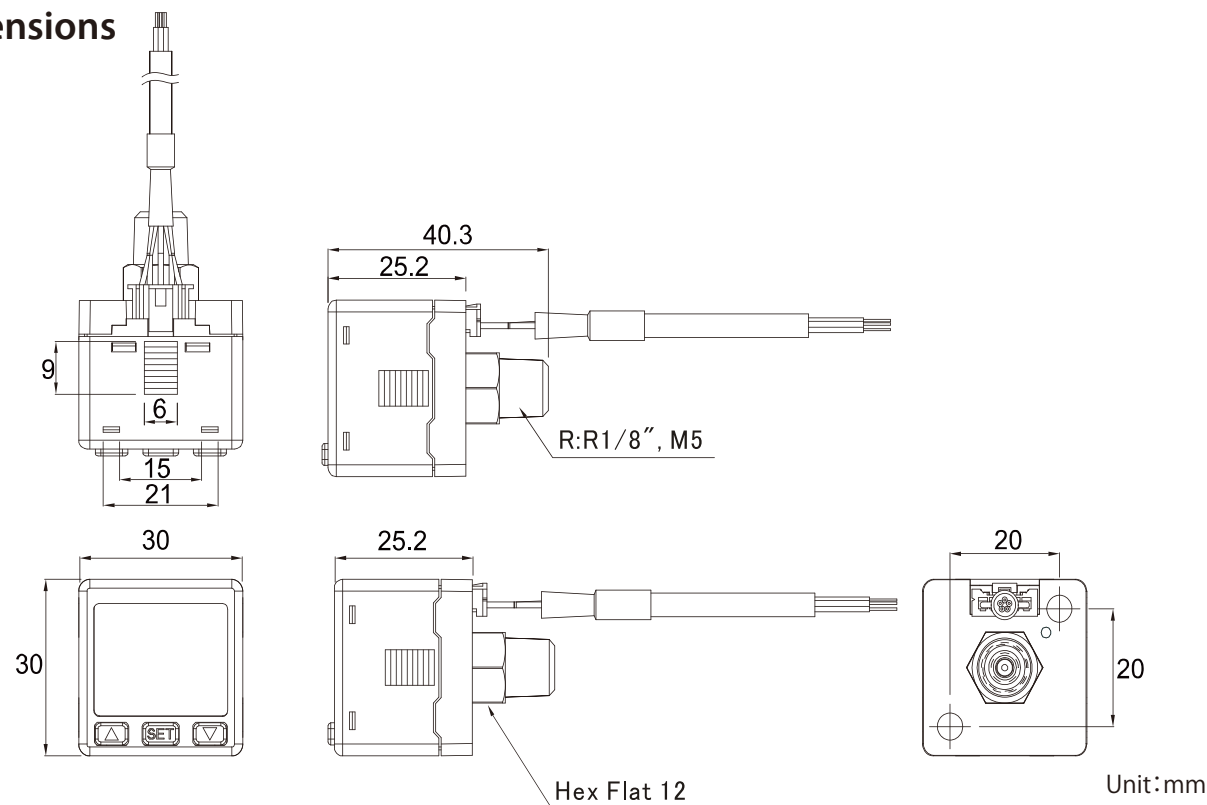




※Specifications and outline drawing subject to change without notice due to modifications,

■ Head office

2-6-18 Shimomaruko, Ohta-ku, Tokyo 146-0092, Japan  
TEL 81-3-3759-1491 FAX 81-3-5741-7020

■ Overseas Dept.

Esashi core industrial park, 10-5 Mastunagane, Iwayadou, Esashi-ku, Oshu, Iwate, 81-23-1101, Japan  
TEL 81-197-35-8370 FAX 81-197-35-8371

■ MYOTOKU CONVUM CHINA CO.,LTD.

4/FC,16#Building,129FuTeNorthRoad,Waigaoqiao F.T.Z.,Shanghai200131,China  
TEL 86-21-52712075 FAX 86-21-52712073 Web: <http://www.convum.com.cn/>

■ CONVUM KOREA Ltd.

1204,KCC WELLTZ GASAN-DONG,GEUMCHEON-GU, 470-8 SEOUL,KOREA  
TEL 82-2-6111-8007/8008/8009 FAX 82-2-6111-8006

■ CONVUM(THAILAND) CO.,LTD.

No.1 MD Tower, 11Fl, Zone B, Soi Bangna-Trad 25, Bangna, Bangkok, 10260  
TEL 66-2-769-5851 FAX 66-2-769-5853

Dual Display digital pressure sensor with 3 colors status

# MPS-35

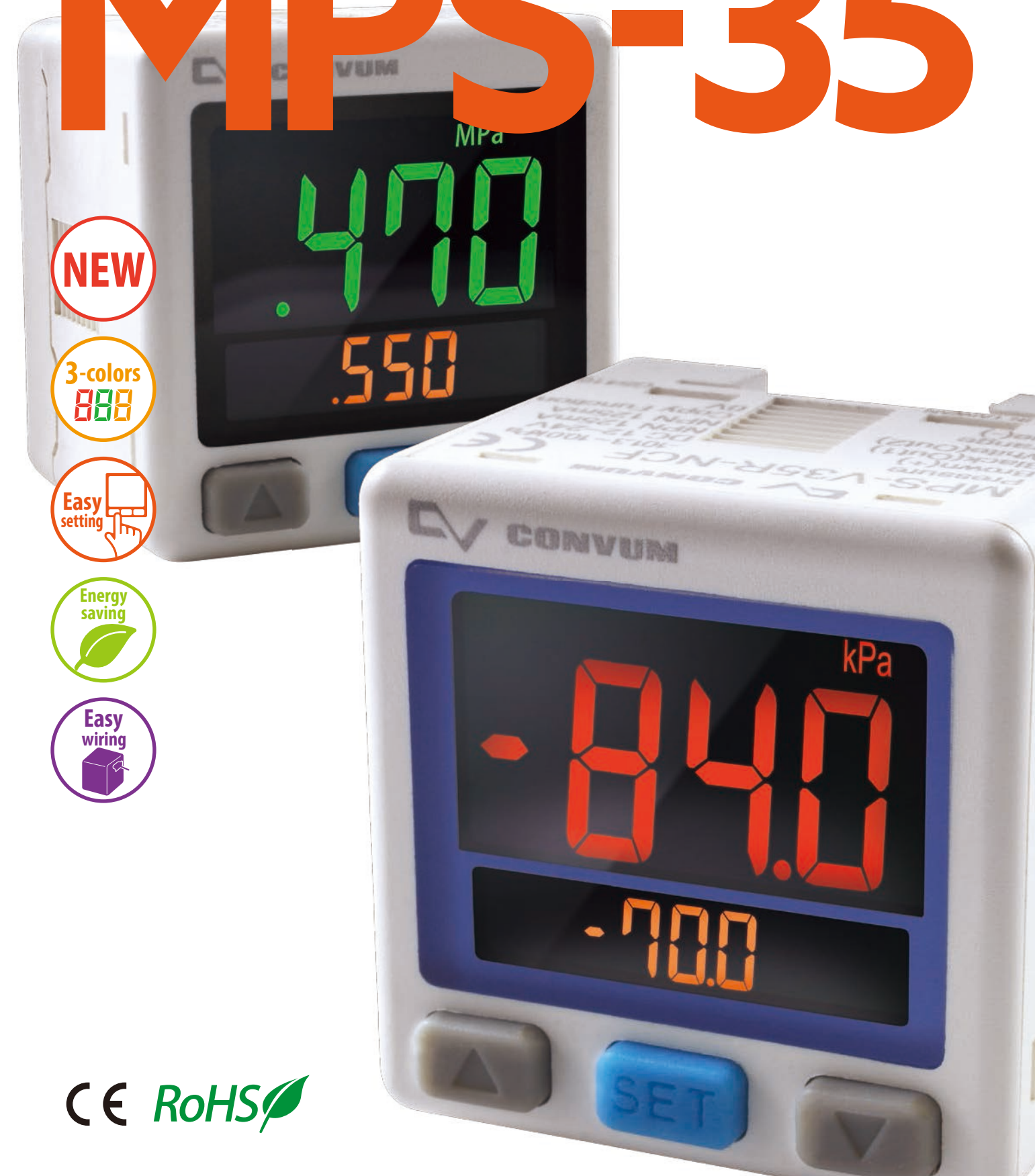
NEW

3-colors  
888

Easy setting

Energy saving

Easy wiring



NEW

Dual Display digital pressure sensor with 3 colors status

# MPS-35



3-colors  
888

## Flexible combination can select

The pressure can be controlled by 3-colors



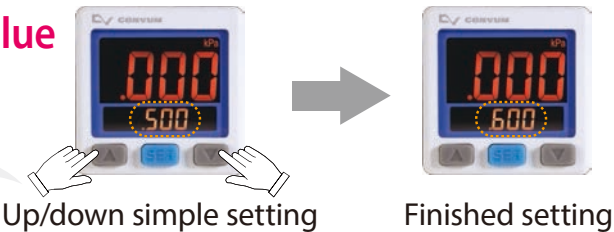
The display color pattern can be selected

|     | SoG   | SoR   | Grn   | rEd |
|-----|-------|-------|-------|-----|
| ON  | Green | Red   | Green | Red |
| OFF | Red   | Green | Green | Red |

Easy  
setting

## Use UP and DOWN button to set the value

Big button easy to operate



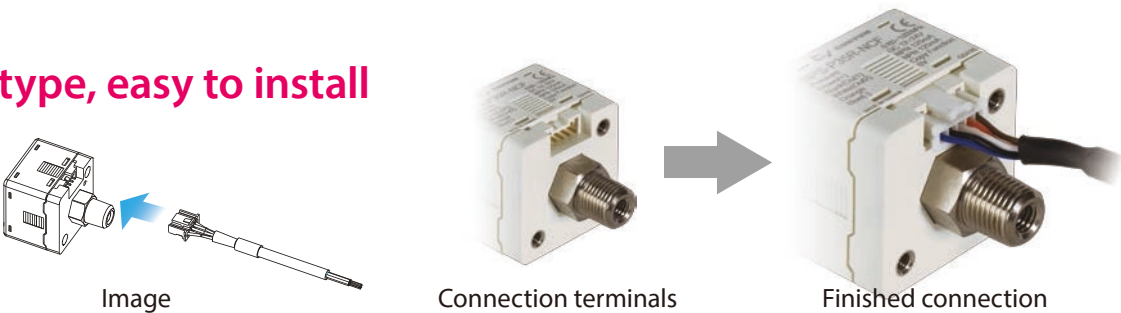
Energy  
saving

## 10% energy consumption can be reduced compared to previous model

Previous model : MPS-34 : 45mA → New model : MPS-35 : 40mA **9% reduced**

Easy  
wiring

## Connector type, easy to install



### How to order

MPS - V 35 R - N C A

#### ① Pressure range

|   |                           |
|---|---------------------------|
| C | Compound(-101.0~101.0kPa) |
| V | Vacuum(-101.3~10.0kPa)    |
| P | Positive(-0.100~1.000MPa) |

#### ② Port size ※1

|   |         |
|---|---------|
| R | R1/8 M5 |
|---|---------|

※1) Please contact us for NPT1/8, G1/8 (male) port.

#### ④ Cable

|   |                  |
|---|------------------|
| C | 2m connect cable |
|---|------------------|

#### ③ Switch output type

|   |                    |
|---|--------------------|
| N | NPN Open collector |
| P | PNP Open collector |

#### ⑤ Analog output

|   |                    |
|---|--------------------|
| A | Analog output 1~5V |
|---|--------------------|

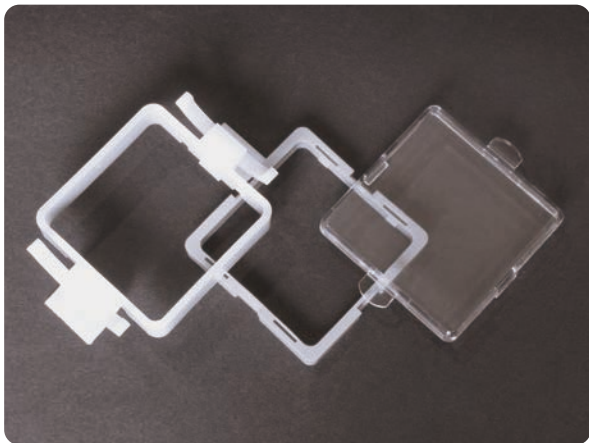
Please contact us for analog output 4-20mA type (current output).



### Option parts

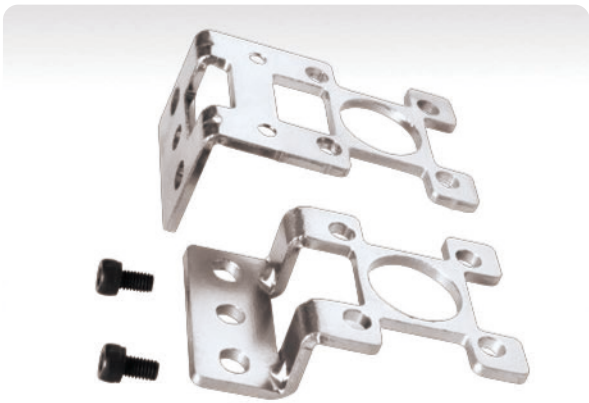
#### Front mounting panel MPS-ACCH9

Mount frame (2 pieces) with protection cover.



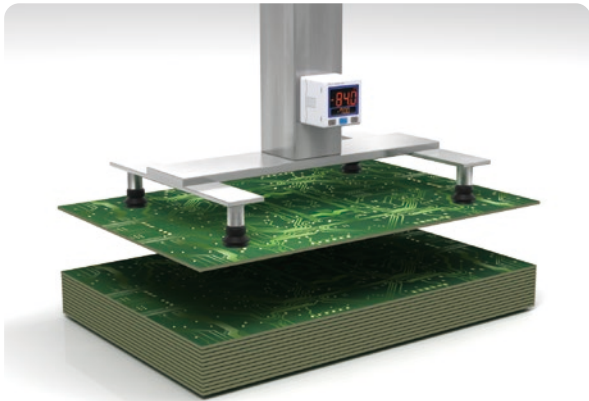
#### Bracket MPS-ACCK11

L type fitting, F type fitting, and 2 setting screws (M3).

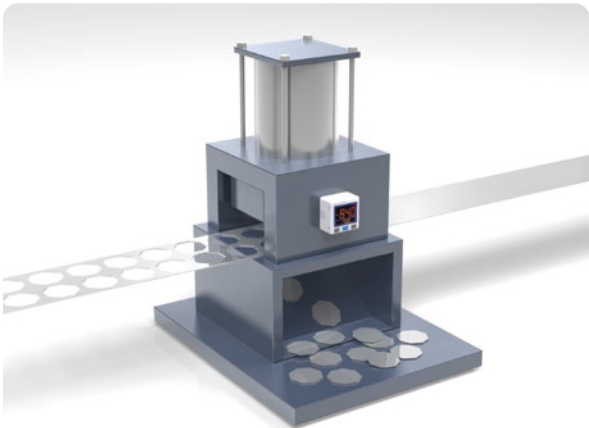


### Application

Suction confirmation and output signal to PLC



Manage the source pressure of air press





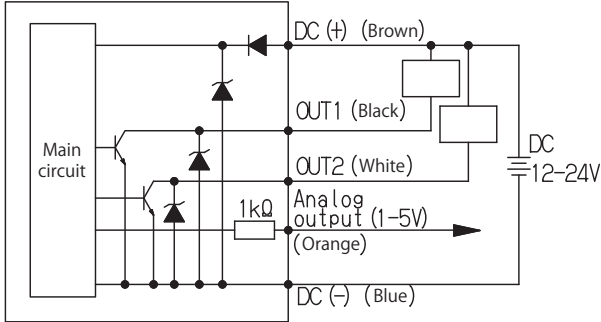
Specification

| TYPE                                 |                        | MPS-P35<br>(Positive)                                                                                                                                                                                 | MPS-V35<br>(Vacuum)                                                                                                  | MPS-C35<br>(Compound) |
|--------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------|
| Rated pressure range                 |                        | 0.000~1.000MPa                                                                                                                                                                                        | 0.0~-101.3kPa                                                                                                        | -100.0~100.0kPa       |
| Setting pressure range               |                        | -0.100~1.000MPa                                                                                                                                                                                       | 10.0~-101.3kPa                                                                                                       | -101.0~101.0kPa       |
| Resisting pressure                   |                        | 1.5MPa                                                                                                                                                                                                | 300kPa                                                                                                               |                       |
| Application                          |                        | Filtered air, Non-corrosive / Non-flammable gas                                                                                                                                                       |                                                                                                                      |                       |
| Setting pressure resolution          | kPa                    | —                                                                                                                                                                                                     | 0.1                                                                                                                  |                       |
|                                      | MPa                    | 0.001                                                                                                                                                                                                 | —                                                                                                                    |                       |
| Power supply voltage                 |                        | 12 to 24V DC ±10%, Ripple (P-P) 10% or less                                                                                                                                                           |                                                                                                                      |                       |
| Current consumption                  |                        | ≤ 40mA (With no load)                                                                                                                                                                                 |                                                                                                                      |                       |
| Switch output                        |                        | NPN: open collector 2 outputs<br>Max. load current: 125mA<br>Max. supply voltage: 30V DC<br>Residual voltage: ≤ 1.5V                                                                                  | PNP: open collector 2 outputs<br>Max. load current: 125mA<br>Max. supply voltage: 24V DC<br>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<br>(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<br>(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                                                                                                                                                                    |                                                                                                                      |                       |
| Analog output<br>(Voltage Output) *2 |                        | Output Voltage: 1 to 5V ±2.5% F.S. (within rated pressure range)<br>Linearity: ±1% F.S.<br>Output impedance: about 1kΩ                                                                                |                                                                                                                      |                       |
| Analog output<br>(Current Output) *3 |                        | Output Current: 4 to 20mA ±2.5% F.S.(within rated pressure range)<br>Linearity: ±1% F.S.<br>Max.Load Impedance: 300Ω at power supply of 12V<br>600Ω at power supply of 24V<br>Min.Load impedance: 50Ω |                                                                                                                      |                       |
| Environmental Standard               | Enclosure              | IP 40                                                                                                                                                                                                 |                                                                                                                      |                       |
|                                      | Ambient temp. range    | Operation: 0 ~ 50°C, Storage:-10 ~ 60°C<br>(No condensation or freezing)                                                                                                                              |                                                                                                                      |                       |
|                                      | Ambient humidity range | Operation/Storage: 35 ~ 85% RH (No condensation)                                                                                                                                                      |                                                                                                                      |                       |
|                                      | Resisting voltage      | 1000V AC in 1-min (between case and lead wire)                                                                                                                                                        |                                                                                                                      |                       |
|                                      | Insulation resistance  | 50MΩ (at 500V DC, between case and lead wire)                                                                                                                                                         |                                                                                                                      |                       |
|                                      | Vibration resistance   | Total amplitude 1.5mm or 10G, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z                                                                                                |                                                                                                                      |                       |
|                                      | Shock resistance       | 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                            |                        | R:R1/8", M5; N:NPT1/8", #10-32UNF; G: G1/8"(BSPP), M5                                                                                                                                                 |                                                                                                                      |                       |
| Lead wire                            |                        | Oil-resistance cable(0.15mm <sup>2</sup> )                                                                                                                                                            |                                                                                                                      |                       |
| Mass                                 |                        | Approx. 80g (with 2 meter lead wire)                                                                                                                                                                  |                                                                                                                      |                       |

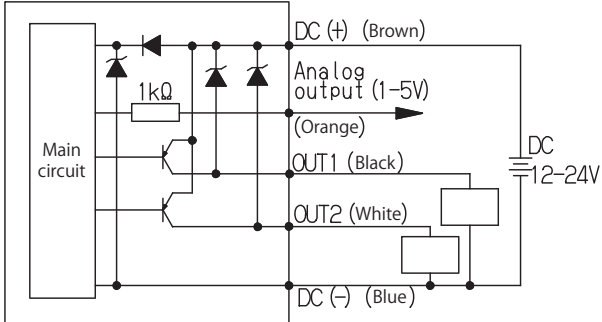
\*1.Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.  
\*2.If analog voltage output is selected, the analog current output cannot be selected at the same time.  
\*3.If analog current output is selected, the analog voltage output cannot be selected at the same time.

Internal circuit

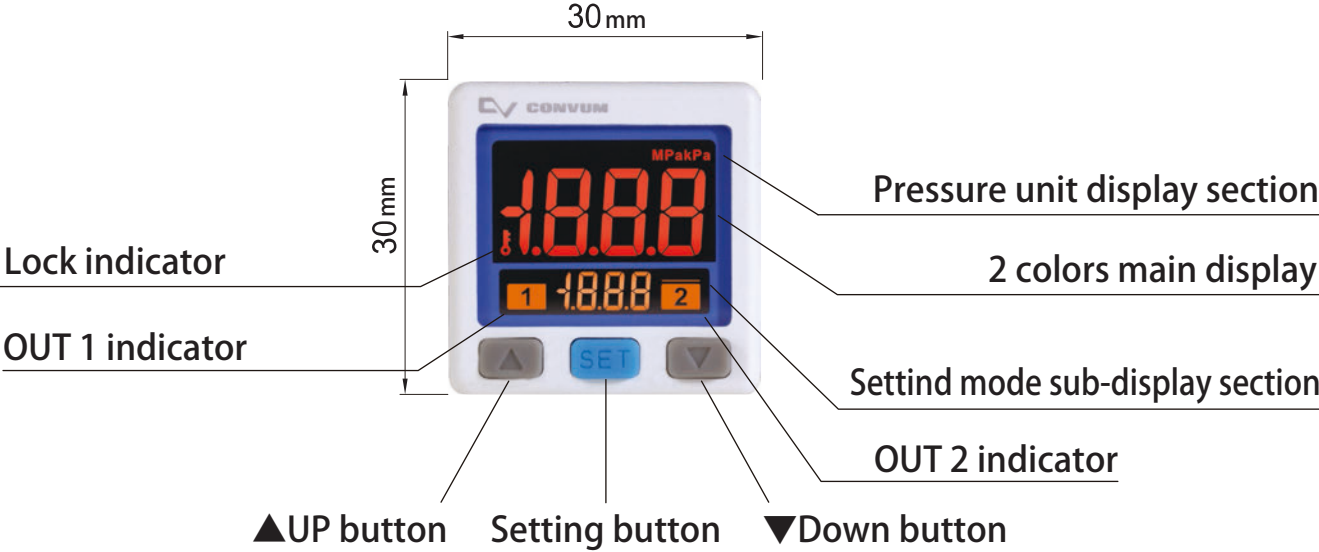
NPN output (Analog voltage output)



PNP output (Analog voltage output)

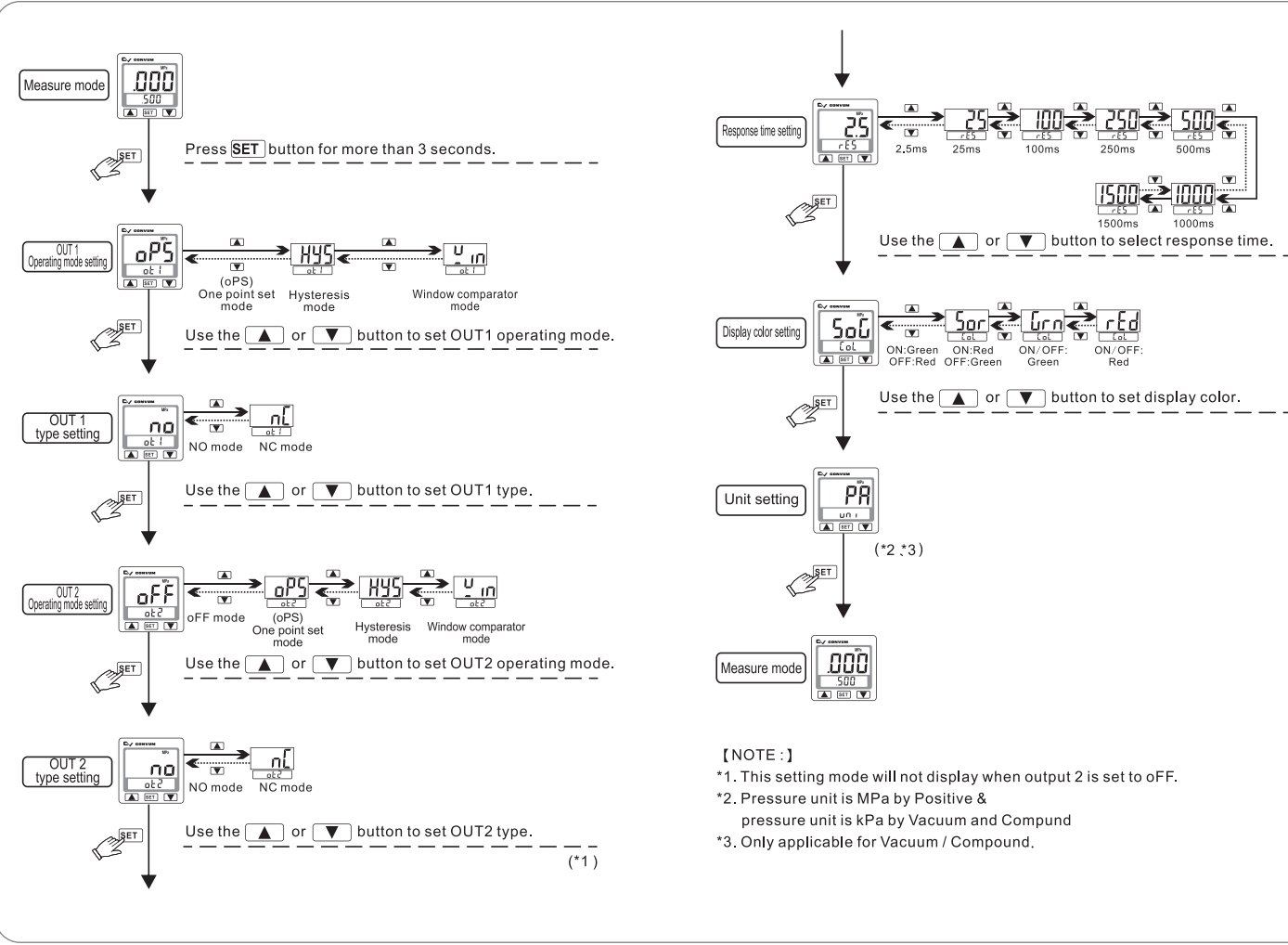


Display description



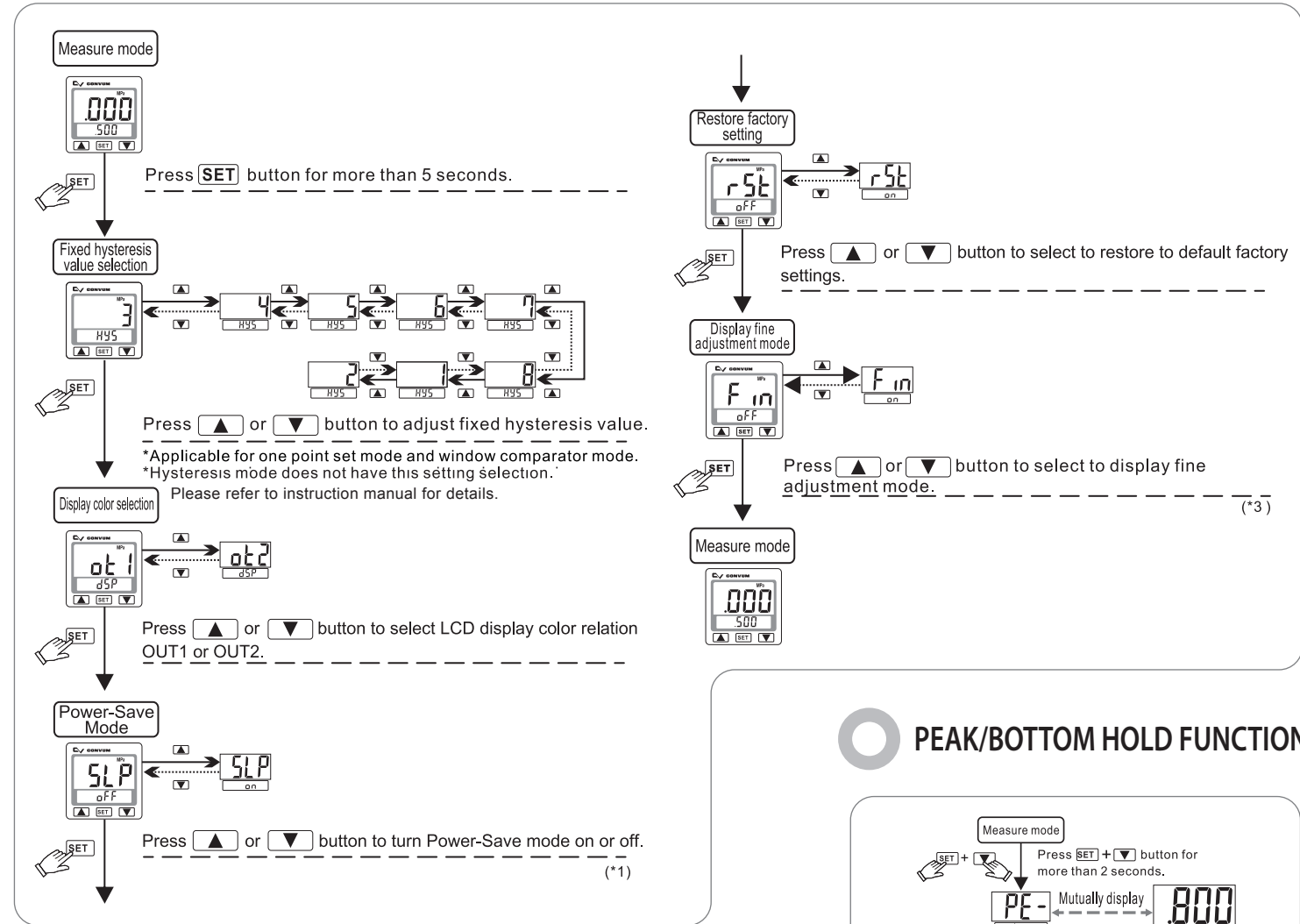
※ Display frame color : MPS-P35(gray),MPS-V35.C35(blue)

INITIAL SETTING MODE



【 NOTE : 】  
\*1. This setting mode will not display when output 2 is set to oFF.  
\*2. Pressure unit is MPa by Positive & pressure unit is kPa by Vacuum and Compund  
\*3. Only applicable for Vacuum / Compound.

## ADVANCE SETTING MODE

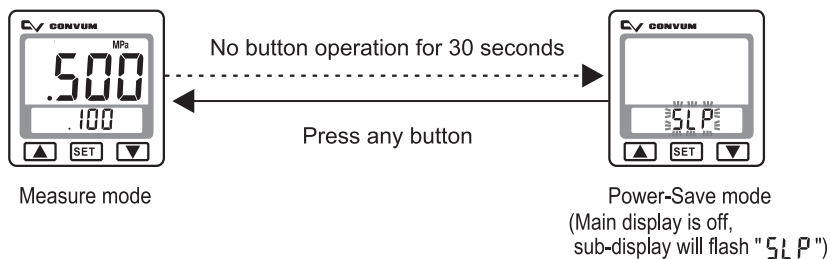


【NOTE :】

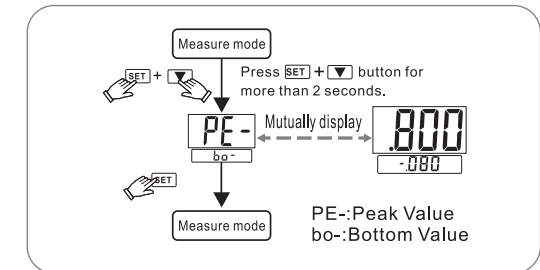
- \*1. When setting is "on", the power-save mode would be started.  
Please refer the item "I" in detailed.
- \*2. when setting "on" or "onL", the display copy function mode would be started.  
Please refer the item "B" in detailed.
- \*3. When setting is "on", the display fine adjustment mode would be started.  
Please refer the item "Q" in detailed.

## POWER-SAVE MODE

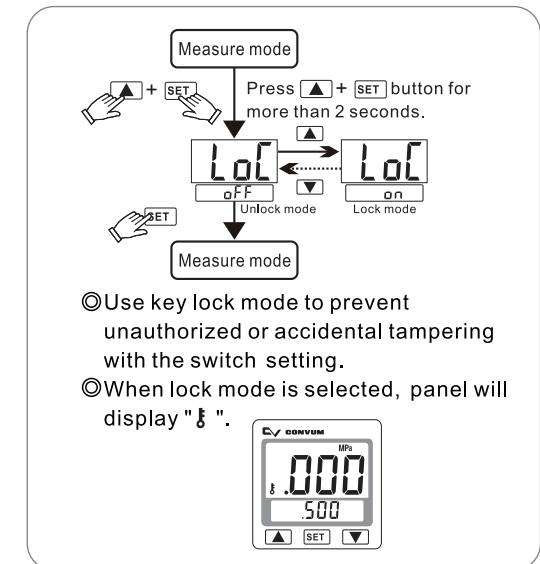
- During Power-Save mode, the main display will turned off if no buttons is pressed after 30 seconds.
- During Power-Save mode, the output LCD may not be synchronize with the output. It is normal and will not affect output operation.
- Press any button to turn-on main display temporarily.



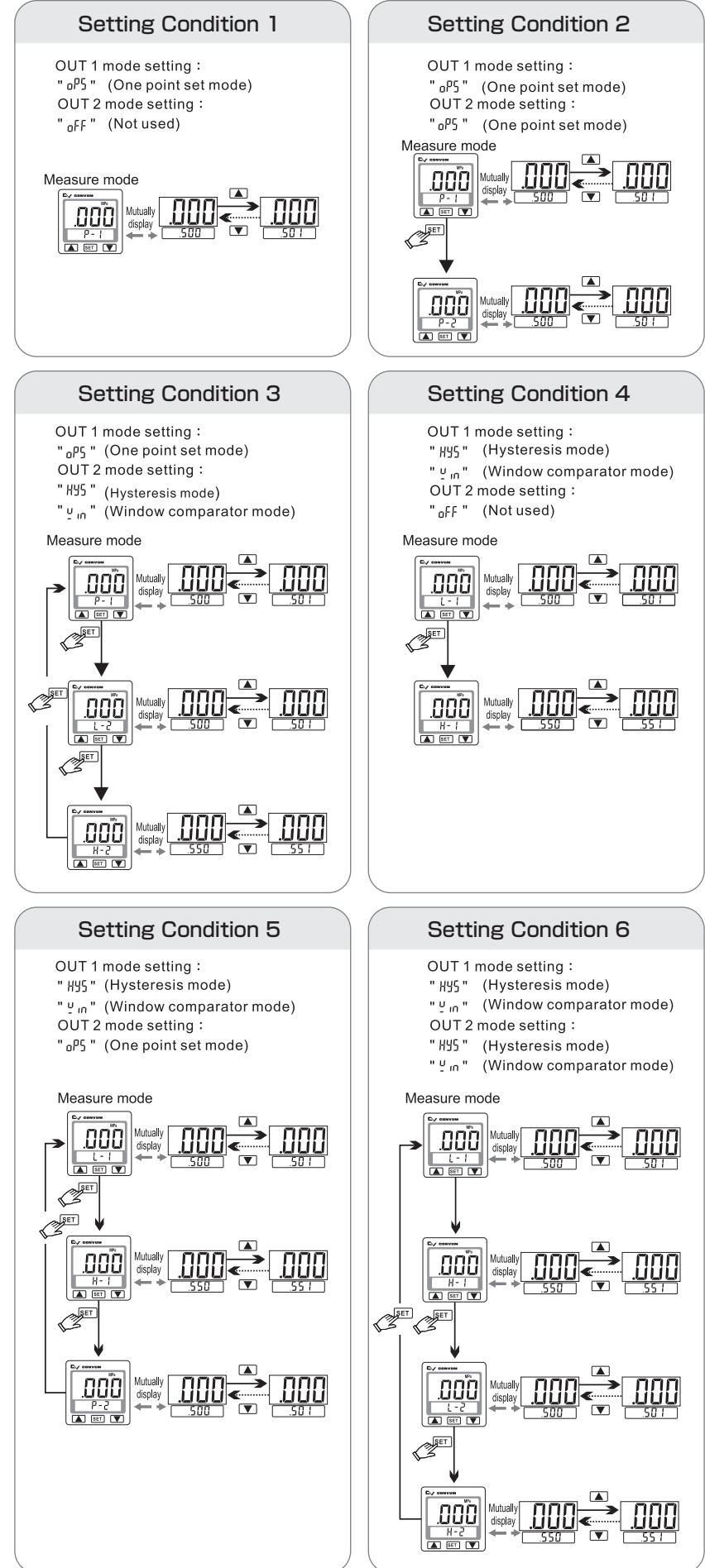
## PEAK/BOTTOM HOLD FUNCTION



## KEY LOCK/UNLOCK MODE



## PRESSURE SETTING MODE

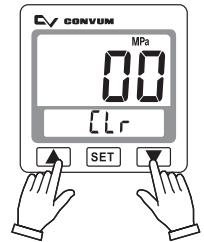


【NOTE :】

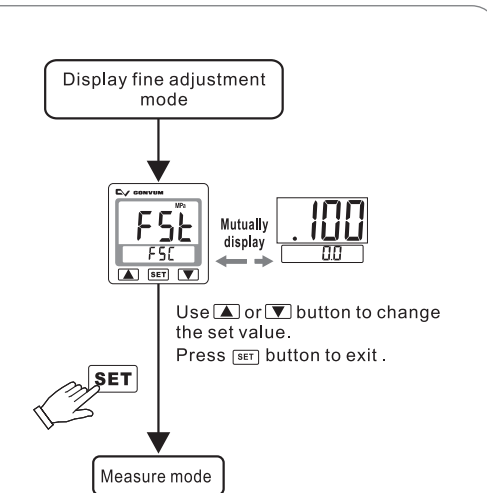
Do not disconnect power when the sub-display and setting value is flashing alternately; otherwise the system cannot store the values.

## ZERO POINT SETTING

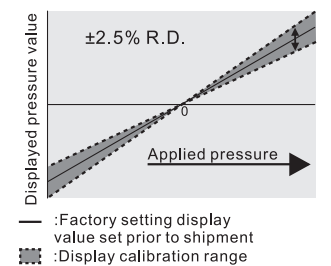
Press the **▲** + **▼** button at the same time until the "00" is shown.  
Release the button to end zero setting.



## FINE ADJUSTMENT MODE



This function eliminates slight differences in the output values and allows uniformity in the numbers displayed.  
Displayed values of the pressure sensor can be calibrated to within  $\pm 2.5\%$  R.D.



R.D. (Real Detect)

【NOTE :】 1. setting resolution is  $\pm 0.1\%$  R.D.  
2. The signal would be changed with analog output after adjusting.