

**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 used in the same circuit, noise may cause malfunction.

**A. SPECIFICATIONS**

MODEL	MPDS-P-02	MPDS-P-04
Rated pressure range	-1000 ~ 1000 kPa	
Set pressure range	0 ~ 1000 kPa	
Withstand pressure	1200 kPa	
Fluid	Filtered air, Non-corrosive / Non-flammable gas	
Set pressure resolution	Standard mode	1 kPa
	High resolution mode (*1)	0.1 kPa
Power supply voltage	12 to 24V DC ±10%, Ripple (p-p) 10% or less	
Current consumption	≤ 20mA	
Switch output	1 NPN open collector (*2) Max. load current : 200mA Max. supply voltage : 30V DC Residual voltage : ≤ 1.5V	1 PNP open collector (*2) Max. load current : 200mA Max. supply voltage : 24V DC Residual voltage : ≤ 1.5V
	Repeatability ± 0.2 % F.S. ± 1 digit	
Hysteresis	Hysteresis Mode	1 ~ 15 digits
	Window Comparator Mode	
Output short circuit protection	Yes	
Display	3 1/2 digital, 7 segment LCD display (White) (Sampling rate: 5 times / sec.)	
Indicator accuracy	Standard mode	± 0.3% F.S. ± 1 digit (ambient temperature: 25±3°C)
	High resolution mode	± 0.1% F.S. ± 1 digit (ambient temperature: 25±3°C)
Switch on indicator	White indicator 1 : OUT 1	
Environment	Enclosure	IP65 (*3)
	Ambient temp. range	Operation : 0 ~ 50°C, Storage : -10 ~ 60°C (No condensation or freezing)
	Ambient humidity range	35~85%RH (No condensation)
	Withstand voltage	1000V AC in 1-min (between case and lead wire)
Temperature characteristic	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, 2 hours each direction of X, Y and Z
	Shock	100 m/s <sup>2</sup> (10 G), 3 times each in direction of X, Y and Z
Communication interface	Standard mode	± 0.5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C
	High resolution mode	± 5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C
Port size	RS485	
Lead wire	M5 : M5 female thread	
Weight	Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm <sup>2</sup> ) - 5 cores Approx. 104g (with 2 meter lead wire)	

**[ NOTE : ]**

- \*1. High resolution mode is settable in differential pressure range : -199.9 kPa ~ 199.9 kPa
- \*2. Selectable NPN or PNP open collector circuits in setting.
- \*3. Dustproof protector must be installed to maintain IP65.

**B. ORDERING INFORMATION**

**MPDS - P - 02 - M5**

**Pressure Range**

P : Positive (0~1000 kPa)

**Output Specifications**

02 : 1 NPN Output + RS485  
04 : 1 PNP Output + RS485

**Pressure Port**

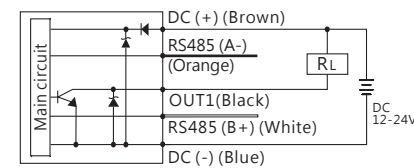
M5 : M5 female thread

**Optional Parts**

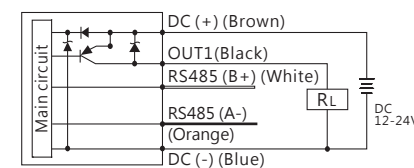
- MP-A18 : Mounting bracket
- MP-A19 : Mounting bracket
- MP-B3 : Panel adapter
- MP-C3 : Panel adapter + Front protective lid

**C. OUTPUT CIRCUIT WIRING DIAGRAMS**

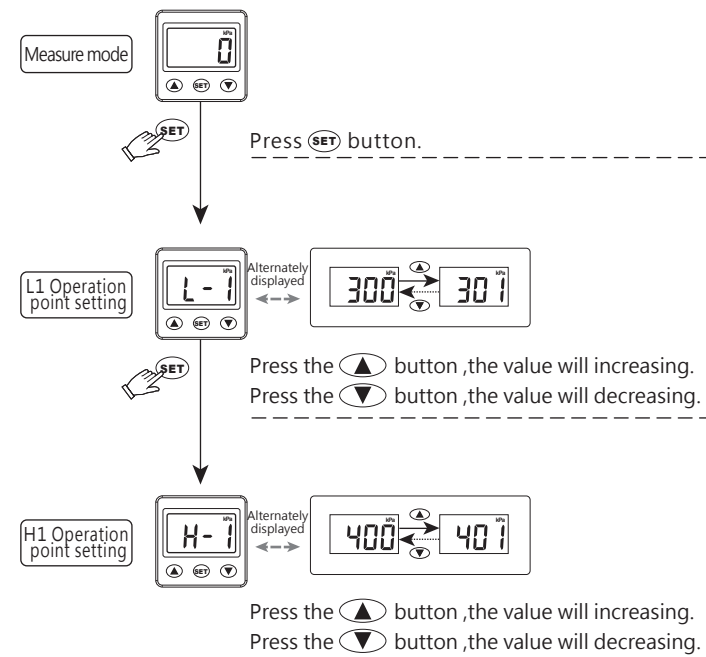
◎ NPN + RS485



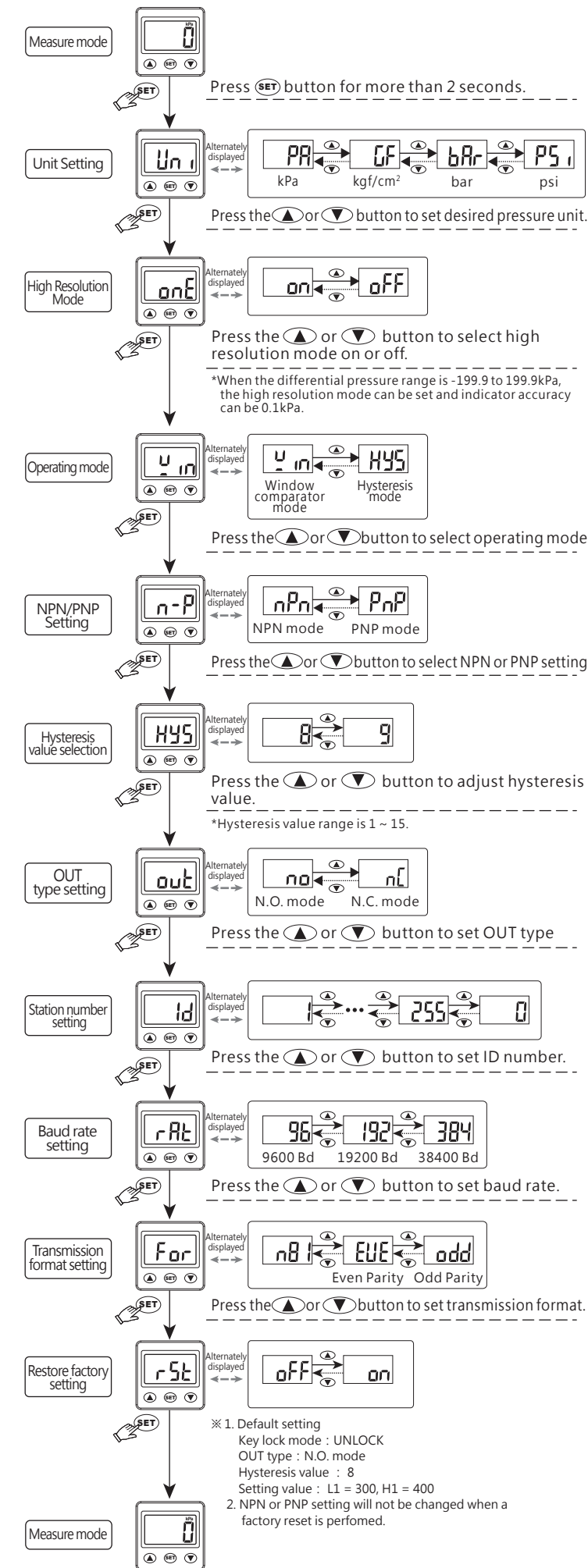
◎ PNP + RS485



**D. OPERATING POINT SETTING MODE**

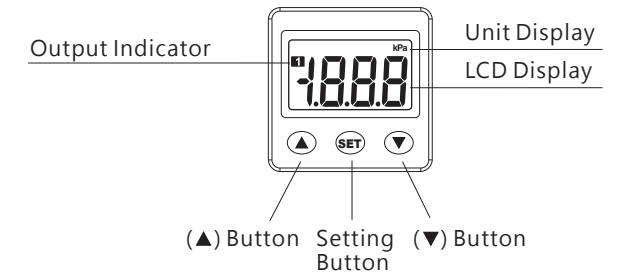


**E. ADVANCE SETTING MODE**

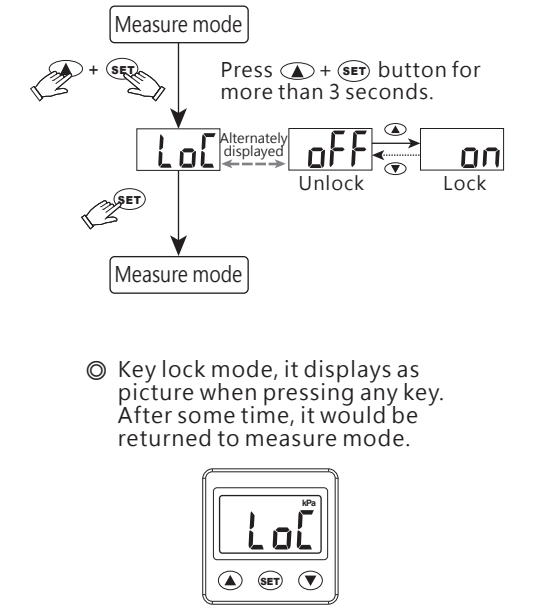


- ※ 1. Default setting  
Key lock mode : UNLOCK  
OUT type : N.O. mode  
Hysteresis value : 8  
Setting value : L1 = 300, H1 = 400
- ※ 2. NPN or PNP setting will not be changed when a factory reset is performed.

**F. PANEL DESCRIPTION**



**G. KEY LOCK/UNLOCK MODE**

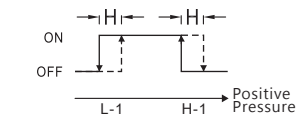


◎ Key lock mode, it displays as picture when pressing any key. After some time, it would be returned to measure mode.

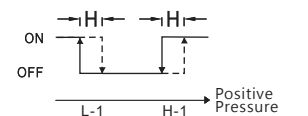
**H. OUTPUT TYPE**

◎ Window comparator mode

**Normal open mode**

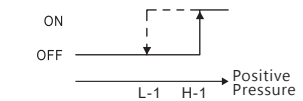


**Normal close mode**

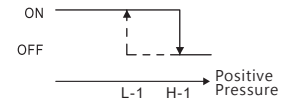


◎ Hysteresis mode

**Normal open mode**



**Normal close mode**



**I. ZERO POINT SETTING**

Press the up arrow + down arrow button at the same time until the "0" is shown · release the button to end.

