

## For your safety, please read the following before using.

- ① Do not use corrosive or flammable gas or liquid with this product.
- ② Please use within the operating pressure range. Do not apply pressure beyond recommended maximum pressure, permanent damage to the pressure sensor may occur.
- ③ Do not drop, hit or allow excessive shock. Even if switch body appears undamaged, internal components may be broken and can cause malfunction.
- ④ Turn power off before connecting wiring. Wrong wiring or short circuit will damage and / or cause malfunction.
- ⑤ Do not use in environment containing steam or oil vapor.
- ⑥ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- ⑦ Wiring for pressure sensor should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.

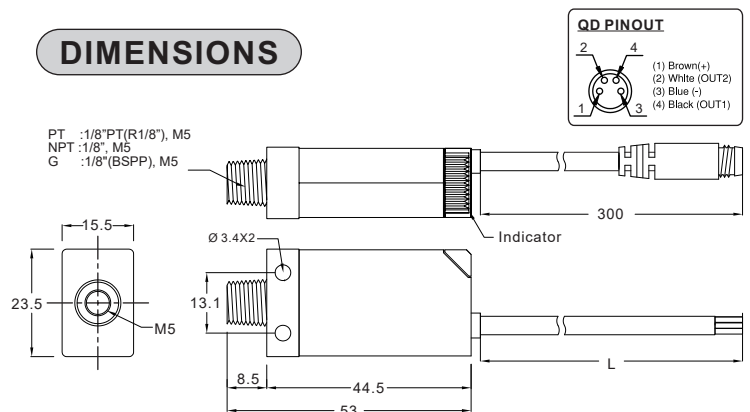
SPECIFICATIONS		PSV-10 (Vacuum)	PSL-10 (Low)	PSN-10 (Positive)
Set pressure range		-101 ~ 0kPa	0 ~ 100kPa	0 ~ 1MPa
Withstand pressure		300kPa		1.5MPa
Fluid		Filtered air, Non-corrosive/Non-flammable gas		
Power supply voltage		12 to 24V DC ±10%, Ripple (P-P) 10% or less		
Response time		5ms or less		
Repeatability		±1% F.S.		
Current consumption		1NPN or 1PNP output : 21mA max., 2 NPN output : 35mA max.		
Environment	Enclosure	IP40		
	Ambient temp. range	Operation : 0 ~ 50°C, Storage : -20 ~ 60°C ( No condensation or freezing)		
	Ambient humidity range	Operation/Storage : 35 ~ 85% RH ( No condensation)		
	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, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z		
	Shock	980m/s <sup>2</sup> (100G), 3 times each in direction of X, Y and Z		
Temperature characteristic		±3% F.S. of detected pressure (25°C) at temp. Range of 0~50 °c		
Port size		PT:1/8"PT(R1/8"),M5; NPT:1/8",M5; G:1/8"(BSPP), M5		
Lead wire		Ø4 Oil-resistance cable (PVC) - 24 AWG (0.22mm <sup>2</sup> ) - 3 cores		
Weight		Approx. 50g (with 1 meter lead wire)		

CIRCUIT WIRING DIAGRAM	PS□-10-01	PS□-10-02	PS□-10-03
CONNECT DIAGRAM			
CHARACTERISTICS			
Output method	NPN open collector 30V 80mA	PNP open collector 80mA	NPN open collector 30V 80mA
Hysteresis	1~10% of setting pressure (Adjustable)		3% F.S. or less (Fixed)
Setting points	1 Point		2 Points
Operation indicating Lamp	Red LED turn on		Out 1=Red; Out 2=Green

## ORDERING INFORMATION

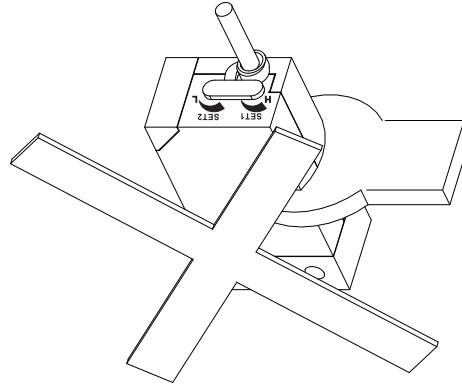
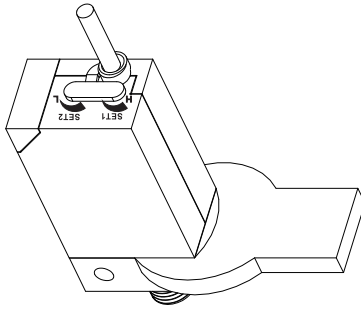
<b>PSL</b> - 10	-	<b>01</b>	-	<b>NPT</b>	-	
<b>Pressure Range</b>		<b>Output Specifications</b>		<b>Pressure Port</b>		<b>Cable Length/ Connector</b>
N : Positive (0~1MPa) L : Low Pressure (0~100kPa) V : Vacuum (-101~0kPa)		01 : NPN output 02 : PNP output 03 : 2 NPN output		PT : 1/8"PT(R1/8"), M5 NPT : 1/8", M5 G : 1/8"(BSPP), M5		1 : With 1 meter cable 2 : With 2 meter cable 3 : With 3 Meter cable □ : M8, 4Pin male connector

## DIMENSIONS



## INSTALLATION PRECAUTIONS

- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.



## HOW TO SET PRESSURE

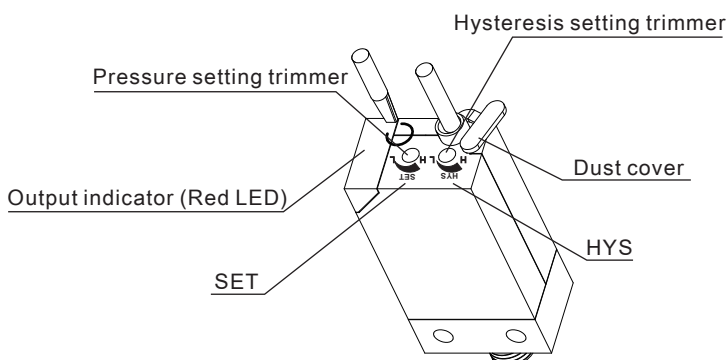
### PS□-10-01, 02

- Remove dust cover to make any adjustments. Replace dust cover when finished to prevent foreign object from entering.
- Pressure setting trimmer (SET) is for setting the output (ON) pressure. Rotate SET trimmer counter-clockwise to increase (Pressure or vacuum) the ON point. Rotate clockwise will decrease the setting pressure.
- Hysteresis setting trimmer (HYS) is for changing the hysteresis. Rotate trimmer counter-clockwise to increase the range 1~10%.
- Use appropriate size screwdriver for the setting trimmers. Gently turn the screwdriver to make adjustments. Do not force the trimmer when it comes to a stop to prevent damage to the setting trimmer.

### PS□-10-03

- Remove dust cover to make any adjustments. Replace dust cover when finished to prevent foreign object from entering.
- Pressure setting trimmer (SET 1, SET 2) is for setting the output (ON) pressure. Rotate SET trimmer counter-clockwise to increase (Pressure or vacuum) the ON point. Rotate clockwise will decrease the setting pressure.
- Hysteresis for models with two outputs is 3% fixed.

### PS□-10-01, 02



### PS□-10-03

