

### 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 setting pressure range. Do not apply pressure beyond recommended maximum 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.
- Ⓛ ESD protection  $\pm 4$ KV.

SPECIFICATIONS	P10V-02/04	P10P-02/04	P10C-01	P10L-01	P10V-01	P10R-01	P10P-01
Setting pressure range	0 ~ -101.3 kPa	0 ~ 0.6 MPa	-100 ~ 100 kPa	0 ~ 100 kPa	0 ~ -101.3 kPa	-101 ~ 500 kPa	0 ~ 1.0 MPa
Withstand pressure	0.6 MPa	1.5 MPa	0.2 MPa		1.5 MPa		
Fluid	Air, Non-corrosive/Non-flammable gas						
Power supply voltage	10.8 to 30V DC (include ripple voltage)			12 to 24V DC (5% ripple voltage)			
Load current	80mA max.			--			
Internal voltage drop	0.8V			--			
Current consumption	--			10 mA max.			
Analog output	--			1~5V $\pm 1\%$ F.S. / Linearity $\pm 0.5\%$ F.S.			
Sensor type	NPN or PNP			--			
Output short circuit protection	Yes			--			
Setting method	Adjusting by VR			--			
Response time	Approx. 1ms			--			
Repeatability	$\pm 1\%$ F.S.			--			
Hysteresis	3% F.S. max.			--			
Indicator	Red LED turns ON			--			
Enclosure	--			IP 40			
Temperature characteristic	$\pm 3\%$ F.S. of detected pressure (25°C) at temp. Range of 0~50°C			$\pm 2\%$ F.S. of detected pressure (25°C) at temp. Range of 0~50°C			
Ambient temp. range	Operation: 0 ~ 60°C, Storage: -20 ~ 70°C (No condensation or freezing)			Operation: 0 ~ 50°C, Storage: -20 ~ 70°C (No condensation or freezing)			
Ambient humidity range	Operation/Storage: 35 ~ 85% RH (No condensation)						
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						
Piping method	Push-in tube or thread-in						
Lead wire	Oil-resistance cable, 3 wires (0.18mm <sup>2</sup> ), $\phi$ 2.6mm						
Weight	Approx. 50g (with 3-meter lead wire)						

### ORDERING INFORMATION

**P 1 0 V - 0 2 - [ ] - [ ]**

**Pressure Range**

V : Vacuum (0 ~ -101.3 kPa)  
P : Positive (0 ~ 0.6 MPa)

**Cable Length / Connector**

Blank: With 3 meter cable  
C : With M8 3Pin male connector

**Pressure Port**

02 : NPN output  
04 : PNP output

1/4 :  $\Psi$  1/4" Tube  
R4 :  $\Psi$  4mm Tube  
R6 :  $\Psi$  6mm Tube  
F1 : R1/8", M5  
F2 : NPT1/8", M5  
F3 : G1/8"(BSPP), M5  
M5 : M5\*0.8

**P 1 0 V - 0 1 - [ ] - [ ]**

**Pressure Range**

C : Compound (-100 ~ 100 kPa)  
R : Compound (-101 ~ 500 kPa)  
L : Low (0 ~ 100 kPa)  
V : Vacuum (0 ~ -101.3 kPa)  
P : Positive (0 ~ 1.0 MPa)

**Cable Length / Connector**

Blank: With 3 meter cable  
C : With M8 3Pin male connector

**Pressure Port**

01 : Analog output (1~5V)

1/4 :  $\Psi$  1/4" Tube  
R4 :  $\Psi$  4mm Tube  
R6 :  $\Psi$  6mm Tube  
F1 : R1/8", M5  
F2 : 1/8" NPT, M5  
F3 : G1/8"(BSPP), M5  
M5 : M5\*0.8

**Output Specifications**

01 : Analog output (1~5V)

### DIMENSIONS

**P10□-02/04-□**

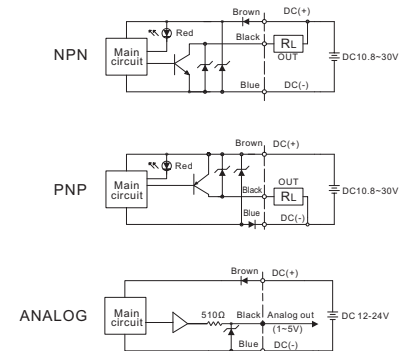
**P10□-01-□**

**P10□-02/04-□ CONNECTOR PINOUT**

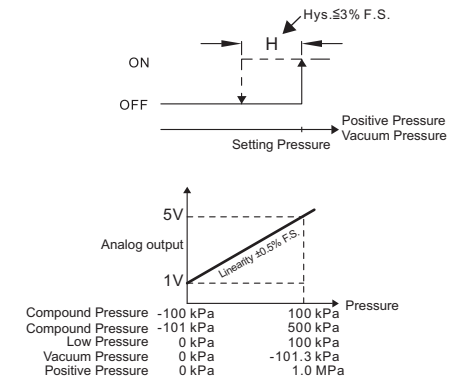
**P10□-01-□ CONNECTOR PINOUT**

Unit:mm

### CIRCUIT WIRING DIAGRAM



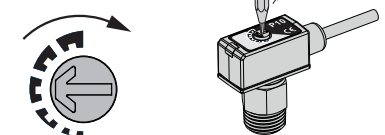
### OUTPUT TYPE



### HOW TO SET PRESSURE

- Use the pressure setting trimmer to set "ON" pressure. Rotate clockwise to increase pressure setpoint.
- Rotate counter-clockwise to decrease pressure setpoint.
- Use appropriate size screwdriver for the setting trimmers. Gently turn the screwdriver to make adjustments. To prevent damage to the pressure setting trimmer, DO NOT force the trimmer when it comes to a stop.

Positive & Vacuum

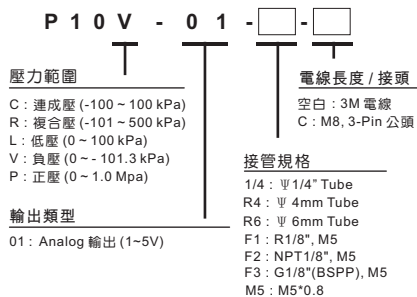
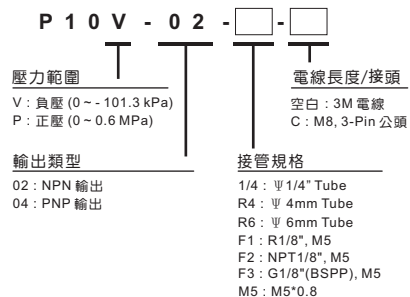


## 使用本產品應注意事項：

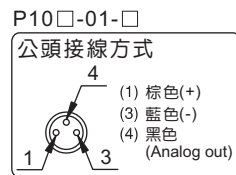
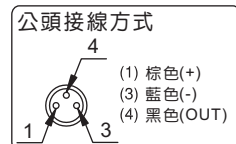
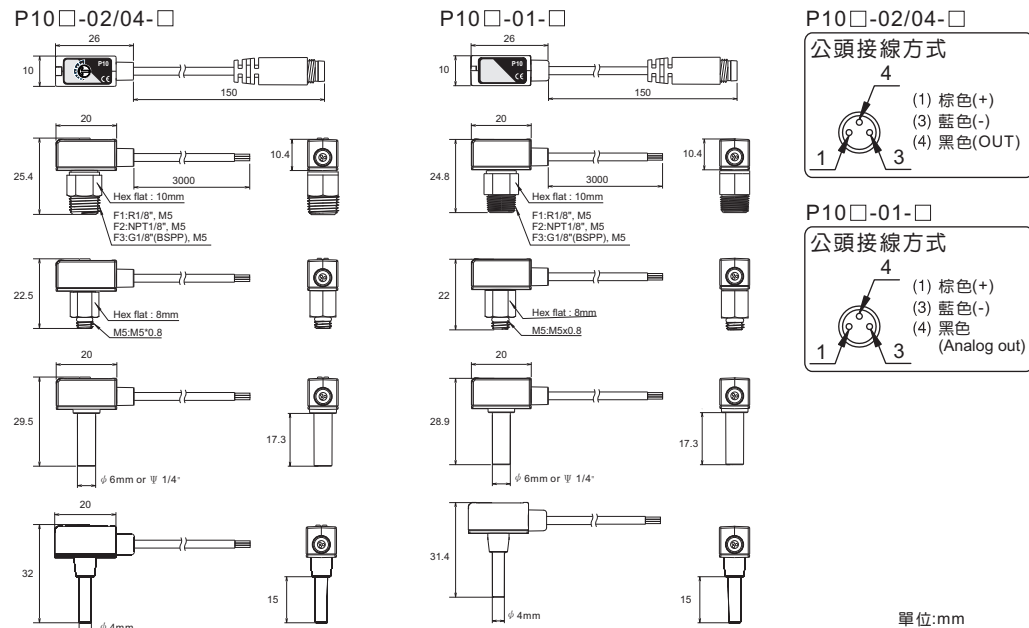
- ◎ 禁止使用於腐蝕性及易燃性的氣體或任何液體。
- ◎ 請在規格表內的設定壓力範圍內使用，若供給之壓力超過最大耐壓會使本產品損壞，導致功能異常。
- ◎ 裝設本產品時，請勿用力撞擊或從高處掉落，即使外觀未受損害也可能因內部零件損壞而導致功能異常。
- ◎ 在連接本產品於電路控制系統時，應先關掉電源，因為錯誤的接線或短路會導致本產品損壞。
- ◎ 本產品請勿使用在有水氣或油霧的環境中。
- ◎ 本系列產品並未有防爆驗証，請勿使用於空氣中含有爆炸性氣體或粉塵環境中。
- ◎ 不可將連接本產品的導線與電源線或其它高壓電線綑綁在一起，以避免雜訊的干擾，而影響到本產品的功能。
- ◎ 靜電防護ESD ±4KV。

規格表	P10V-02/04	P10P-02/04	P10C-01	P10L-01	P10V-01	P10R-01	P10P-01
設定壓力範圍	0 ~ -101.3 kPa	0 ~ 0.6 MPa	-100 ~ 100 kPa	0 ~ 100 kPa	0 ~ -101.3 kPa	-101 ~ 500 kPa	0 ~ 1.0 MPa
耐壓力	0.6 MPa	1.5 MPa	0.2 MPa		1.5 MPa		
適用氣體	空氣，非腐蝕性，不可燃性						
電源電壓	10.8 to 30V DC (含漣波峰)		12 to 24V DC (5%漣波峰)				
最大開關電流	80mA max.		--				
內部電壓降	0.8V		--				
消費電流	10 mA max.						
開關輸出	--		1~5V ±1%F.S. / 直線性 ±0.5%F.S.				
類比輸出	NPN 或 PNP		--				
輸出短路保護	有		--				
壓力設定方式	旋鈕調整		--				
反應時間	約 1ms		--				
重覆精度	±1% F.S.		--				
應差	3% F.S. max.		--				
指示燈	ON: 紅燈		--				
防護等級	IP 40						
溫度特性	±3% F.S.以下 (0 ~ 50 °C溫度範圍內)		±2% F.S.以下 (0 ~ 50 °C溫度範圍內)				
週圍溫度	動作: 0 ~ 60 °C, 保存: -20 ~ 70 °C, (無水露及不結冰狀況下)		動作: 0 ~ 50 °C, 保存: -20 ~ 70 °C (無水露及不結冰狀況下)				
週圍濕度	動作及保存: 35 ~ 85% RH (無水露)						
耐振動	複振幅1.5mm, 每一分鐘10Hz~55Hz~10Hz, X, Y, Z 每個方向各2小時						
耐衝擊	980m/s <sup>2</sup> (100G), X, Y and Z 每個方向各3次						
接管口徑	Ψ 1/4; φ 4mm; φ 6mm; R1/8", M5; NPT1/8", M5; G 1/8"(BSP), M5						
電線規格	外徑 φ 2.6, 3芯, 耐油電線(0.18mm <sup>2</sup> )						
重量	約 50g (包含3公尺的電線)						

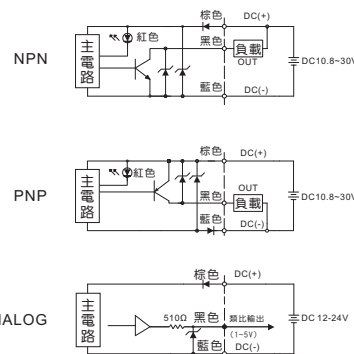
## 型號規格說明



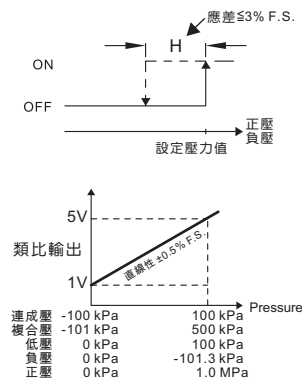
## 外觀尺寸圖



## 輸出電路接線圖



## 輸出模式



## 壓力的設定

- 壓力設定旋鈕是設定壓力傳感器動作時之壓力，當順時鐘旋轉時，壓力設定值增加。
- 逆時鐘旋轉時，壓力設定值減少。
- 調整壓力設定旋鈕時，請用適合壓力設定旋鈕溝槽之小螺絲起子，輕輕轉動旋鈕以做調整。轉到旋鈕無法轉動時，請不要再轉動，以免破壞壓力設定旋鈕導致功能失常。

正壓 & 負壓

