

P20 系列 數位壓力開關

series DIGITAL PRESSURE SWITCH

PÖSU

附屬裝置
Attachment



- 壓力範圍：連成壓-100.0~100 kPa
負壓0~-101.3kPa
正壓0~1MPa
- 2組開關輸出，1組線性輸出
- 應差可調整
- 高精度
- 低價格
- 壓力單位可設定：
KPa, MPa, kgf/cm², bar, psi, mmHg, InHg, mmH₂O
- Pressure range: Compound -100.0~100 kPa
Vacuum 0~-101.3kPa
Positive 0~1MPa
- Two switch output & one analog output.
- Hysteresis adjustable.
- High accuracy and Resolution.
- Low cost.
- Pressure unit selectable: KPa, MPa, kgf/cm², psi, bar, mmHg, InHg, mmH₂O.

規格表 Specifications

型號 Model		P20C(連成壓Compound)	P20V(負壓Vacuum)	P20P(正壓Positive)
比率壓力範圍 Rated pressure range		-100.0~100.0 kPa	0.0 ~ -101.3kPa	0.000 ~ 1.000MPa
設定(使用)壓力範圍 Operating / Setting pressure range		-100.0~100.0 kPa	10.0 ~ -101.3kPa	-0.100 ~ 1.000MPa
耐壓力 Withstand pressure		500kPa		1.5MPa
適用氣體 Fluid		空氣，非腐蝕性，不可燃性 Air, Non-corrosive/Non-flammable gas		
壓力單位 設定精度 Set pressure resolution	KPa	0.1		—
	MPa	—		0.001
	kgf/cm ² , bar	0.001		0.01
	psi	0.001		0.01
	mmHg	1		—
	InHg	0.1		—
	mmH ₂ O	0.1		—
電源電壓 Power supply voltage		12 to 24VDC ± 10%, 漣波峰值Ripple (P-P) 10% 以下(less)		
消費電流 Current consumption		≤55mA		
開關輸出 Switch output		NPN或PNP雙輸出 NPN or PNP open collector 2 outputs 最大負載電流：80mA Max. load current : 80mA 最大供應電壓：30VDC Max. supply voltage: 30VDC 內部壓降：1V以下(負載電流80mA時) Residual voltage :≤1V (load current 80mA)		
重覆精度 Repeatability(Switch output)		≤ ± 0.2% F.S. ± 1digit 以下(less)		
應差	應差模式 Hysteresis mode	可調 Adjustable		
Hysteresis	Window comparator 模式	固定 Fixed (3 digits)		
應答時間 Response time		≤2.5ms (預防誤動作功能chattering-proof function: 24ms, 192ms and 768ms 可選擇selections)		
輸出短路保護 Output short circuit protection		有 Yes		
顯示 7 segment LED display		3 1/2 digit LED顯示display (取樣週期Sampling rate: 5 times/1sec.)		
顯示精度 Indicator accuracy		≤ ± 2% F.S. ± 1 digit以下 (在周圍溫度ambient temperature: 25 ± 3℃)		
動作顯示燈 Indicator		綠色Green LED (OUT1:ON時亮燈) 紅色Red LED (OUT2:ON時亮燈)		
線性輸出(在比率壓力範圍內) Analog output *(Only type P20□-01, P20□-03)		輸出電壓: 1 ~ 5V ± 5%以下 (比率壓力範圍下) 直線性: ± 1% F.S.以下 Output voltage: 1 to 5V ≤ 5% (within rated pressure range) Linearity: ≤ 1% F.S.	輸出電壓: 1 ~ 5V ± 2.5% F.S. 以下 (比率壓力範圍下) 直線性: ± 1% F.S. 以下 Output voltage: 1 to 5V ≤ 2.5% (within rated pressure range) Linearity: ≤ 1% F.S.	
耐環境 Environment	防護等級 Enclosure	IP40		
	周圍溫度 Ambient temp. range	動作:0 ~ 50℃,保存:-20 ~ 60 ℃ (無水露及不結冰狀況下) Operation: 0 ~ 50℃, storage:-20 ~ 60℃(No condensation or freezing)		
	周圍濕度 Ambient humidity range	動作及保存Operation/Storage: 35 ~ 85% RH (無水露No condensation)		
	耐電壓 Withstand voltage	1000VAC in 1 min (引線及外殼間between case and lead wire)		
	絕緣阻抗 Insulation resistance	50MΩ 以上 (500VDC, 引線及外殼間between case and lead wire)		
	耐振動 Vibration	複振幅Total amplitude 1.5mm ,10Hz~55Hz~10Hz ,X、Y、Z 每個方向各2小時 two hours each direction of X,Y and Z		
	耐衝擊 Shock	980m/s ² (100G) X, Y, Z 每個方向各3次(3 times each in direction of X,Y and Z)		

規格表 Specifications

型號 Model	P20C(連成壓Compound)	P20V(負壓Vacuum)	P20P(正壓Positive)
溫度特性 Temperature characteristic	±2% F.S.以下(0 ~ 5°C溫度範圍內Temp. Range)		
配管口徑 Port size	F1:1/8"PT, F2:1/8"NPT		
電線規格 Lead wire	5 芯，耐油電線Oil-resistance cable(0.15mm ²)		
重量 Weight	135g(包含2公尺的電線with 2-meter lead wire)		

輸出規格 Output Circuit Wiring Graph

型號 Model	MP20□-01	MP20□-03
線路圖 Connect diagram		
輸出方式 Output method	NPN 輸出 output	PNP 輸出 output

訂購代號 Order No.

P20 C 01 F1 A

- 型號 Model**
 - C** 連成壓 Compound (-100.0~100.0kPa)
 - V** 負壓 Vacuum (0.0~-101.3kPa)
 - P** 正壓 Positive (0.00~1.00 Mpa)
- 壓力類型 Pressure range**
- 輸出型式 Output method**
 - 01** 2 NPN 輸出 & 1 Analog 輸出
2 NPN output & 1 Analog output
 - 02** 2 NPN 輸出
2 NPN output
 - 03** 2 PNP 輸出 & 1 Analog 輸出
2 PNP output & 1 Analog output
 - 04** 2 PNP 輸出
2 PNP output
- 配管口徑 Pressure port**
 - F1** PT 1/8
 - F2** NPT 1/8
- 安裝配件 Port thread**
 - A** 固定架 (BT-1+BT-2)
Mounting bracket
 - B** 面板接合器 (PA-1+PA-2)
Panel adapter
 - C** 面板接合器+前保護蓋 (PA-1+PA-2+FPC-1)
Panel adapter + Front protective lid

面板說明/外觀尺寸 Unit dimension / Panel instructions

3 digit LED顯示display
顯示量測壓力值，各設定內容及錯誤碼
Display the measured pressure value. Each set content and error code.

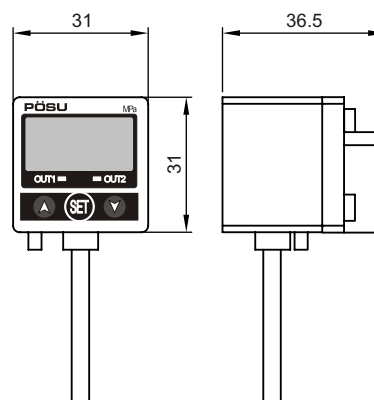
顯示Switch(OUT1)
(綠色 Green LED)

顯示Switch(OUT2)
(紅色 Red LED)

(▲) 上鍵Button
改變設定模式及設定值
Use the ▲ arrow to change setting mode and pre-set desired value.

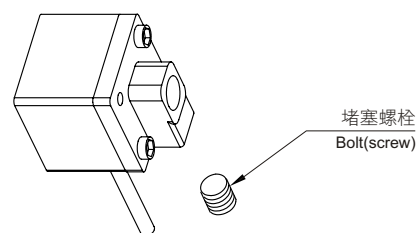
設定值 Setting Button
改變設定模式及決定最後設定值
Change setting mode and pre-set final desired value.

(▼) 下鍵Button
改變設定模式及設定值
Use the ▼ arrow to change setting mode and pre-set desired value.



安裝說明 Installation

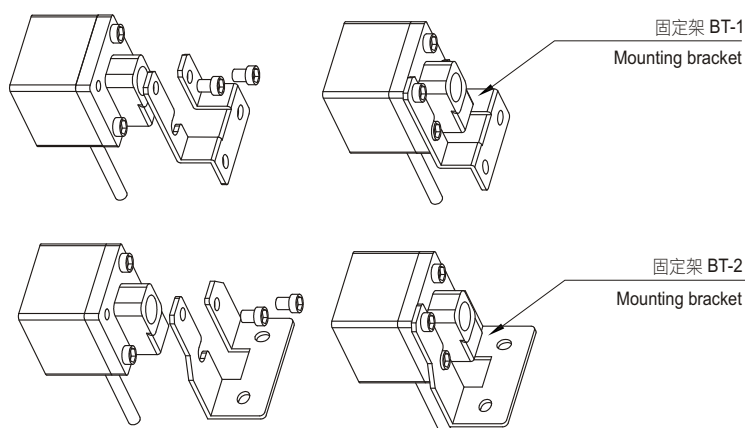
- 本產品後方有二個入氣孔，安裝壓力導管時請選擇較易安裝的入氣孔。
- 不使用之入氣孔，請使用帶有密封的堵塞螺栓，堵住入氣孔，以避免壓力洩漏。
- This product has two inlet pressure ports, select the one most convenient for installation.
- Please plug the unused inlet port with supplied port plug. Use seal tape to prevent pressure leak.



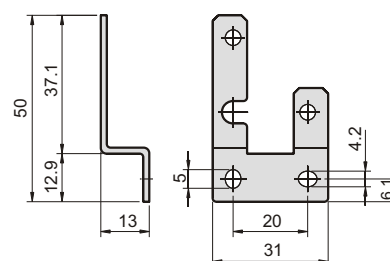
安裝配件 Type of spare parts / Dimension graph

支架

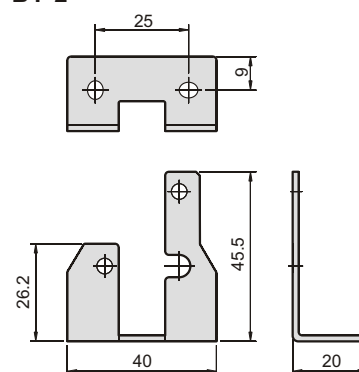
Mounting bracket



BT-1

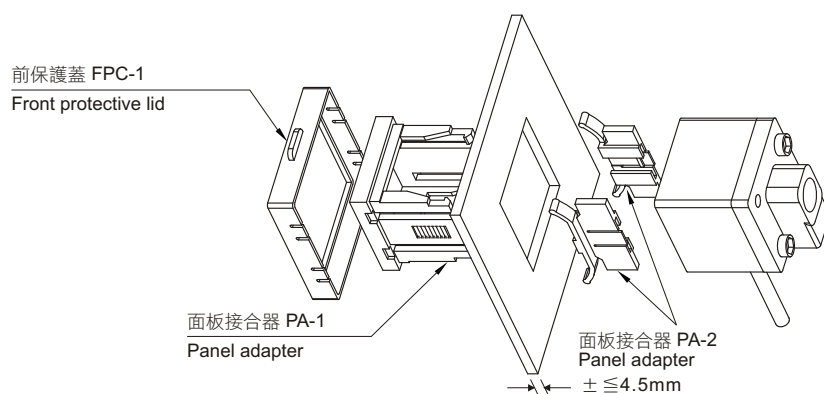


BT-2

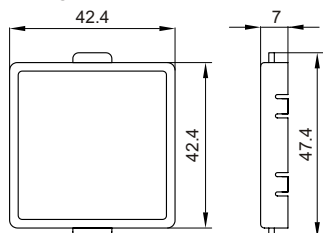


面板式

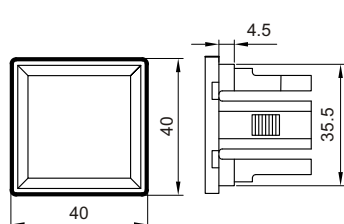
Panel type



FPC-1



PA-1



PA-2

