

# MP30 series

## HIGH PRECISION DIGITAL PRESSURE SWITCH



### Features:

- Pressure range : Compound -100.0~100 kPa  
Positive 0~1MPa  
Vacuum 0~-101.3kPa.
- Two switch output & one analog output.
- Hysteresis adjustable.
- High accuracy and Resolution.
- Low cost.

### Specification:

Model		MP30C (Compound)	MP30V (Vacuum)	MP30P (Positive)
Rated pressure range		-100.0~100.0 kPa	0.0 ~ -101.3kPa	0.000 ~ 1.000MPa
Operating / Setting pressure range		-100.0~100.0 kPa	10.0 ~ -101.3kPa	-0.100 ~ 1.000MPa
Withstand pressure		3 times of rated pressure range		1.5 times of rated pressure range
Fluid		Air, Non-corrosive gases ,incombustible gases		
Set pressure resolution	KPa	0.1		—
	MPa	—		0.001
	kgf/cm <sup>2</sup> , bar	0.001		0.01
	psi	0.001		0.01
	mmHg	1		—
	InHg	0.1		—
mmH <sub>2</sub> O		0.1		—
Power supply voltage		12 to 24VDC 10%, Ripple (P-P) 10% or less		
Current consumption		≤55mA		
Switch output		NPN or PNP open collector 2 outputs Max. load current : 80mA Max. supply voltage: 30VDC Residual voltage : ≤1V (load current 80mA)		
Repeatability(Switch output)		± 0.2% F.S. ± 1digit		
Hysteresis	Hysteresis mode	Adjustable		
	Window comparator mode	Fixed(3 digits)		
Response time		≤2.5ms (chattering-proof function: 24ms, 192ms and 768ms selections)		
Output short circuit protection		Yes		
7 segment LED display		3 1/2 digit LED display (Sampling rate: 5 times/1sec.)		
Indicator accuracy		±2% F.S. ±1 digit (ambient temperature: 25 ±3°C)		
Indicator		Green LED (OUT1) Red LED (OUT2)		
Analog output *(Only type MP30□-01, MP30□-03)		Output voltage: 1 to 5V ≤ 5% (within rated pressure range) Linearity: ≤ 1% F.S.	Output voltage: 1 to 5V ≤ 2.5% (within rated pressure range) Linearity: ≤ 1% F.S.	
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	1000VAC in 1-min (between case and lead wire)		
	Insulation resistance	50Mohm min. (at 500VDC M, 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		

# MP30 Dimensions

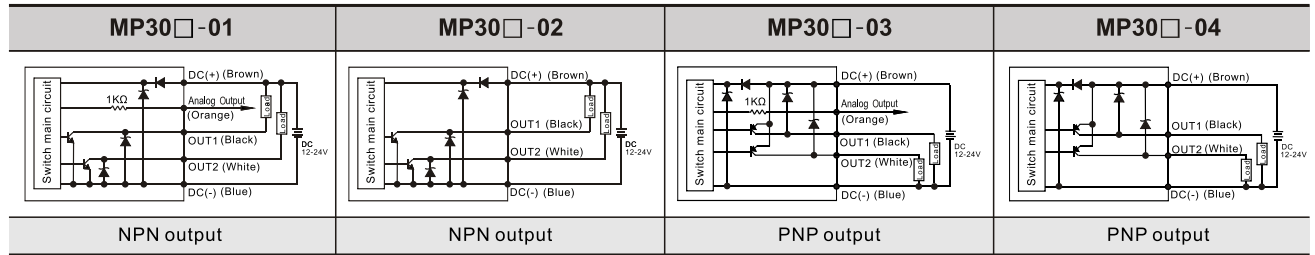
## HIGH PRECISION DIGITAL PRESSURE SWITCH



### Specification:

Model	MP30C (Compound)	MP30V (Vacuum)	MP30P (Positive)
Temperature characteristic	$\leq 2\%$ F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size	F1:PT 1/8,M5; F2:NPT 1/8,M5; F3:G 1/8,M5		
Lead wire	Oil-resistance cable(0.15mm <sup>2</sup> )		
Weight	Appro 67g(with 2-meter lead wire), Appro 35g(with meter connector)		

### Output circuit wiring graph:



### Order example:

**MP30C – 01 – F1 – QD**

MODEL

**PRESSURE RANGE**  
**C:** Compound  
 (-100.0~100.0 kPa)  
**V:** Vacuum  
 (0.0~ -101.3 kPa)  
**P:** Positive  
 (-0.10~1.00 Mpa)

**PRESSURE PORT**

**F1:** PT 1/8  
**F2:** NPT 1/8  
**F3:** G 1/8

**OUTPUT METHOD**

**01:** 2 NPN output & Analog output  
**02:** 2 NPN output  
**03:** 2 PNP output & Analog output  
**04:** 2 PNP output

**CABLE LENGTH /CONNECTOR**

Blank: With 2 meter cable  
**QD:** With M8, 4 Pin male connector  
 (Only type MP30□-02, MP30□-04)

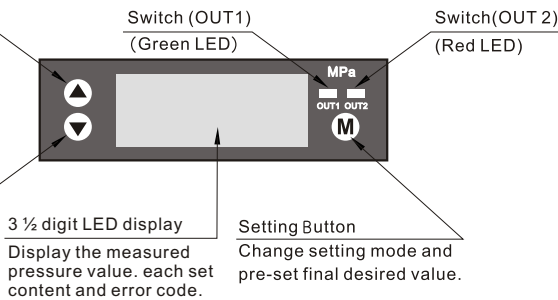
### Unit dimension / Panel instructions

(▲) Button

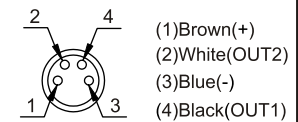
Use the ▲ button to change setting mode and pre-set desired value.

(▼) Button

Use the ▼ button to change setting mode and pre-set desired value.



**QD Pinout**



F1:PT 1/8, M5  
 F2:NPT 1/8, M5  
 F3: G1/8, M5

