

# GP30 SERIES



## Pressure switch

### Features

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



### ■ SPECIFICATION

TYPE		GP30C (Compound)	GP30V (Vacuum)	GP30P (Positive)
Rated pressure range		-100.0 ~ 100.0kPa	0.0 ~ -101.3kPa	0.000 ~ 1.000MPa
Setting pressure range		-100.0 ~ 100.0kPa	10.0 ~ -101.3kPa	-0.100 ~ 1.000MPa
Withstand pressure		300 kPa		1.5 MPa
Fluid		Air, Non-corrosive gases ,incombustible gases		
Set pressure resolution	kPa	0.1		-
	MPa	-		0.001
	kgf/cm <sup>2</sup>	0.001		0.01
	bar	0.001		0.01
	psi	0.01		0.1
	InHg	0.1		-
	mmHg	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:open collector 2 outputs Max. load current : 80mA Max. supply voltage: 30VDC Residual voltage :≤1V (load current 80mA)	PNP:open collector 2 outputs Max. load current : 80mA Max. supply voltage: 24VDC 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 KP30□-01-□, KP30□-03-□)		Output voltage: 1 to 5V ≤ ± 5%F.S. (within rated pressure range) Linearity: ≤ ±1% F.S.	Output voltage: 1 to 5V ≤ ± 2.5%F.S. (within rated pressure range) Linearity: ≤ ±1% F.S.	
Environment	Enclosure	IP 40		
	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 , between case and lead wire)		
	Vibration Shock	Total amplitude 1.5mm, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X,Y and Z 980m/s <sup>2</sup> (100G), 3 times each in direction of X, Y and Z		
Temperature characteristic		≤±2% F.S. of detected pressure (25 °C) at temp. Range of 0-50 °C		
Port size		F1: 1/8"PT, M5 ; F2: 1/8"NPT, M5; F3: G 1/8" M5		
Lead wire		Oil-resistance cable(0.15mm <sup>2</sup> )		
Weight		Approx.*67g(with 2-meter lead wire), Approx.*35g(with male connector)		

## ORDERING INFORMATION

GP 30 C - 01 - F1 - □

### Pressure Range

C : Compound (-100.0~100.0KPa)  
V : Vacuum (0.0~-101.3KPa)  
P : Positive (-0.100~1.000 MPa)

### Output Specifications

01 : 2 NPN output & 1 Analog output  
02 : 2 NPN output  
03 : 2 PNP output & 1 Analog output  
04 : 2 PNP output

### Cable Length / Connector

Blank: With 2 meter cable  
QD : With M8, 4 Pin male connector  
\*(Only type KP30 □ - 02 - □, KP30 □ - 04 - □)

### Pressure Port

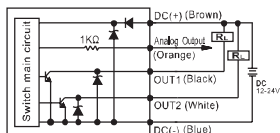
F1 : 1/8" PT  
F2 : 1/8" NPT  
F3 : G1/8"

### Option part

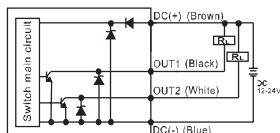
M84R-W0085-2M : With M8,4 Pin female connector

## OUTPUT CIRCUIT WIRING GRAPH

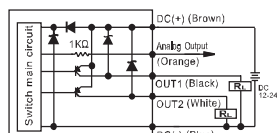
GP30□ - 01 - □ - □  
NPN output & Analog output



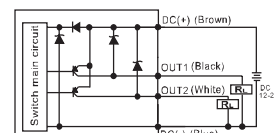
GP30□ - 02 - □ - □  
NPN output



GP30□ - 03 - □ - □  
PNP output & Analog output



GP30□ - 04 - □ - □  
PNP output



## 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.

3 1/2 digit LED display  
Display the measured pressure value, each set content and error code.

Switch (OUT1)  
(Green LED)

Switch (OUT2)  
(Red LED)

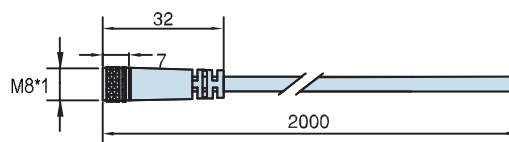
Setting Button  
Change setting mode and pre-set final desired value.



## TYPE OF SPARE PARTS / DIMENSION GRAPH

### M8 Female Connector

M84R-W0085-2M



## DIMENSION

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

