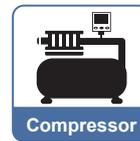
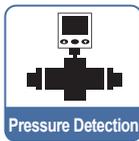
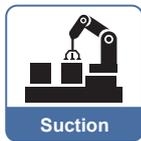


# KP47 SERIES

## Economical Pressure Sensor

### Features

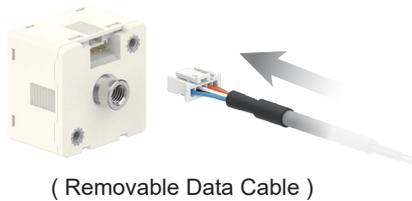
- 3-color digital LCD display
- Main / Sub-Display, 4 digits 7 segment LCD display
- Selectable pressure unit : kPa, MPa, kgf / cm<sup>2</sup>, bar, psi, inHg, mmHg
- Dual LCD display allows setting value to be displayed
- Key-lock indicator
- Power-save mode
- Fine adjustment mode



### Features Highlight

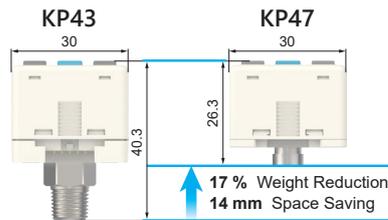
#### 1 Quick Installation

- Save installation time
- Easy removal



#### 2 Compact design

- Compared with similar products, approx. 35 % shorter



#### 3 Setting Value Easy Indication

- User can easily observe the setting value from sub-display



#### 4 2-Color Main Display

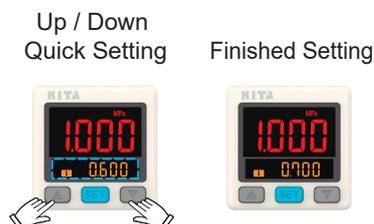
- User selectable color mode, for different conditions use



	SoG	SoR	Grn	rEd
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

#### 5 OPS Quick Setting

- Sub-display allows changing the parameter directly, reduce setting step by 3/4



#### 6 Easy Unit Identification

- Unit conversion easy to read



## Specifications

MODEL	KP47C	KP47V	KP47P	KP47S
	Compound Pressure	Vacuum Pressure	Positive Pressure	Micro-pressure
Rated Pressure Range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	-0.100 ~ 1.000 MPa	-10.00 ~ 10.00 kPa ※1
Set Pressure Range	-103.0 ~ 103.0 kPa	10.0 ~ -103.0 kPa	-0.103 ~ 1.030 MPa	-10.00 ~ 10.00 kPa ※1
Withstand Pressure	500 kPa		1.5 MPa	20 kPa
Fluid	Filtered air, Non-corrosive / Non-flammable gas			
Set Pressure Resolution	kPa	0.1	-	0.01
	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	-	-
Power Supply Voltage	12 ~ 24 V DC ± 10 %, Ripple ( P-P ) ≤ 10 %			
Current Consumption	≤ 30 mA ( with no load )			
Switch Output	1 NPN open collector output Max. Load Current : 80 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1 V		1 PNP open collector output Max. Load Current : 80 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1 V	
Repeatability	± 0.3 % F.S. ± 1 digit			≤ ± 0.4 kPa
Hysteresis	One Point Set Mode	Adjustable ※2		
	Hysteresis Mode			
	Window Comparator Mode			
Response Time	≤ 2.5 ms ( Chattering-proof function : 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms and 1500 ms selectable )			
Output Short Circuit Protection	Yes			
Display	4 digital, 7 segment LCD display ( Red / Green / Orange ) ( Sampling rate : 0.2, 0.5, 1 sec. / time )			
Indicator Accuracy	± 1 % F.S. ± 1 digit ( Ambient temperature : 25 ± 3 °C )			≤ ± 0.4 kPa
Switch on Indicator	Orange Indicator 1 : OUT1 & Orange Indicator 2 : OUT2			
Analog Output ( Voltage Output )	Output Voltage : 1 ~ 5 V ± 2.5 % F.S. ( within rated pressure range ) ; Linearity : ± 1 % F.S. ; Output Impedance : about 1 kΩ		Output Voltage : 0.6 ~ 5 V ± 2.5 % F.S. ( within rated pressure range ) ; Linearity : ± 1 % F.S. ; Output Impedance : about 1 kΩ	Output Voltage : 1 ~ 5 V ± 2.5 % F.S. ( within rated pressure range ) ; Linearity : ± 1 % F.S. ; Output Impedance : about 1 kΩ
	Enclosure	IP40		
	Ambient Temp. Range	Operation : 0 ~ 50 °C ; Storage : -10 ~ 60 °C ( No condensation or freezing )		
Ambient Humidity Range	Operation / Storage : 35 ~ 85 % RH ( No condensation )			
Withstand Voltage	1000 V AC in 1-min ( between case and lead wire )			
Insulation Resistance	≥ 50 MΩ ( at 500 V DC, between case and lead wire )			
Vibration	Total amplitude 1.5 mm or 10 G, 10 Hz ~ 150 Hz ~ 10 Hz scan for 1 minute, 2 hours each direction of X, Y and Z			
Shock	100 m/s <sup>2</sup> ( 10 G ), 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 )			± 0.4 kPa of detected pressure ( 25 °C ) at temp. ( Range of 0 ~ 50 °C )
Port size	F1 : R1/8", M5 ; F2 : NPT1/8", #10~32 UNF ; F3 : G1/8" ( BSPP ), M5 ; M5 : M5 female thread			
Lead wire	Ø4 PVC - 26 AWG ( 0.15 mm <sup>2</sup> ) - 4 cores			
Weight ( with 2 meter lead wire )	Approx. 67 g			

### NOTE

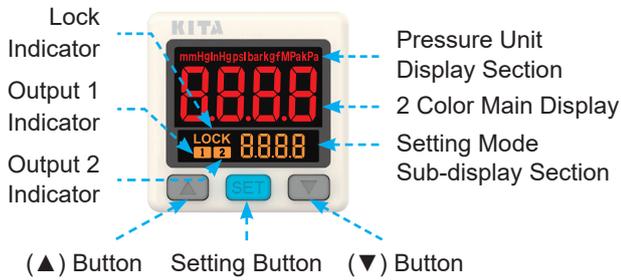
※1 : Selectable pressure ranges ( S-01 ~ S-09 ).

※2 : Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

# KP47 SERIES

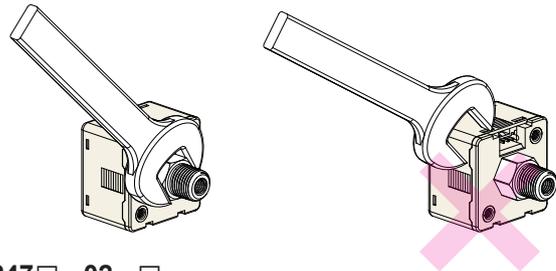
# Economical Pressure Sensor

## Panel Description



## Installation Precautions

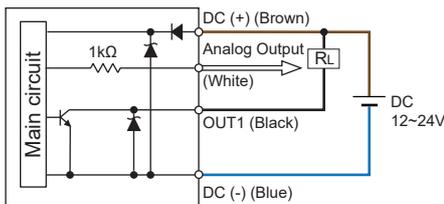
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damage to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply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



## Circuit Wiring Diagrams

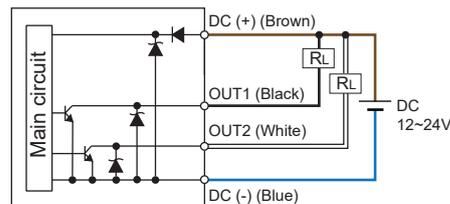
### KP47□ - 01 - □

1NPN + Analog Output ( 1 ~ 5 V ) ( 0.6 ~ 5 V only positive )



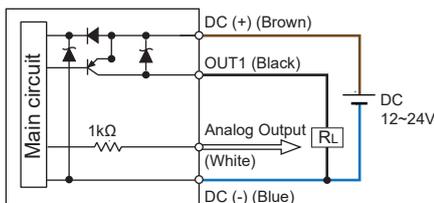
### KP47□ - 02 - □

2NPN + Output



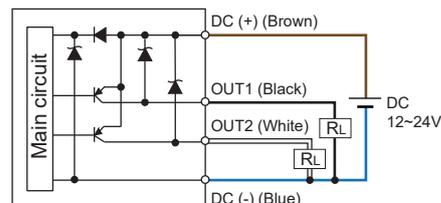
### KP47□ - 03 - □

1PNP + Analog Output ( 1 ~ 5 V ) ( 0.6 ~ 5 V only positive )



### KP47□ - 04 - □

2PNP + Output



## Ordering Information

**K P 4 7 C - 0 1 - F 1**

### Pressure Range

C : Compound pressure ( -103.0 ~ 103.0 kPa )  
 V : Vacuum pressure ( 10.0 ~ -103.0 kPa )  
 P : Positive pressure ( -0.103 ~ 1.030 MPa )  
 S : Micro-pressure ( -10.00 ~ 10.00 kPa )

### Output Specifications

01 : 1 NPN output + Analog output ( 1 ~ 5 V )  
 02 : 2 NPN output  
 03 : 1 PNP output + Analog output ( 1 ~ 5 V )  
 04 : 2 PNP output

### Pressure Port

F1 : R1/8", M5  
 F2 : NPT1/8", #10-32UNF  
 F3 : G1/8" ( BSPP ), M5  
 M5 : M5 female thread

### Optional Parts

BT-22 : Mounting bracket  
 BT-23 : Mounting bracket  
 PA-C : Panel adapter  
 PA-D : Panel adapter +  
 Front protective lid

### Optional Parts

- Mounting Bracket : BT-22 / BT-23

- Panel Adapter : PA-C

- Panel Adapter + Front Protective Lid : PA-D



