

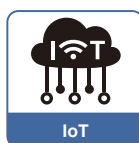
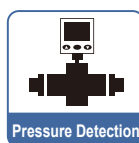
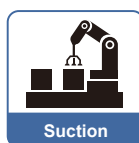
KP72 SERIES

IoT Pressure Sensor

Features

- Smart pressure sensor
- Remote control
- Real-time monitoring
- Multiple output function
- Cost reduction
- IO-Link compatible

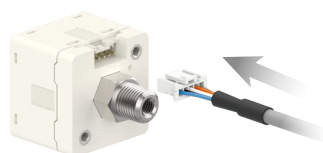
 **IO-Link**



Features Highlight

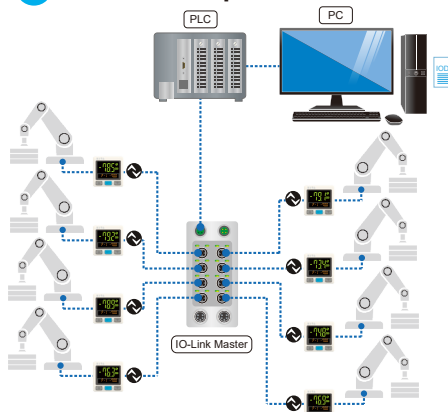
1 Quick Installation

- Save Installation Time
- Easy Removal



(Removable Data Cable)

2 IO-Link compatible



3 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

IO-Link Specifications

Type	Device
Version	V1.1
Communication Speed	COM2 (38.4 kbps)
Configuration File	IODD file ※1
Min. Cycle Time	3 ms
Process Data Length	Input Data : 2 byte (2 bit BCD ; 14 bit PDV) , Output Data : 0 byte
On Request Data Communication	Available
Data Storage Function	Available
Event Function	Available
Vendor ID	1254 (0x04E6)
Device ID	KP72V - □ : 170 (0x0000AA) KP72C - □ : 171 (0x0000AB) KP72P - □ : 172 (0x0000AC)

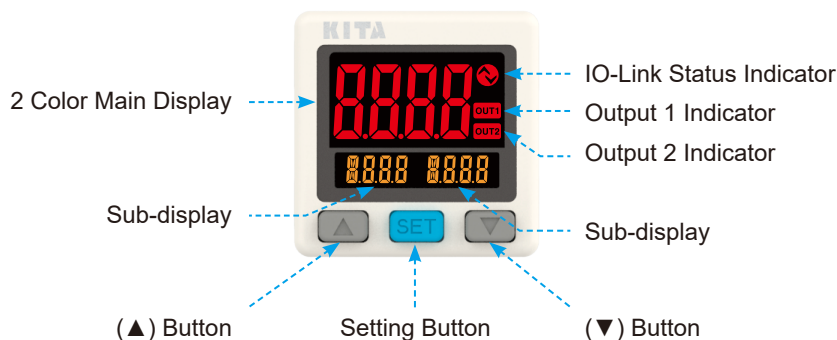
NOTE

※1 : IO-Link device description (IODD) is available on KITA web site : www.kita.com.tw

Specifications

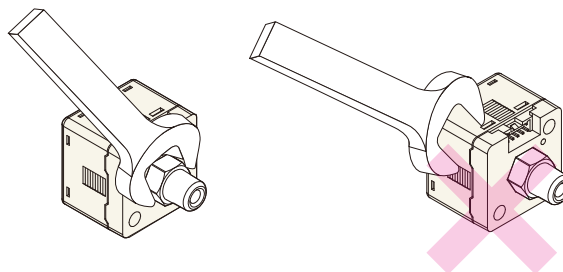
MODEL		KP72C	KP72V	KP72P
		Compound Pressure	Vacuum Pressure	Positive Pressure
				
Rated Pressure Range		-100.0 ~ 100.0 kPa	0.0 ~ -100.0 kPa	0.000 ~ 1.000 MPa
Set Pressure Range		-105.0 ~ 105.0 kPa	10.5 ~ -105.0 kPa	-0.105 ~ 1.050 MPa
Withstand Pressure		500 kPa		1.5 MPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas		
Set Pressure Resolution	kPa	0.1		1
	MPa	-		0.001
	kgf / cm ²	0.001		0.01
	bar	0.001		0.01
	psi	0.01		0.1
	inHg	0.1		-
	mmHg	1		-
Power Supply Voltage		24 V DC, Ripple (P-P) ≤ 10 %		
Current Consumption		≤ 35 mA (no load)		
Switch Output		NPN : open collector outputs Max. Load Current : 150 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1 V (Load current 150 mA)		
Repeatability		± 0.2 % F.S ± 1 digit		
Hysteresis	Single Point Mode	Adjustable		
	Window Comparator Mode			
Output Short Circuit Protection		Yes		
Display		Main Display : 4 digital, 7 segment LCD display (Red / Green) Sub Display : 4 digital, 1st digit 11 segment, 7 segment for other (Orange)		
Indicator Accuracy		± 2 % F.S ± 1 digit (Ambient temperature : 25 ± 3 °C)		
Switch on Indicator		Red Indicator 1, 2 : OUT1 or OUT2 ; Green Indicator 1, 2 : OUT1 or OUT2		
Analog Output (Voltage Output)		Output Voltage : 1 ~ 5 V or 0 ~ 10 V ± 2.5 % F.S (within rated pressure range) Linearity : ± 1.5 % F.S. Output Impedance : about 1 kΩ		
Analog Output (Current Output)		Output Current : 4 ~ 20 mA ± 2.5 % F.S (within rated pressure range) Linearity : ± 1.5 % F.S. Max. Load Impedance : 500 Ω		
Environment	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 ~ 55 Hz ~ 10 Hz scan for 1 minute, 2 hours each direction of X, Y and Z		
Shock		100 m/s ² (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)		
Port Size		F1 : R1/8", M5 ; F2 : NPT1/8", #10-32 UNF ; F3 : G1/8" (BSPP), M5		
Lead Wire		Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm ²) - 5 cores		
Weight (with 2 meter lead wire)		Approx. 80 g		

Panel Description

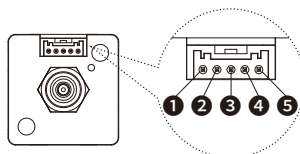
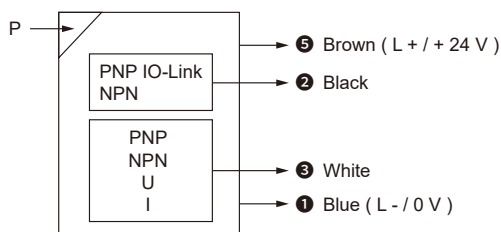


Installation Precautions

- 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



Pin No.	Line Color	Content
①	Blue	0 V
②	Black	Switch output OUT1 or IO-Link (C / Q Line)
③	White	Switch output OUT2 or analog output (1 ~ 5 V, 0 ~ 10 V, 4 ~ 20 mA)
④	Orange	Not Used
⑤	Brown	Operating voltage + 24 V DC

※ NPN/PNP of switch output can be switched.

Ordering Information

K P 7 2 C - F 1

Pressure Range

C : Compound pressure (-105.0 ~ 105.0 kPa)
 V : Vacuum pressure (10.5 ~ -105.0 kPa)
 P : Positive pressure (-0.105 ~ 1.050 MPa)

Pressure Port

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

Optional Parts

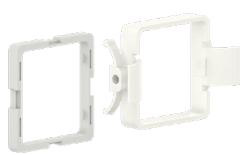
BT-12 : Mounting bracket
 BT-13 : Mounting bracket
 PA-C : Panel adapter
 PA-D : Panel adapter + Front protective lid

Optional Parts

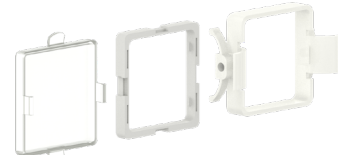
- Mounting bracket : BT-12 / BT-13



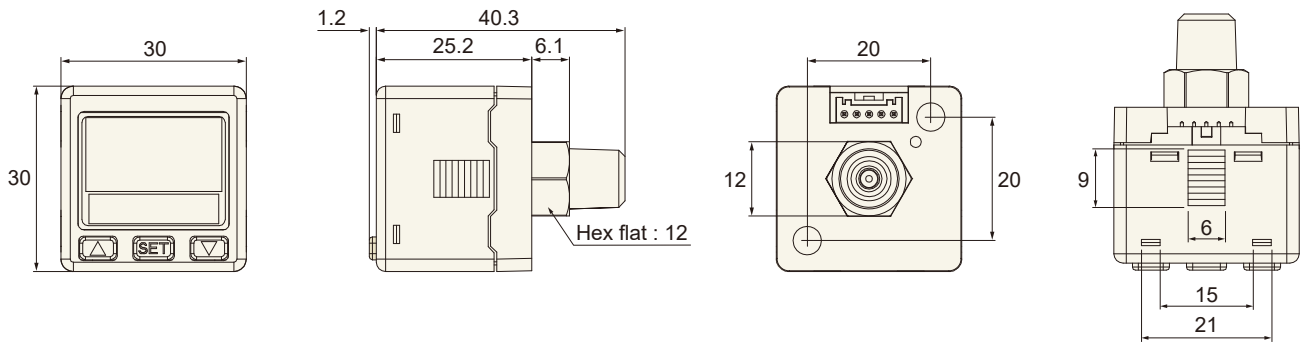
- Panel adapter : PA-C



- Panel adapter + Front protective lid : PA-D

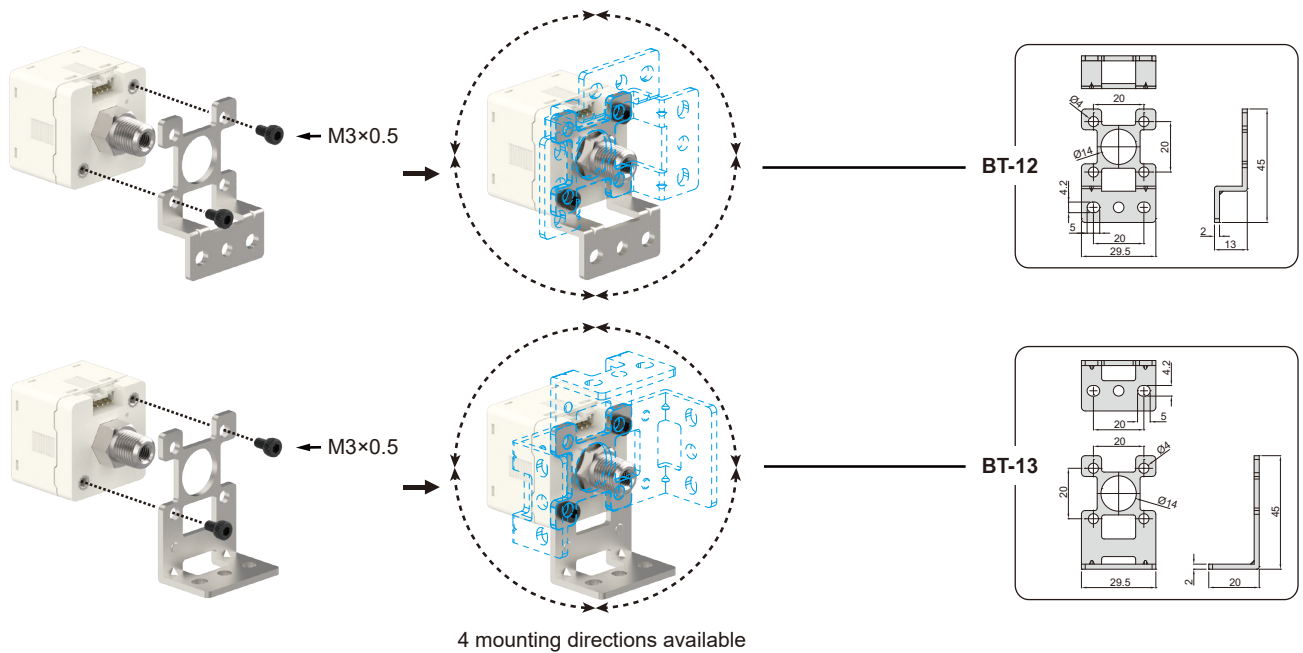


Dimensions

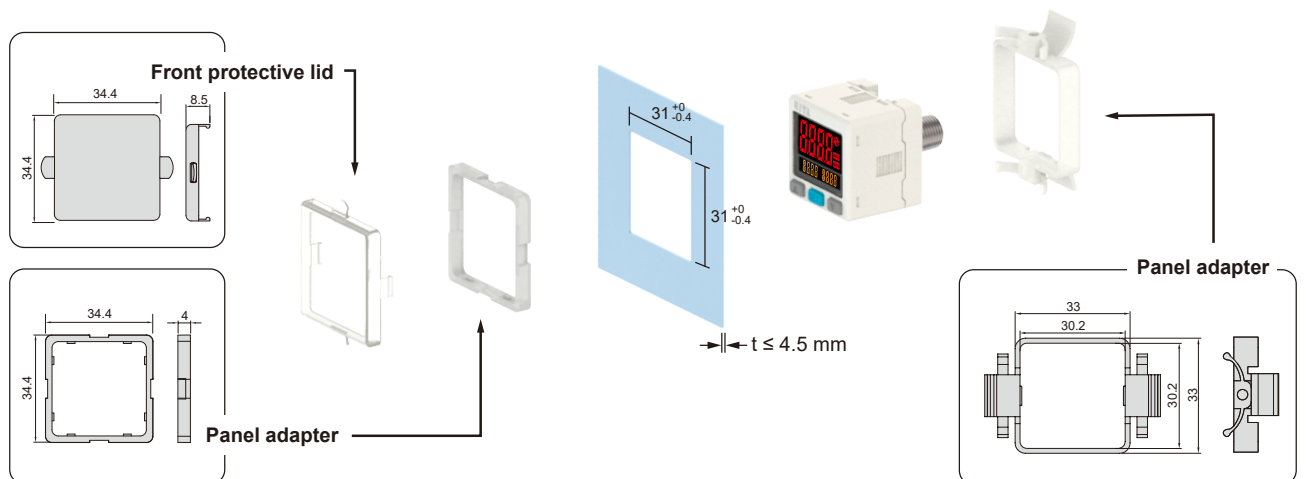


Optional Parts Dimensions

1 Mounting Bracket



2 Panel Mount Adapter + Front Protective Lid



Unit : mm