

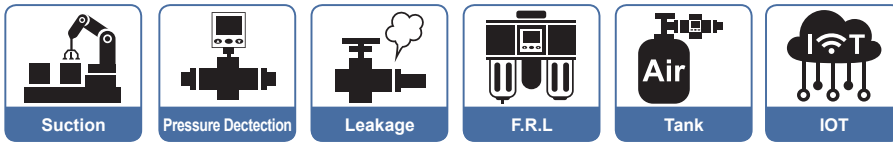
KP70 SERIES

IOT Pressure Sensor

Features

- Smart pressure sensor
- Remote control
- Real-time monitoring
- RS-485 Modbus RTU / ASCII
- 4 digits, 7 segment LCD display

RS485 MODBUS MODE



Features Highlight

1 Station Setting Display

- Provide 0 ~ 255 station to set the sensor



ID number display

2 Modes Display

- Three modes show on the screen



3 Setting Value Easy Indication

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

Main / Sub-Display



Main Display

Sub-Display

4 Easy Unit Identification

- Conversion unit is on display and easy to read



5 2-Color Main Display

- User programmable color mode, for different setting conditions



	5.0k	5.0k	5.0k	5.0k
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

6 OPS Quick Setting

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

Up / Down quick setting

Finished setting



Specifications

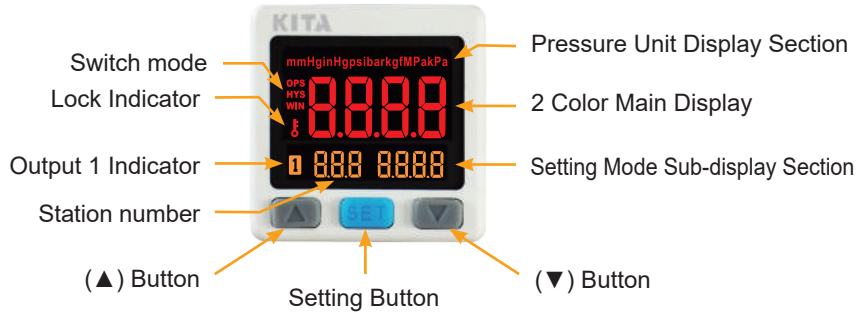
MODEL		KP70C (Compound)	KP70V (Vacuum)	KP70P (Positive)
Rated Pressure Range		-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa
Set Pressure Range		-101.0 ~ 101.0 kPa	10.0 ~ -101.3 kPa	-0.100 ~ 1.000 MPa
Withstand Pressure		500 kPa		1.5 MPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas		
Set Pressure Resolution	kPa	0.1		-
	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		12 to 24 V DC ±10 %, Ripple (P-P) 10 % or less		
Current Consumption		≤ 40 mA (With no load)		
Switch Output		1NPN : open collector 1 output Max. Load Current : 125 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1.5 V	1PNP : open collector 1 output Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V	
Repeatability (Switch Output)		±0.2 % F.S. ±1 digit		
Hysteresis	One Point Set Mode	Adjustable *1		
	Hysteresis Mode			
	Window Comparator Mode			
Response Time		≤ 2.5 ms (chattering-proof function : 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms, 2000 ms and 5000 ms selectable)		
Output Short Circuit Protection		Yes		
Display		4 digital, 7 segment LCD display (Red / Green / Orange) (Sampling rate : 0.2 , 0.5 , 1 seconds / time selectable)		
Indicator Accuracy		±2 % F.S. ±1 digit (ambient temperature : 25 ±3 °C)		
Switch on Indicator		Orange indicator 1 : OUT		
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, two 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		±2.5 % F.S. of detected pressure (25 °C) at temp. Range of 0 ~ 50 °C		
Communication Interface		RS-485		
Port Size		F1 : R1/8", M5 ; F2 : NPT1/8", #10-32 UNF ; F3 : G1/8" (BSPP), M5		
Lead Wire		Oil-resistance cable (0.15 mm ²)		
Weight		Approx. 80 g (with 2 meter lead wire)		

NOTE :

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

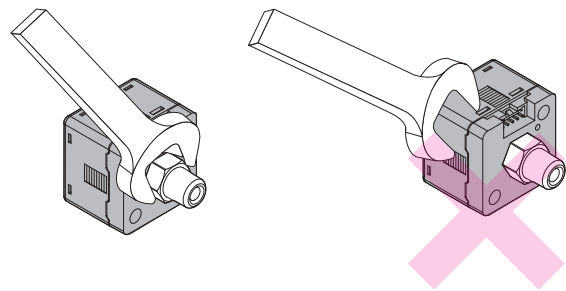
KP70 SERIES IOT Pressure Sensor

Panel Description



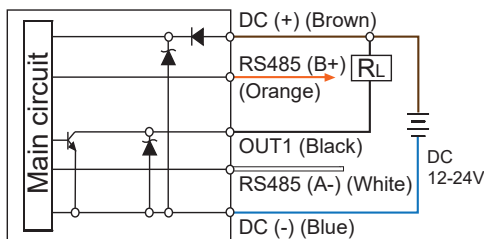
Installation Precautions

- 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 damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.

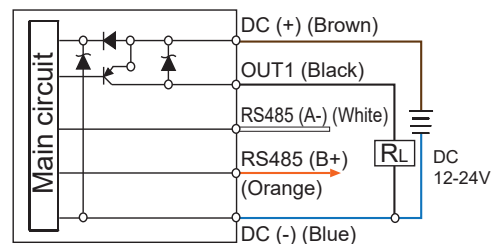


Output Circuit Wiring Diagrams

KP70 □ - 02 - □
NPN output + RS485



KP70 □ - 04 - □
PNP output + RS485



Ordering Information

K P 7 0 C - 0 2 - F 1

Pressure Range

C : Compound (-101.0 ~ 101.0 kPa)
V : Vacuum (10.0 ~ -101.3 kPa)
P : Positive (-0.100 ~ 1.000 MPa)

Output Specifications

02 : 1 NPN output + RS485
04 : 1 PNP output + RS485

Pressure Port

F1 : R 1/8", M5
F2 : NPT 1/8", #10-32UNF
F3 : G 1/8" (BSPP), M5

Optional Parts

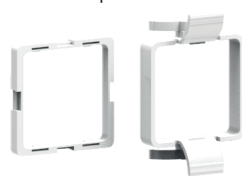
BT-12 : Mounting bracket
BT-13 : Mounting bracket
PA-C : Panel adapter
PA-D : Panel adapter + Front protective lid

Optional Parts

- Mounting Bracket : BT-12 / BT-13



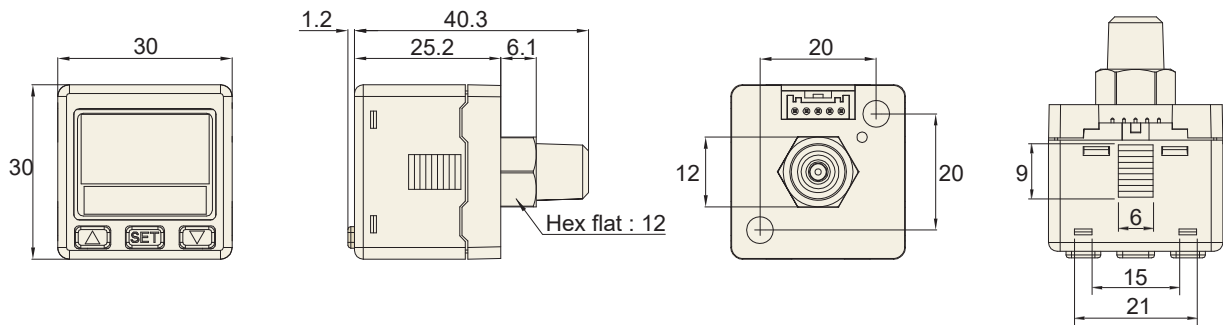
- Panel Adapter : PA-C



- Panel Adapter + Front Protective Lid : PA-D

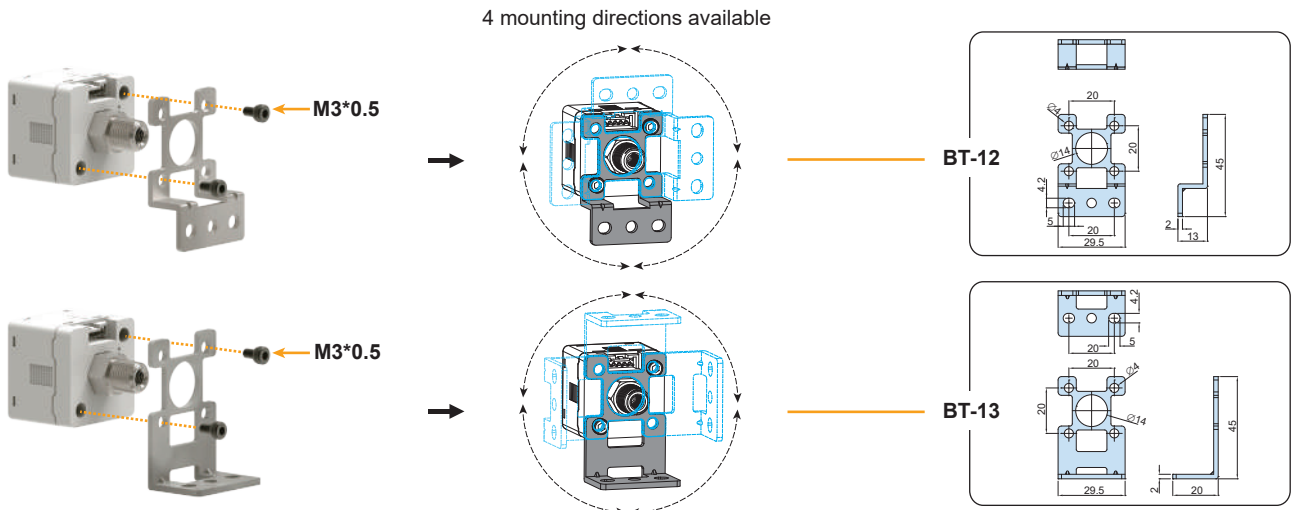


Dimensions

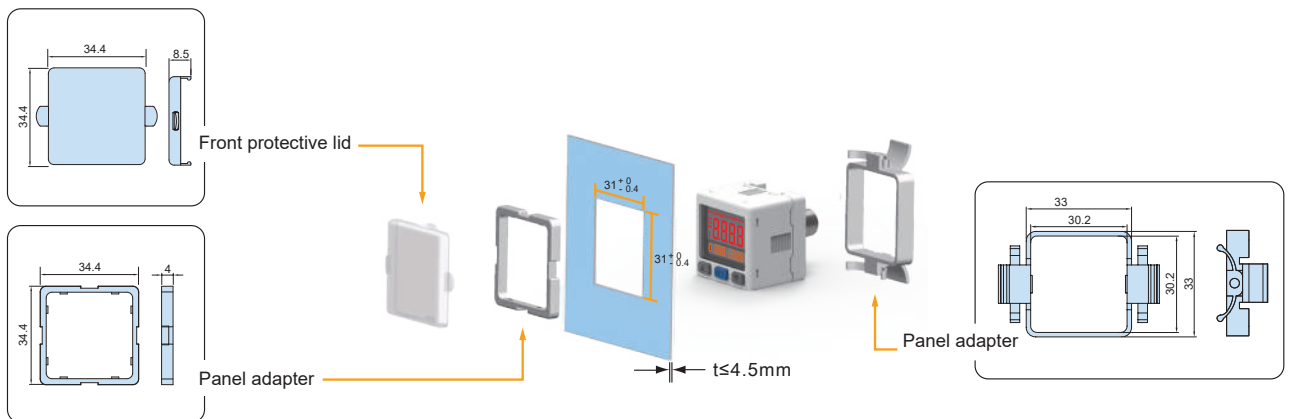


Optional Parts Dimensions

1 Mounting Bracket



2 Panel Mount Adapter + Front Protective Lid



Unit : mm