

KP50 SERIES

Features

- 2-color digital LCD display
- Copy function
- Programmable pressure unit :
kPa 、MPa 、kgf/cm² 、bar 、psi 、inHg
- Sensor parts & Fitting parts : Stainless steel 316L
- Corrosive fluid or gas available
- IP65 enclosure



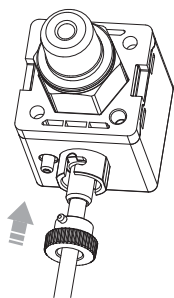
SPECIFICATIONS

TYPE	Compound	Vacuum	Positive	High
MODEL	KP50C	KP50V	KP50P	KP50H
2.0 MPa 1.0 MPa 100.0 kPa 0 -101.3 kPa				
Rated pressure range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa	0.000 ~ 2.00 MPa
Setting pressure range	-101.0 ~ 101.0 kPa	10.0 ~ -101.3 kPa	-0.050 ~ 1.000 MPa	-0.050 ~ 2.00 MPa

FEATURES HIGHLIGHT

1 Quick Installation

- Save installation time.
- Easy removal.



(Removable data cable)

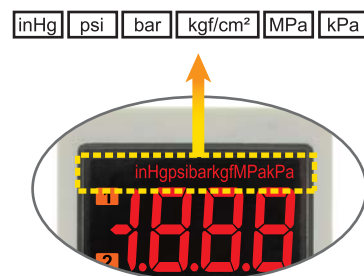
2 Copy Setting

- Avoid setting errors
 - Reduce setting time
- Can copy the setting value from master to slave sensor.



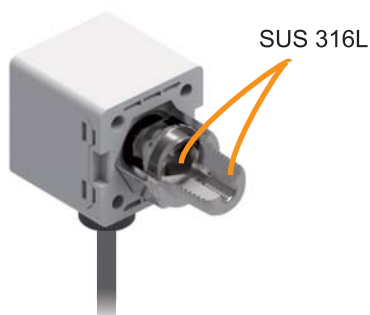
3 Easy Unit Identification

- Conversion unit is on display and easy to read.



4 Applicable for Corrosive Fluid or Gas

- Sensor parts & Fitting parts are SUS 316L, applicable for corrosive fluid or gas equipment.



5 2-Color Display

- User programmable color mode, for different setting conditions.



6 IP65 Compliance

- Protected against water and dust splash from all directions.



SPECIFICATIONS

MODEL		KP50C (Compound)	KP50V (Vacuum)	KP50P (Positive)	KP50H (High)
2.0 MPa 1.0 MPa 100.0 kPa 0 -101.3 kPa					
Rated pressure range		-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa	0.000 ~ 2.00 MPa
Set pressure range		-101.0 ~ 101.0 kPa	10.0 ~ -101.3 kPa	-0.050 ~ 1.000 MPa	-0.050 ~ 2.00 MPa
Withstand pressure		300 kPa		3 MPa	
Fluid		Fluids do not corrode stainless steel 316L			
Set pressure resolution	kPa	0.1		-	-
	MPa	-		0.001	0.001(~1.999) 0.01(2.00~)
	kgf/cm ²	0.001		0.01	0.01(~19.99) 0.1(20.0~)
	bar	0.001		0.01	0.01(~19.99) 0.1(20.0~)
	psi	0.01		0.1	0.1(~199.9) 1(200~)
	inHg	0.1		-	-
Power supply voltage		12 to 24V DC ±10%, Ripple (P-P) 10% or less			
Current consumption		≤ 40mA(With no load)			
Switch output		NPN: open collector 2 outputs Max. load current: 125mA Max. supply voltage: 30V DC Residual voltage: ≤ 1.5V		PNP: open collector 2 outputs Max. load current: 125mA Max. supply voltage: 24V DC Residual voltage: ≤ 1.5V	
Repeatability(Switch output)		±0.3% F.S. ±1 digit			
Hysteresis	One point set mode	Adjustable(*1)			
	Hysteresis mode				
	Window comparator mode				
Response time		≤ 2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selectable)			
Output short circuit protection		Yes			
7 segment LCD display		3½ digit, 7 segment (red/green)			
Indicator accuracy		±2% F.S. ±1 digit (ambient temperature: 25 ±3°C)			
Switch ON Indicator		Orange (1&2 Indicator) OUT1 OUT2			
Analog output (Voltage Output) (*2)		Output Voltage: 1 to 5V ±2.5% F.S. (within rated pressure range) Linearity: ±1% F.S. Output impedance: about 1kΩ			
Analog output (Current Output) (*3)		Output Current: 4 to 20mA ±2.5% F.S.(within rated pressure range) Linearity: ±1% F.S. Max.Load Impedance: 250Ω at power supply of 12V, 600Ω at power supply of 24V Min.Load impedance: 50Ω			
Environment	Environment	IP 65			
	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	250V AC in 1-min (between case and lead wire)			
	Insulation resistance	50MΩ (at 500V DC, between case and lead wire)			
	Vibration	Total amplitude 1.5mm or 10G,10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z			
	Shock	100m/s ² (10G), 3 times each in direction of X, Y and Z			
Temperature characteristic		±3% F.S. of detected pressure (25°C) at temp. Range of 0~50°C			
Port size		F1 : R1/4", M5; F2 : NPT1/4", #10-32 UNF; F3 : G1/4"(BSPP), M5			
Lead wire		Oil-resistance cable(0.15mm ²)			
Weight		Approx. 110g (with 2 meter lead wire)			

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

*2 : If analog voltage output is selected, the analog current output cannot be selected at the same time.

*3 : If analog current output is selected, the analog voltage output cannot be selected at the same time.

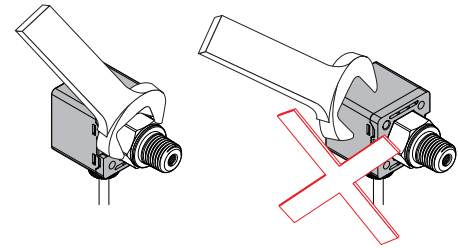
KP50 SERIES

■ PANEL DESCRIPTION



■ INSTALLATION PRECAUTIONS

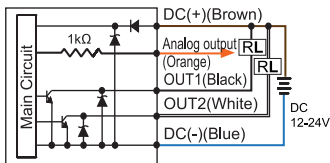
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply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



■ OUTPUT CIRCUIT WIRING DIAGRAMS

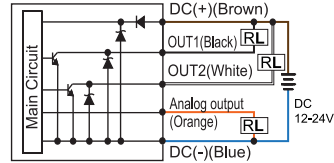
KP50 □ - 010 - □

2 NPN + Analog Output(1~5V)



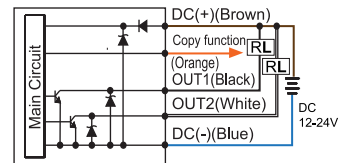
KP50 □ - 011 - □

2 NPN + Analog Output(4~20mA)



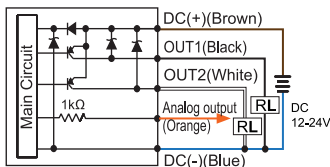
KP50 □ - 02 - □

2 NPN + Copy Function



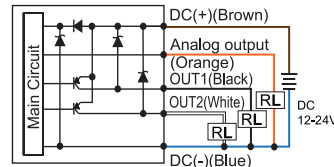
KP50 □ - 030 - □

2 PNP + Analog Output(1~5V)



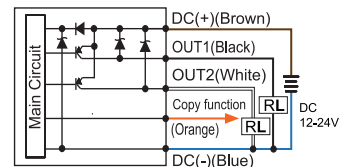
KP50 □ - 031 - □

2 PNP + Analog Output(4~20mA)



KP50 □ - 04 - □

2 PNP + Copy Function



■ ORDERING INFORMATION

K P 5 0 H - 0 1 0 - F 1

Pressure Range

H : High (-0.050 ~ 2.00 MPa)
C : Compound (-101.0 ~ 101.0kPa)
V : Vacuum (10.0 ~ -101.3kPa)
P : Positive (-0.050~1.000MPa)

Output Specifications

010 : 2 NPN Output & Analog Output(1~5V)
011 : 2 NPN Output & Analog Output(4~20mA)
02 : 2 NPN Output & Copy Function
030 : 2 PNP Output & Analog Output(1~5V)
031 : 2 PNP Output & Analog Output(4~20mA)
04 : 2 PNP Output & Copy Function

Pressure Port

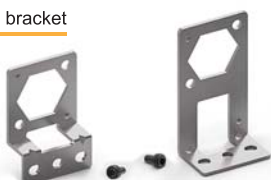
F1 : R1/4", M5
F2 : NPT1/4", #10-32UNF
F3 : G1/4"(BSPP), M5

Optional Parts

BT-10 : Mounting bracket
BT-11 : Mounting bracket
PA-E : Panel adapter
PA-F : Panel adapter + Front protective lid

Optional Parts

Mounting bracket



■ BT-10

■ BT-11

Panel adapter



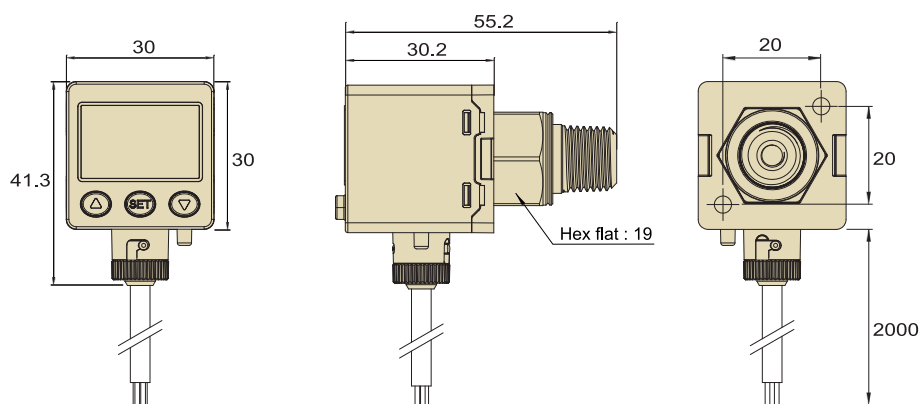
■ PA-E

Panel adapter + Front protective lid



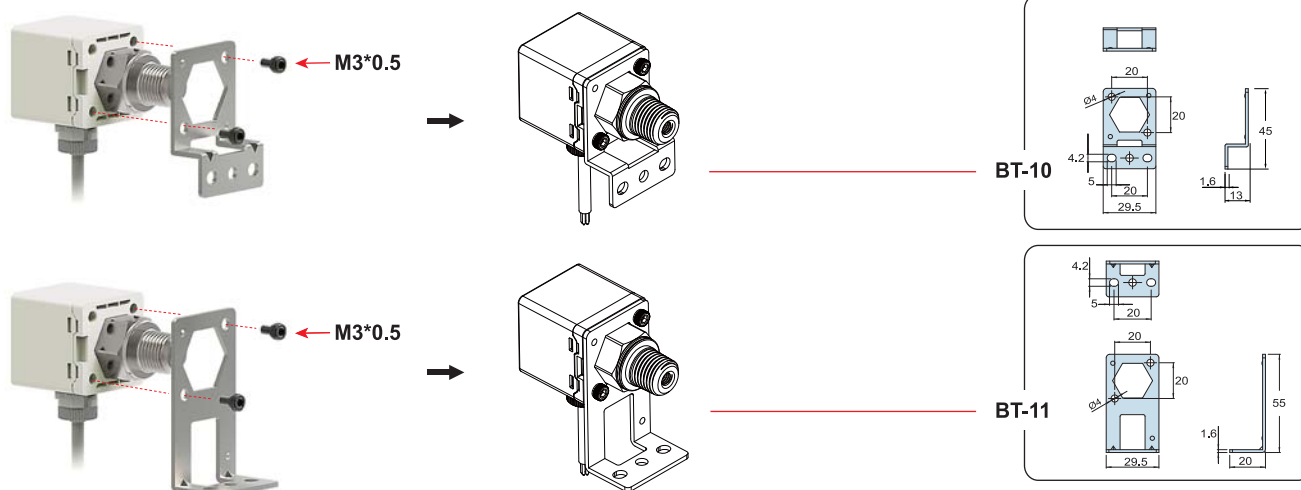
■ PA-F

DIMENSION

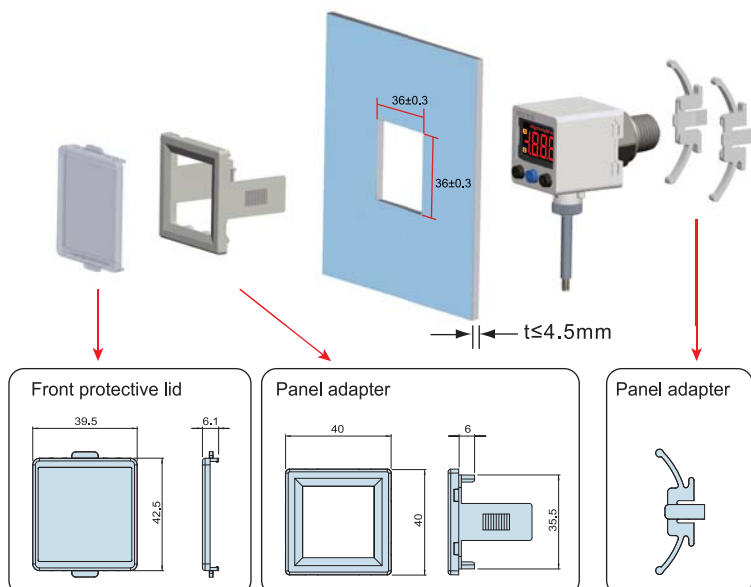


OPTIONAL PARTS DIMENSION

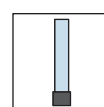
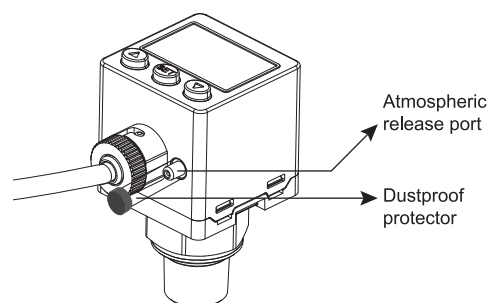
1 Mounting Bracket



2 Panel Mount Adapter + Front Protective Lid



3 IP65 Protector



Caution:
This device must be installed to maintain IP 65(Dust and splash proof) enclosure rating.

Unit:mm