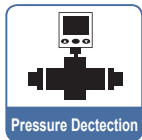


Features

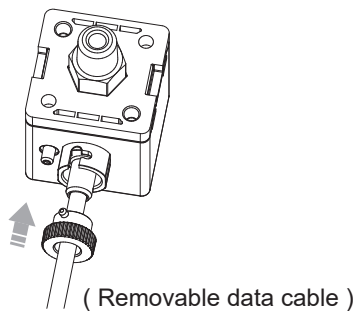
- 2-color digital LCD display
- Copy function
- Programmable pressure unit :
kPa 、 kgf / cm² 、 bar 、 psi 、 inHg
- IP65 enclosure



Features Highlight

1 Quick Installation

- Save installation time
- Easy removal



2 Copy Setting

- Avoid setting errors
- Reduce setting time



3 Easy Unit Identification

- Conversion unit is on display and easy to read.



4 2-Color Display

- User programmable color mode, for different setting conditions.



	5.00	5.00	5.00	5.00
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

5 IP65 Compliance



6 Environmental Protection Design

- RoHS Compliance / Without Harmful Substance



Specifications

MODEL		KP45S (Compound)
10.10 kPa 0 -10.10 kPa 		
Rated Pressure Range		-10.00 ~ 10.00 kPa
Set Pressure Range		-10.10 ~ 10.10 kPa
Withstand Pressure		20 kPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas
Set Pressure Resolution	kPa	0.01
	MPa	-
	kgf / cm ²	0.001
	bar	0.001
	psi	0.01
	inHg	0.1
Power Supply Voltage		12 to 24 V DC $\pm 10\%$, Ripple (P-P) 10 % or less
Current Consumption		≤ 40 mA (With no load)
Switch Output		2NPN : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1.5 V 2PNP : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V
Repeatability (Switch Output)		$\pm 0.2\%$ 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 and 1500 ms selectable)
Output Short Circuit Protection		Yes
Display		3 ½ digital, 7 segment LCD display (Red / Green / Orange) (Sampling rate : 5 times / sec.)
Indicator Accuracy		$\pm 2\%$ F.S. ± 1 digit (ambient temperature : 25 ± 3 °C)
Switch on Indicator		Orange indicator 1 : OUT1 & Orange indicator 2 : OUT2
Analog Output (Voltage Output) *2		Output Voltage : 1 to 5 V $\pm 2.5\%$ F.S. (within rated pressure range) Linearity : $\pm 1\%$ F.S. Output Impedance : about 1 k Ω
Analog Output (Current Output) *3		Output Current : 4 to 20 mA $\pm 2.5\%$ F.S. (within rated pressure range) Linearity : $\pm 1\%$ F.S. Max.Load Impedance : 250 Ω at power supply of 12 V 600 Ω at power supply of 24 V Min.Load Impedance : 50 Ω
Environment	Enclosure	IP 65 *4
	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 M Ω (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		$\pm 2\%$ F.S. of detected pressure (25 °C) at temp. Range of 0 ~ 50 °C
Port Size		F1 : R1/8", M5 ; F2 : NPT1/8", #10-32UNF ; F3 : G1/8" (BSPP), M5 F1C : Rc1/8" ; F2C : NPT1/8" ; F3C : G1/8" (BSPP)
Lead Wire		Oil-resistance cable (0.15 mm ²)
Weight (With 2 Meter Lead Wire)		Approx. 86g (Port F1 ~ F3) ; Approx. 114g (Port F1C ~ F3C)

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.

*4 : Air tube must be installed to maintain IP65.

KP45S SERIES

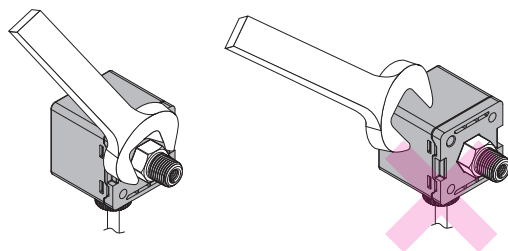
IP65 Low Pressure Sensor

Panel Description



Installation Precautions

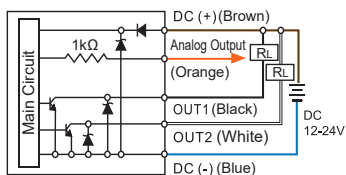
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply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



Circuit Wiring Diagrams

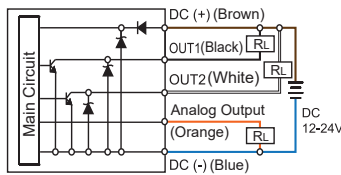
KP45S □ - 010 - □

2 NPN + Analog Output (1 ~ 5 V)



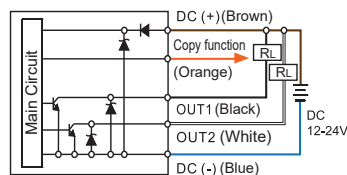
KP45S □ - 011 - □

2 NPN + Analog Output (4 ~ 20 mA)



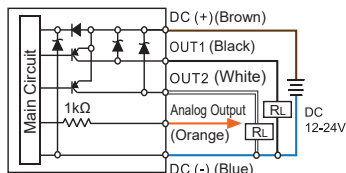
KP45S □ - 02 - □

2 NPN + Copy Function



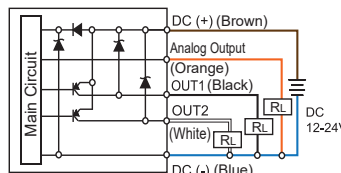
KP45S □ - 030 - □

2 PNP + Analog Output (1 ~ 5 V)



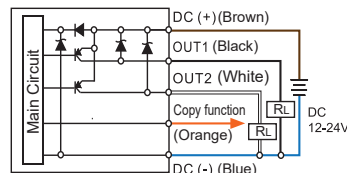
KP45S □ - 031 - □

2 PNP + Analog Output (4 ~ 20 mA)



KP45S □ - 04 - □

2 PNP + Copy Function



Ordering Information

K P 4 5 S - 0 1 0 - F 1

Pressure Range

S : Compound (-10.10 ~ 10.10 kPa)

Output Specifications

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

Pressure Port

F1 : R1/8", M5, with external threads
 F2 : NPT1/8", #10-32UNF, with external threads
 F3 : G1/8" (BSPP), M5, with external threads
 F1C : Rc1/8", with internal threads
 F2C : NPT1/8", with internal threads
 F3C : G1/8" (BSPP), with internal threads

Optional Parts

BT-10 : Mounting bracket (for Pressure Port F1 ~ F3)
 BT-11 : Mounting bracket (for Pressure Port F1 ~ F3)
 BT-1 : Mounting bracket (for Pressure Port F1C ~ F3C)
 BT-17 : Mounting bracket (for Pressure Port F1C ~ F3C)
 PA-E : Panel adapter
 PA-F : Panel adapter + Front protective lid

Optional Parts

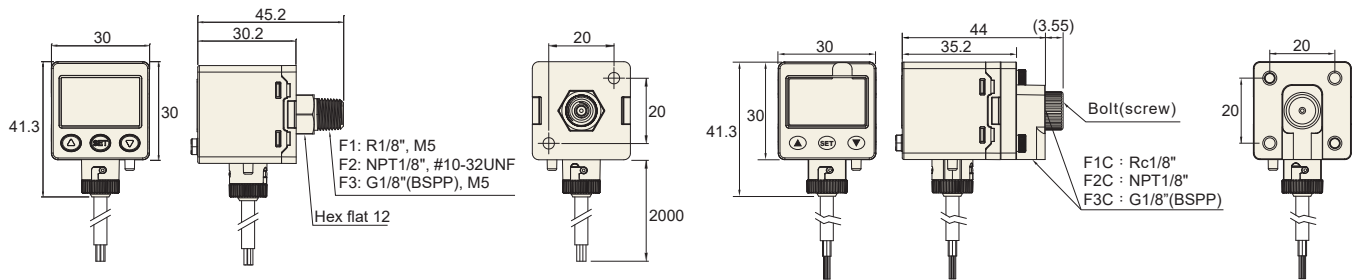
- Mounting Bracket :
 BT-10 / BT-11 (For Pressure Port F1 ~ F3)
 BT-1 / BT-17 (For Pressure Port F1C ~ F3C)

- Panel Adapter : PA-E

- Panel Adapter + Front Protective Lid : PA-F

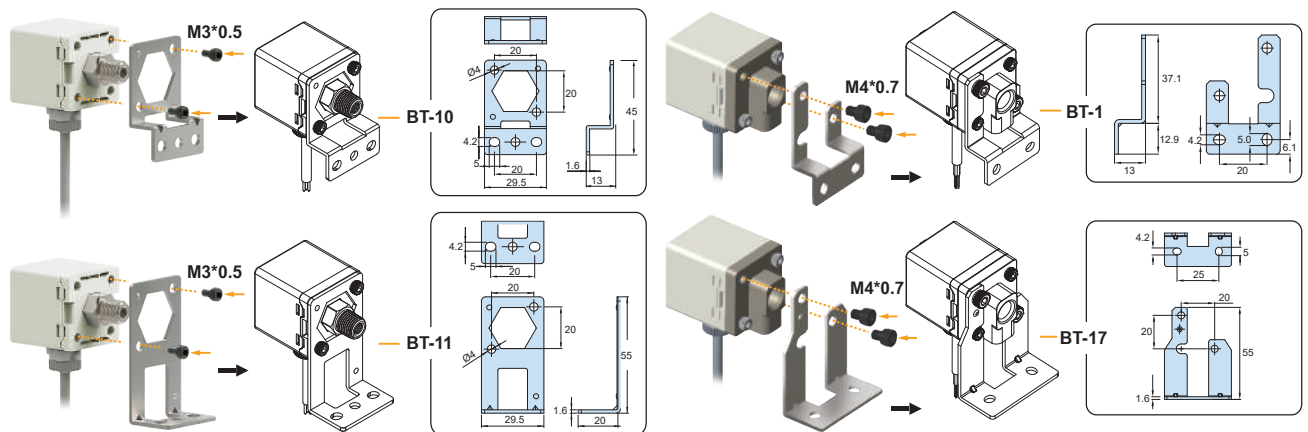


Dimensions

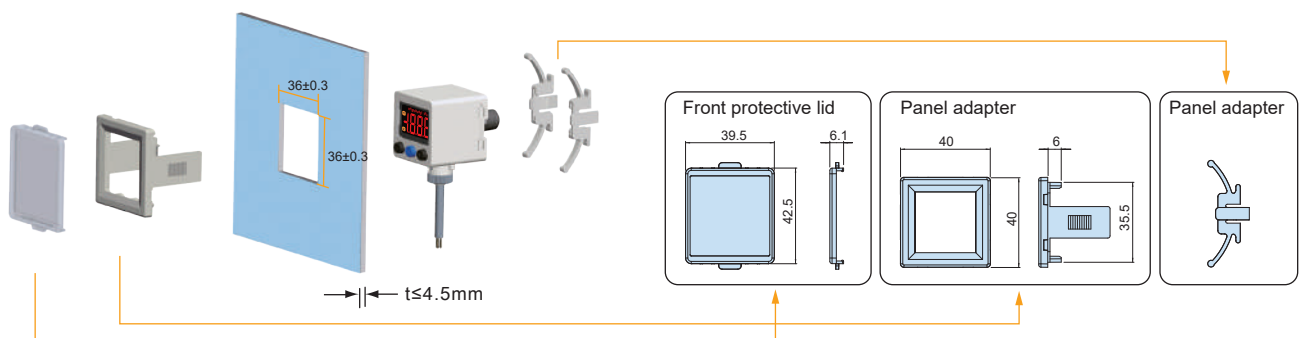


Optional Parts Dimensions

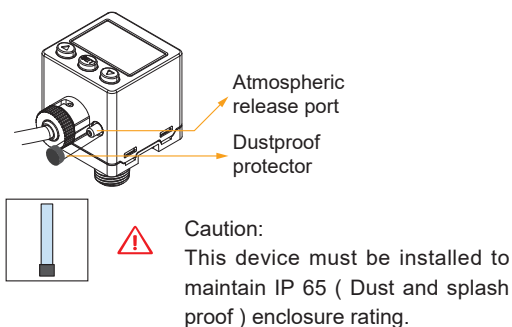
1 Mounting Bracket



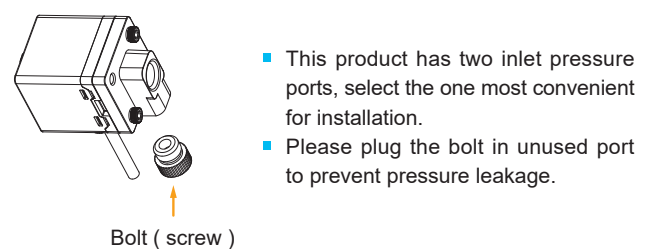
2 Panel Mount Adapter + Front Protective Lid



3 IP65 Protector



4 KP45S Accessory for Pressure Port F1C ~ F3C



Unit : mm