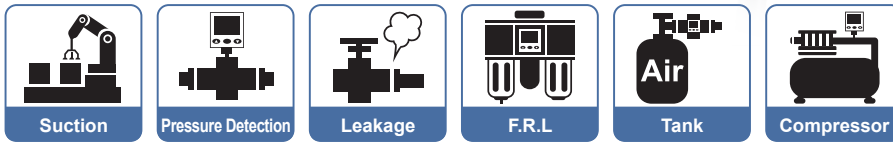


KP45 SERIES

IP65 Pressure Sensor

Features

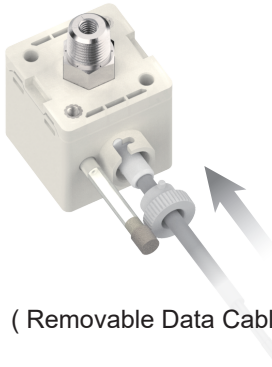
- 2-color digital LCD display
- Copy function
- Selectable pressure unit :
kPa, MPa, kgf / cm², bar, psi, inHg
- IP65 enclosure



Features Highlight

1 Quick Installation

- Save installation time
- Easy removal



(Removable Data Cable)

2 Copy Setting

- Avoid setting errors
- Reduce setting time



(Original Parameter)

(Copied)

3 Easy Unit Identification

- Unit conversion easy to read



4 2-Color Display

- User selectable color mode, for different conditions use



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

5 IP65 Compliance



6 Environmental Protection Design

- RoHS Compliance / Without Harmful Substance





Specifications

MODEL	KP45C	KP45V	KP45P	KP45S ※1
	Compound Pressure	Vacuum Pressure	Positive Pressure	Micro-pressure
Rated Pressure Range	-100.0 ~ 100.0 kPa	0.0 ~ -101.3 kPa	0.000 ~ 1.000 MPa	-10.00 ~ 10.00 kPa
Set Pressure Range	-101.0 ~ 101.0 kPa	10.0 ~ -101.3 kPa	-0.100 ~ 1.000 MPa	-10.00 ~ 10.00 kPa
Withstand Pressure	300 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 ²	0.001	0.01	0.001
	bar	0.001	0.01	0.001
	psi	0.01	0.1	0.01
	inHg	0.1	-	0.1
Power Supply Voltage	12 ~ 24 V DC ± 10 %, Ripple (P-P) ≤ 10 % (UL class 2)			
Current Consumption	≤ 40 mA (with no load)			
Switch Output	2 NPN open collector outputs Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V		2 PNP open collector outputs Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V	
Repeatability	± 0.2 % F.S. ± 1 digit			
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	3 ½ digital, 7 segment LCD display (Red / Green / Orange) (Sampling rate : 5 times / sec.)			
Indicator Accuracy	± 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)	Output Voltage : 1 ~ 5 V ± 2.5 % F.S. (within rated pressure range) Linearity : ± 1 % 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 % 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	IP65 ※3		
	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 F1C : Rc1/8" ; F2C : NPT1/8" ; F3C : G1/8" (BSPP)			
Lead Wire	Ø4 PVC - 26 AWG (0.15 mm ²) - 5 cores			
Weight (with 2 meter lead wire)	Approx. 90 g (Port F1 ~ F3) ; Approx. 112 g (Port F1C ~ F3C)			

NOTE

※1 : KP45S is no UL approval.

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

※3 : Dustproof protector must be installed to maintain IP65.

KP45 SERIES

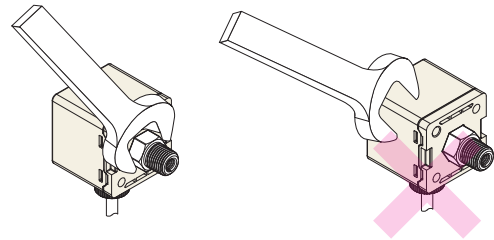
IP65 Pressure Sensor

Panel Description



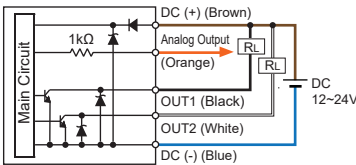
Installation Precautions

- 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.

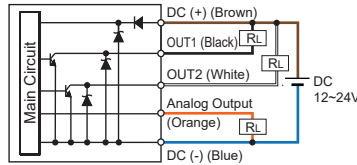


Circuit Wiring Diagrams

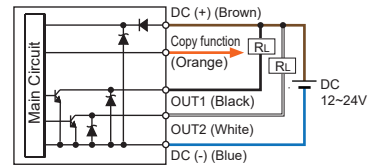
KP45 □ - 010 - □
2 NPN + Analog Output (1 ~ 5 V)



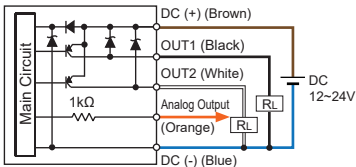
KP45 □ - 011 - □
2 NPN + Analog Output (4 ~ 20 mA)



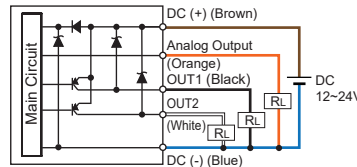
KP45 □ - 02 - □
2 NPN + Copy Function



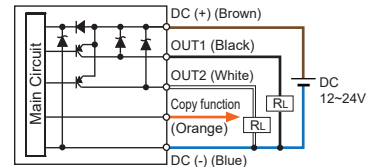
KP45 □ - 030 - □
2 PNP + Analog Output (1 ~ 5 V)



KP45 □ - 031 - □
2 PNP + Analog Output (4 ~ 20 mA)



KP45 □ - 04 - □
2 PNP + Copy Function

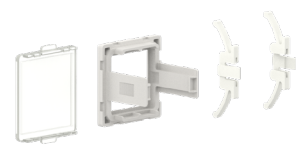
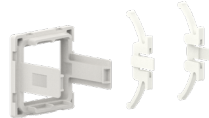
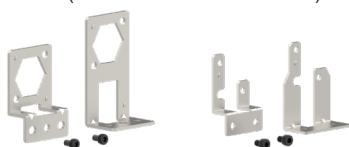


Ordering Information

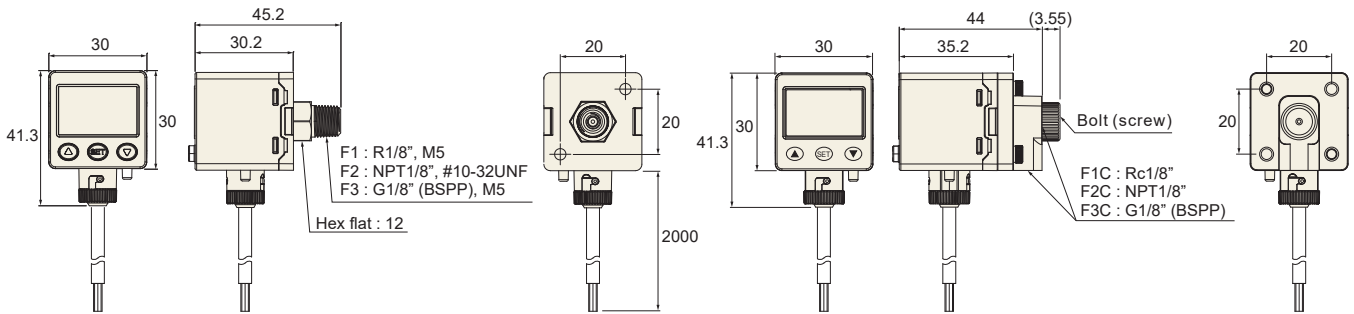
K P 4 5 C - 0 1 0 - F 1

Pressure Range	Output Specifications	Pressure Port	Optional Parts
C : Compound pressure (-101.0 ~ 101.0 kPa)	010 : 2 NPN Output & Analog Output (1 ~ 5 V) 011 : 2 NPN Output & Analog Output (4 ~ 20 mA)	F1 : R1/8" with external threads, M5 F2 : NPT1/8" with external threads, #10-32UNF	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)
V : Vacuum pressure (10.0 ~ -101.3 kPa)	02 : 2 NPN Output & Copy Function	F3 : G1/8" (BSPP) with external threads, M5	BT-17 : Mounting bracket (for Pressure Port F1C ~ F3C)
P : Positive pressure (-0.100 ~ 1.000 MPa)	030 : 2 PNP Output & Analog Output (1 ~ 5 V) 031 : 2 PNP Output & Analog Output (4 ~ 20 mA)	F1C : Rc1/8" with internal threads F2C : NPT1/8" with internal threads F3C : G1/8" (BSPP) with internal threads	PA-E : Panel adapter PA-F : Panel adapter + Front protective lid
S : Micro-pressure (-10.00 ~ 10.00 kPa) ※ KP45S is no UL approval.	04 : 2 PNP Output & Copy Function		

Optional Parts
<ul style="list-style-type: none"> 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

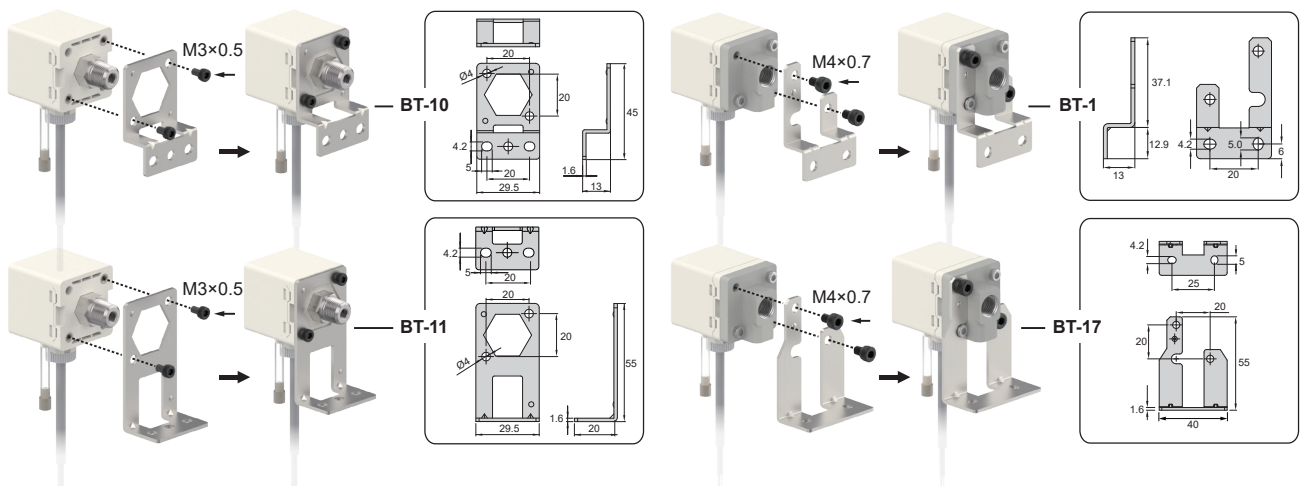


Dimensions

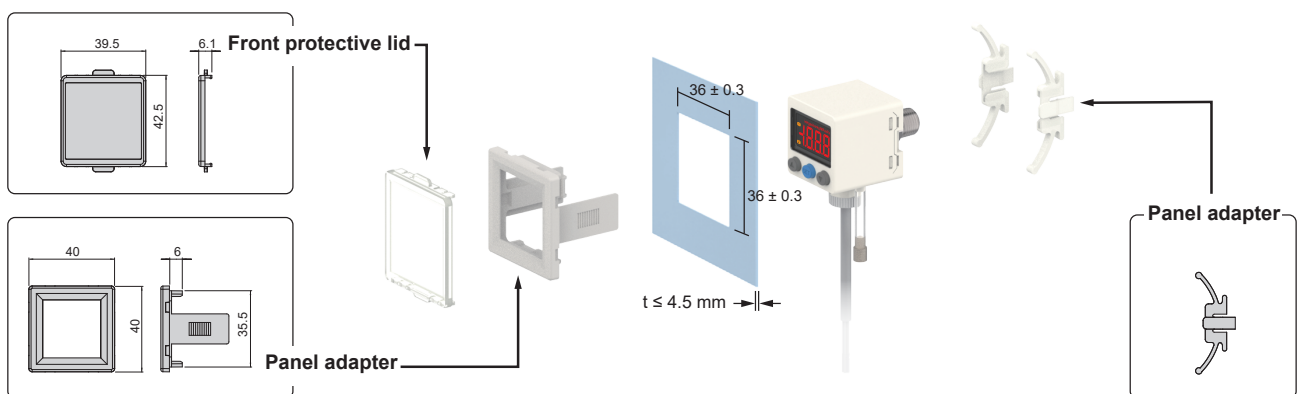


Optional Parts Dimensions

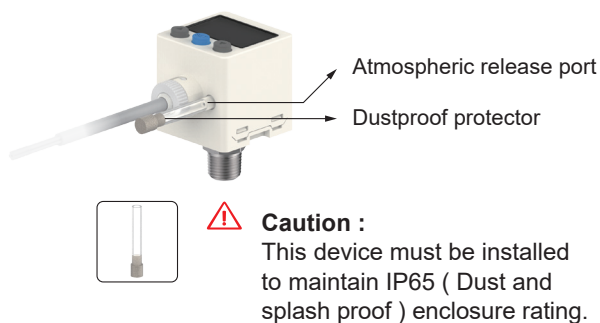
1 Mounting Bracket



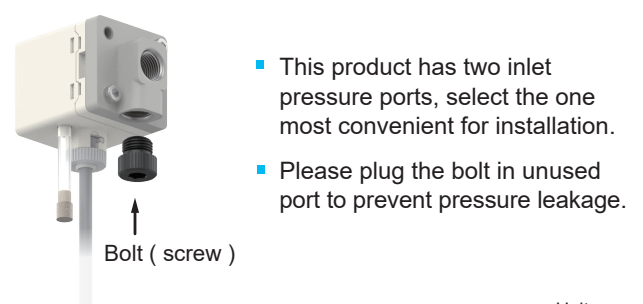
2 Panel Mount Adapter + Front Protective Lid



3 IP65 Protector



4 KP45 Accessory for Pressure Port F1C ~ F3C



Unit : mm