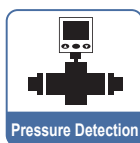
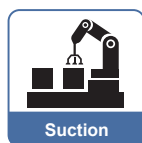


Features

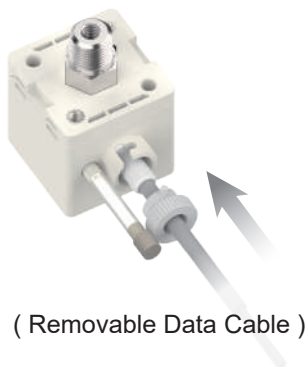
- 2-color digital LCD display
- Copy function
- Selectable pressure unit :
kPa, MPa, kgf / cm², bar, psi, inHg
- IP65 enclosure



Features Highlight

1 Quick Installation

- Save installation time
- Easy removal



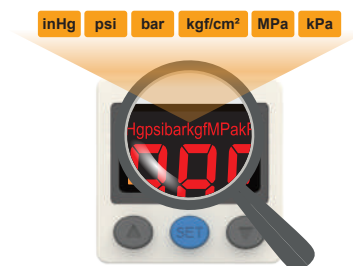
2 Copy Setting

- Avoid setting errors
- Reduce setting time



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	-10.10 ~ 10.10 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 Oil-resistance cable (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

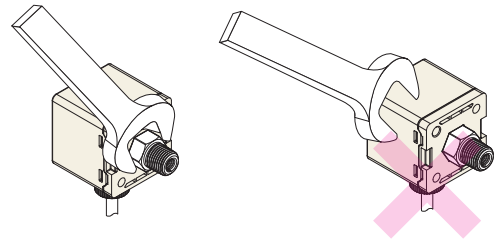
IP65 Pressure Sensor

Panel Description



Installation Precautions

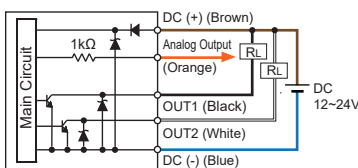
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damage to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply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



Circuit Wiring Diagrams

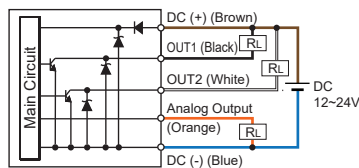
KP45 □ - 010 - □

2 NPN + Analog Output (1 ~ 5 V)



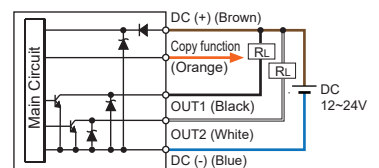
KP45 □ - 011 - □

2 NPN + Analog Output (4 ~ 20 mA)



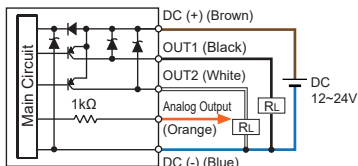
KP45 □ - 02 - □

2 NPN + Copy Function



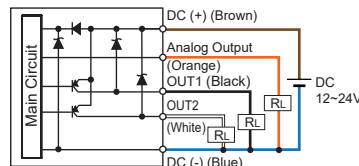
KP45 □ - 030 - □

2 PNP + Analog Output (1 ~ 5 V)



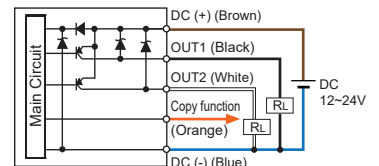
KP45 □ - 031 - □

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

C : Compound pressure
(-101.0 ~ 101.0 kPa)
V : Vacuum pressure
(10.0 ~ -101.3 kPa)
P : Positive pressure
(-0.100 ~ 1.000 MPa)
S : Micro-pressure
(-10.10 ~ 10.10 kPa)
※ KP45S is no UL approval.

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

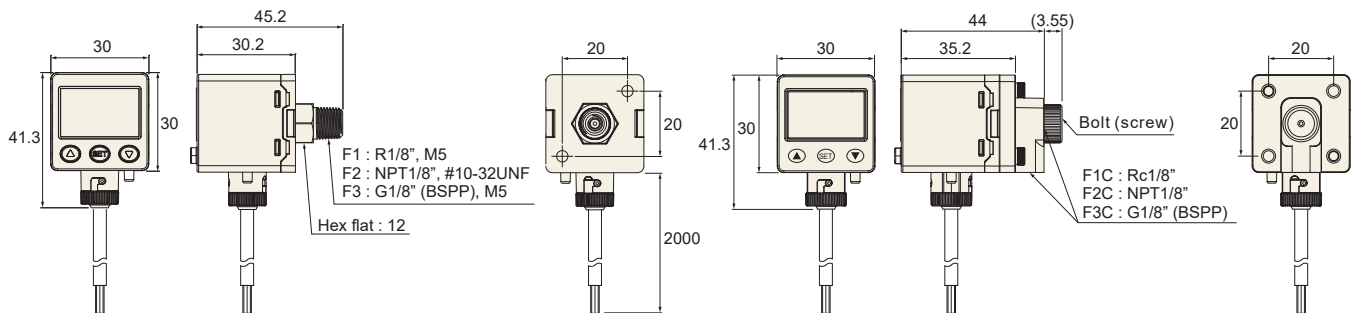
- Mounting Bracket :
BT-10 / BT-11 (For Pressure Port F1 ~ F3)
BT-1 / BT-17 (For Pressure Port F1C ~ F3C)

- Panel Adapter : PA-E

- Panel Adapter + Front Protective Lid : PA-F

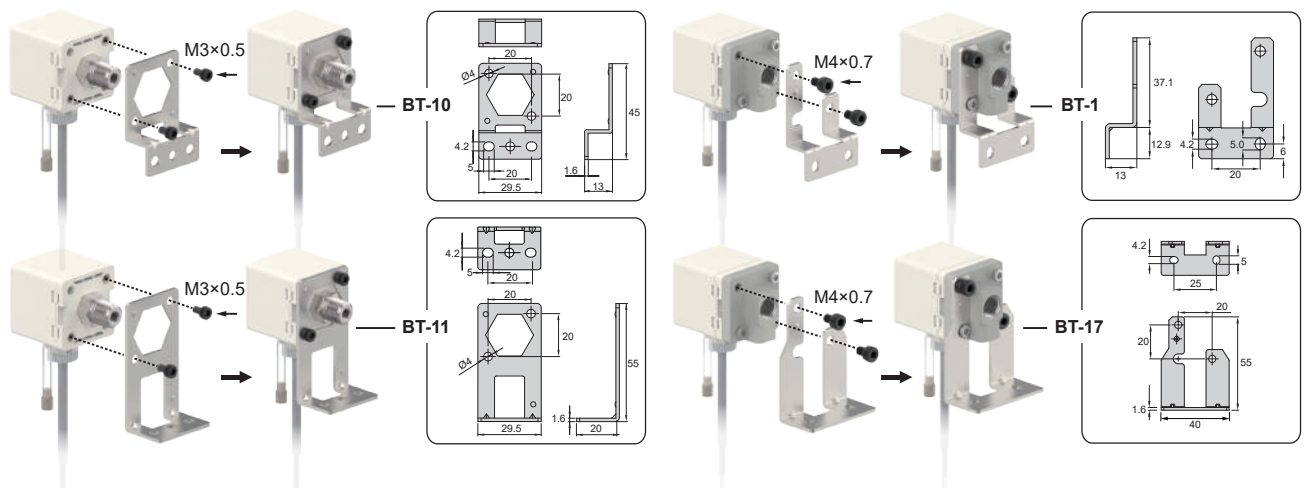


Dimensions

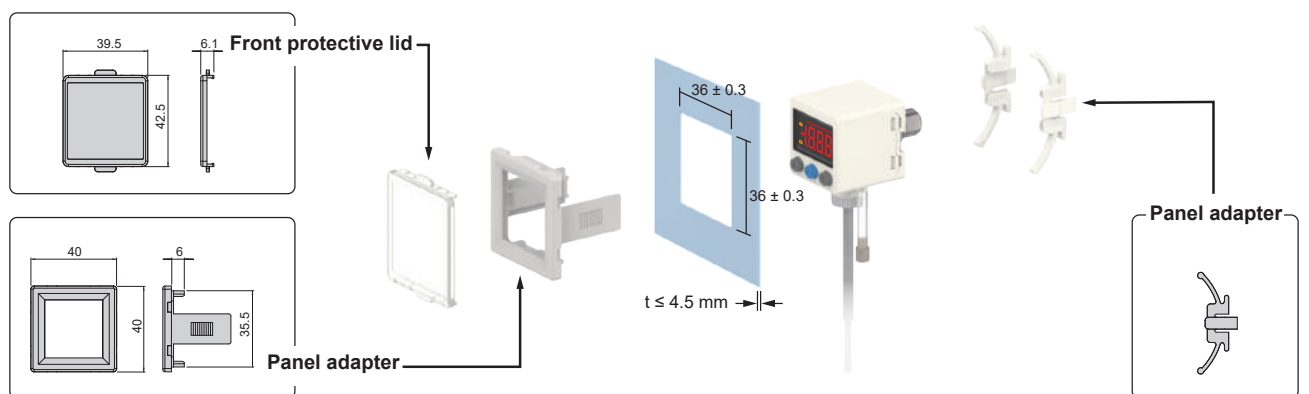


Optional Parts Dimensions

1 Mounting Bracket



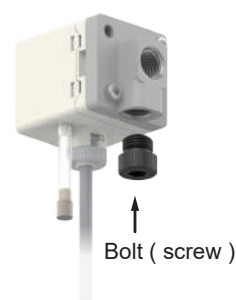
2 Panel Mount Adapter + Front Protective Lid



3 IP65 Protector



4 KP45 Accessory for Pressure Port F1C ~ F3C



- This product has two inlet pressure ports, select the one most convenient for installation.
- Please plug the bolt in unused port to prevent pressure leakage.

Unit : mm