

KP61 Series | Pressure Gauge

PR-0244F 2023/03 Online Version

KITA



- For your safety, please read the following before using.**
- ① Do not use corrosive or flammable gas or liquid with this product.
 - ② Please use within the rated pressure range. Do not apply pressure beyond recommended maximum withstand pressure, permanent damage to the pressure gage may occur.
 - ③ Do not drop, hit or allow excessive shock. Even if pressure gage body appears undamaged, internal components may be broken and can cause malfunction.
 - ④ Turn power off before connecting wiring. Wrong wiring or short circuit will damage and / or cause malfunction.
 - ⑤ Do not use in environment containing steam or oil vapor.
 - ⑥ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
 - ⑦ Wiring for pressure gage should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.
 - ⑧ Using filter can extend pressure gage's service life.
 - ⑨ Sensors at end-of-life must be disposed of in accordance with E-Waste regulations of the country/region, NOT disposed of with regular garbage.

A SPECIFICATIONS

MODEL		KP61V	KP61P
		Vacuum Pressure	Positive Pressure
Rated pressure range		0 ~ -101 kPa	0.000 ~ 1.000 MPa
Setting pressure range		10 ~ -101 kPa	-0.100 ~ 1.000 MPa (*1)
Withstand pressure		300 kPa	1.5 MPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas	
Set pressure resolution	kPa	1	—
	MPa	—	0.001
	kgf/cm ²	0.01	0.01
	bar	0.01	0.01
	psi	0.1	0.1
Power supply voltage		12 ~ 28V DC ± 10%, Ripple (P-P) ≤ 10%	
Current consumption		10 mA	
Sampling rate		2 Hz (2 times/sec.)	
Repeatability		± 1 % F.S. ± 1 digit	± 0.2 % F.S. ± 1 digit
Display		3 ½ digital, 7 segment LCD display (White)	
Indicator accuracy		± 2 % F.S. ± 1 digit (Ambient temperature : 25 ± 3 °C)	
Environment	Enclosure	IP65 (*2)	
	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	1000V 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	
Lead wire		Ø2.8 Oil-resistance cable (PVC) - 26 AWG (0.15 mm ²) - 2 cores	
Weight		Approx. 60 g (with 2 meter lead wire) ; Approx. 40 g (with M8 4Pin male connector)	

*1. When the pressure is -0.1MPa, LCD displays -100 MPa.
*2. Air tube must be installed to maintain IP65. (See section E)

B ORDERING INFORMATION

K P 6 1 P - F 1 -

Pressure Range

V : Vacuum (10~-101 kPa)
P : Positive (-0.100 ~ 1.000 MPa)

Pressure Port

F1 : R1/8", M5
F2 : NPT1/8", #10-32UNF
F3 : G1/8"(BSPP), M5

Cable Length/Connector

Blank : With 2 meter cable
QD : With M8 4Pin male connector

Optional Parts

M84R-W0039-2M : M8 4Pin female connector
BT-5 : Mounting bracket
BT-6 : Mounting bracket
PA-C : Panel adapter
PA-D : Panel adapter + Front protective lid

C PANEL DESCRIPTION

Pressure Unit Display Section

Pressure Display

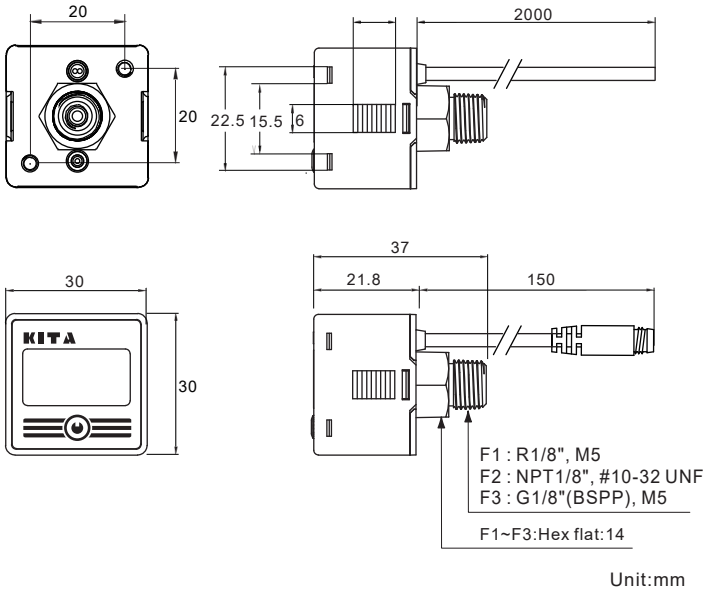
Setting Button

KITA

psi bar kgf kPa MPa

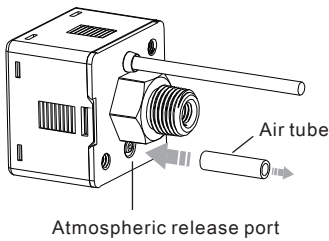
1.8.8.8

D DIMENSIONS



E DUST AND SPLASH ENVIRONMENT

- To maintain IP65, please insert an air tube (O.D.: 4mm) into atmospheric release port and pipe the other end away from dust / spattering liquid environment.
- Use proper air tube dimension of O.D.: 4mm, I.D.: 2.5mm, and the length is depending on the user's environment.



F PRESSURE UNIT CONVERSION TABLE

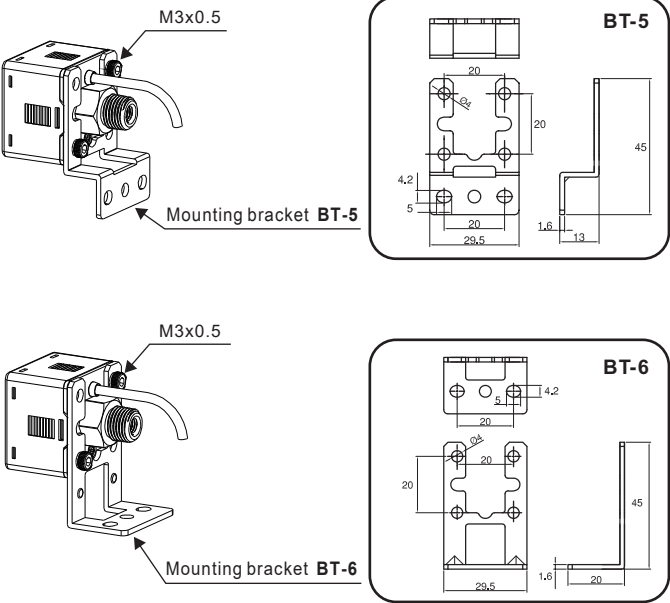
From \ To	kPa	MPa	kgf/cm ²	psi	bar
1 kPa	1	0.001000	0.010197	0.145038	0.010000
1 MPa	1000	1	10.197	145.038	10
1 kgf/cm ²	98.0665	0.0980665	1	14.2233	0.980665
1 psi	6.895	0.006895	0.07031	1	0.06895
1 bar	100.0000	0.100000	1.01972	14.5038	1

G ERROR CODE INSTRUCTION

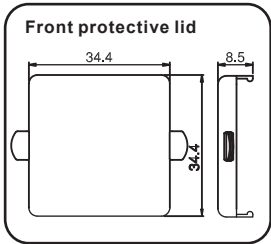
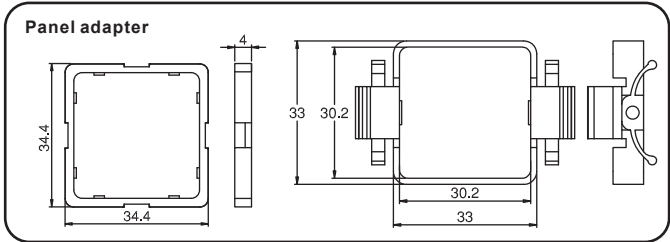
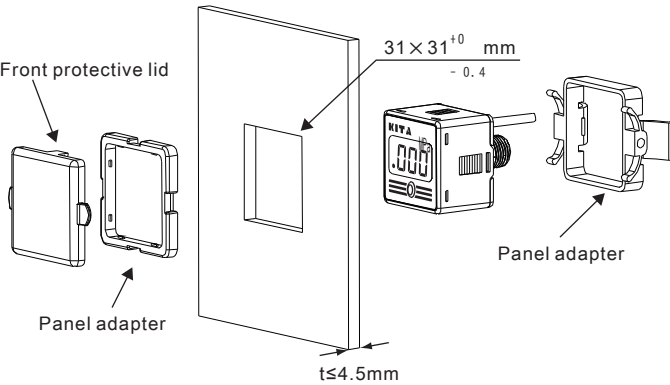
Error Type	Error code	Error Condition	Troubleshooting
Residual pressure error	Err	During zero reset, ambient pressure is over $\pm 3\%$ F.S.	Change input pressure to ambient pressure and perform zero reset again.
Applied pressure error	HHH	Supply pressure exceeds the upper limit of pressure setting.	Adjust the pressure within operating pressure range.
	LLL	Supply pressure exceeds the lower limit of pressure setting.	

H OPTIONAL PARTS DIMENSIONS

① Mounting bracket

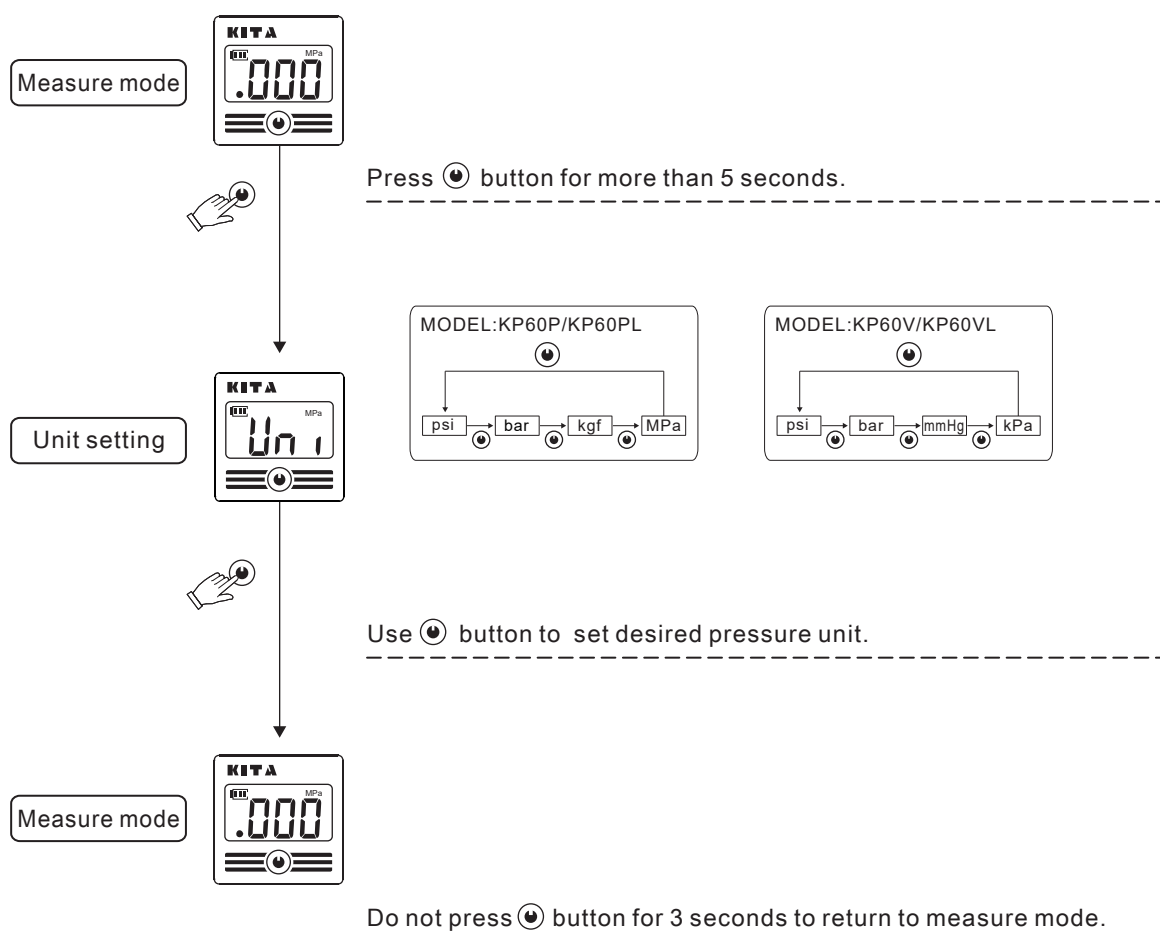


② Panel mounting



Unit:mm

I PRESSURE UNIT SETTING MODE



J ZERO POINT RESET

