

KP60 Series | Battery Pressure Gauge

PR-0208G 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 gauge may occur.
- ③ Do not drop, hit or allow excessive shock. Even if pressure gauge body appears undamaged, internal components may be broken and can cause malfunction.
- ④ Do not use in environment containing steam or oil vapor.
- ⑤ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- ⑥ Using filter can extend pressure gauge's service life.
- ⑦ 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		KP60V	KP60VL	KP60P	KP60PL
		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	
Withstand pressure		300 kPa		1.5 MPa	
Fluid		Filtered air, Non-corrosive / Non-flammable gas			
Set pressure resolution	kPa	1		—	
	MPa	—		0.001	
	kgf/cm²	—		0.01	
	bar	0.01		0.01	
	psi	0.1		0.1	
	mmHg	1		—	
Battery		CR 2032 lithium			
Back light		No	Yes	No	Yes
Battery life		3 years (5 times/day)		3 years (5 times/day)	
Low-power indicator		Yes			
Battery replaceable		Yes			
Turn-on interval		Display turn off after 60 sec.			
Sampling rate		2 Hz (2 times/sec.)			
Programmable pressure unit		psi, bar, mmHg, kPa		psi, bar, kgf/cm², MPa	
Repeatability		± 1 % F.S. ± 1 digit		± 0.2 % F.S. ± 1 digit	
Display		3 ½ digital, 7 segment LCD display (Black)			
Indicator accuracy		± 2 % F.S. ± 1 digit (Ambient temperature : 25 ± 3 °C)			
Environment	Enclosure	IP65 (*1)			
	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)			
	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/s² (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 F4 : R1/4", M5 ; F5 : NPT1/4", #10-32 UNF ; F6 : G1/4" (BSPP), M5			
Weight		Approx. 40 g			

*1. Air tube must be installed to maintain IP65.

B ORDERING INFORMATION

K P 6 0 P

Pressure Range

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

Back Light

Blank : Back light unavailable
L : Back light available

Optional Parts

BT-5 : Mounting bracket
BT-6 : Mounting bracket
PA-C : Panel adapter
PA-D : Panel adapter + Front protective lid

F 1

Pressure Port

F1 : R1/8", M5
F2 : NPT1/8", #10-32UNF
F3 : G1/8"(BSPP), M5
F4 : R1/4", M5
F5 : NPT1/4", #10-32UNF
F6 : G1/4"(BSPP), M5

C PANEL DESCRIPTION

Pressure Unit Display Section

(Vacuum)

(Positive)

Battery Meter

Pressure Display

Setting Button

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psi bar mmHg kPa

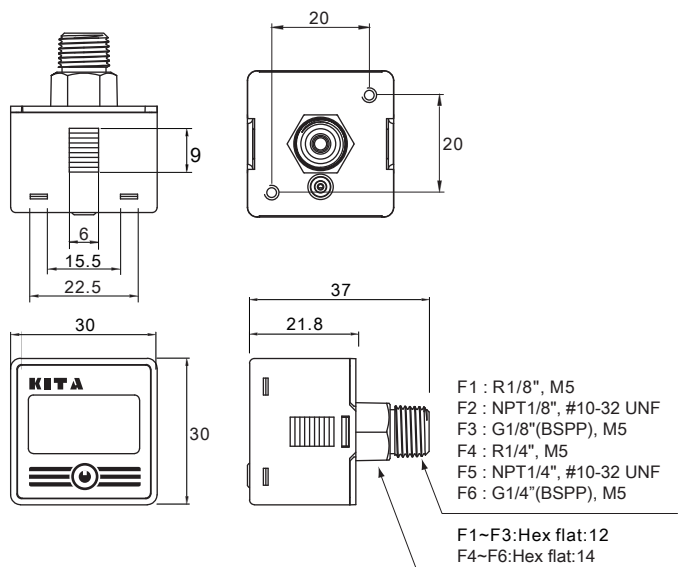
-8.8.8

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psi bar kgf MPa

1.8.8.8

D DIMENSIONS

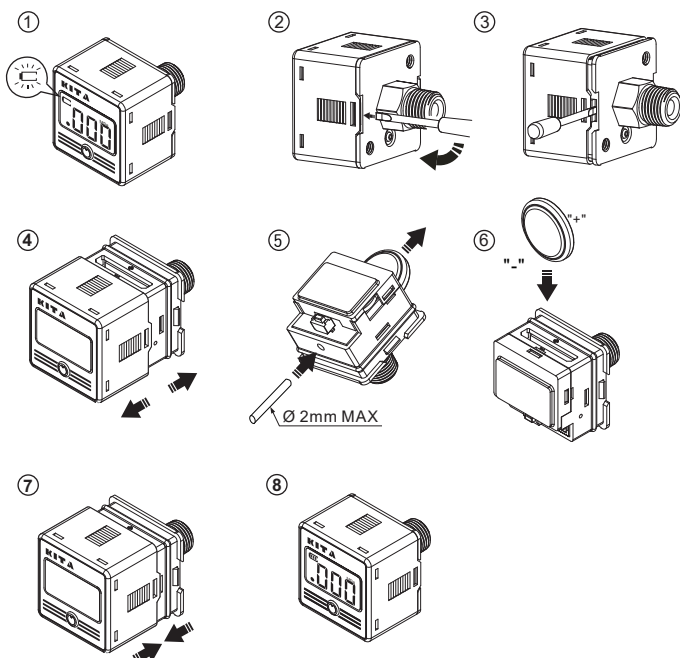


Unit:mm

E BATTERY STATUS / INSTALLATION

FOLLOW THE STEPS BELOW

- Using a flat screwdriver size 1.4 ~ 3.0 mm insert into the back of the pressure gage as pictured. (See figure ②)
- Turn the screwdriver horizontally 90° to separate the case and the base. Repeat this process again for the other side. (See figure ③)
- Carefully remove the outer cover (See figure ④), and follow the diagrams below to replace battery and reassembly. Polarity must be observed, incorrect battery installation will cause malfunction.

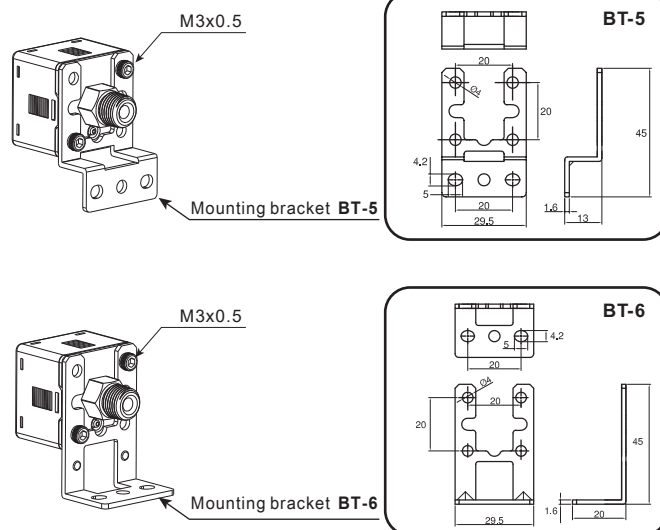


F PRESSURE UNIT CONVERSION TABLE

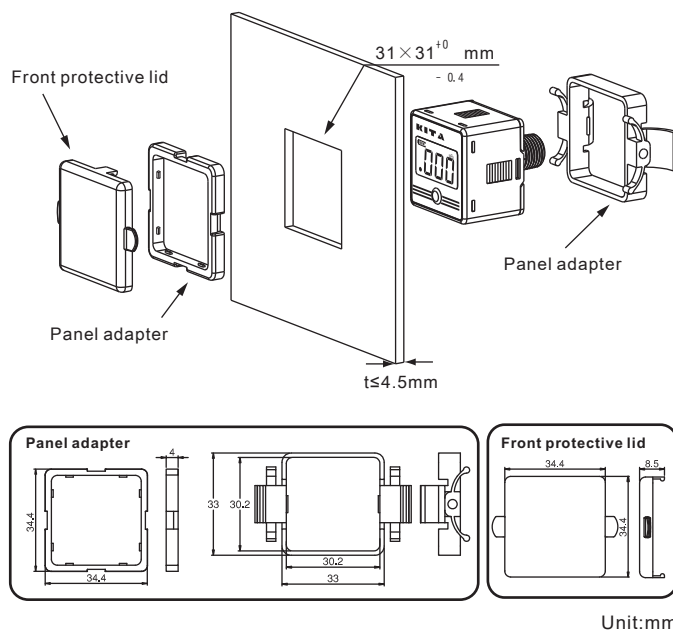
From To	kPa	MPa	kgf/cm ²	mmHg	psi	bar
1 kPa	1	0.001000	0.010197	7.500616	0.145038	0.010000
1 MPa	1000	1	10.197	7500.616	145.038	10
1 kgf/cm ²	98.0665	0.0980665	1	735.559	14.2233	0.980665
1 mmHg	0.13332	0.000133	0.0013595	1	0.019336	0.0013332
1 psi	6.895	0.006895	0.07031	51.7157	1	0.06895
1 bar	100.0000	0.100000	1.01972	750.062	14.5038	1

G OPTIONAL PARTS DIMENSIONS

① Mounting bracket



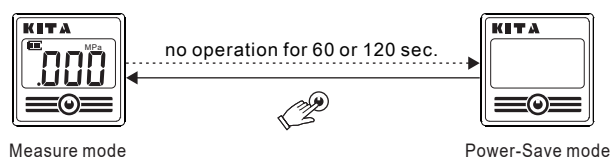
② Panel mounting



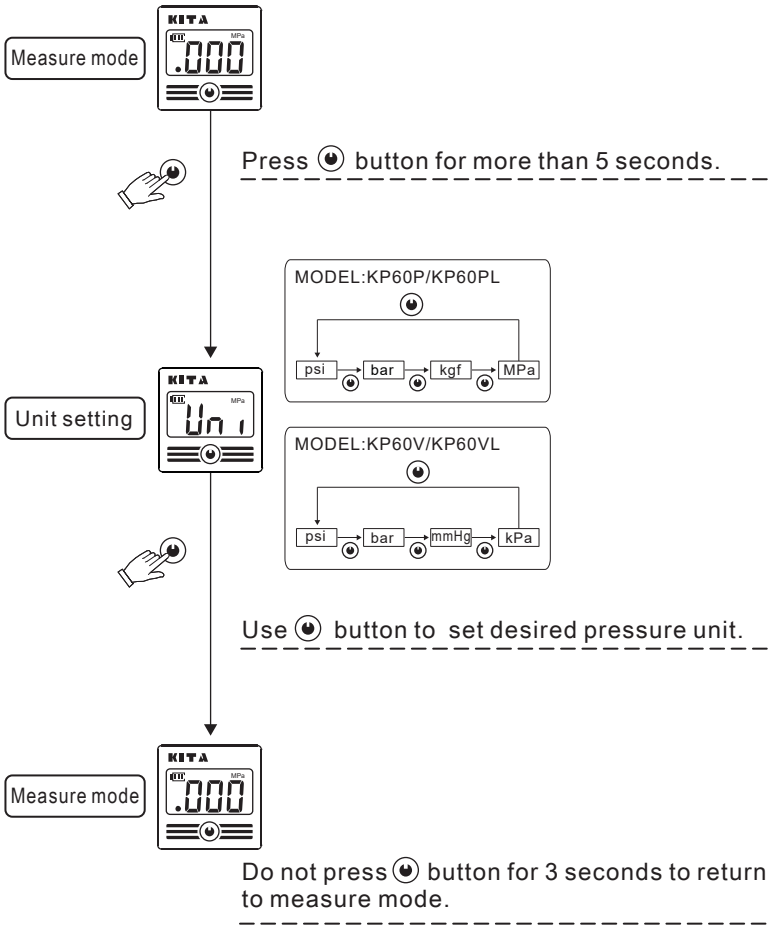
Unit:mm

H POWER-SAVE MODE

- The pressure gage will enter power saving mode if the button is not pressed within 60 sec.
- In measure mode, press the button to extend display for 120 sec.

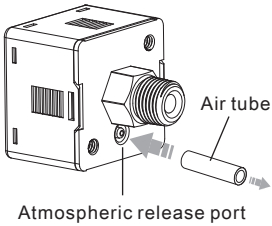


I PRESSURE UNIT SETTING MODE



K 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.



L 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 is exceeds the upper limit of pressure setting.	Adjust the pressure within operating pressure range.
	LLL	Supply pressure is exceeds the lower limit of pressure setting.	
Battery error	bAt	When battery level is under 2.40V, the battery symbol and bAt will flash 4 times then enter power save mode.	Replace battery.

J ZERO POINT RESET

