

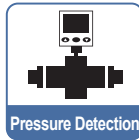
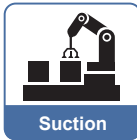
KP58E SERIES

IP65 Pressure Sensor

Features

- Main / Sub-Display, 4 digital 7 segment LCD display
- Multifunctional sub-display
- Switchable voltage output (1 ~ 5 V or 0 ~ 10 V)
- User-defined analog output range
- Digital filter function
- IP65 enclosure
- Selectable pressure unit : kPa, kgf / cm², bar, psi, inHg, mmHg, mmAq
- Corrosive fluid or gas available (in the pipeline)

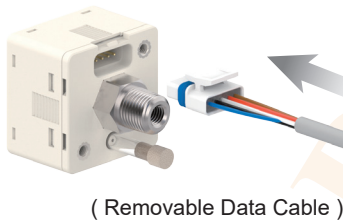
RS485 MODBUS CONTROL



Features Highlight

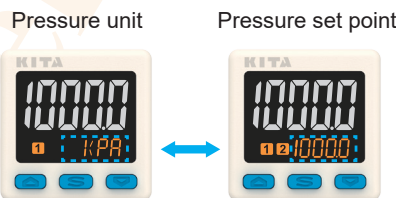
1 Quick Installation

- Save installation time
- Easy removal



2 Multifunctional sub-display

- The display can be switched between pressure unit or set points

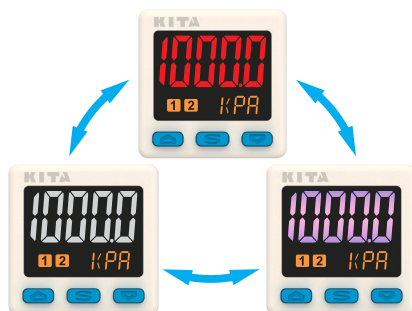


3 IP65 Compliance



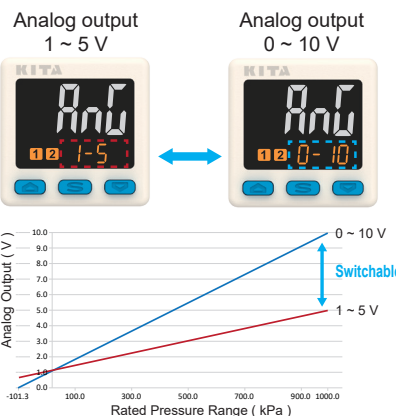
4 4-Color Display

- Choose the desired backlight to highlight different setting states

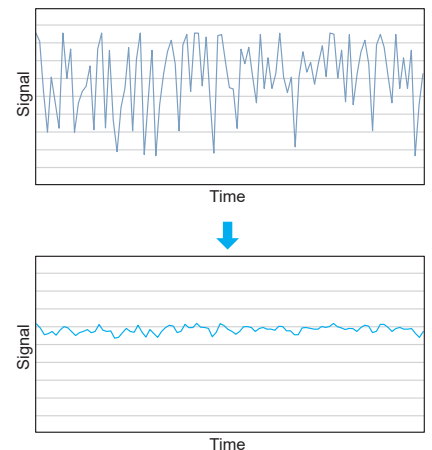


5 High-Resolution

- Flexibly switch the voltage output range



6 Digital Filter Function



Specifications

MODEL		KP58E	KP58EH
Rated Pressure Range		-101.3 ~ 1000.0 kPa	-101.3 ~ 2000 kPa
Set Pressure Range		-101.3 ~ 1000.0 kPa	-101.3 ~ 2000 kPa
Withstand Pressure		1500 kPa	3000 kPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas	Fluid or air that will not corrode SUS316L
Sealed Liquid		-	Silicone oil
Set Pressure Resolution	kPa	0.1	
	kgf / cm ²	0.001	
	bar	0.001	
	psi	0.01	
	inHg	0.1	
	mmHg	1	
mmAq (mmH₂O) ※1		1 ※2	
Power Supply Voltage		15 ~ 24 V DC, Ripple (P-P) ≤ 10 %	
Current Consumption		≤ 40 mA (with no load)	
Switch Output		2 NPN open collector outputs Max. Load Current : 150 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1 V	2 PNP open collector outputs Max. Load Current : 150 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1 V
Repeatability ※3		± 0.2 % S.R. (Ambient temperature : 25 ± 3 °C)	
Hysteresis	One Point Set Mode	Adjustable ※4	
	Hysteresis Mode		
	Window Comparator Mode		
Response Time of Digital Filter ※5		OFF, 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms, 3000 ms selectable	
Overcurrent Protection		Yes	
Display		4 ½ digital, 7 segment LCD display (Red / White / Pink / Orange) (Sampling rate : 0.2, 0.5, 1 sec. / time)	
Indicator Accuracy ※3		C : -100.0 ~ 100.0 kPa ± 1 % S.R. V : -101.3 ~ 0.0 kPa ± 1 % S.R. P : -100.0 ~ 1000.0 kPa ± 0.5 % S.R. A : -101.3 ~ 1000.0 kPa ± 0.5 % S.R.	C : -100.0 ~ 100.0 kPa ± 1 % S.R. V : -101.3 ~ 0.0 kPa ± 1 % S.R. P : -100.0 ~ 1000.0 kPa ± 0.5 % S.R. H : -100.0 ~ 2000 kPa ± 0.5 % S.R. A : -101.3 ~ 2000 kPa ± 0.5 % S.R.
		(Ambient temperature : 25 ± 3 °C)	
Switch on Indicator		Orange Indicator 1 : OUT1 & Orange Indicator 2 : OUT2	
Analog Output (Voltage Output)		Output Voltage : 0 ~ 10 V ± 0.5 % F.S. Linearity : ± 0.5 % F.S. Output Impedance 2 KΩ	
Analog Output (Current Output)		Output Voltage : 4 ~ 20 mA ± 0.5 % F.S. Linearity : ± 0.5 % F.S. Max. Load Impedance : 250 Ω at power supply of 15 V, 600 Ω at power supply of 24 V Min. Load Impedance : 50 Ω	
Environment	Enclosure	IP65 ※6	
	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)	250 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 ~ 150 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		± 0.5 % F.S. of detected pressure (25 °C) at temp. (Range of 0 ~ 50 °C)	
Communication Interface ※7		RS485 Modbus RTU	
Port Size		F1 : R1/8", M5 ; F3 : G1/8" (BSPP), M5 ; M5 : M5 female thread	F4 : R1/4", M5 ; F6 : G1/4" (BSPP), M5
Lead Wire		Ø4 PVC - 26 AWG (0.15 mm ²) - 5 cores	
Weight (with 2 meter lead wire)		Approx. 67 g	Approx. 94 g (Rear ported) ; Approx. 96 g (Bottom ported)

NOTE

※1 : mmAq is not available for KP50EH.

※2 : Actual value is 10 times display value while pressure unit is mmAq.

※3 : S.R. : Set range

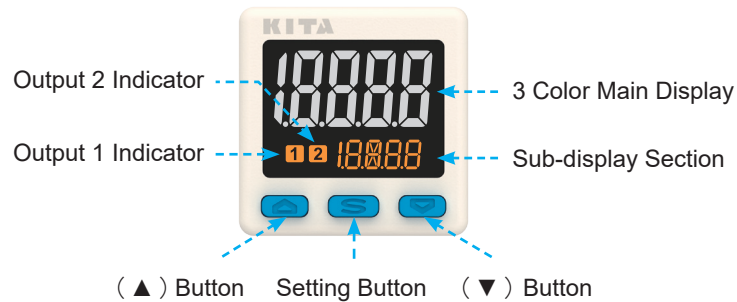
※4 : Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

※5 : When digital filter function is OFF, the response time is 4ms ~ 6ms.

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

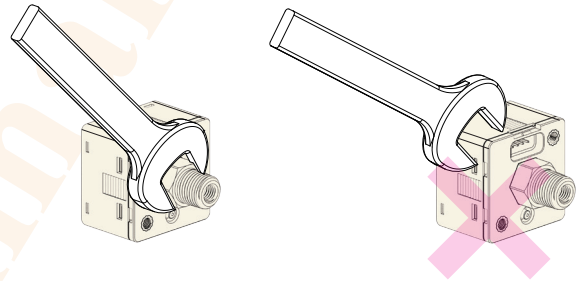
※7 : This function is only available for Output Specification 02R and 04R.

Panel Description



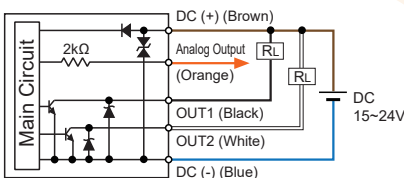
Installation Precautions

- 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.

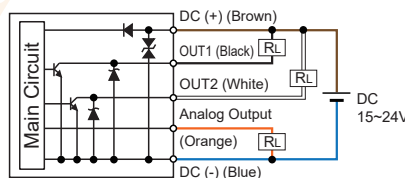


Circuit Wiring Diagrams

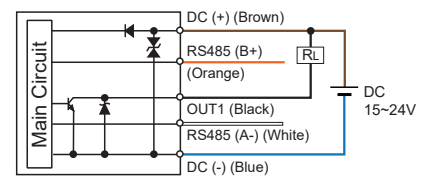
KP58E□ - 010 - □
2NPN + Analog Output (0 ~ 10 V)



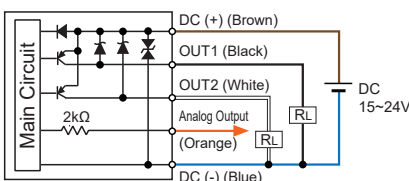
KP58E□ - 011 - □
2NPN + Analog Output (4 ~ 20 mA)



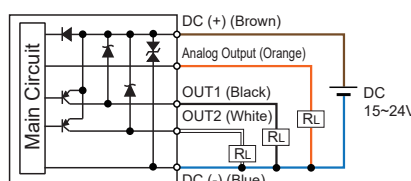
KP58E□ - 02R - □
NPN Output + RS485



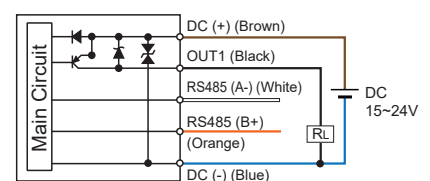
KP58E□ - 030 - □
2PNP + Analog Output (0 ~ 10 V)



KP58E□ - 031 - □
2PNP + Analog Output (4 ~ 20 mA)



KP58E□ - 04R - □
PNP Output + RS485



※ For RS485 MODBUS wiring, please connect RS485 (B+) or (A-) before powering to avoid short circuits resulting in product damage.

Ordering Information

K P 5 8 E H - 0 1 0 - F 1 

Pressure Range

Blank : -101.3 ~ 1000.0 kPa
 H : High pressure
 (-101.3 ~ 2000 kPa)

Output Specifications

010 : 2 NPN output & Analog output (0 ~ 10 V)
 011 : 2 NPN output & Analog output (4 ~ 20 mA)
 030 : 2 PNP output & Analog output (0 ~ 10 V)
 031 : 2 PNP output & Analog output (4 ~ 20 mA)
 02R : 1 NPN Output + RS485
 04R : 1 PNP Output + RS485

Pressure Port

F1 : R1/8", M5 (for KP58E)
 F3 : G1/8" (BSPP), M5 (for KP58E)
 F4 : R1/4", M5 (for KP58EH)
 F6 : G1/4" (BSPP), M5 (for KP58EH)
 M5 : M5 female thread (for KP58E)

Piping Direction

Blank : Rear ported
 L : Bottom ported
 (for KP58EH)

Optional Parts

BT-22 : Mounting bracket
 BT-23 : Mounting bracket
 BT-31 : Mounting bracket
 BT-32 : Mounting bracket

PA-C : Panel Adapter
 PA-D : Panel Adapter + Front Protective Lid

I-0360 : Snubber (for Pressure Port F4 & F6)
 ※ KP58EH series suggest to select a snubber

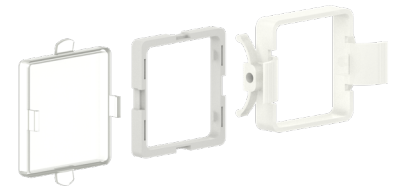
Optional Parts

■ Mounting bracket :
 BT-22 / BT-23
 (for Pressure Port F1 / F3 / M5)

■ Mounting bracket :
 BT-31 / BT-32
 (for Pressure Port F4 & F6)

■ Panel Adapter : PA-C

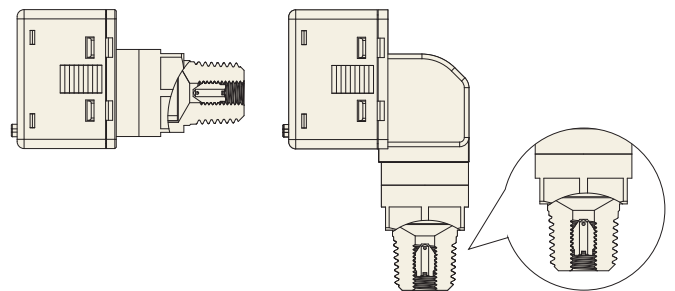
■ Panel Adapter + Front Protective Lid : PA-D



Removable Snubber Installed

- Pressure port equipped with snubber can avoid damage caused by sudden pressure surge of water or oil, improve product durability.

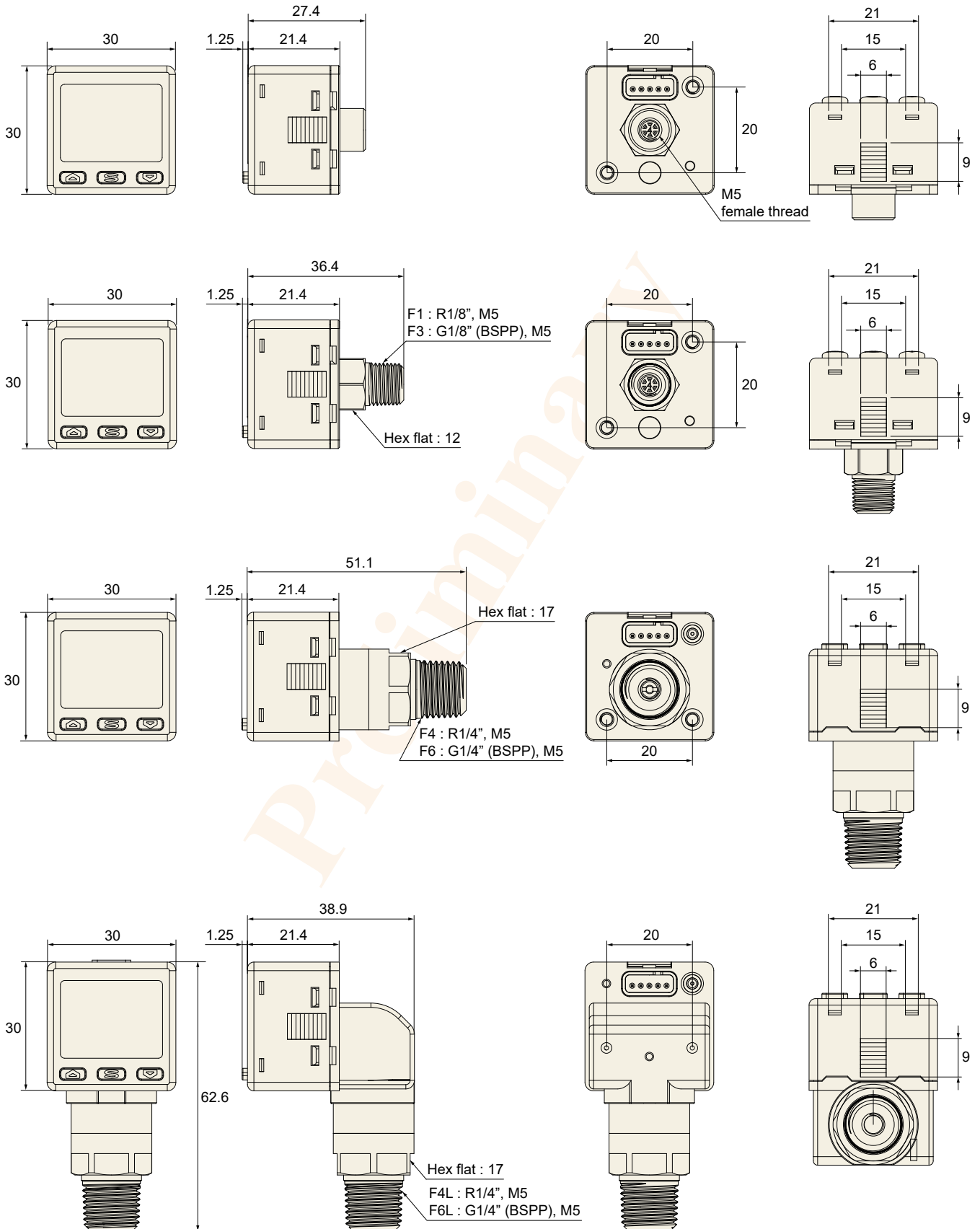
※ When snubber is clogged with contaminants, please use a flat head screwdriver to remove the snubber, clean and reinstall.



KP58E SERIES

IP65 Pressure Sensor

Dimensions



Unit : mm

