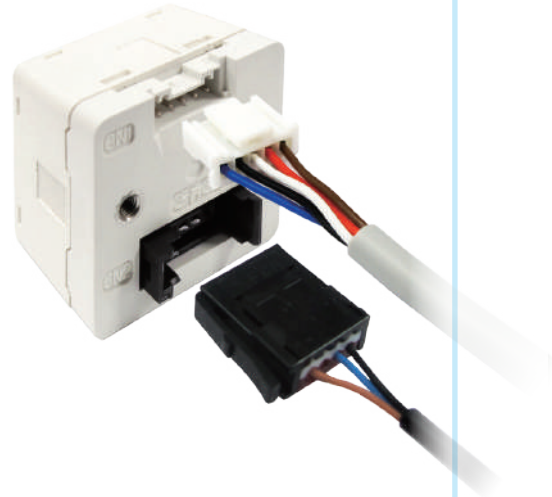
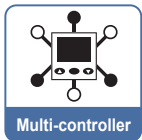


Features

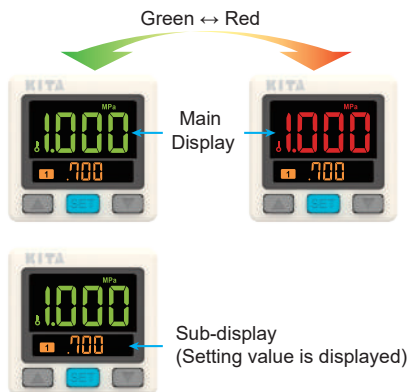
- 3-color digital LCD display
- Selectable pressure unit :
kPa, MPa, kgf / cm², bar, psi, inHg, mmHg
- Dual LCD display allows setting value to be displayed
- Key-lock indicator
- Analog output : 1 ~ 5 V or 4 ~ 20 mA
- Sensor input : 1 ~ 5 V or 4 ~ 20 mA
- 12 pressure ranges for transducer



Features Highlight

1 3-Color Digital LCD Display

- Main display color change with output status



2 Selectable Pressure Unit

- Unit conversion easy to read



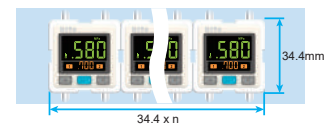
3 Save Installation Space

Panel opening for multiple pressure controller



Calculation factor (A) = (34.4 x n) - 3.4
n = number of controller

Actual dimension after installation

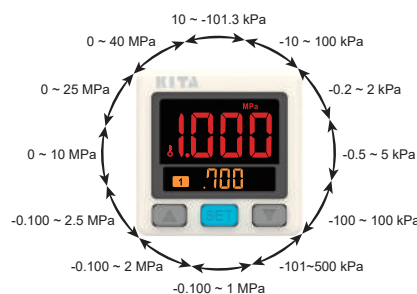


4 Key-lock Function

- Key-lock icon is shown on the display when the function is enabled

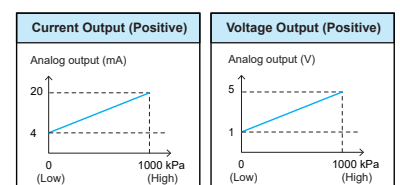


5 12 Pressure Ranges for Transducer



6 Analog Output / Sensor Input

- Current output or voltage output is available



Specifications

MODEL		KP400												
Sensor Type		S - 0	S - 1	S - 2	S - 3	S - 4	S - 5	S - 6	S - 7	S - 8	S - 9	S - 10	S - 11	S - 12
40.0 MPa 1.0 MPa 100 kPa 0 -101.3 kPa														
Rated Pressure Range		Self-Setting ※1	0 ~ -101.3 kPa	0 ~ 100 kPa	0 ~ 2 kPa	0 ~ 5 kPa	-100 ~ 100 kPa	-101 ~ 500 kPa	0 ~ 1 MPa	0 ~ 2 MPa	0 ~ 2.5 MPa	0 ~ 10 MPa	0 ~ 25 MPa	0 ~ 40 MPa
Set Pressure Range			10 ~ -101.3 kPa	-10 ~ 100 kPa	-0.2 ~ 2 kPa	-0.5 ~ 5 kPa	-100 ~ 100 kPa	-101 ~ 500 kPa	-0.100 ~ 1 MPa	-0.100 ~ 2 MPa	-0.100 ~ 2.5 MPa	0 ~ 10 MPa	0 ~ 25 MPa	0 ~ 40 MPa
Set Pressure Range (Auto-Shift Input)		-	101.3 ~ -101.3 kPa	-100 ~ 100 kPa	-2 ~ 2 kPa	-5 ~ 5 kPa	-100 ~ 100 kPa	-500 ~ 500 kPa	-1 ~ 1 MPa	-2 ~ 2 MPa	-2.5 ~ 2.5 MPa	-10 ~ 10 MPa	-25 ~ 25 MPa	-40 ~ 40 MPa
Set Pressure Resolution	kPa	Self-Setting	0.1	0.1	0.01	0.01	0.1	1	-	-	-	-	-	-
	MPa		-	-	-	-	-	-	0.001	0.01	0.01	0.01	0.1	0.1
	kgf / cm ²		0.001	0.001	-	-	0.001	0.01	0.01	0.1	0.1	0.1	1	1
	bar		0.001	0.001	-	-	0.001	0.01	0.01	0.1	0.1	0.1	1	1
	psi		0.01	0.01	-	-	0.01	0.1	0.1	1	1	1	1 ※2	1 ※2
	inHg		0.1	-	-	-	0.1	-	-	-	-	-	-	-
	mmHg		1	-	0.1	0.1	1	-	-	-	-	-	-	-
	- - -		-	-	-	-	-	-	-	-	-	-	-	-
Power Supply Voltage		12 ~ 24 V DC ± 10 %, Ripple (P-P) ≤ 10 %												
Current Consumption		≤ 40 mA (with no load)												
Sensor Input		1 ~ 5 V or 4 ~ 20 mA												
Switch Output		2 NPN : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1.5 V						2 PNP : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V						
Repeatability		± 0.1 % F.S. ± 1 digit												
Hysteresis	One Point Set Mode	Adjustable ※3												
	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		± 1 % 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 % 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 % F.S. (within rated pressure range) Linearity : ± 1 % F.S. Max. Load Impedance : 300 Ω at power supply of 12 V, 600 Ω at power supply of 24 V Min. Load Impedance : 50 Ω												
Environment	Enclosure	IP40												
	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		± 0.5 % F.S. of detected pressure (25 °C) at temp. (Range of 0 ~ 50 °C)												
Lead Wire		Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm ²) - 5 cores												
Weight (with 2 meter lead wire)		Approx. 67 g												

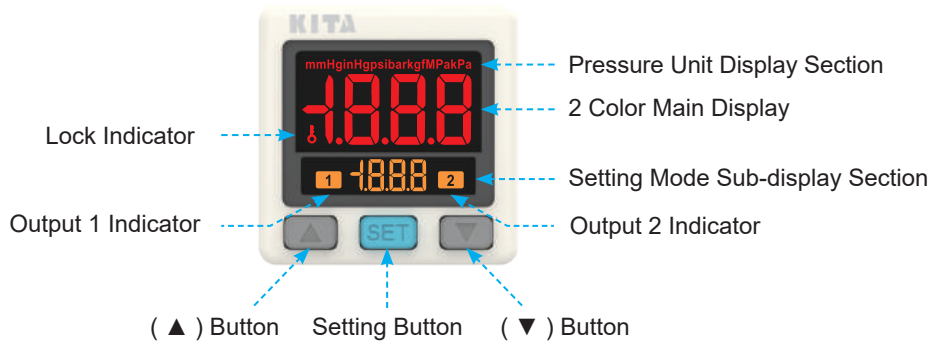
NOTE

※1 : S-0 : Set the sensor range (1999 ~ -1999) by self. The decimal place can be adjusted.

※2 : If set pressure unit is psi, the value requires to ten multiply by display value.

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

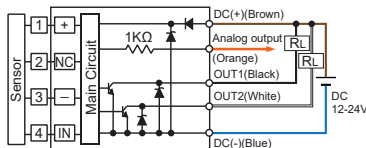
Panel Description



Output Circuit Wiring Diagrams

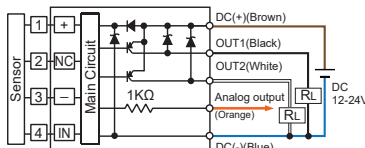
KP4 □ 0 - 010

2 NPN + Analog Output (1 ~ 5 V)



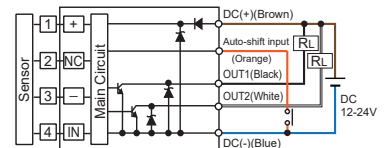
KP4 □ 0 - 030

2 PNP + Analog Output (1 ~ 5 V)



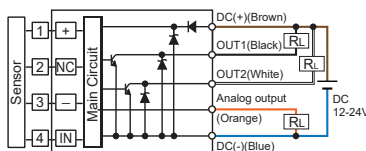
KP4 □ 0 - 05

2 NPN Output + Auto-shift input



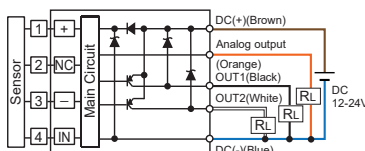
KP4 □ 0 - 011

2 NPN + Analog Output (4 ~ 20 mA)



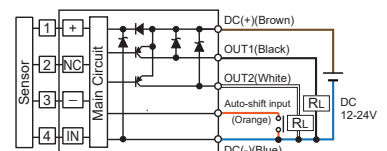
KP4 □ 0 - 031

2 PNP + Analog Output (4 ~ 20 mA)



KP4 □ 0 - 07

2 PNP Output + Auto-shift input



Ordering Information

K P 4 1 0 - 0 1 0

Input Specifications

- 1 : Voltage input
- 2 : Current input

Output Channel

- 0 : 1 Channel

Optional Parts

- BT-8 : Mounting bracket
- BT-9 : Mounting bracket
- PA-C : Panel adapter
- PA-D : Panel adapter + Front protective lid
- CN-0046A : Sensor connector Ø0.8 ~ Ø1.0 mm, 26 ~ 24 AWG
- CN-0046B : Sensor connector Ø1.0 ~ Ø1.2 mm, 26 ~ 24 AWG
- CN-0046C : Sensor connector Ø1.2 ~ Ø1.6 mm, 26 ~ 24 AWG
- KP10 □ -01 : Transducer

Input / Output Specifications

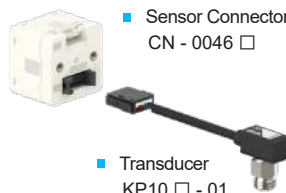
- 010 : 2 NPN outputs & Analog output (1 ~ 5 V)
- 011 : 2 NPN outputs & Analog output (4 ~ 20 mA)
- 030 : 2 PNP outputs & Analog output (1 ~ 5 V)
- 031 : 2 PNP outputs & Analog output (4 ~ 20 mA)
- 05 : 2 NPN outputs & Auto-shift input
- 07 : 2 PNP outputs & Auto-shift input

Optional Parts

- Mounting Bracket : BT-8 / BT-9



- Sensor Connector CN - 0046 □



- Transducer KP10 □ -01

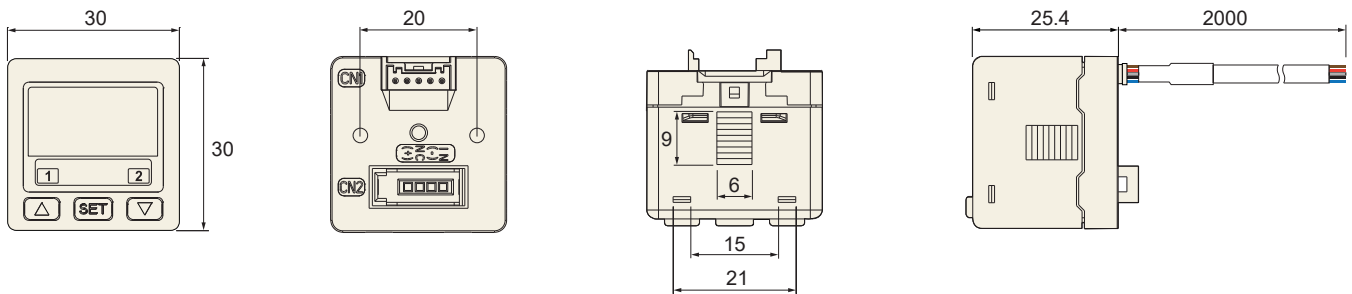
- Panel Adapter : PA-C



- Panel Adapter + Front Protective Lid : PA-D

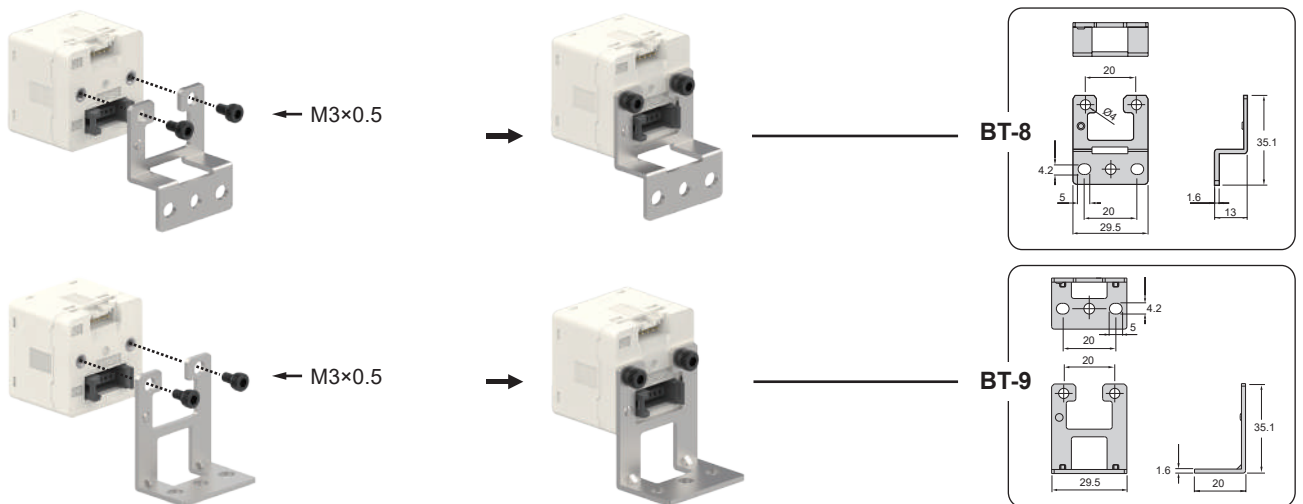


Dimensions



Optional Parts Dimensions

1 Mounting Bracket



2 Panel Mount Adapter + Front Protective Lid

