

## Features

- Digital LCD display, easy readout
- Pressure range :  
-10 ~ 10 kPa, -1 ~ 1 kPa,  
-2 ~ 2 kPa, -5 ~ 5 kPa
- RS485 Modbus RTU
- Remote control /  
Real-time monitoring

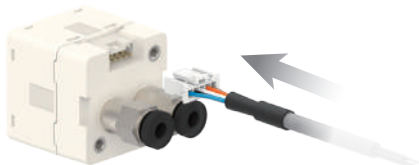
RS485 MODBUS CONTROL



## Features Highlight

### 1 Quick Installation

- Save Installation Time
- Easy Removal



( Removable Data Cable )

### 2 Key-lock Function

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



### 3 Save Installation Space

Panel opening for multiple pressure controller

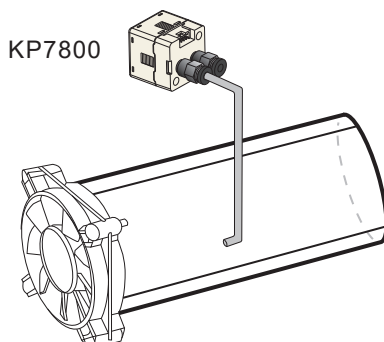


Calculation factor (A) = (34.4 x n) - 3.4  
n = number of controller

Actual dimension after installation

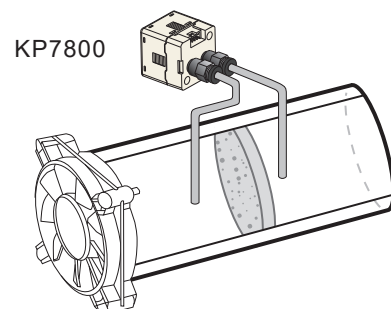


### 4 Air Flow Detection



### 5 Filter Air Monitoring

- To monitor the clogging of filter by detecting the differential pressure.



## Specifications

MODEL		KP7810	KP7811	KP7812	KP7815
Rated Pressure Range		-10.00 ~ 10.00 kPa	-1.000 ~ 1.000 kPa	-2.00 ~ 2.00 kPa	-5.00 ~ 5.00 kPa
Set Pressure Range		-10.00 ~ 10.00 kPa	-1.000 ~ 1.000 kPa	-2.00 ~ 2.00 kPa	-5.00 ~ 5.00 kPa
Withstand Pressure		30 kPa	3 kPa	6 kPa	15 kPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas			
Set Pressure Resolution	kPa	0.01	0.001	0.01	0.01
	mmAq ※1	1	0.1	1	1
Power Supply Voltage		12 ~ 24 V DC ± 10 %, Ripple ( P-P ) ≤ 10 %			
Current Consumption		≤ 40 mA ( with no load )			
Switch Output		1 NPN open collector output Max. Load Current : 125 mA Max. Supply Voltage : 30 V DC Residual Voltage : ≤ 1.5 V		1 PNP open collector output Max. Load current : 125 mA Max. Supply Voltage : 24 V DC Residual Voltage : ≤ 1.5 V	
Repeatability		± 0.5 % F.S. ± 1 digit			
Hysteresis	Hysteresis Mode	Adjustable			
	Window Comparator Mode				
Response Time		≤ 2.0 ms ( Chattering-proof function : 32 ms, 128 ms, 1024 ms selectable )			
Output Short Circuit Protection		Yes			
Display		4 digital, 7 segment LCD display ( White ) ( Sampling rate : 0.1 ~ 3 sec select )			
Indicator Accuracy		± 2 % F.S. ± 1 digit ( Ambient temperature : 25 ± 3 °C )			
Switch on Indicator		White Indicator 1 : OUT1			
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 ~ 150 Hz ~ 10 Hz scan for 1 minute, 2 hours each direction of X, Y and Z			
	Shock	100 m/s <sup>2</sup> ( 10 G ), 3 times each in direction of X, Y and Z			
Temperature Characteristic		± 3 % F.S. of detected pressure ( 25 °C ) at temp. ( Range of 0 ~ 50 °C )			
Communication Interface		RS485			
Port Size		M5 : M5 female thread			
Lead Wire		∅4 Oil-resistance cable ( PVC ) - 26 AWG ( 0.15 mm <sup>2</sup> ) - 5 cores			
Weight ( with 2 meter lead wire )		Approx. 75 g			

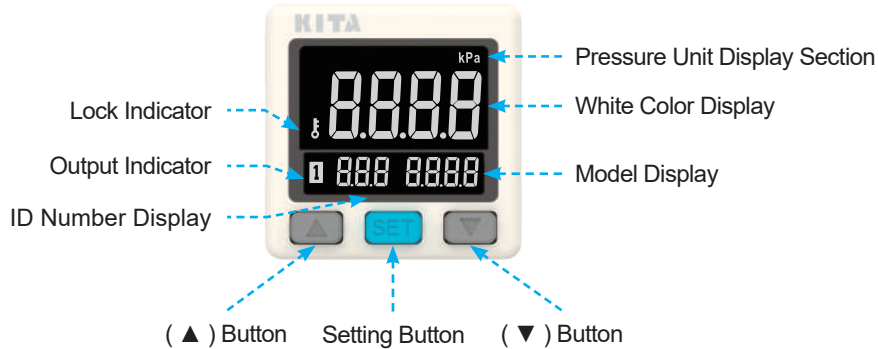
### NOTE

※1 : When the unit is mmAq, the pressure unit is not displayed.

# KP7800 SERIES

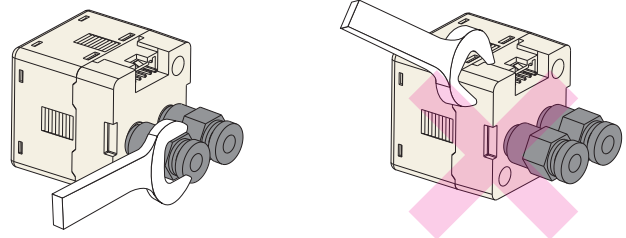
# Differential Pressure Sensor

## Panel Description



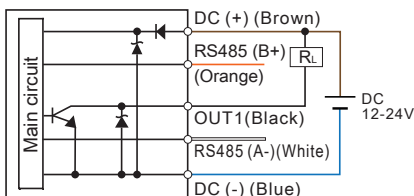
## Installation Precautions

- Do not use the wrench on the plastic body while connecting the sensor connector or pressure port.
- 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.
- Do not insert metal or sharp objects into the pressure port.

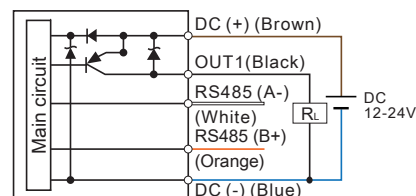


## Output Circuit Wiring Diagrams

**KP78□ - 02 - M5**  
1 NPN + RS485



**KP78□ - 04 - M5**  
1 PNP + RS485



※ Wiring for RS485 MODBUS :  
Please connect RS485 (B+) or (A-) before connecting power supply to avoid short circuit to damage to product.

## Ordering Information

**K P 7 8 1 0 - 0 2 - M 5**

### Pressure Range

10 : -10.00 ~ 10.00 kPa    12 : -2.00 ~ 2.00 kPa  
11 : -1.000 ~ 1.000 kPa    15 : -5.00 ~ 5.00 kPa

### Output Specifications

02 : 1 NPN output + RS485  
04 : 1 PNP output + RS485

### Optional Parts

BT-20 : Mounting bracket  
BT-21 : Mounting bracket  
PA-C : Panel adapter  
PA-D : Panel adapter + Front protective lid

### Optional Parts

■ Mounting Bracket : BT-20 / BT-21



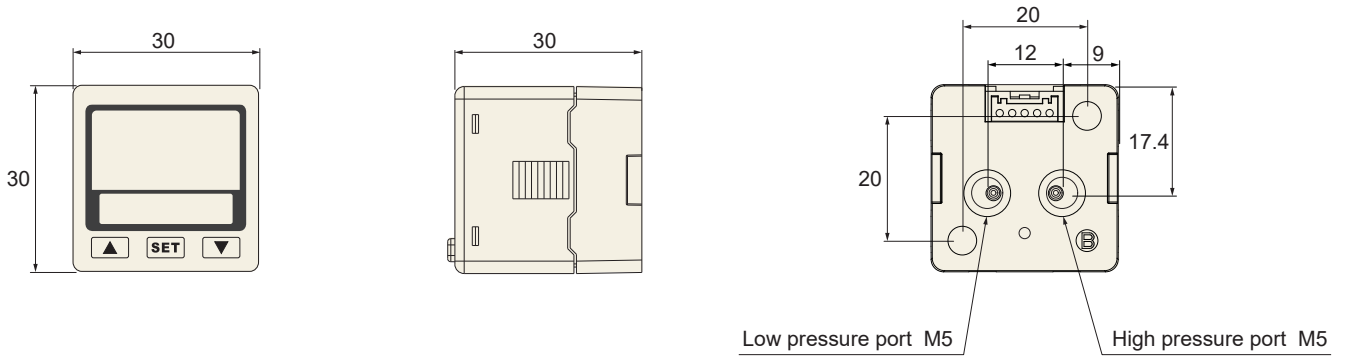
■ Panel Adapter : PA-C



■ Panel Adapter + Front Protective Lid : PA-D

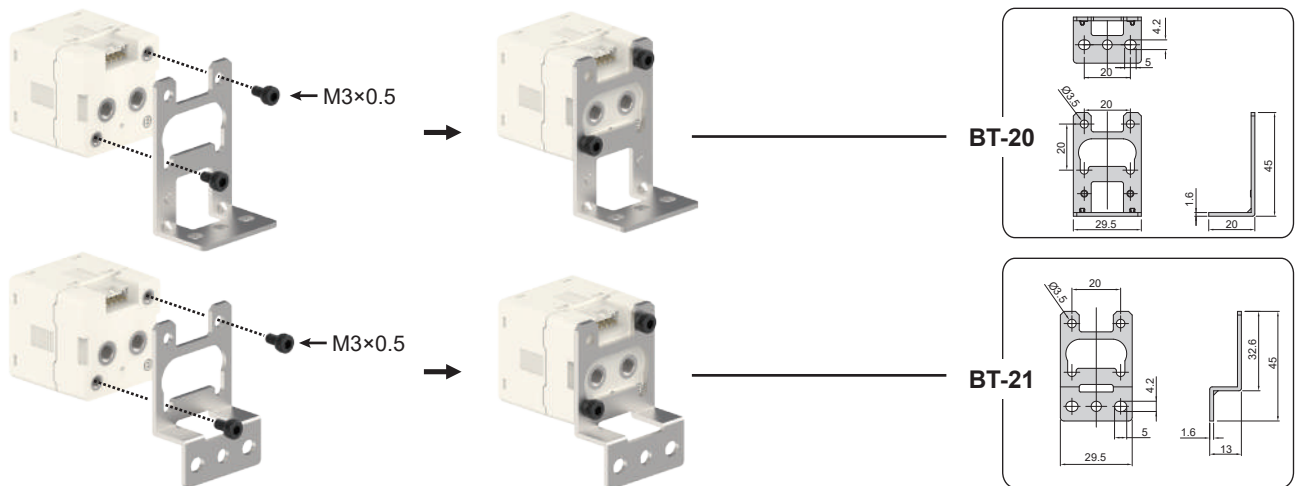


## Dimensions

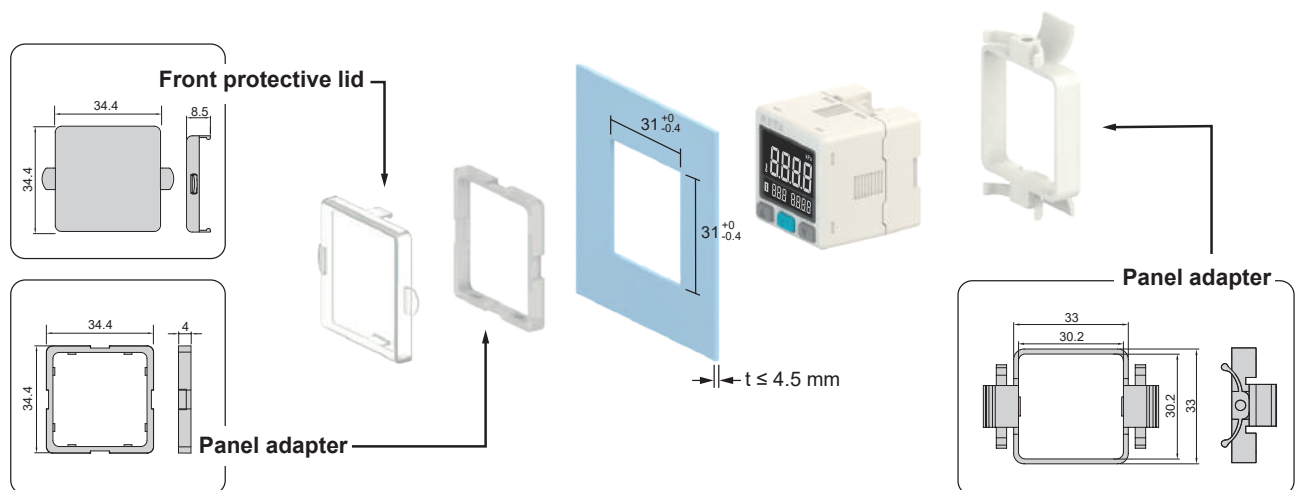


## Optional Parts Dimensions

### 1 Mounting Bracket



### 2 Panel Mount Adapter + Front Protective Lid



Unit : mm