

# KP10 SERIES

## Features

- Simple installation, plug-in port or thread-in fitting
- Compact size : 26\*10\*10.4mm
- Setting pressure range :
  - Switch : Vacuum (0 ~ -101.3 kPa)
  - Positive (0 ~ 0.6 MPa)
- Analog : Compound (-100 ~ -100 kPa)
- Compound (-101 ~ 500 kPa)
- Low (0 ~ 100 kPa)
- Vacuum (0 ~ -101.3 kPa)
- Positive (0 ~ 1.0 MPa)



## SPECIFICATIONS

TYPE	Switch				Analog			
	MODEL	KP10V	KP10P	KP10C	KP10L	KP10V	KP10R	KP10P
Setting pressure range		0 ~ -101.3 kPa	0 ~ 0.6 MPa	-100 ~ 100 kPa	0 ~ 100 kPa	0 ~ -101.3 kPa	-101 ~ 500 kPa	0 ~ 1.0 MPa
Withstand pressure		0.6 MPa	1.5 MPa	0.2 MPa			1.5 MPa	
Fluid	Filtered air, Non-corrosive/Non-flammable gas							

## FEATURES HIGHLIGHT

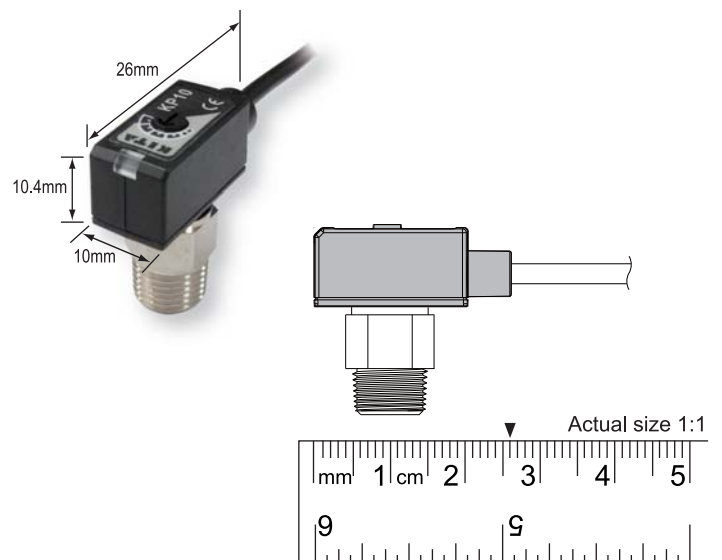
### 1 Simple installation

Plug-in port for push-to-connect fittings



### 2 Compact size

Extremely compact size 26(L)x10(W)x10.4(H)mm to fit the most confined areas

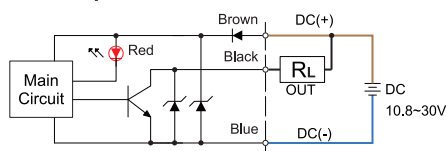


## ■ SPECIFICATIONS

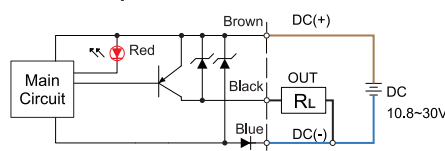
TYPE	KP10V-02/04	KP10P-02/04	KP10C-01	KP10L-01	KP10V-01	KP10R-01	KP10P-01
Setting pressure range	0 ~ -101.3 kPa	0 ~ 0.6 MPa	-100 ~ 100 kPa	0 ~ 100 kPa	0 ~ -101.3 kPa	-101~ 500 kPa	0 ~ 1.0 MPa
Withstand pressure	0.6 MPa	1.5 MPa	0.2 MPa		1.5 MPa		
Fluid	Filtered air, Non-corrosive/Non-flammable gas						
Power supply voltage	10.8 to 30V DC (include ripple voltage)		12 to 24V DC (5% ripple voltage)				
Load current	80mA max.		-				
Internal voltage drop	NPN ≤0.8V, PNP ≤0.8V		-				
Current consumption	10 mA max.						
Analog output	-		1~5 V ±1% F. S. / Linearity ±0.5% F. S.				
Sensor type	NPN or PNP		-				
Output short circuit protection	Yes		-				
Setting method	Adjusting by VR		-				
Response time	Approx.1ms		-				
Repeatability	±1% F.S.		-				
Hysteresis	3% F.S. max.		-				
Indicator	Red LED turns ON		-				
Enclosure	IP 40						
Temperature characteristic	±3% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		±2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C				
Ambient temp. range	Operation: 0 ~ 60°C (32 ~ 140°F), Storage: -20 ~ 70°C (-4 ~ 158°F) (No condensation or freezing)		Operation: 0 ~ 50°C (32 ~ 122°F), Storage: -20 ~ 70°C (-4 ~ 158°F) (No condensation or freezing)				
Ambient humidity range	Operation/Storage: 35 ~ 85% RH ( No condensation)						
Vibration	Total amplitude 1.5mm, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z						
Shock	980m/s <sup>2</sup> (100G), 3 times each in direction of X, Y and Z						
Piping method	Push-in tube or thread-in						
Lead wire	Oil-resistance cable, 3 wires (0.18mm <sup>2</sup> ), Ø 2.6mm						
Weight	Approx. 50g (with 3 meter lead wire)						

## ■ CIRCUIT WIRING DIAGRAMS

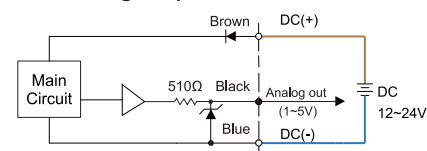
KP10□ - 02 - □ - □  
NPN Output



KP10□ - 04 - □ - □  
PNP Output

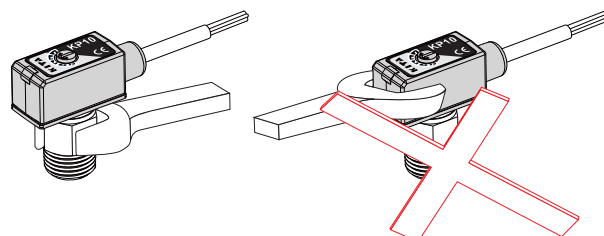


KP10□ - 01 - □ - □  
Analog Output



## ■ 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 damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.



# KP10 SERIES

## ORDERING INFORMATION

K P 1 0 V - 0 1 - F 1 -

### Pressure Range

C : Compound (-100 ~ 100 kPa)  
 R : Compound (-101 ~ 500 kPa)  
 L : Low (0 ~ 100 kPa)  
 V : Vacuum (0 ~ -101.3 kPa)  
 P : Positive (0 ~ 1.0 MPa)

**Output Specification**  
 01 : Analog output(1~5V)

### Optional Part

M8 3Pin female connector



■ M83R-W0114-2M

K P 1 0 V - 0 2 - F 1 -

### Pressure Range

V : Vacuum (0 ~ -101.3 kPa)  
 P : Positive (0 ~ 0.6 MPa)

**Output Specification**  
 02 : NPN output  
 04 : PNP output

### Cable Length / Connector

Blank : With 3 meter cable  
 C : With M8 3Pin male connector

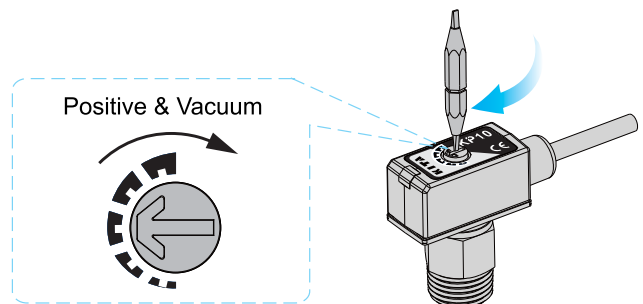
### Optional Part

M83R-W0114-2M : With M8 3Pin female connector

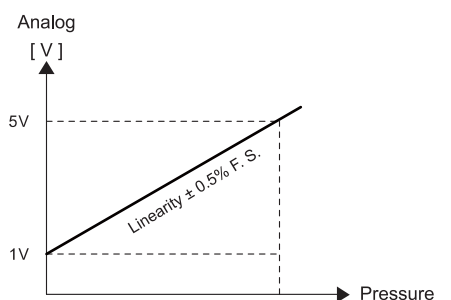
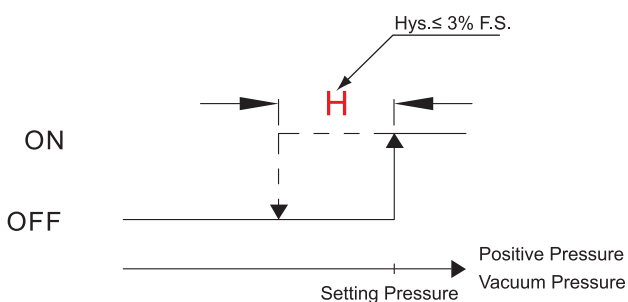
Pressure Port	R4	R6	F1 / F2 / F3	M5
Appearance				
Port size	R4 : Ø 4mm	R6 : Ø 6mm	F1 : R1/8", M5 F2 : NPT1/8", M5 F3 : G1/8"(BSPP), M5	M5 : M5*0.8

## HOW TO SET PRESSURE

- Use the pressure setting trimmer to set "ON" pressure. Rotate clockwise to increase pressure setpoint . Rotate counter-clockwise to decrease pressure setpoint .
- Use appropriate size screwdriver for the setting trimmers. Gently turn the screwdriver to make adjustments. To prevent damage to the pressure setting trimmer, DO NOT force the trimmer when it comes to a stop.



## OUTPUT TYPE



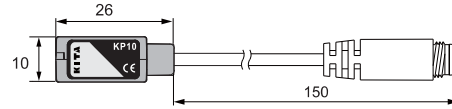
Compound	-100 kPa	100 kPa
Compound	-101 kPa	500 kPa
Low	0 kPa	100 kPa
Vacuum	0 kPa	-101.3 kPa
Positive	0 kPa	1.0 MPa

■ DIMENSIONS

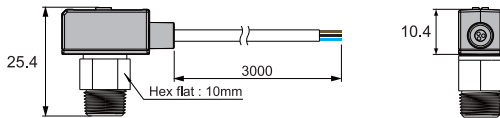
KP10□ - 02, 04 - □ - C



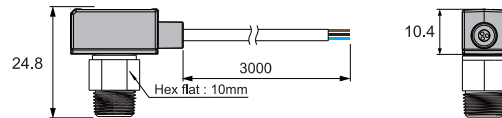
KP10□ - 01 - □ - C



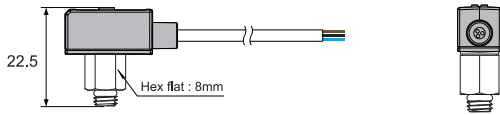
KP10□ - 02, 04 - F1, F2, F3



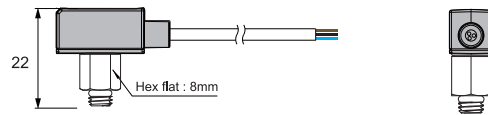
KP10□ - 01 - F1, F2, F3



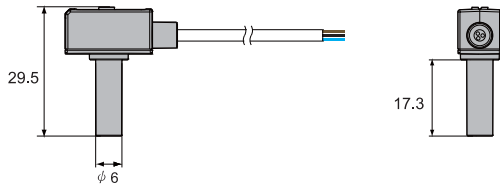
KP10□ - 02, 04 - M5



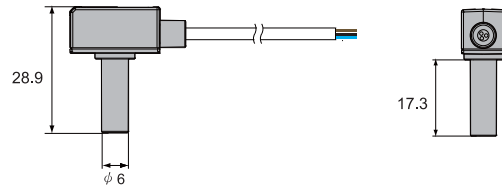
KP10□ - 01 - M5



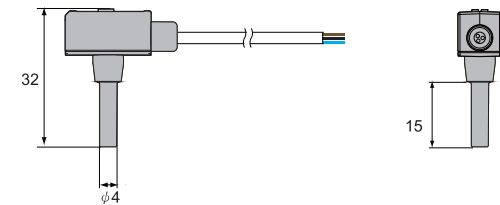
KP10□ - 02, 04 - R6



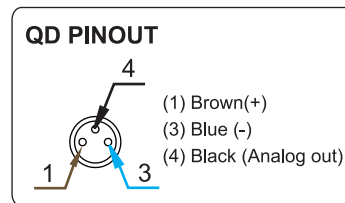
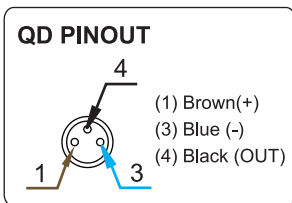
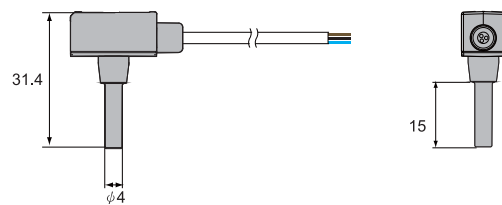
KP10□ - 01 - R6



KP10□ - 02, 04 - R4

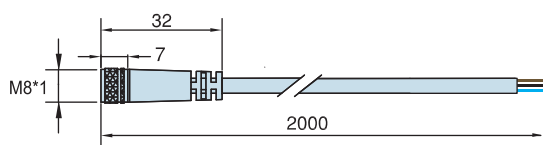


KP10□ - 01 - R4



■ OPTIONAL PART DIMENSIONS

M8 Female Connector model : M83R-W0114-2M



Unit:mm