

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 setting pressure range. Do not apply pressure beyond recommended maximum pressure, permanent damage to the pressure sensor may occur.
- ③ Do not drop, hit or allow excessive shock. Even if switch body appears undamaged, internal components may be broken and can cause malfunction.
- ④ Turn power off before connecting wiring. Wrong wiring or short circuit will damage and/or cause malfunction.
- ⑤ Do not use in environment containing steam or oil vapor.
- ⑥ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- ⑦ Wiring for pressure sensor should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.
- ⑧ ESD protection ±4KV.

| A. SPECIFICATIONS | KP10V-02/04 | KP10P-02/04 | KP10C-01 | KP10L-01 | KP10V-01 | KP10R-01 | KP10P-01 |
|---------------------------------|---|-------------|--|-------------|----------------|----------------|-------------|
| Rated pressure range | -- | | -100 ~ 100 kPa | 0 ~ 100 kPa | 0 ~ -101.3 kPa | -101 ~ 500 kPa | 0 ~ 1.0 MPa |
| Setting pressure range | 0 ~ -101.3 kPa | 0 ~ 0.6 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 | ≤ 0.8V | | -- | | | | |
| Current consumption | 10 mA max. | | | | | | |
| Analog output | -- | | 1~5V ±1%F.S. / Linearity ±0.5%F.S. | | | | |
| Switch output | 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 | Indicator Red : 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, Storage: -20 ~ 70°C (No condensation or freezing) | | Operation: 0 ~ 50°C, Storage: -20 ~ 70°C (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 ² (100G), 3 times each in direction of X, Y and Z | | | | | | |
| Piping size | R4 : Ø 4mm ; R6 : Ø 6mm ; F1 : R1/8", M5 ; F2 : NPT1/8", M5 ; F3 : G1/8"(BSPP) , M5 ; M5 : M5*0.8 | | | | | | |
| Lead wire | Oil-resistance cable, 3 wires (0.18mm ²), Ø 2.6mm | | | | | | |
| Weight | Approx. 50g (with 3 meter lead wire) | | | | | | |

B. ORDERING INFORMATION

K P 1 0 **V** - **0 2** - [] - []

Pressure Range

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

Output Specifications

02 : NPN output
04 : PNP output

Cable Length / Connector

Blank : with 3 meter cable
C : with M8, 3Pin male connector

Pressure Port

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

K P 1 0 **V** - **0 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 Specifications

01 : Analog output (1 ~ 5V)

Cable Length / Connector

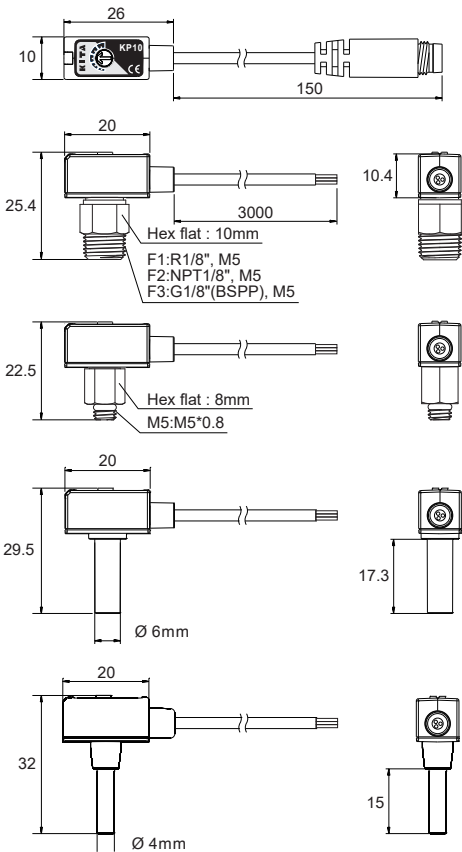
Blank : with 3 meter cable
C : with M8, 3Pin male connector

Pressure Port

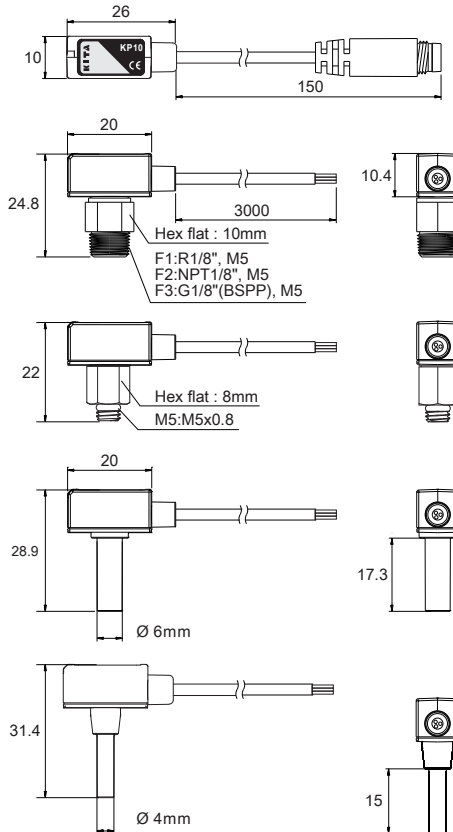
R4 : Ø 4mm Tube
R6 : Ø 6mm Tube
F1 : R1/8", M5
F2 : NPT1/8", M5
F3 : G1/8"(BSPP), M5
M5 : M5*0.8

C. DIMENSIONS

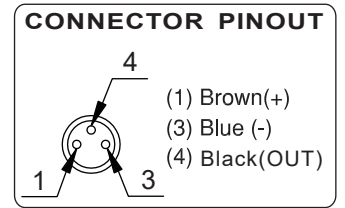
KP10□-02/04-□



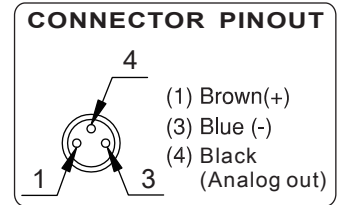
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KP10□-02/04-□

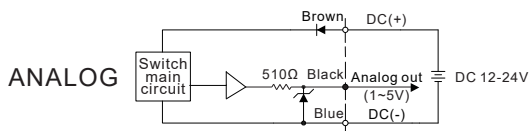
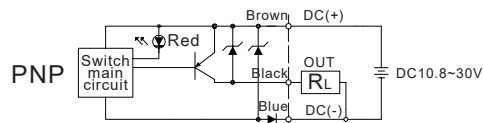
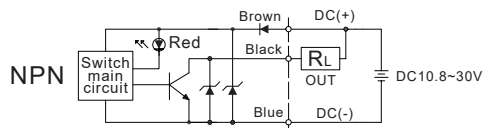


KP10□-01-□

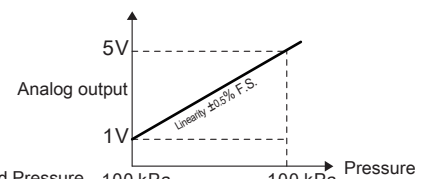
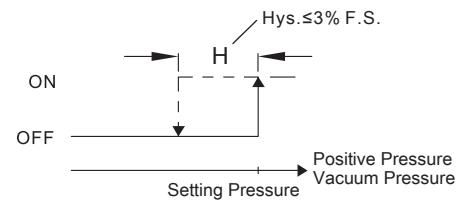


Unit:mm

D. CIRCUIT WIRING DIAGRAM



E. OUTPUT TYPE



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

F. 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.

Positive & Vacuum

