KP101 / KP102 Series | Compact Pressure Sensor

KITA

PR-0083I 2023/04 Online Version

CE

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 operating 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 switch should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.
⑧ Sensors at end-of-life must be disposed of in accordance with E-Waste regulations of the country/region, NOT disposed of with regular garbage.

A SPECIFICATIONS

MODEL	KP101	KP102
Set pressure range	-0.1 ~ 0.4 MPa	
Withstand pressure	1 MPa	
Fluid	Filtered air, Non-corrosive/Non-flammable gas	
Power supply voltage	12 ~ 24V DC ±10% Ripple (P-P) ≤ 10%	
Load current	5 ~ 40mA	
Internal voltage drop	≤ 5V	
Leak current	≤ 1mA	
Switch output	Present Press.≥ Set Press.:ON	Present Press.≥ Set Press.:OFF
Repeatability	±1% F.S.	
Hysteresis	≤ 4% F.S.	
Response time	Approx. 1 ms	
Switch on indicator	Red indicator : ON	
Enclosure	IP40	
Ambient temp. range	Operation : 0 ~ 60 °C, Storage : -20 ~ 70 °C (No condensation or freezing)	
Temperature characteristic	±3% F.S. of detected pressure (25°C) at temp. (Range of 0 ~ 50°C)	
Piping size	F1 : R1/8",M5 ; F2 : NPT1/8",M5 ; F3 : G1/8"(BSPP) ,M5 ; M5 : M5*0.8 ; R6 : Ø 6mm	
Lead wire	Ø2.6 Oil-resistance cable (PVC) - 24 AWG (0.22 mm^2) - 2 cores	
Weight (with 2 meter lead wire)	Approx. 38 g	

B ORDERING INFORMATION

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Switch Specifications

101 : Switch turns ON when the pressure is larger than setting pressure.
102 : Switch turns OFF when the pressure is larger than setting pressure.

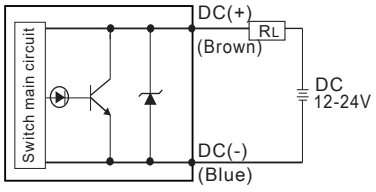
Pressure Port

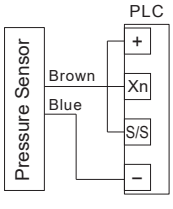
R6 : Ø6mm Tube
F1 : R1/8", M5
F2 : NPT1/8", M5
F3 : G1/8"(BSPP), M5
M5 : M5*0.8

Cable Length/Connector

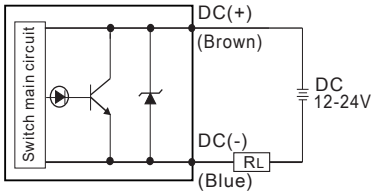
Blank : With 2 meter cable
C : With M8 , 3Pin male connector

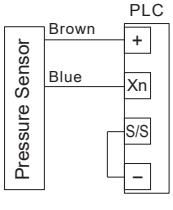
C CIRCUIT WIRING DIAGRAM





Connection to NPN input module

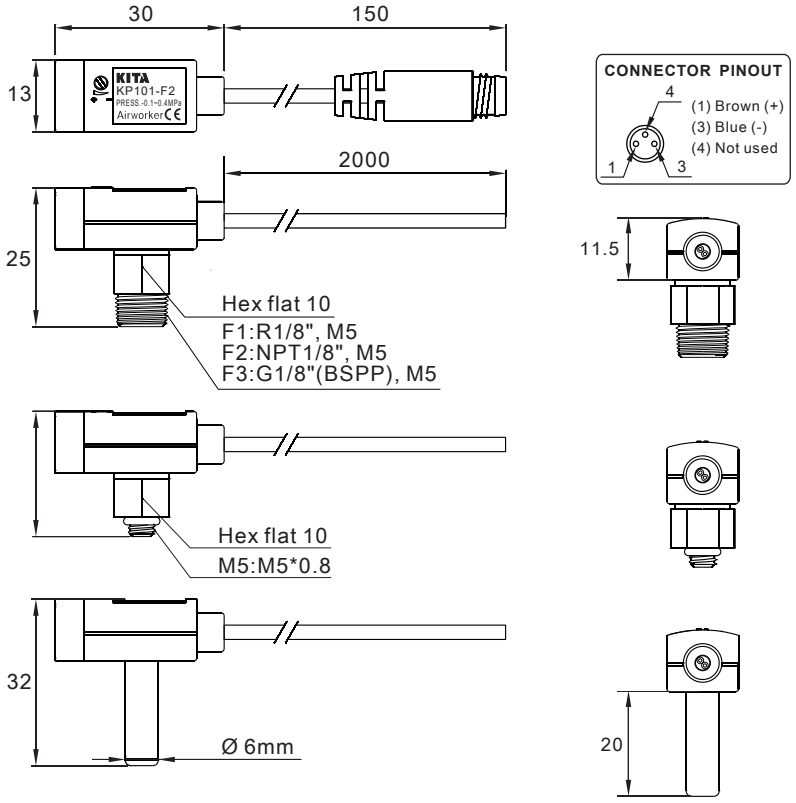




Connection to PNP input module

We reserve the right to change the specification without prior notice.

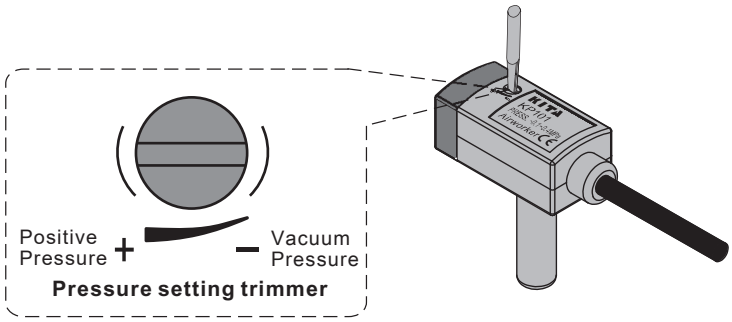
D DIMENSIONS



Unit:mm

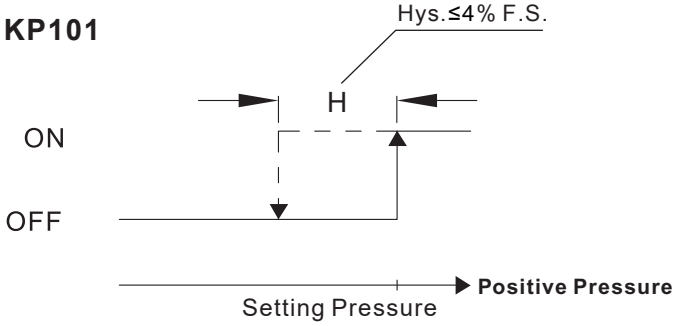
E HOW TO SET PRESSURE

- Use the Pressure setting trimmer to set "ON" pressure. Rotate clockwise to increase pressure setpoint (or to decrease vacuum setpoint). Rotate counter-clockwise to decrease pressure setpoint (or to increase vacuum 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.



F OUTPUT TYPE

KP101



KP102