

## Features

- 1 output (hysteresis adjustable)  
2 outputs
- Easy installation
- Fast response : 5ms



## SPECIFICATIONS

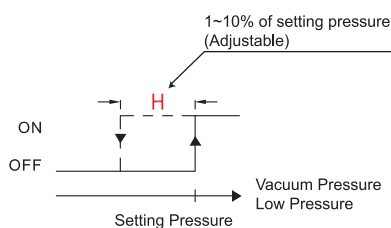
TYPE	Vacuum	Low	Positive
MODEL	KP1-1	KP1-2	KP1-3
1.0 MPa			
100.0 kPa			
0			
-101.0 kPa			
Setting pressure range	0 ~ -101 kPa	0 ~ 100 kPa	0 ~ 1 MPa
Withstand pressure	300 kPa		1.5 MPa
Fluid	Filtered air, Non-corrosive/Non-flammable gas		

## FEATURES HIGHLIGHT

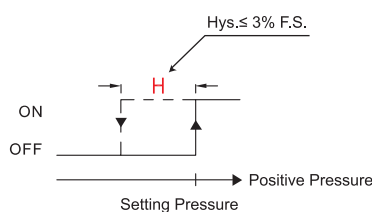
### 1 Hysteresis adjustable

Output hysteresis (H) is user adjustable

KP1-1 & KP1-2

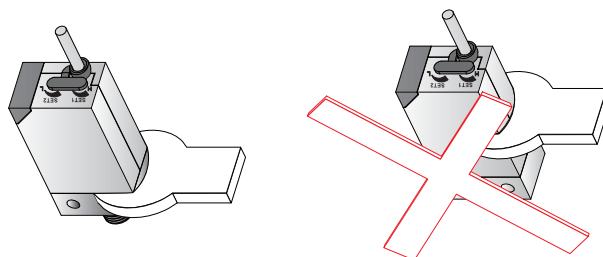


KP1-3



## 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.



## SPECIFICATIONS

MODEL		KP1-1 <small>(Vacuum)</small>	KP1-2 <small>(Low )</small>	KP1-3 <small>(Positive)</small>
<div><div></div><div>1.0 MPa</div><div>100.0 kPa</div><div>0</div><div>-101.0 kPa</div></div>		<div></div>	<div></div>	<div></div>
Setting pressure range		-101 ~ 0 kPa	0 ~ 100 kPa	0 ~ 1 MPa
Withstand pressure		300 kPa		1.5 MPa
Fluid		Filtered air, Non-corrosive/Non-flammable gas		
Power supply voltage		12 to 24V DC ±10%, Ripple (P-P) 10% or less		
Response time		5ms or less		
Repeatability		±1% F.S.		
Current consumption		1 NPN or 1 PNP output : 21mA max.; 2 NPN output : 35mA max.		
Environment	Enclosure	IP40		
	Ambient temp. range	Operation : 0 ~ 50°C, storage : -20 ~ 60°C (No condensation or freezing)		
	Ambient humidity range	Operation/Storage : 35 ~ 85% RH (No condensation)		
	Withstand voltage	1000V AC in 1-min (between case and lead wire)		
	Insulation resistance	50MΩ (at 500V DC, between case and lead wire)		
	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		
Temperature characteristic		±3% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size		PT:1/8"PT(R1/8"), M5; NPT:NPT1/8", M5; G:G1/8"(BSPP), M5		
Lead wire		Oil-resistance cable (0.18mm <sup>2</sup> )		
Weight		Approx. 50g (with 1 meter lead wire)		

## CIRCUIT WIRING DIAGRAMS

MODEL	KP1-□- 01	KP1-□- 02	KP1-□- 03
CONNECT DIAGRAM			
CHARACTERISTICS			
Output method	NPN open collector 30V 80mA	PNP open collector 80mA	NPN open collector 30V 80mA
Hysteresis	1~10% of setting pressure (Adjustable)		3% F.S.or less (Fixed)
Setting points	1 Point		2 Points
Operation indicating Lamp	Red LED turns on		Out1 = Red, Out2 = Green

## ■ ORDERING INFORMATION

K P 1 - 1 - 0 1 - 0 1 - N P T

### Pressure Range

- 1 : Vacuum (-101 ~ 0 kPa)
- 2 : Low (0 ~ 100 kPa)
- 3 : Positive (0 ~ 1 MPa)

### Output Specification

- 01 : NPN output
- 02 : PNP output
- 03 : 2 NPN output

### Pressure Port

- PT : 1/8"PT(R1/8"), M5
- NPT : NPT1/8", M5
- G : G1/8"(BSPP), M5

### Cable Length / Connector

- 01 : With 1 meter cable
- 03 : With 3 meter cable
- C : With M8 4Pin male connector

### Optional Part

M8 4Pin female connector



■ M84R-W0072-2M

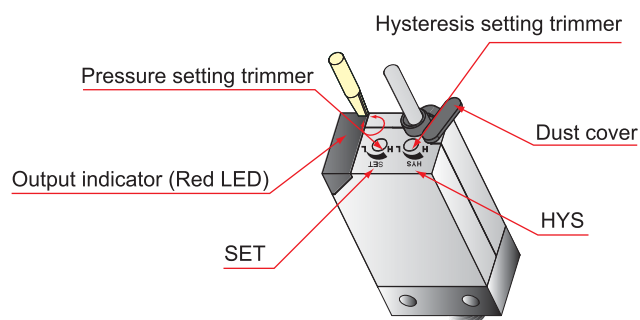
### Optional Part

M84R-W0072-2M : With M8 4Pin female connector

## ■ HOW TO SET PRESSURE

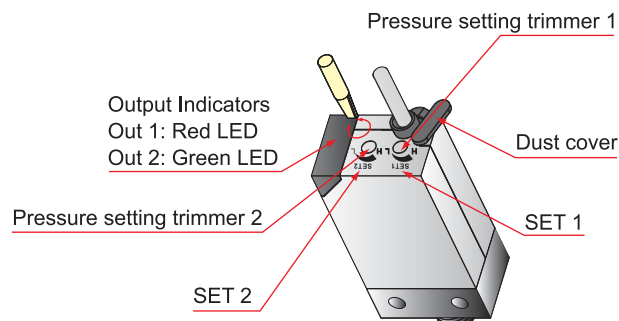
### KP1-□ - 01,02

- Remove dust cover to make any adjustments. Replace dust cover when finished to prevent foreign object from entering.
- Pressure setting trimmer (SET) is for setting the output (ON) pressure. Rotate SET trimmer counter-clockwise to increase (Pressure or Vacuum) the ON point. Rotate clockwise will decrease the setting pressure.
- Hysteresis setting trimmer (HYS) is for changing the hysteresis. Rotate trimmer counter-clockwise to increase the range 1~10%.
- Use appropriate size screwdriver for the setting trimmers. Gently turn the screwdriver to make adjustments. Do not force the trimmer when it comes to a stop to prevent damage to the setting trimmer.



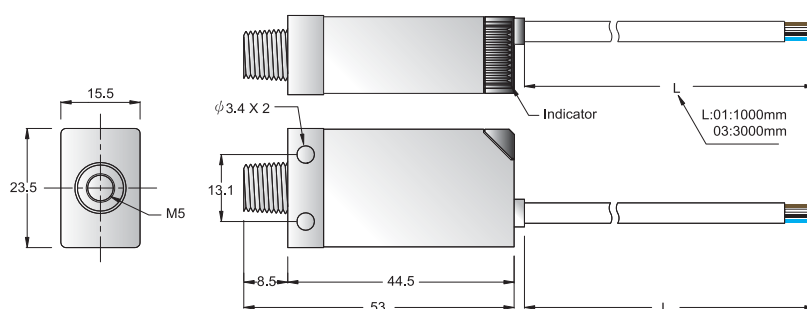
### KP1-□ - 03

- Remove dust cover to make any adjustments. Replace dust cover when finished to prevent foreign object from entering.
- Pressure setting trimmer (SET 1, SET 2) is for setting the output (ON) pressure. Rotate SET trimmer counter-clockwise to increase (Pressure or Vacuum) the ON point. Rotate clockwise will decrease the setting pressure.
- Hysteresis for models with two outputs is 3% fixed.

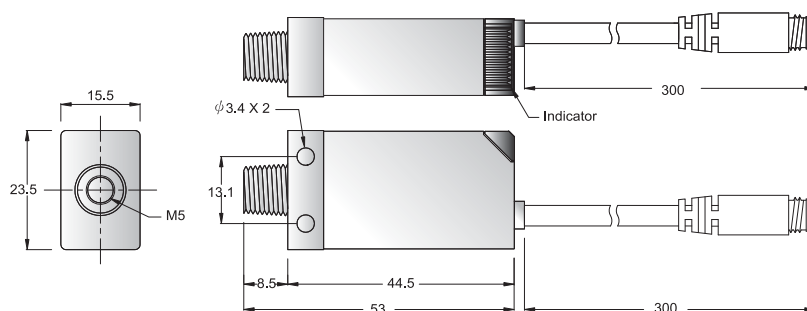


## DIMENSIONS

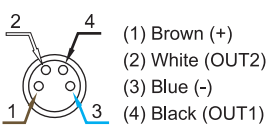
KP1 - □ - □ - □



KP1-□ - □ - C - □

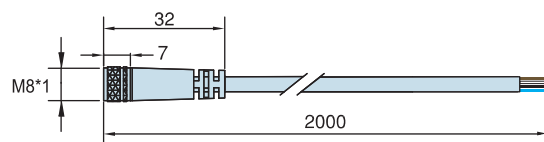


### QD PINOUT



## OPTIONAL PART DIMENSIONS

M8 Female Connector model : M84R-W0072-2M



Unit:mm