

Features

- High display accuracy : $\pm 1\%$ F.S.
- Fast response : 5ms
- Hysteresis adjustable



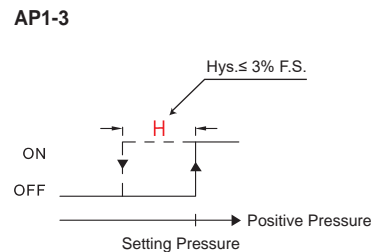
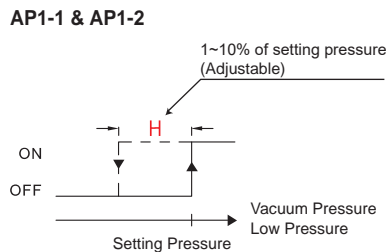
SPECIFICATION

TYPE	Vacuum	Low pressure	Positive
MODEL	AP1-1	AP1-2	AP1-3
1.0 MPa (145 psi)			■
100.0 kPa (14.5 psi)		■	
0	■		
-101.0 kPa (-29.8 inHg)			
Setting pressure range	-101.0 ~ 0 kPa (-29.8 ~ 0 inHg)	0 ~ 100.0 kPa (0 ~ 14.5 psi)	0 ~ 1.0 MPa (0 ~ 145 psi)
Withstand pressure	300 kPa (43.5 psi)		1.5 MPa (217.6 psi)
Fluid	Filtered air, Non-corrosive/Non-flammable gas		

FEATURES HIGHLIGHT

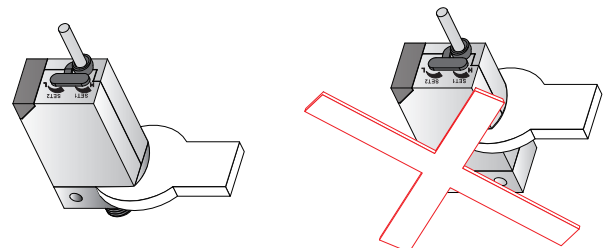
1 Hysteresis adjustable

Output hysteresis (H) is user adjustable






INSTALLATION PRECAUTIONS

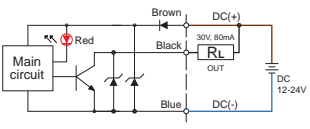
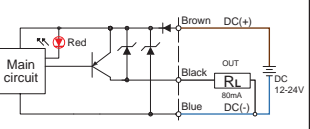
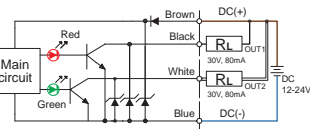
- When mounting, always use the wrench on the metallic area near the pressure port. Never apply a wrench to the plastic body, it will damage the sensor.
- Over tightening may cause damages to the port thread, mounting bracket and pressure sensor. Under tightening may result loosen or leakage.
- Apply pressure and power after installation and make necessary adjustments and inspect any possible signs of leakage to ensure proper installation.



■ SPECIFICATION

MODEL	AP1-1 (Vacuum)	AP1-2 (Low Pressure)	AP1-3 (Positive)
1.0 MPa (145 psi) 100.0 kPa (14.5 psi) 0 -101.0 kPa (-29.8 inHg)			
Setting pressure range	-101.0 ~ 0 kPa (-29.8 ~ 0 inHg)	0 ~ 100.0 kPa (0 ~ 14.5 psi)	0 ~ 1.0 MPa (0~145 psi)
Withstand pressure	300 kPa (43.5 psi)		1.5 MPa (217.5 psi)
Fluid	Filtered air, Non-corrosive/Non-flammable gas		
Power supply voltage	12 to 24V DC $\pm 10\%$, Ripple (P-P) 10% or less		
Response time	5ms or less		
Repeatability	$\pm 1\%$ F.S.		
Current consumption	1 NPN & 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	50M Ω (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 ² (100G), 3 times each in direction of X, Y and Z	
Temperature characteristic	$\pm 3\%$ F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size	R1/8", M5; NPT1/8", M5; G1/8"(BSPP), M5		
Lead wire	Oil-resistance cable (0.18mm ²)		
Weight	Approx. 50g (with 1-meter lead wire)		

■ CIRCUIT WIRING DIAGRAMS

MODEL	AP1-□-01	AP1-□-02	AP1-□-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 Point
Operation indicating Lamp	Red LED turns on		Out1 = Red, Out2 = Green

ORDERING INFORMATION

AP1 - 1 - 01 - 01 - NPT

Pressure Range

- 1 : Vacuum -101 ~ 0 kPa
(-29.8 ~ 0 inHg)
- 2 : Low Pressure 0 ~ 100 kPa
(0 ~ 14.5 psi)
- 3 : Positive 0 ~ 1 MPa
(0 ~ 145 psi)

Pressure Port

- R : R1/8", M5
- NPT : NPT1/8", M5
- G : G1/8"(BSP), M5

Output Specification

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

Cable Length / Connector

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

Optional Part

M8, 4-Pin female cordset



- KM84R-PVC-2M
- KM84R-PVC-5M

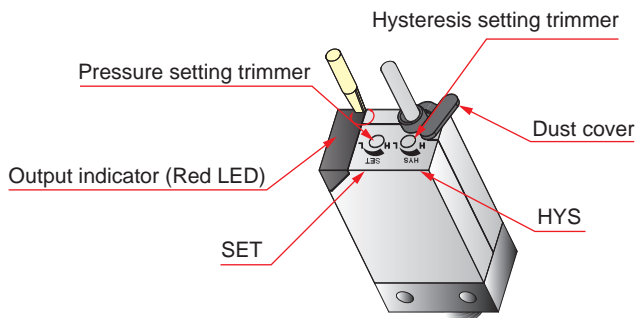
Optional Part

- KM84R-PVC-2M / KM84R-PVC-5M :
- M8, 4-Pin female cordset

HOW TO SET PRESSURE

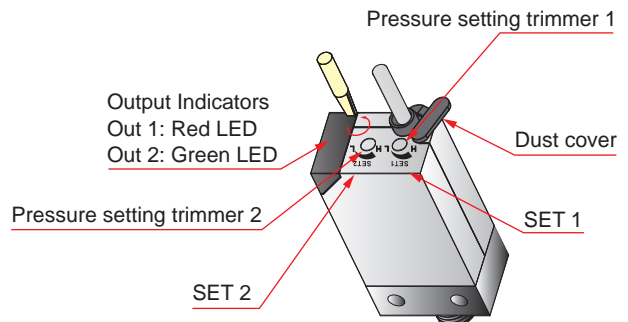
AP1-□- 01, 02

- 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.



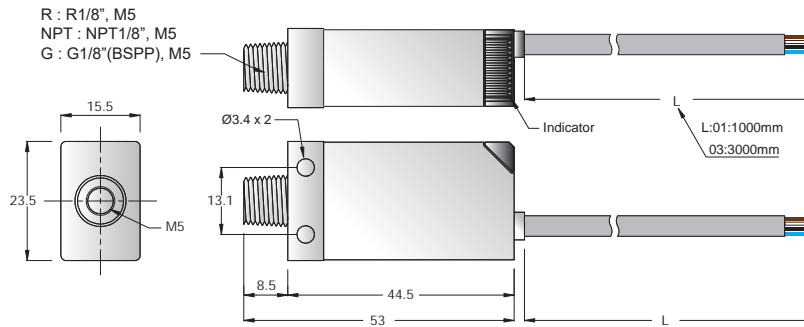
AP1-□- 03

- 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.

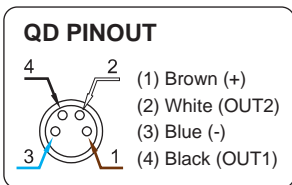
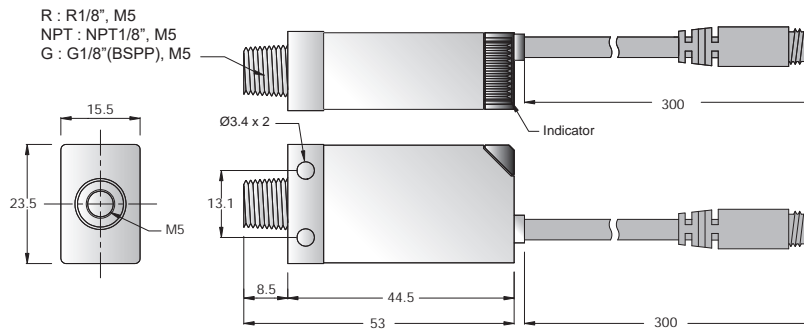


DIMENSION

AP1 - □ - □ - □

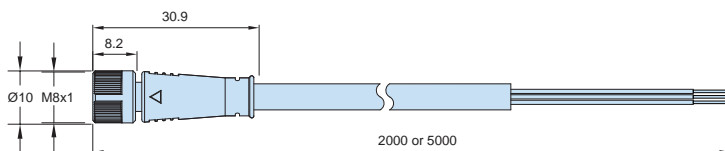


AP1-□ - □ - C - □



OPTIONAL PART DIMENSION

M8 Female Cordset Model : KM84R-PVC-2M \ KM84R-PVC-5M



Unit:mm

