

## Features

- Setting pressure range :  
Compound : -100.0~100.0 kPa (-14.50~14.50 psi)  
Vacuum : -101.3~10.0 kPa (-29.9 inHg~1.45 psi)  
Positive : -0.100~1.000 MPa (-14.5~145.0 psi)
- Two switch outputs & One analog output (1~5V)
- Hysteresis adjustable
- High display accuracy : ±0.2% F.S.
- Programmable pressure unit :  
kPa 、 MPa 、 kgf/cm<sup>2</sup> 、 mmHg 、 psi 、 bar 、 inHg 、 mmH<sub>2</sub>O

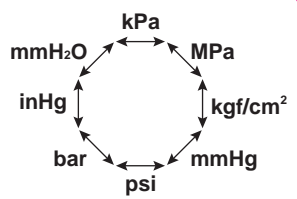


## SPECIFICATION

TYPE	Compound	Vacuum	Positive
MODEL	AP30C	AP30V	AP30P
1.000 MPa (145.0 psi)			
100.0 kPa (14.5 psi)			
0			
-101.3 kPa (14.7 psi)			
Rated pressure range	-100.0 ~ 100.0 kPa (-14.50 psi ~ 14.50 psi)	-101.3 ~ 0.0 kPa (-29.9 ~ 0.0 inHg)	0.000 ~ 1.000 MPa (0.0 ~ 145.0 psi)
Setting pressure range	-100.0 ~ 100.0 kPa (-14.50 psi ~ 14.50 psi)	-101.3 ~ 10.0 kPa (-29.9 inHg ~ 1.45 psi)	-0.100 ~ 1.000 MPa (-14.5 psi ~ 145.0 psi)

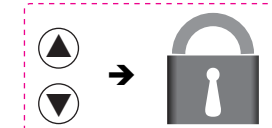
## FEATURES HIGHLIGHT

### 1 Programmable pressure unit



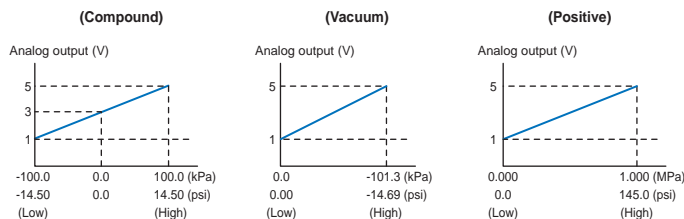
### 2 Key lock function

Key lock mode to prevent unauthorized adjustments.  
Press (M) more than 5 seconds to enter key lock mode.  
Use ▲ or ▼ to select key lock status.



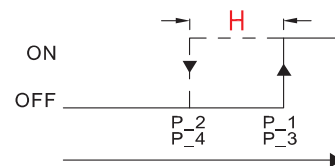
### 3 Analog output

Two sensor outputs & One analog output  
Output range 1 to 5V, proportional to the pressure range



### 4 Hysteresis adjustable

Output hysteresis (H) is adjustable by user

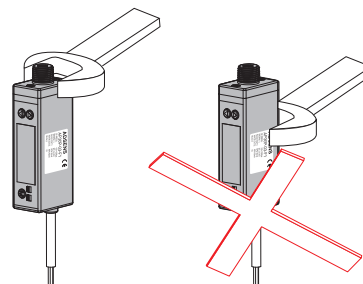


## SPECIFICATION

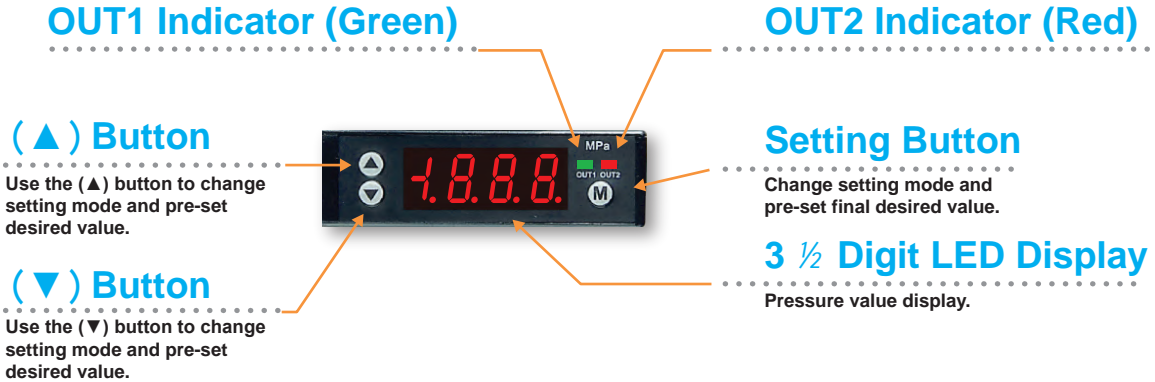
MODEL	AP30C (Compound)	AP30V (Vacuum)	AP30P (Positive)
1.000 MPa (145.0 psi)			
100.0 kPa (14.5 psi)			
0			
-101.3 kPa (-14.7 psi)			
Rated pressure range	-100.0 ~ 100.0 kPa (-14.50 ~14.50 psi)	-101.3 ~ 0.0 kPa (-29.9 ~ 0.00 inHg)	0.000 ~ 1.000 MPa (0.0~145.0 psi)
Setting pressure range	-100.0 ~ 100.0 kPa (-14.50 ~14.50 psi)	-101.3 ~ 10.0 kPa (-29.9 inHg ~ 1.45 psi)	-0.100 ~ 1.000 MPa (-14.5 ~145.0 psi)
Withstand pressure	300.0 kPa (43.5 psi)		1.500 MPa (217.6 psi)
Fluid	Filtered air, Non-corrosive/Non-flammable gas		
Set pressure resolution	kPa	0.1	-
	MPa	-	0.001
	kgf/cm <sup>2</sup>	0.001	0.01
	bar	0.001	0.01
	psi	0.01	0.1
	inHg	0.1	-
	mmHg	1	-
mmH <sub>2</sub> O	0.1	-	
Power supply voltage	12 to 24V DC ±10%, Ripple (P-P) 10% or less		
Current consumption	≤ 60mA		
Switch output	NPN : open collector 2 outputs Max. load current : 100mA Max. supply voltage : 30V DC Residual voltage : ≤ 1V	PNP : open collector 2 outputs Max. load current : 100mA Max. supply voltage : 24V DC Residual voltage : ≤ 1V	
Repeatability(Sensor output)	±0.2% F.S. ±1 digit		
Hysteresis	Hysteresis mode	Adjustable	
	Window comparator mode	Fixed (3 digits)	
Response time	≤ 2.5ms (chattering-proof function: 24ms, 192ms and 768ms selectable)		
Output short circuit protection	Yes		
7 segment LED display	3 ½ digit LED display (Sampling rate: 5 times/1sec.)		
Indicator accuracy	±2% F.S. ±1 digit (Ambient temperature: 25 ±3°C)		
Indicator	OUT1 = Green, OUT2 = Red		
Analog output (Only type AP30□- 01 -□, AP30□- 03 -□)	Output voltage : 1 to 5V ± 5%F.S. (within rated pressure range) Linearity : ±1% F.S.	Output voltage : 1 to 5V ± 2.5%F.S. (within rated pressure range) Linearity : ±1% F.S.	
	Enclosure	IP40	
Environment	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	±2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size	F1:R1/8", M5 ; F2:NPT1/8", M5 ; F3:G1/8"(BSP), M5		
Lead wire	Oil-resistance cable (0.15mm <sup>2</sup> )		
Weight	Approx. 67g (with 2-meter lead wire), Approx. 35g (with M8, 4-pin male connector )		

## 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.

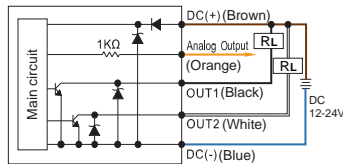


### ■ PANEL DESCRIPTION

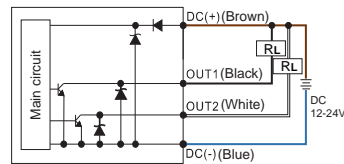


### ■ OUTPUT CIRCUIT WIRING DIAGRAMS

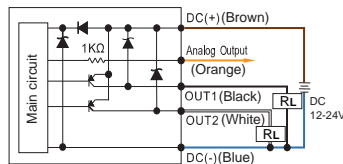
AP30 □ - 01 - □ - □  
NPN Output & Analog Output



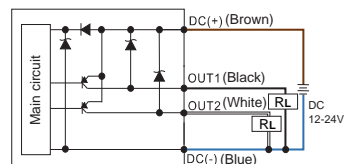
AP30 □ - 02 - □ - □  
NPN Output



AP30 □ - 03 - □ - □  
PNP Output & Analog Output



AP30 □ - 04 - □ - □  
PNP Output



### ■ ORDERING INFORMATION

**A P 3 0 C - 0 1 - F 1 - □**

#### Pressure Range

C : Compound -100.0~100.0 kPa  
(-14.50~14.50 psi)  
V : Vacuum -101.3~10.0 kPa  
(-29.9 inHg~1.45 psi)  
P : Positive -0.100~1.000 MPa  
(-14.5~145.0 psi)

#### Pressure Port

F1 : R1/8", M5  
F2 : NPT1/8", M5  
F3 : G1/8"(BSPP), M5

#### Output Specification

01 : 2 NPN output & 1 Analog output(1~5V)  
02 : 2 NPN output  
03 : 2 PNP output & 1 Analog output(1~5V)  
04 : 2 PNP output

#### Cable Length / Connector

Blank : With 2-meter cable  
QD : With M8, 4-Pin male connector  
\*(Only type AP30 □ - 02 - □, AP30 □ - 04 - □)

#### Optional Part

M8, 4-Pin female cordset



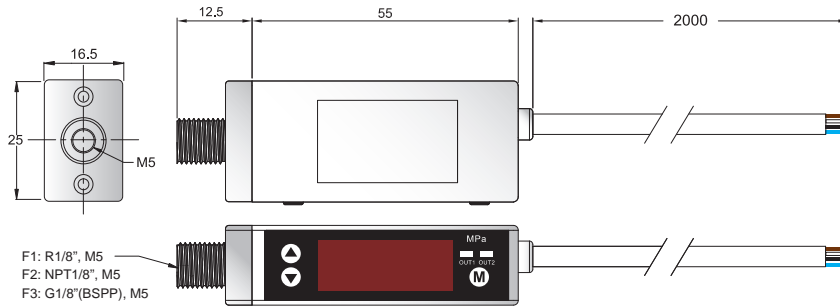
■ KM84R-PVC-2M  
KM84R-PVC-5M

#### Optional Part

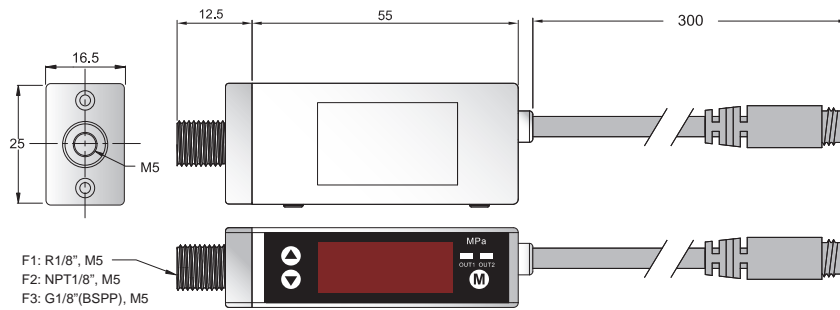
KM84R-PVC-2M / KM84R-PVC-5M : M8, 4-Pin female cordset

## ■ DIMENSION

AP30□-□-□

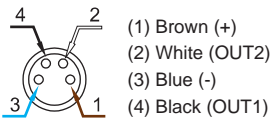


AP30□-□-□- QD



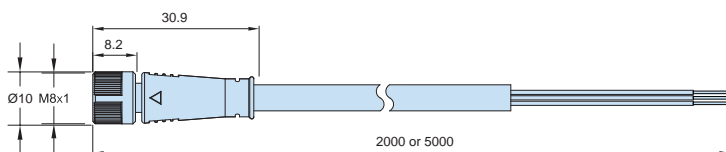
Unit:mm

### QD PINOUT



## OPTIONAL PART DIMENSIONS

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



Unit:mm

