

## Features

- Simple installation, plug-in port or thread-in fitting
- Compact size : 26\*10\*10.4mm
- Setting pressure range :  
 Switch : Vacuum -101.3 ~ 0 kPa (-29.9 ~ 0 inHg)  
 Positive 0 ~ 0.6 MPa (0 ~ 87 psi)  
 Analog : Compound -100 ~ 100 kPa (-14.5 ~ 14.5 psi)  
 Compound -101 ~ 500 kPa (-14.6 ~ 72.5 psi)  
 Low 0 ~ 100 kPa (0 ~ 14.5 psi)  
 Vacuum -101.3 ~ 0 kPa (-29.9 ~ 0 inHg)  
 Positive 0 ~ 1.0 MPa (0 ~ 145 psi)



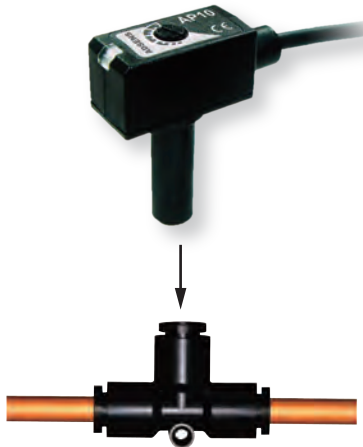
## ■ SPECIFICATIONS

TYPE	Switch				Analog		
MODEL	AP10V	AP10P	AP10C	AP10L	AP10V	AP10R	AP10P
1.0 MPa (145 psi)							
0							
-101.3 kPa (-29.9 inHg)							
Setting pressure range	-101.3 ~ 0 kPa (-29.9 ~ 0 inHg)	0 ~ 0.6 MPa (0 ~ 87 psi)	-100 ~ 100 kPa (-14.5 ~ 14.5 psi)	0 ~ 100 kPa (0 ~ 14.5 psi)	-101.3 ~ 0 kPa (-29.9 ~ 0 inHg)	-101 ~ 500 kPa (-14.6 ~ 72.5 psi)	0 ~ 1.0 MPa (0 ~ 145 psi)
Withstand pressure	0.6 MPa (87 psi)	1.5 MPa (217.5 psi)		0.2 MPa (29 psi)			1.5 MPa (217.5 psi)
Fluid	Filtered air, Non-corrosive/Non-flammable gas						

## ■ FEATURES HIGHLIGHT

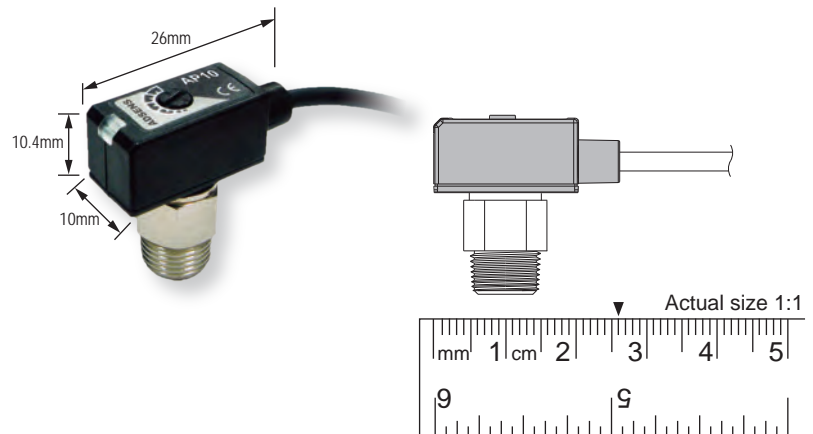
### 1 Simple installation

Plug-in port for push-to-connect fittings

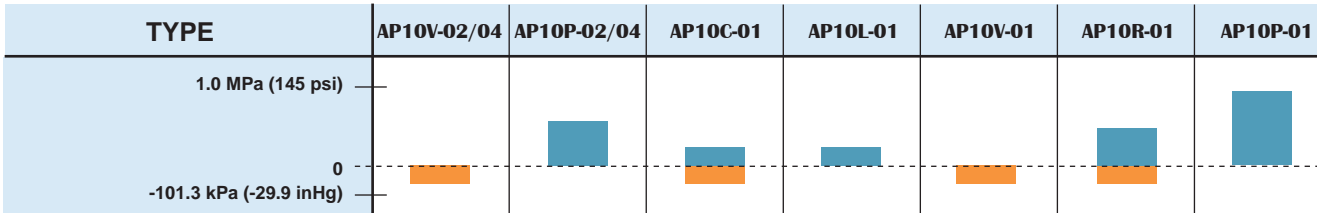


### 2 Compact size

Extremely compact size 26(L)x10(W)x10.4(H)mm to fit the most confined areas

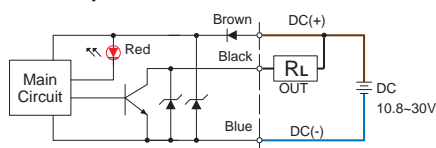


## SPECIFICATIONS

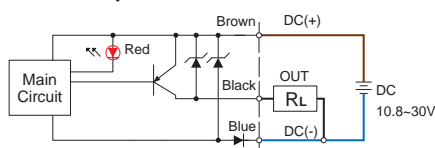
TYPE	AP10V-02/04	AP10P-02/04	AP10C-01	AP10L-01	AP10V-01	AP10R-01	AP10P-01
							
Setting pressure range	-101.3 ~ 0 kPa (-29.9 ~ 0 inHg)	0 ~ 0.6 MPa (0 ~ 87 psi)	-100 ~ 100 kPa (-14.5 ~ 14.5 psi)	0 ~ 100 kPa (0 ~ 14.5 psi)	-101.3 ~ 0 kPa (-29.9 ~ 0 inHg)	-101 ~ 500 kPa (-14.6 ~ 72.5 psi)	0 ~ 1.0 MPa (0 ~ 145 psi)
Withstand pressure	0.6 MPa (87 psi)	1.5 MPa (217.5 psi)	0.2 MPa (29 psi)		1.5 MPa (217.5 psi)		
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	NPN ≤0.8V, PNP ≤0.8V			-			
Current consumption	10 mA max.						
Analog output	1~5 V ±1% F. S. / Linearity ±0.5% F. S.						
Sensor type	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	Red LED turns 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 (32 ~ 140°F), Storage: -20 ~ 70°C (-4 ~ 158°F) (No condensation or freezing)			Operation: 0 ~ 50°C (32 ~ 122°F), Storage: -20 ~ 70°C (-4 ~ 158°F) (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 <sup>2</sup> (100G), 3 times each in direction of X, Y and Z						
Piping method	Ø 4 mm; Ø 6 mm; R1/8", M5; NPT1/8", M5; G1/8"(BSPP), M5; M5*0.8P						
Lead wire	Oil-resistance cable, 3 wires (0.18mm <sup>2</sup> ), Ø 2.6mm						
Weight	Approx. 50g (with 3 meter lead wire)						

## CIRCUIT WIRING DIAGRAMS

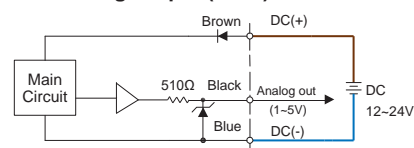
AP10□ - 02 - □ - □  
NPN Output



AP10□ - 04 - □ - □  
PNP Output

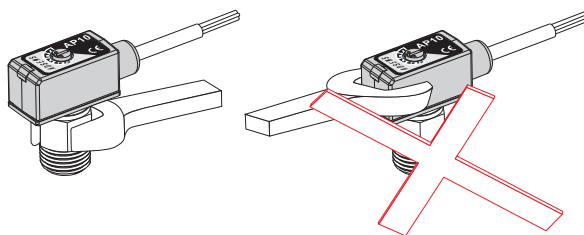


AP10□ - 01 - □ - □  
Analog Output (1~5V)



## 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.



## ORDERING INFORMATION

AP10V-01-F1-

**Pressure Range**

- C : Compound -100 ~ 100 kPa (-14.5 ~ 14.5 psi)
- R : Compound -101 ~ 500 kPa (-14.6 ~ 72.5 psi)
- L : Low 0 ~ 100 kPa (0 ~ 14.5 psi)
- V : Vacuum -101.3 ~ 0 kPa (-29.9 ~ 0 inHg)
- P : Positive (0 ~ 1.0 MPa) (0 ~ 145 psi)

**Output Specification**

01 : Analog output(1~5V)

AP10V-02-F1-

**Pressure Range**

- V : Vacuum -101.3 ~ 0 kPa (-29.9 ~ 0 inHg)
- P : Positive 0 ~ 0.6 MPa (0 ~ 87 psi)

**Output Specification**

02 : NPN output  
04 : PNP output

**Cable Length / Connector**

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

**Optional Part**

M8, 3-Pin female cordset



■ KM83R-PVC-2M  
KM83R-PVC-5M

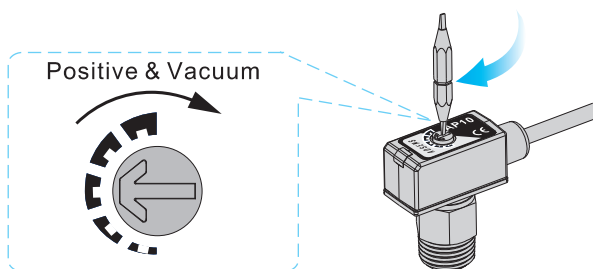
**Optional Part**

KM83R-PVC-2M / KM83R-PVC-5M :  
M8, 3-Pin female cordset

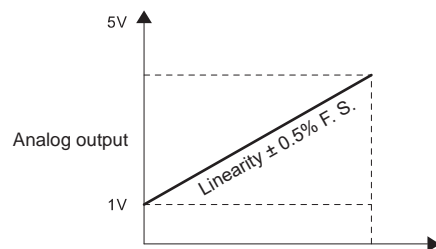
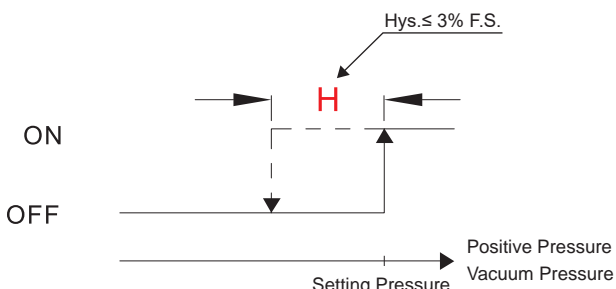
Pressure Port	R4	¼ / R6	F1 / F2 / F3	M5
Appearance				
Port size	R4 : Ø 4mm	¼ : Ø 1/4" R6 : Ø 6mm	F1 : R1/8", M5 F2 : NPT1/8", M5 F3 : G1/8"(BSPP), M5	M5 : M5 x 0.8P

## 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.

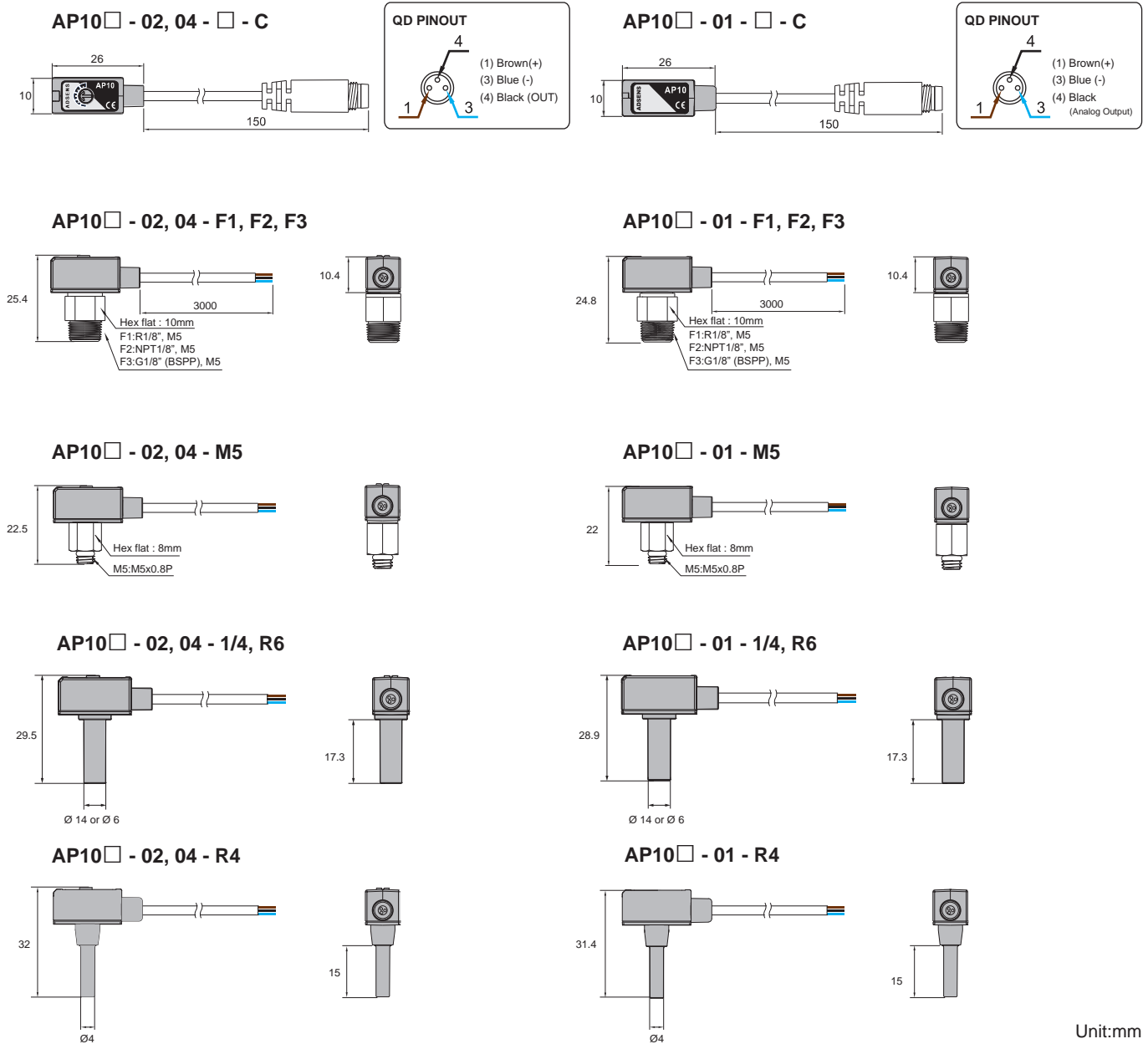


## OUTPUT TYPE



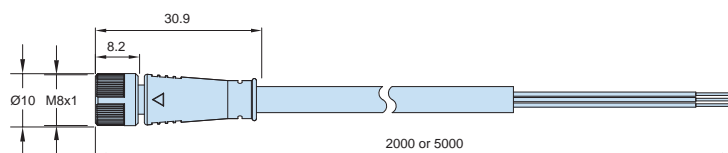
Compound Pressure	-100 kPa (-14.5 psi)	100 kPa (14.5 psi)
Compound Pressure	-101 kPa (-14.6 psi)	500 kPa (-29.9 inHg)
Low	0 kPa	100 kPa (14.5 psi)
Vacuum Pressure	0 kPa	-101.3 kPa (-29.9 inHg)
Positive Pressure	0 kPa	1.0 MPa (145 psi)

## ■ DIMENSION



## ■ OPTIONAL PART DIMENSIONS

**M8 Female Cordset** Model : KM83R-PVC-2M \ KM83R-PVC-5M



Unit:mm

