

Features

- 2-color digital LCD display
- Copy function
- Programmable pressure unit :
kPa 、 MPa 、 kgf/cm² 、 bar 、 psi 、 inHg
- IP65 enclosure



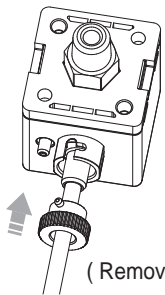
SPECIFICATIONS

TYPE	Compound	Vacuum	Positive
MODEL	AP45C	AP45V	AP45P
1.0 MPa			
100.0 kPa			
0			
-101.3 kPa			
Rated pressure range	-100.0 ~ 100.0 kPa (-14.50 ~ 14.50 psi)	0.0 ~ -101.3 kPa (0.0 ~ -29.9 inHg)	0.000 ~ 1.000 MPa (0.0 ~ 145.0 psi)
Setting pressure range	-101.0 ~ 101.0 kPa (-14.50 ~ 14.50 psi)	10.0 ~ -101.3 kPa (1.45 psi ~ -29.9 inHg)	-0.100 ~ 1.000 MPa (-14.5 ~ 145.0 psi)

FEATURES HIGHLIGHT

1 Quick Installation

- Save installation time
- Easy removal



(Removable data cable)

2 Copy Setting

- Avoid setting errors
- Reduce setting time



(Original Parameter)

(Copied)

3 Easy Unit Identification

- Conversion unit is on display and easy to read.

inHg | psi | bar | kgf/cm² | MPa | kPa



4 2-Color Display

- User programmable color mode, for different setting conditions.



	50.0	50.0	0.0	1.0
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

5 IP65 Compliance

- Protected against water and dust splash from all directions.



6 Environmental Protection Design

- RoHS Compliance / Without Harmful Substance



■ SPECIFICATIONS

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Withstand pressure		300 kPa (43.5 psi)		1.5 MPa (217.6 psi)
Fluid		Filtered air, Non-corrosive / Non-flammable gas		
Set pressure resolution	kPa	0.1		-
	MPa	-		0.001
	kgf/cm ²	0.001		0.01
	bar	0.001		0.01
	psi	0.01		0.1
	inHg	0.1		-
Power supply voltage		12 to 24V DC \pm 10%, Ripple (P-P) 10% or less (UL class 2)		
Current consumption		\leq 40mA(With no load)		
Switch output		NPN: open collector 2 outputs Max. load current: 125mA Max. supply voltage: 30V DC Residual voltage: \leq 1.5V	PNP: open collector 2 outputs Max. load current: 125mA Max. supply voltage: 24V DC Residual voltage: \leq 1.5V	
Repeatability(Switch output)		\pm 0.2% F.S. \pm 1 digit		
Hysteresis	One point set mode	Adjustable(*1)		
	Hysteresis mode			
	Window comparator mode			
Response time		\leq 2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selectable)		
Output short circuit protection		Yes		
7 segment LCD display		3½ digit, 7 segment (red/green)		
Indicator accuracy		\pm 2% F.S. \pm 1 digit (ambient temperature: 25 \pm 3°C)		
Switch ON Indicator		Orange (1&2 Indicator) OUT1 OUT2		
Analog output (Voltage Output) (*2)		Output Voltage: 1 to 5V \pm 2.5% F.S. (within rated pressure range) Linearity: \pm 1% F.S. Output impedance: about 1k Ω		
Analog output (Current Output) (*3)		Output Current: 4 to 20mA \pm 2.5% F.S.(within rated pressure range) Linearity: \pm 1% F.S. Max.Load impedance: 250 Ω at power supply of 12V 600 Ω at power supply of 24V Min.Load impedance: 50 Ω		
Environment	Enclosure	IP 65		
	Ambient temp. range	Operation: 0 ~ 50°C, Storage:-10 ~ 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 or 10G,10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z		
Shock		100m/s ² (10G), 3 times each in direction of X, Y and Z		
Temperature characteristic		\pm 2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size		F1 : R1/8", M5; F2 : NPT1/8", #10-32 UNF; F3 : G1/8"(BSPP), M5 F1C:Rc1/8" ; F2C:NPT1/8" ; F3C: G1/8"(BSPP)		
Lead wire		Oil-resistance cable(0.15mm ²)		
Weight (with 2 meter lead wire)		Approx. 86g (with 2 meter lead wire)		

[NOTE] *1 : Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

*2 : If analog voltage output is selected, the analog current output cannot be selected at the same time.

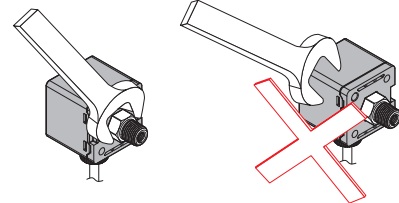
*3 : If analog current output is selected, the analog voltage output cannot be selected at the same time.

PANEL DESCRIPTION



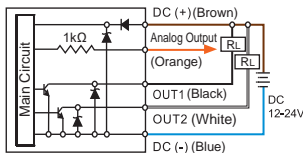
INSTALLATION PRECAUTIONS

- 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.

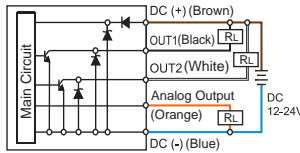


OUTPUT CIRCUIT WIRING DIAGRAMS

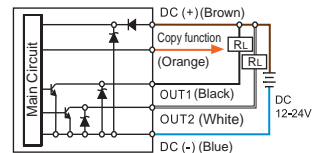
AP45 □ - 010 - □
2 NPN + Analog Output(1~5V)



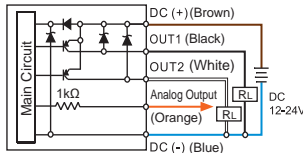
AP45 □ - 011 - □
2 NPN + Analog Output(4~20mA)



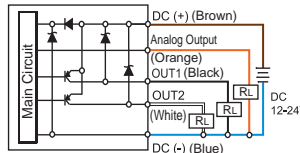
AP45 □ - 02 - □
2 NPN + Copy Function



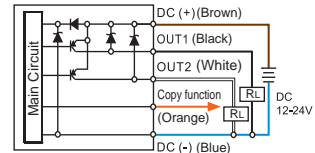
AP45 □ - 030 - □
2 PNP + Analog Output(1~5V)



AP45 □ - 031 - □
2 PNP + Analog Output(4~20mA)



AP45 □ - 04 - □
2 PNP + Copy Function



ORDERING INFORMATION

A P 4 5 C - 0 1 0 - F 1

Pressure Range

- C** : Compound (-101.0 ~ 101.0kPa)
(-14.50 ~ 14.50 psi)
- V** : Vacuum (10.0 ~ -101.3kPa)
(1.45 psi ~ -29.9 inHg)
- P** : Positive(-0.100~1.000MPa)
(-14.5 ~ 145.0 psi)

Output Specifications

- 010** : 2 NPN Output & Analog Output(1~5V)
- 011** : 2 NPN Output & Analog Output(4~20mA)
- 02** : 2 NPN Output & Copy Function
- 030** : 2 PNP Output & Analog Output(1~5V)
- 031** : 2 PNP Output & Analog Output(4~20mA)
- 04** : 2 PNP Output & Copy Function

Pressure Port

- F1** : R1/8", M5 ,with external threads
- F2** : NPT1/8", #10-32UNF,with external threads
- F3** : G1/8"(BSPP), M5,with external threads
- F1C** : Rc1/8", with internal threads
- F2C** : NPT1/8", with internal threads
- F3C** : G1/8"(BSPP), with internal threads

Optional Parts

- BT-10** : Mounting bracket (for Pressure Port F1~F3)
- BT-11** : Mounting bracket (for Pressure Port F1~F3)
- BT-1** : Mounting bracket (for Pressure Port F1C~F3C)
- BT-17** : Mounting bracket (for Pressure Port F1C~F3C)
- PA-E** : Panel adapter
- PA-F** : Panel adapter + Front protective lid
- CN0054M84QD0.3M** : M8, 4-Pin, male conversion cable
- CN0054M125QD0.3** : M12, 5-Pin male conversion cable

Optional Parts

Mounting bracket



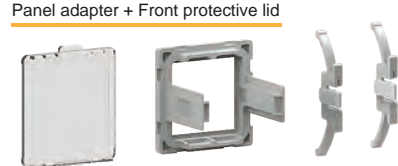
■ BT-10 ■ BT-11 ■ BT-1 ■ BT-17

Panel adapter



■ PA-E ■ PA-F

Panel adapter + Front protective lid



■ PA-F

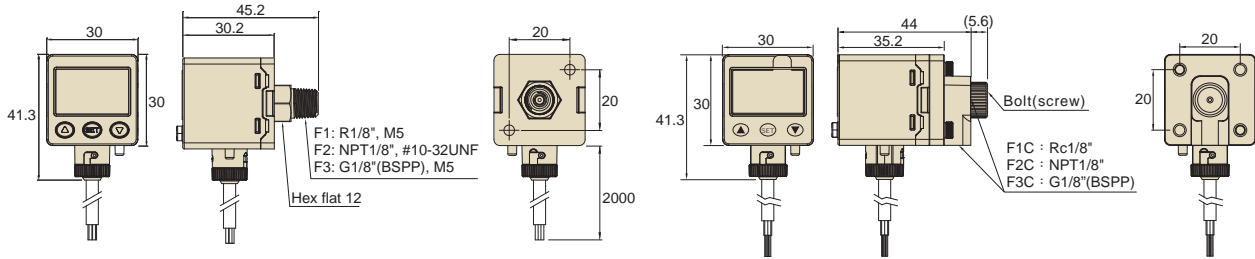
AP45 SERIES

RoHS



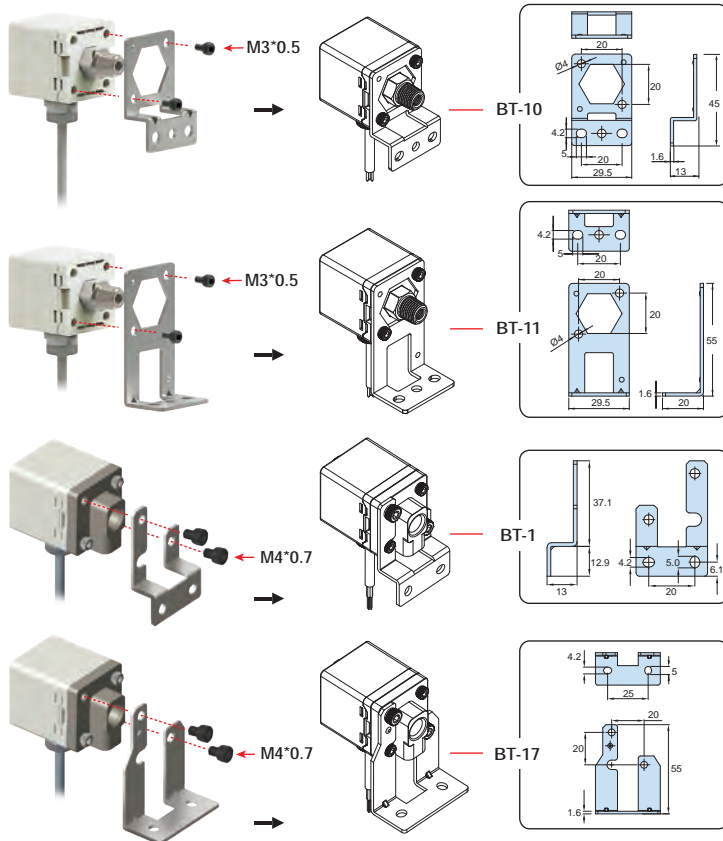
Pressure Sensor

DIMENSIONS



OPTIONAL PARTS DIMENSIONS

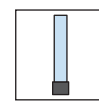
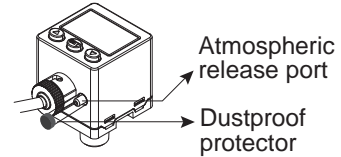
1 Mounting Bracket



PIN No.	Wire Color
1	DC(-)(Blue)
2	OUT1(Black)
3	OUT2(White)
4	Analog output(Orange)
5	DC(+)(Brown)

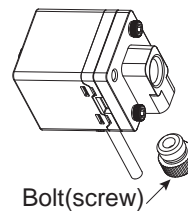
Model: CN-0054-01

3 IP65 Protector



Caution:
This device must be installed to maintain IP 65(Dust and splash proof) enclosure rating.

4 AP45 Accessory for pressure port F1C~F3C



1. This product has two inlet pressure ports, select the one most convenient for installation.
2. Please plug the unused inlet port with supplied port plug. Use seal tape to prevent pressure leak.

2 Panel Mount Adapter + Front Protective Lid

