

Features

- 7 user programmable units available.
- 2 NPN / PNP open collector + analog output (1~5V or 4~20mA).
- 3-color digital LCD display.
- Repeatability $\pm 0.2\%$ F.S. ± 1 digit.
- Max. 20% energy saving.
- Programmable pressure unit: KPa, MPa, kgf/cm², bar, psi, mmHg, InHg.

Specification

Model		MP43P (Positive)	MP43V (Vacuum)	MP43C (Compound)
Rated pressure range		0 ~ 1.000 MPa	- 101.3 ~ 0.0 kPa	- 100.0~100.0 kPa
Set pressure range		- 0.100 ~ 1.000 MPa	- 101.3 ~ 10.0 kPa	- 101.0~101.0 kPa
Withstand pressure		1.5 MPa	300 kPa	
Fluid		Air, Non-corrosive / Non-flammable gas		
Set pressure resolution	kPa / MPa	— / 0.001	0.1 / —	
	kgf/cm ² / bar	0.01	0.001	
	psi	0.1	0.01	
	InHg	—	0.1	
	mmHg	—	1	
Power supply voltage		12 to 24V DC $\pm 10\%$, Ripple (P-P) 10% or less		
Current consumption		≤ 40 mA (With no load)		
Switch output		NPN: open collector 2 outputs Max. load current : 125mA Max. supply voltage: 30V DC Residual voltage : ≤ 1.5 V		PNP: open collector 2 outputs Max. load current : 125mA Max. supply voltage: 24V DC Residual voltage : ≤ 1.5 V
Repeatability (Switch output)		$\pm 0.2\%$ F.S. ± 1 digit		
Hysteresis	Hysteresis mode/ Window comparator mode	Adjustable (※1)		
Response time		≤ 2.5 ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selections)		
Output short circuit protection		Yes		
7 segment LCD display		Two color(Red/Green) main & unit display, Orange sub-dispaly (Sampling rate: 5 times/1sec.)		
Indicator accuracy		$\pm 2\%$ F.S. ± 1 digit (ambient temperature: 25 ± 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: 300 Ω at power supply of 12V, 600 Ω at power supply of 24V Min. Load impedance: 50 Ω		
Environment	Enclosure	IP40		
	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 min. (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		

MP43 Dimensions



HIGH PRECISION DIGITAL PRESSURE SWITCH

mindman

Specification

Model	MP43P (Positive)	MP43V (Vacuum)	MP43C (Compound)
Temperature characteristic	±2.5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size	F1:R1/8, M5; F2:NPT1/8,#10~32UNF; F3:G1/8, M5		
Lead wire	Oil-resistance cable(0.15mm ²)		
Weight	Appro.80g(with 2-meter lead wire)		

- ※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.

Output circuit wiring diagrams

Model	MP43□-010	MP43□-011	MP43□-02
Connect diagram			
Output method	2 NPN+Analog(Voltage) output (1~5V)	2 NPN+Analog(Current) output (4~20mA)	2 NPN+Copy function
Model	MP43□-030	MP43□-031	MP43□-04
Connect diagram			
Output method	2 PNP+Analog(Voltage) output (1~5V)	2 PNP+Analog(Current) output (4~20mA)	2 PNP+Copy function

Order example

MP43C - 010 - F1

MODEL

PRESSURE PORT

F1: R1/8, M5
F2: NPT1/8, #10~32UNF
F3: G1/8, M5

PRESSURE RANGE

C: Compound
(-101~101 kPa)
V: Vacuum
(10.0~-101.3 kPa)
P: Positive
(-0.1~1.000 MPa)

OUTPUT METHOD

010: 2 NPN output + 1 Analog output (1~5V)
011: 2 NPN output + 1 Analog output (4~20mA)
02 : 2 NPN output + Copy function
030: 2 PNP output + 1 Analog output (1~5V)
031: 2 PNP output + 1 Analog output (4~20mA)
04 : 2 PNP output + Copy function

Mounting accessories

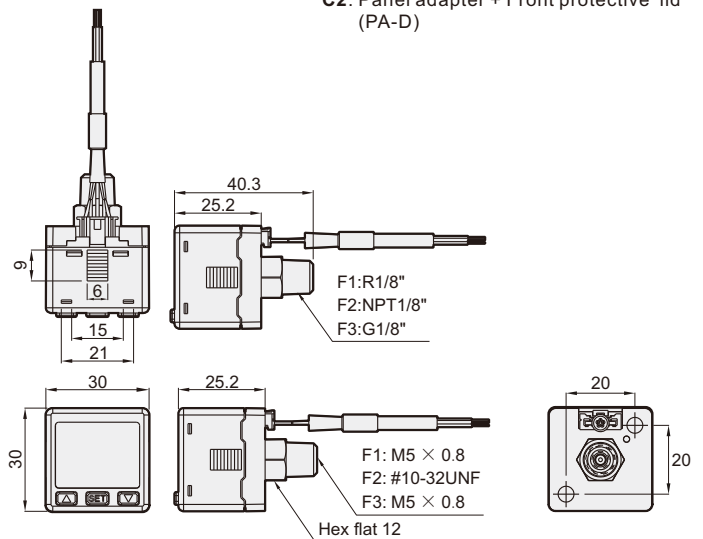
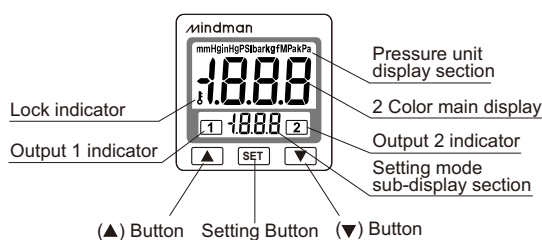
MP - A12

MODEL

OPTION PARTS

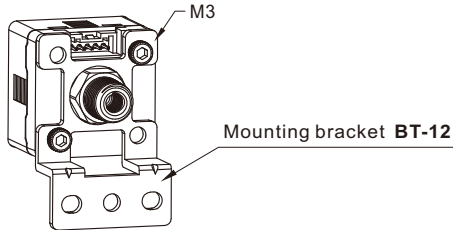
A12: Mounting bracket (BT-12)
A13: Mounting bracket (BT-13)
B2: Panel adapter (PA-C)
C2: Panel adapter + Front protective lid (PA-D)

Unit dimension / Panel instructions

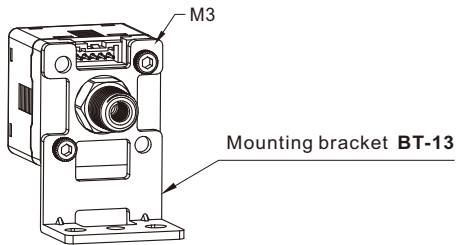
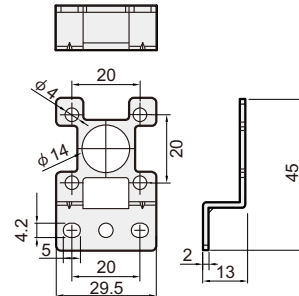


Type of option parts / Dimension graph

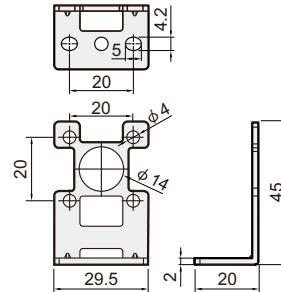
Mounting bracket



BT-12



BT-13



Panel type

