



Features

- 3-Color digital LCD display, easy readout.
- Dual LCD display allows setting value to be displayed.
- Key lock indicator.
- 2 NPN or 2 PNP output .
- Programmable pressure unit: KPa, MPa, kgf/cm², bar, psi, mmHg, InHg.
- Analog output: 1-5V or 4-20mA .

Specification

Model		MP42C (Compound)	MP42V (Vacuum)	MP42P (Positive)
Rated pressure range		- 100.0~100.0 kPa	0.0 ~ - 101.3 kPa	0 ~ 1.000 MPa
Setting pressure range		- 101.0~101.0 kPa	10.0 ~ - 101.3 kPa	- 0.100 ~ 1.000 MPa
Allowable pressure		300 kPa		1.5 MPa
Fluid		Air, Non-corrosive gases ,incombustible gases		
Set pressure resolution	kPa / MPa	0.1 / —		— / 0.001
	kgf/cm ² / bar	0.001		0.01
	psi	0.01		0.1
	mmHg	1		—
	InHg	0.1		—
Power supply voltage		12 to 24V DC $\pm 10\%$, Ripple (P-P) 10% or less		
Current consumption		$\leq 45\text{mA}$ (With no load)		
Switch output		NPN open collector Max. load current : 125mA Max. supply voltage: 30V DC Residual voltage : $\leq 1.5\text{V}$ (load current 125mA)		PNP open collector Max. load current : 125mA Max. supply voltage: 24V DC Residual voltage : $\leq 1.5\text{V}$ (load current 125mA)
Repeatability (Switch output)		$\leq 0.2\%$ F.S. ± 1 digit		
Hysteresis	Hysteresis mode/ Window comparator mode	Adjustable (※1)		
Response time		$\leq 2.5\text{ms}$ (chattering-proof function: 25ms, 100ms,250ms,500ms,1000ms and 1500ms selections)		
Output short circuit protection		Yes		
7 segment LCD display		Three color(Red/Green/Orange) display (Sampling rate: 5 times/1sec.)		
Indicator accuracy		$\leq \pm 2\%$ F.S. ± 1 digit (ambient temperature: $25 \pm 3^\circ\text{C}$)		
Switch ON Indicator		Orange 1 & 2 Indicator		
Analog output (Voltage Output) ※2		Output Voltage: 1 to 5V $\leq \pm 2.5\%$ F.S. (within rated pressure range) Linearity: $\leq \pm 1\%$ F.S. Output impedance: about 1k Ω		
Analog output (Current Output) ※3		Output Current: 4 to 20mA $\leq \pm 2.5\%$ F.S. (within rated pressure range); Linearity: $\leq \pm 1\%$ 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 $^\circ\text{C}$, storage: - 10 ~ 60 $^\circ\text{C}$ (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	50Mohm min. (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	100m/s ² (10G),3 times each in direction of X,Y and Z		

MP42 Dimensions

HIGH PRECISION DIGITAL PRESSURE SWITCH



mindman

Specification

Model	MP42C (Compound)	MP42V (Vacuum)	MP42P (Positive)
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, 10~32UNF; F3:G1/8, M5		
Lead wire	Oil-resistance cable(0.15mm ²)		
Weight	Appro*80g(with 2-meter lead wire), Appro*45g(with male connector)		

- ※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 voltage output is selected, the analog voltage output cannot be selected at the same time.

Output circuit wiring graph

Model	MP42□-010	MP42□-011	MP42□-02
Connect diagram			
Output method	NPN+Analog(Voltage) output	NPN+Analog(Current) output	NPN output
Model	MP42□-030	MP42□-031	MP42□-04
Connect diagram			
Output method	PNP+Analog(Voltage) output	PNP+Analog(Current) output	PNP output

Order example

MP42C - 02 - F1 - QD - □

MODEL

PRESSURE PORT

F1: R1/8
F2: NPT1/8
F3: G1/8

CABLE LENGTH / CONNECTOR

Blank: With 2 meter cable
QD: With M8, 4 Pin male connector

PRESSURE UNIT

Blank: Unit changeable
J: Unit unchangeable
(Fixed unit is kPa, MPa)

MP - A5

MODEL

OPTION PARTS

A5: Mounting bracket (BT-5)
A6: Mounting bracket (BT-6)
B2: Panel adapter (PA-C)
C2: Panel adapter + Front protective lid (PA-D)
D1: M8, 4 Pin female connector (M84R-W0085-2M)

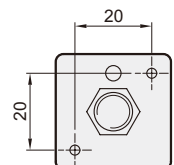
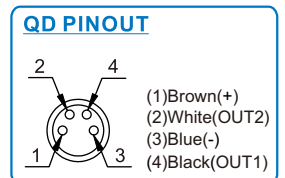
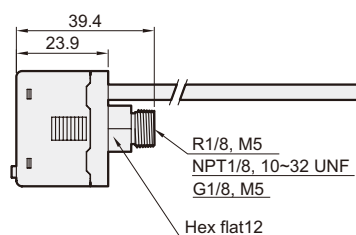
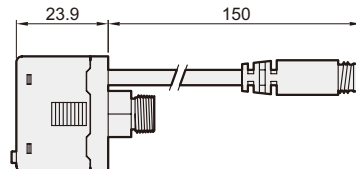
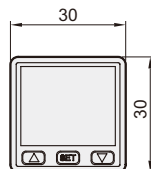
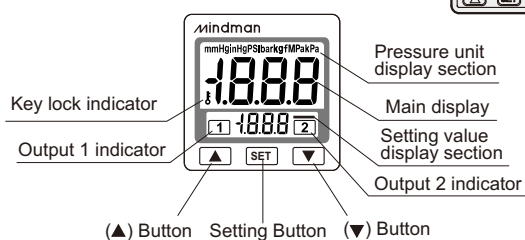
PRESSURE RANGE

C: Compound
(-101~101 kPa)
V: Vacuum
(0.0~ -101.3 kPa)
P: Positive
(-100~1000 kPa)

OUTPUT METHOD

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

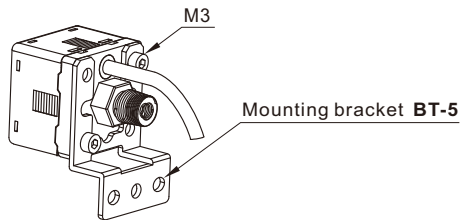
Unit dimension / Panel instructions



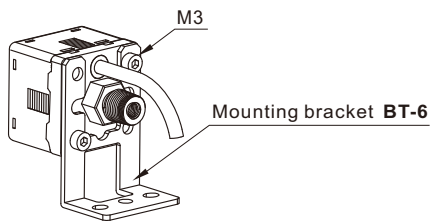
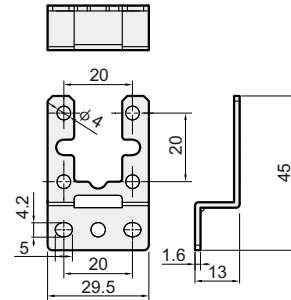
mindman

Type of option parts / Dimension graph

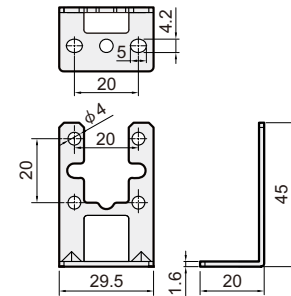
Mounting bracket



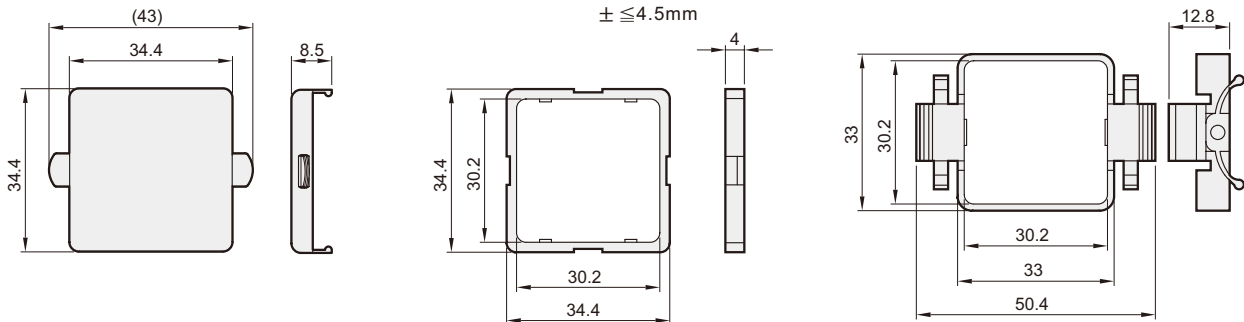
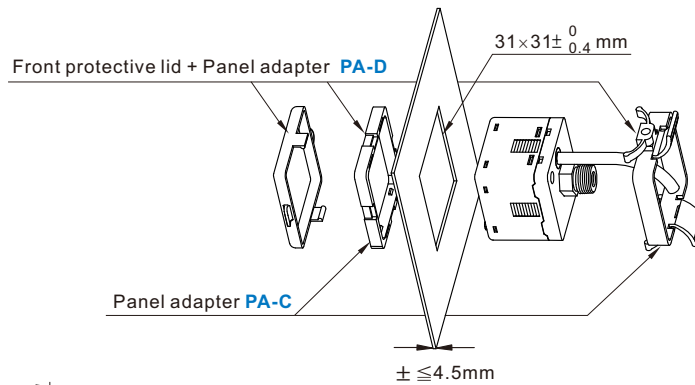
BT-5



BT-6



Panel type



M8 Female connector

