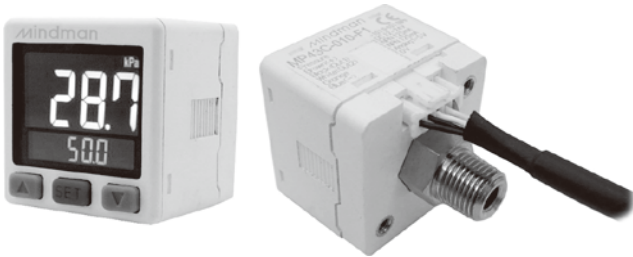


# MP43 series

## HIGH PRECISION DIGITAL PRESSURE SWITCH



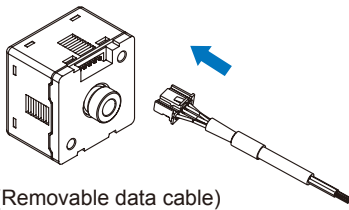
### Features

- 3 color digital LCD display.
- Copy function.
- Programmable pressure unit: kPa, MPa, kgf/cm<sup>2</sup>, bar, psi, mmHg, inHg.
- Dual LCD display allow setting value to be displayed.
- Key lock indicator.
- Power saving mode.

### Features highlight

#### Quick installation

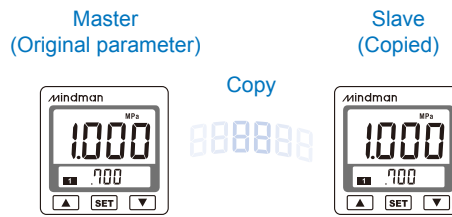
- Save installation time.
- Easy removal.



(Removable data cable)

#### Copy setting

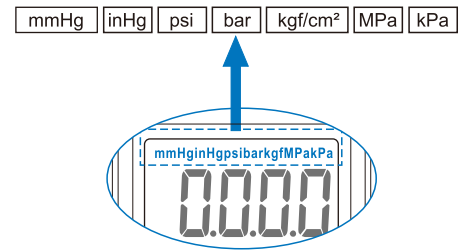
- Reduce setting time.
- Avoid setting errors.



Can copy the setting value from master to slave sensor.

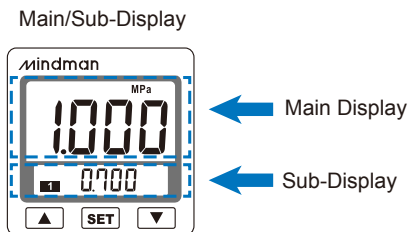
#### Easy unit identification

- Conversion unit is on display and easy to read.



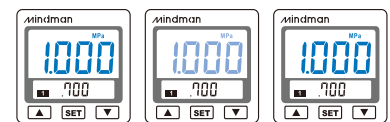
#### Setting Value Easy Indication

- User can easily observe the setting value from sub-display.



#### 2-Color Main display

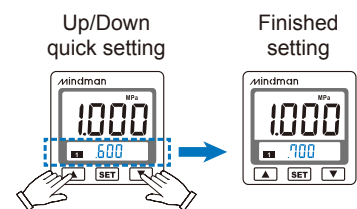
- User programmable color mode, for different setting conditions.



	SoL	SoR	Grn	Red
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

#### OPS Quick Setting

- Sub-display allows changing the parameter directly, reduce setting step by 3/4.



### Specification

Model		MP43C (Compound)	MP43V (Vacuum)	MP43P (Positive)
Rated pressure range		-100.0~100.0 kPa	-101.3 ~0.0 kPa	0 ~ 1.0 MPa
Set pressure range		-101.0~101.0 kPa	-101.3 ~ 10.0 kPa	-0.1 ~ 1.0 MPa
Withstand pressure		300 kPa		1.5 MPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas		
Set pressure resolution	KPa / MPa	0.1 / —		— / 0.001
	kgf/cm <sup>2</sup> / bar	0.001		0.01
	psi	0.01		0.1
	mmHg	1		—
	InHg	0.1		—
Power supply voltage		12 to 24V DC ± 10%, Ripple (P-P) 10% or less		
Current consumption		≤ 40mA (With no load)		
Switch output		NPN: open collector 2 outputs Max. load current : 125mA Max. supply voltage: 30V DC Residual voltage : ≤1.5V		PNP: open collector 2 outputs Max. load current : 125mA Max. supply voltage: 24V DC Residual voltage : ≤1.5V
Repeatability (Switch output)		± 0.2% F.S. ±1digit		
Hysteresis Hysteresis mode / Window comparator mode		Adjustable(*1)		
Response time		≤2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selectable)		
Output short circuit protection		Yes		
7 segment LCD display		2 color(Red/Green) main & unit display, Orange sub-dispaly (Sampling rate: 5 times/1sec.)		
Indicator accuracy		±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 ±2.5%F.S. (within rated pressure range) Linearity: ±1% F.S. Output impedance: about 1kΩ		
Analog output (Current Output) (*3)		Output Current: 4 to 20mA ±2.5%F.S. (within rated pressure range); Linearity: ±1% F.S. Max. load impedance: 300Ω at power supply of 12V, 600Ω at power supply of 24V Min. load impedance: 50Ω		
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 (at 500V DC, between case and lead wire)		
	Vibration	Total amplitude 1.5mm or 10G,10Hz-55Hz-10Hz scan for 1 minute, 2 hours each direction of X, Y and Z		
	Shock	100m/s <sup>2</sup> (10G), 3 times each in direction of X, Y and Z		
Temperature characteristic		±2.5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C		
Port size		F1: R1/8, M5×0.8; F2: NPT1/8, #10~32UNF; F3: G1/8, M5×0.8		
Lead wire		Oil-resistance cable (0.15mm <sup>2</sup> )		
Weight		Approx. 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.

# MP43 Dimensions

## HIGH PRECISION DIGITAL PRESSURE SWITCH

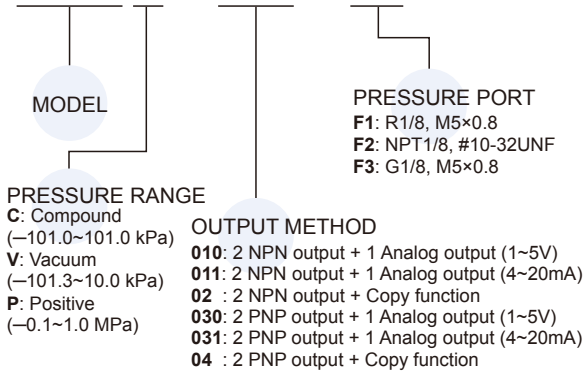


### Output circuit wiring graph

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

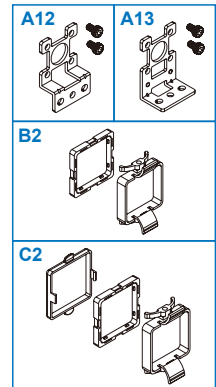
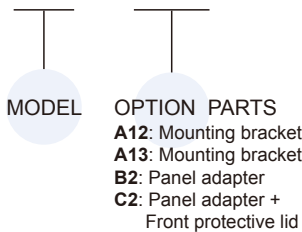
### Order example

**MP43C – 010 – F1**

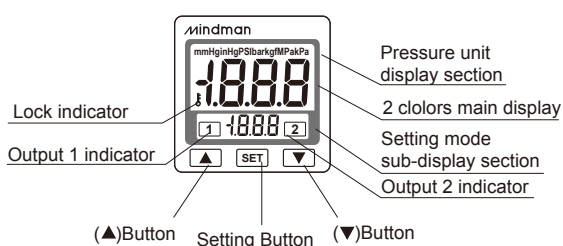


### Mounting accessories (Option)

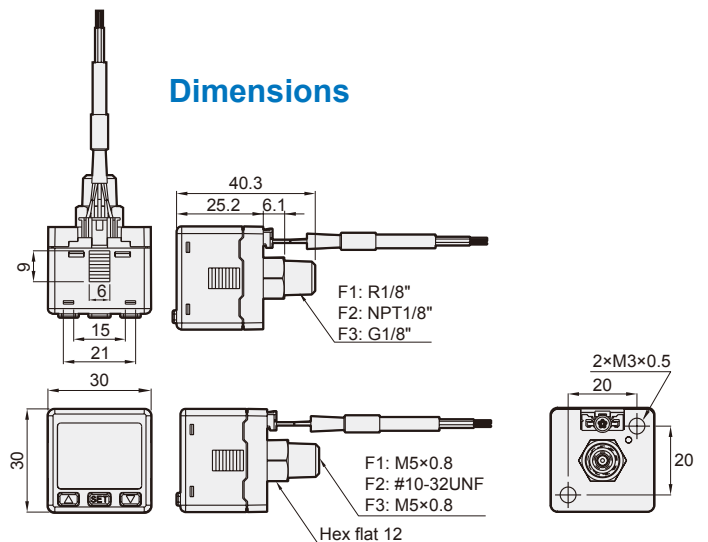
**MP – A12**



### Panel instructions

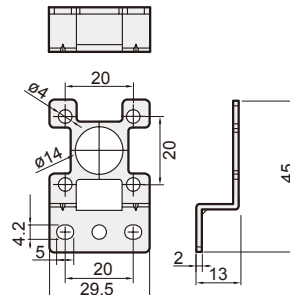
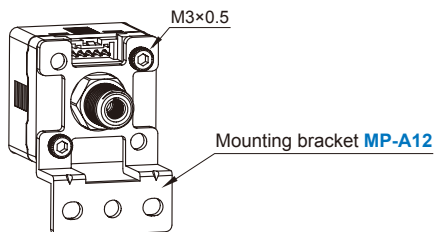


### Dimensions

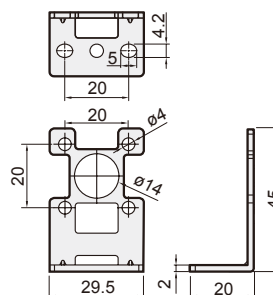
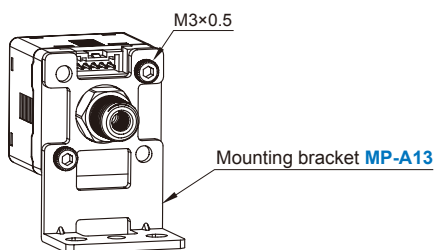


### Mounting bracket

#### MP-A12

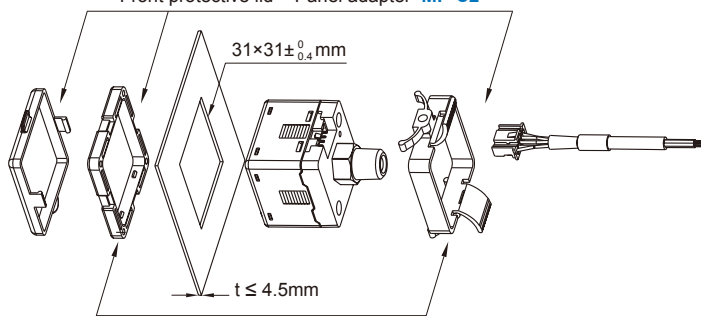


#### MP-A13



### Panel type

Front protective lid + Panel adapter MP-C2



Panel adapter MP-B2

