

**For your safety, please read the following before using.**

- ① Do not use corrosive or flammable gas or liquid with this product.
- ② Please use within the operating pressure range. Do not apply pressure beyond recommended maximum pressure, permanent damage to the pressure sensor may occur.
- ③ Do not drop, hit or allow excessive shock. Even if switch body appears undamaged, internal components may be broken and can cause malfunction.
- ④ Turn power off before connecting wiring. Wrong wiring or short circuit will damage and / or cause malfunction.
- ⑤ Do not use in environment containing steam or oil vapor.
- ⑥ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- ⑦ Wiring for pressure sensor should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.

SPECIFICATIONS		MP23C-□-□ (Compound)	MP23P-□-□ (Positive)
Display pressure range		-100.0 ~ 100.0 kPa	-0.100 ~ 1.000 MPa
Withstand pressure		300 kPa	1.5 MPa
Fluid		Filtered air, Non-corrosive/Non-Flammable gas	
Set pressure resolution	kPa	0.1	—
	MPa	—	0.001
	kgf/cm <sup>2</sup>	0.001	0.01
	bar	0.001	0.01
	psi	0.01	0.1
	inHg	0.1	—
	mmHg	1	—
	mmH <sub>2</sub> O	0.1	—
Power supply voltage		12 to 24V DC ±10%, Ripple (P-P) 10% or less	
Current consumption		≤ 55mA	
Display		3 ½ digit LED display (Red) (Sampling rate: 5 times/sec.)	
Indicator accuracy		±2% F.S. ±1 digit (ambient temperature: 25 ±3°C)	
Environment	Enclosure	IP40	
	Ambient temp. range	Operation: 0 ~ 50°C, Storage: -20 ~ 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	50MΩ (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	980m/s <sup>2</sup> (100G), 3 times each in direction of X, Y and Z	
Temperature characteristic		±2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C	
Port size		F1: Rc1/8"; F2: NPT1/8"; F3: G1/8"(BSPP)	
Lead wire		Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm <sup>2</sup> ) - 2 cores	
Weight		Approx. 102g (with 2 meter lead wire), Approx. 68g (with M8, 4Pin male connector)	

**ORDERING INFORMATION**

**M P 2 3 C - F 1 - □**

**Pressure Range**

C : Compound (-100.0~100.0 kPa)  
P : Positive (-0.100~1.000 MPa)

**Pressure Port**

F1 : Rc1/8"  
F2 : NPT1/8"  
F3 : G1/8"(BSPP)

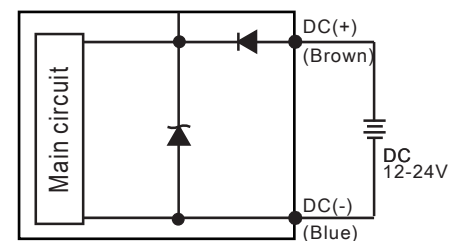
**Cable Length/Connector**

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

**Optional Parts**

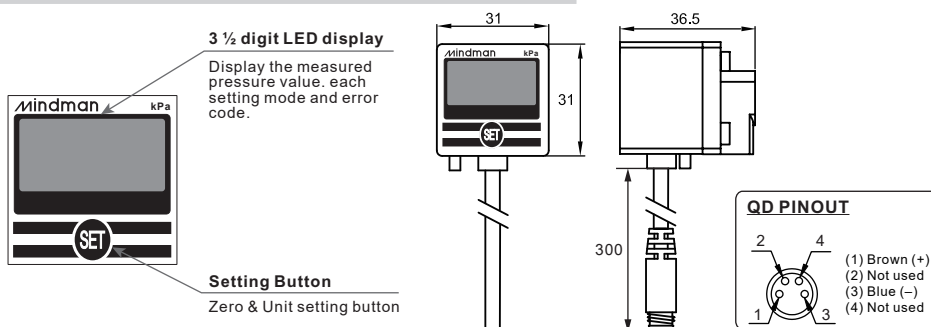
MP-A1 : Mounting bracket (BT-1)  
MP-A2 : Mounting bracket (BT-2)  
MP-B1 : Panel adapter (PA-A)  
MP-C1 : Panel adapter + Front protective lid (PA-B)  
MP-D1 : With M8, 4Pin female connector (M84R-W0085-2M)

**CIRCUIT WIRING DIAGRAM**



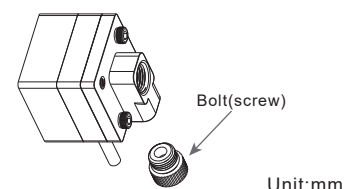
\*Pressure display only, no switch output function.

**PANEL DESCRIPTION / DIMENSIONS**



**INSTALLATION**

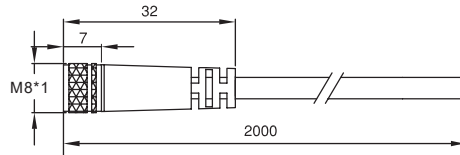
1. This product has two inlet pressure ports, select the one most convenient for installation.
2. Please plug the unused inlet port with supplied port plug. Use seal tape to prevent pressure leak.



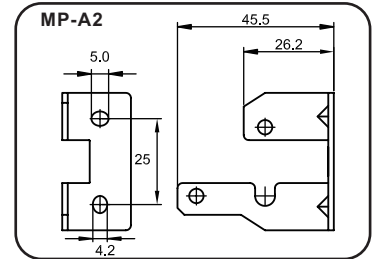
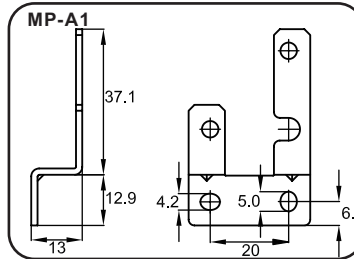
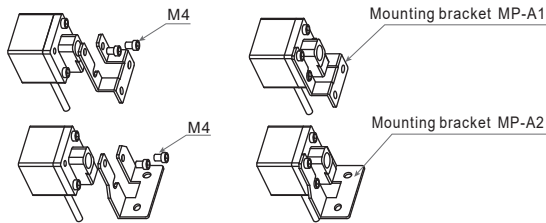
Unit:mm

## OPTIONAL PARTS DIMENSIONS

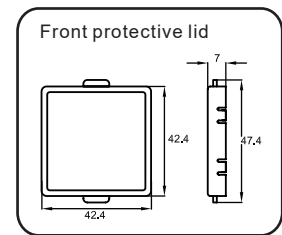
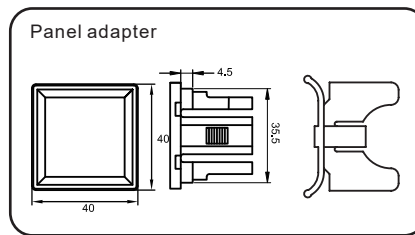
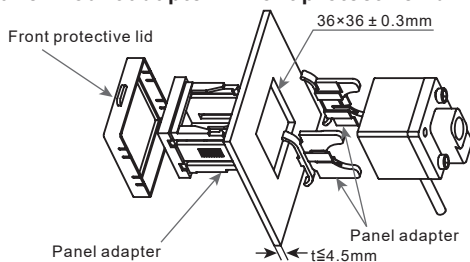
### ① M8 Female connector Model : MP-D1



### ② Mounting bracket



### ③ Panel mount adapter + Front protective lid

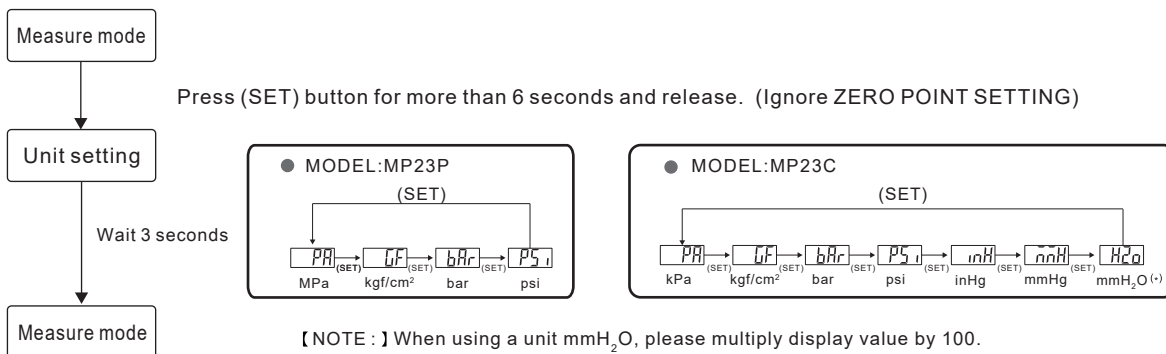


Unit:mm

## SETTING STEPS



## UNIT SETTING MODE



## ZERO POINT SETTING

Under Measure Mode, press (SET) button for 2 ~ 6 second. Release when "00" is showing on display.

## ERROR CODE INSTRUCTION

Error Name	Error code	Error instruction	Troubleshooting
Residual pressure error	Er3	During zero reset, ambient pressure is over ±3% F.S.	Change input pressure to ambient pressure and perform zero reset again.
Applied pressure error	HHH	The applied pressure is excess the upper limit of pressure setting.	Adjust the pressure within applied pressure range.
	LLL	The applied pressure is excess the lower limit of pressure setting.	
System error	Er4	Internal data error	Turn power off, and then restart. If error condition remains, please return to factory for inspection.
	Er6	Internal system error	
	Er7	Internal data error	
	Er8	Internal system error	

## CHANGE PRESSURE UNIT TAG

When the pressure setting is not kPa or MPa, please remove the pressure unit tag and place the selected tag on the indicated area of the faceplate to assure the pressure unit is not misemployed and that setting error does not occur.

	Pa	kPa	MPa	kgf/cm²	mmHg	psi	bar	inHg	mmH <sub>2</sub> O
kPa	1	0.001	0.000001	0.000010197	0.00750062	0.000145038	0.00001	0.0002953	0.101968
MPa	1000.000	1	0.001000	0.010197	7.500616	0.145038	0.010000	0.2953	101.9689
kgf/cm²	98066.5	98.0665	0.0980665	1	735.559	14.2233	0.980665	28.95970	10000.20
psi	133.32	0.13332	0.000133	0.0013595	1	0.019336	0.0013332	0.036074	13.5954
bar	6895	6.895	0.006895	0.07031	51.7157	1	0.08895	2.036074	703.07
mmHg	100000.0	100.0000	0.100000	1.01972	750.062	14.5038	1	29.52986	10196.89
mmH <sub>2</sub> O	3386.388	3.386388	0.003388	0.034530	25.40000	0.491141	0.033863	1	345.324
	9.80665	0.00980	0.000099	0.0735578	0.00142	0.000098	0.002895	1	

[NOTE:]  
When using a unit mmH<sub>2</sub>O, please multiply display value by 100.