



## Digital Pressure Switch

# MPX Series

Symbol



## Specifications

Descriptions		Standard type		High-function type	
		Low pressure MPX-R01*	High pressure MPX-R10*	Low pressure MPX-R01*H	High pressure MPX-R10*H
Pressure sensitive element		Diffused semiconductor pressure sensor			
Working fluid		Air/non-corrosive gas			
Type of pressure		Gauge pressure			
Rated pressure range		-100.0 to +100.0kPa	-0.100 to +1.000MPa	-100.0 to +100.0kPa	-0.100 to +1.000MPa
Set pressure range		-100.0 to +100.0kPa	-0.100 to +1.000MPa	-100.0 to +100.0kPa	-0.100 to +1.000MPa
Display unit		kPa	MPa	kPa	MPa
Minimum display unit		0.1KPa	0.001MPa	0.1KPa	0.001MPa
Unit change		Compatible only with export models (-KA) (MPa, kPa, kgf/cm², bar, psi, mmHg, inchHg)			
Withstanding pressure		500kPa	1.5MPa	500kPa	1.5MPa
Repeatability		±0.1%F.S. (within ±2 digits)	±0.2%F.S. (within ±2 digits)	±0.1%F.S. (within ±2 digits)	±0.2%F.S. (within ±2 digits)
Temperature characteristics (+20℃reference)		Within ±0.5%F.S.	Within ±1%F.S.	Within ±0.5%F.S.	Within ±1%F.S.
Indicator		4-digit + 4-digit tri-color LCD display (display update cycle: 250 ms, 1000 ms, select with key operations)			
Indicator light		Orange LED (Comparison output 1 operational indicator light, comparison output 2 operational indicator light: comparison output ON lighting)		Orange LED (Comparison output 1 operational indicator light: comparison output ON lighting, analog voltage output operational indicator light: Lighting when setting)	
Power voltage		12 to 24V DC ±10% ripple P-P10% or less			
Power consumption		Normal: 720mW or less (current consumption 30mA or less at 24 V power) ECO mode: 480mW or less at STD (currant consumption 20mA or less at power voltage 24V), 360mW or less at FULL (currant consumption 15mA or less at power voltage 24V)			
Comparison output (switch output)		(NPN output type) NPN transistor/open collector · Max. inrush current: 100mA · Applied voltage: 30 VDC or less (comparison output-0V interval) · Residual voltage: 2V or less (at inrush current 100mA)		(PNP output type) PNP transistor/open collector · Max. output current: 100mA · Applied voltage: 30 VDC or less (comparison output between - and +) · Residual voltage: 2V or less (at output current 100mA)	
		Output operation			
		Select NO/NC with the key operation			
		Output mode			
		EASY MODE/hysteresis mode/window comparator mode			
		Hysteresis			
		Min.1 digit (variable)			
		Response time			
		2.5ms, 5ms, 10ms, 25ms, 50ms, 100ms, 250ms, 500ms, 1000ms, 5000ms select by the key operation			
		Short circuit protection			
		Equipped			
External input (Auto reference/ Remote zero adjusting)				(NPN output type) ON voltage: 0.4 VDC or less OFF voltage: 5 to 30 VDC or release Input impedance: 10kΩ Input time: 1ms and over	(PNP output type) ON voltage: 5V to + VDC OFF voltage: 0.6 VDC or less or release Input impedance: 10kΩ Input time: 1ms and over
Analog output				Output voltage: 1 to 5V Zero point: Within 3V±5%F.S. Span: Within 4V±5%F.S. Linearity: Within ±1%F.S. Output impedance: 1kΩ	Output voltage: 0.6 to 5V Zero point: Within 1 V ±5%F.S. Span: Within 4.4V±5%F.S. Linearity: Within ±1%F.S. Output impedance: 1kΩ
Environment conditions	Protective structure	IP40 (IEC)			
	Ambient temperature	-10 to +50℃, at store: -10 to +60℃			
	Ambient humidity	35 to 85%RH (no dew condensation, freezing), store: 35 to 85%RH			
	Withstanding voltage	1000 VAC for one minute applied to all charged sections/between cases			
	Insulation resistance	50MΩ and over with 500 VDC mega applied to all charged sections/between cases			
	Mechanical vibration proof	Durability 10 to 500 Hz double amplitude 3 mm 2 hours each in XYZ directions. When mounted on panel: durability 10 to 150 Hz double amplitude width 0.75 mm 2 hours each in XYZ directions.			
	Mechanical shock proof	Durability 100 m/S² (10 G) 3 times each in XYZ directions			
Connection		Connector			
Port size		M5 female thread + R (PT) 1/8 male thread			
Wiring length		When wire is extended, up to 100 m permissible with 0.3 mm² or larger cable (less than 10 m when CE Mark-compliant)			
Weight		Product weight: approx. 40g, weight including package: 130g			
Accessory		MPX-C2 (2m cable with connector): 1 pc. MPa, kPa, kgf/cm², bar, psi, mmHg, inchHg			

## How to order

MPX - **R01** - **N** - **6M** - **KA** - **D6**

**A** Pressure range

**B** Output type

**C** Piping shape

**D** Connector cable

**E** Unit change

**F** Display direction

Symbol	Descriptions
<b>A Pressure range</b>	
<b>R01</b>	- 101.3~101.3kPa
<b>R10</b>	- 0.101~1.000MPa
<b>B Output type</b>	
<b>N</b>	NPN transistor output 2 point (standard type)
<b>P</b>	PNP transistor output 2 point (standard type)
<b>NH</b>	NPN transistor output 1 point + analog voltage output or external input (high-function type)
<b>PH</b>	PNP transistor output 1 point + analog voltage output or external input (high-function type)
<b>C Piping shape</b>	
<b>6M</b>	R1/8, M5 female thread
<b>D Connector cable</b>	
<b>Blank</b>	2m connector cable attached
<b>E Unit change</b>	
<b>KA</b>	With unit change function
<b>F Display direction</b>	
<b>Blank</b>	Normal direction display
<b>D6</b>	From the bottom up the display direction



\* Note: If you are looking at the direction shown on the left, use D6 to display the orientation product.

● Discrete option model no.

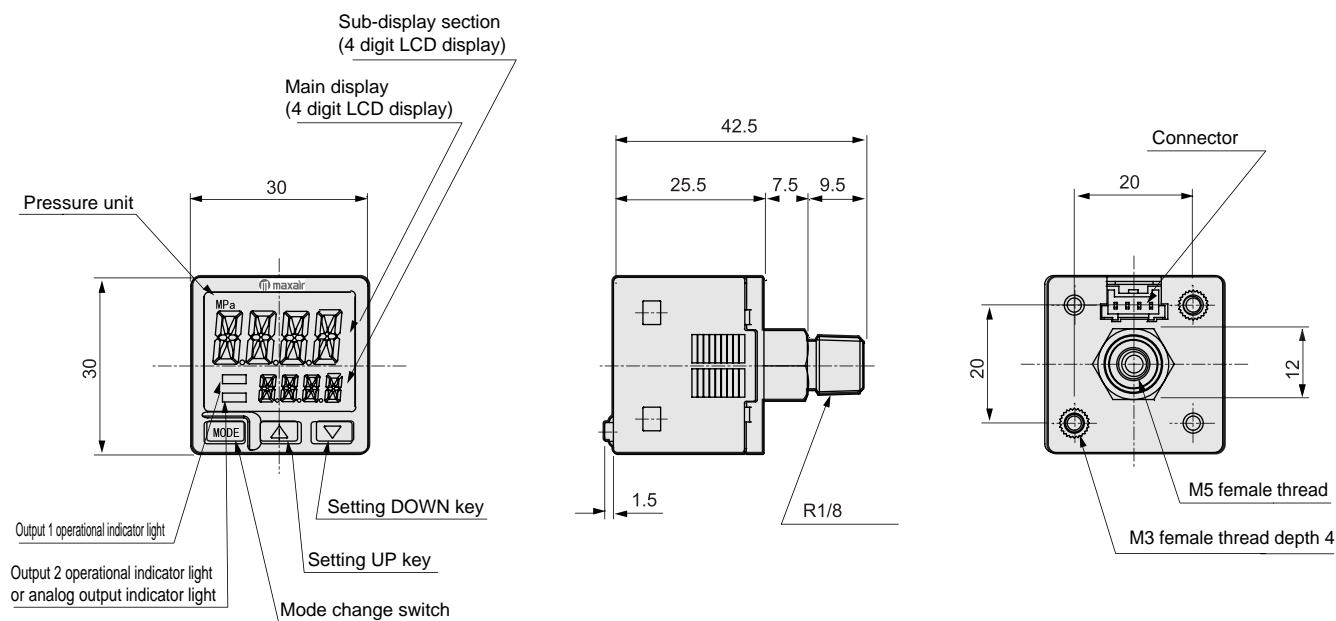
MPX - **C2**

符号	内容
<b>C2</b>	Cable with connector 2m
<b>KL</b>	Bracket (set screw attached)
<b>KHS</b>	Panel bracket
<b>KCB</b>	Front protective cover (when using panel bracket)

# MPX Series

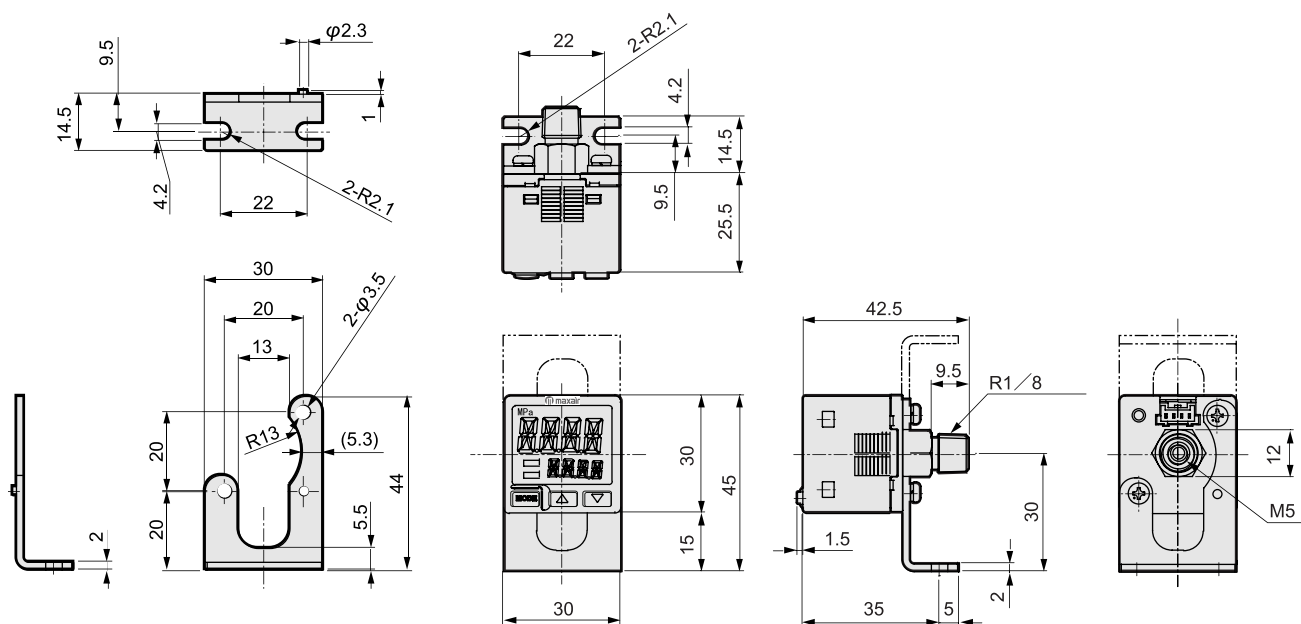
## Dimensions

### ● MPX-R□□-6M



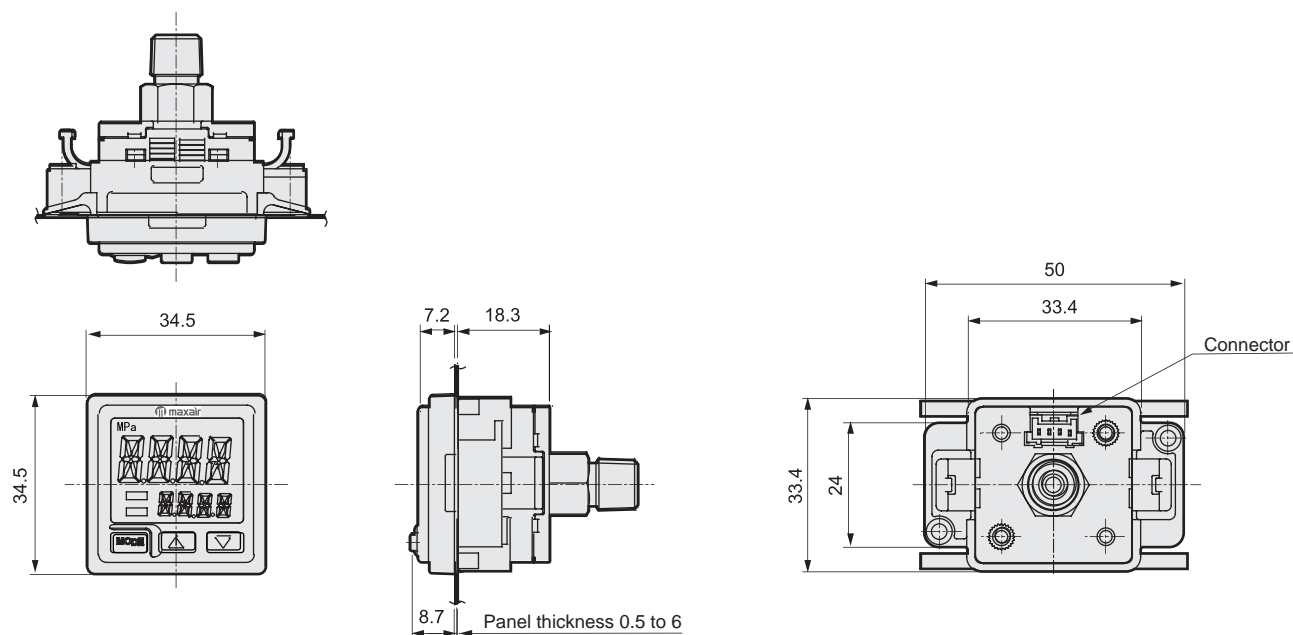
## Dimensions with options

### ● Bracket (MPX-KL)



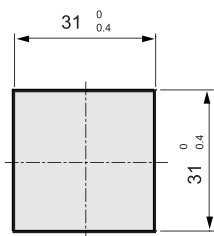
## Dimensions with options

Panel bracket (MPX-KHS) installation fig.

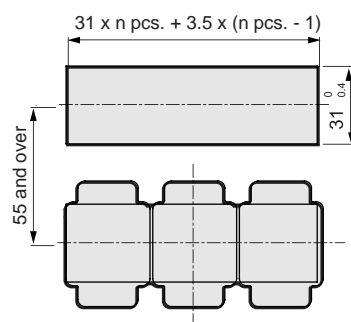


## Panel cut dimension

Installing 1 pc.

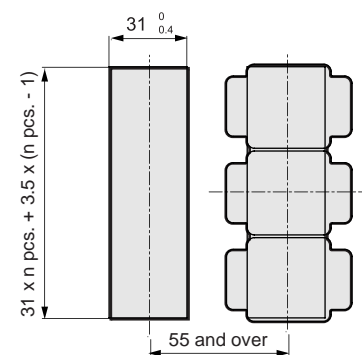


Installing consecutive n pcs. horizontally



(Note 1): Panel thickness must be 0.5 to 6mm.

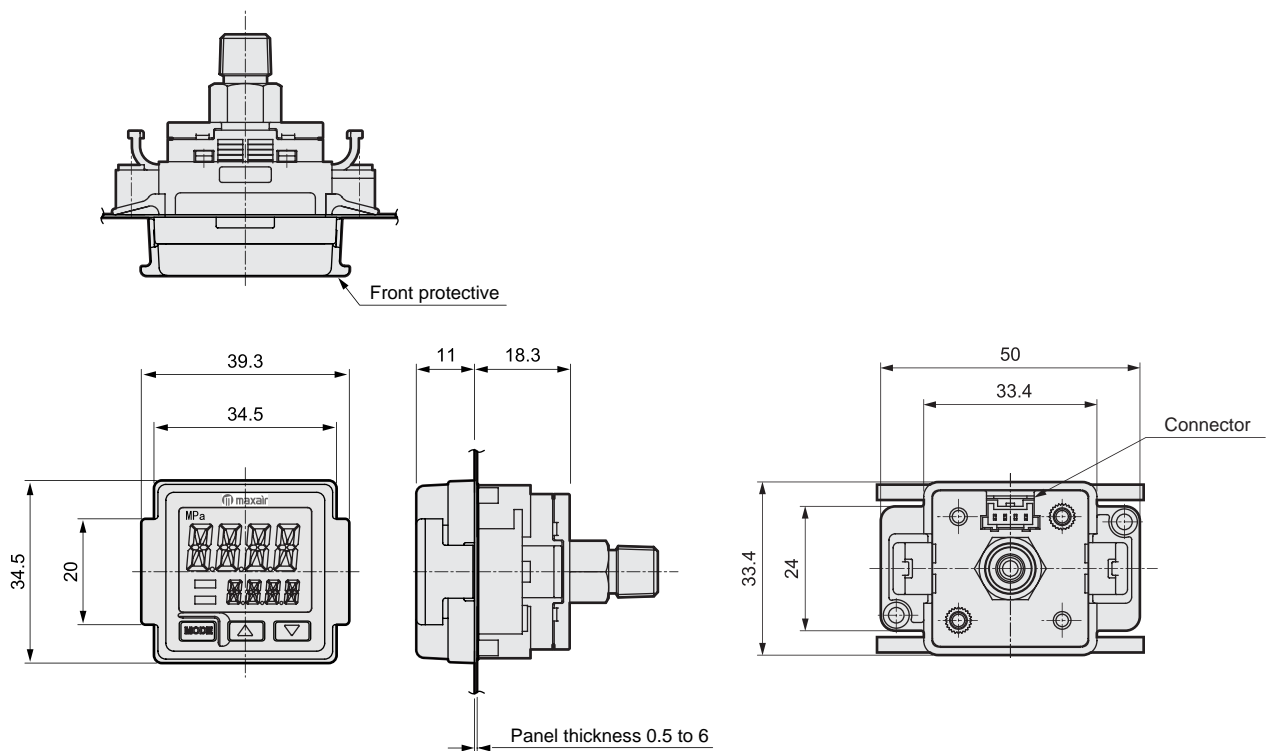
Installing consecutive n pcs. vertically



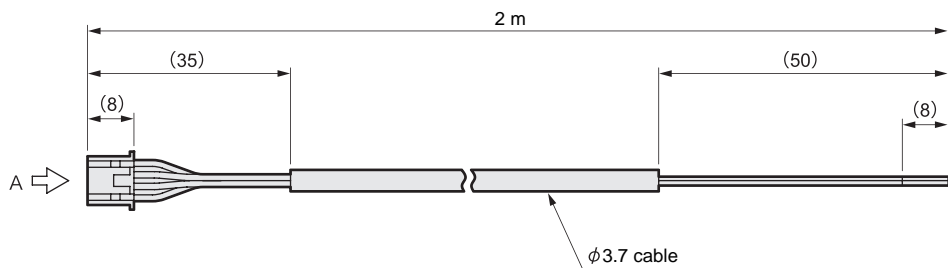
(Note 1): Panel thickness must be 0.5 to 6mm.

Dimensions with options

- Front protective cover (MPX-KCB) installation fig.



- Cable with connector (MPX-C2)

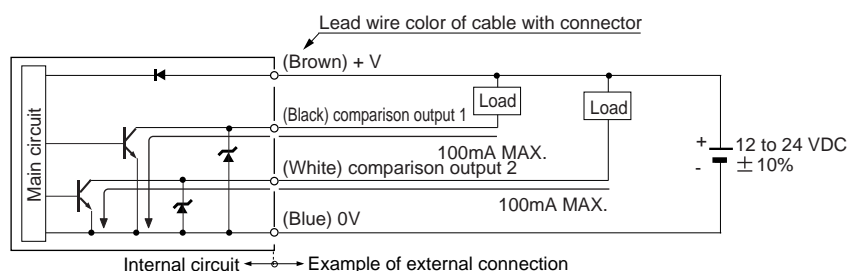


Blue	4		View A
White	3		
Black	2		
Brown	1		
Isolator color	Terminal number		

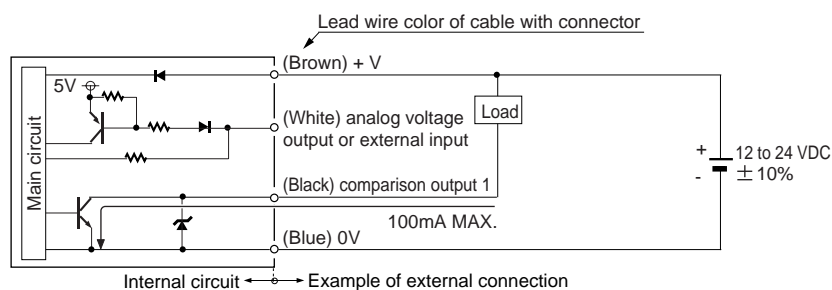
## Circuit and connection method

### NPN output type

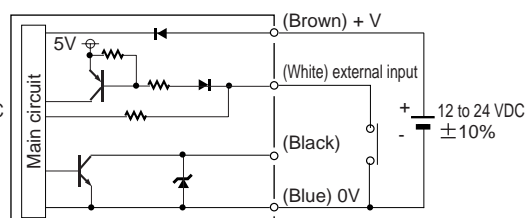
#### ● Standard type



#### ● High-function type

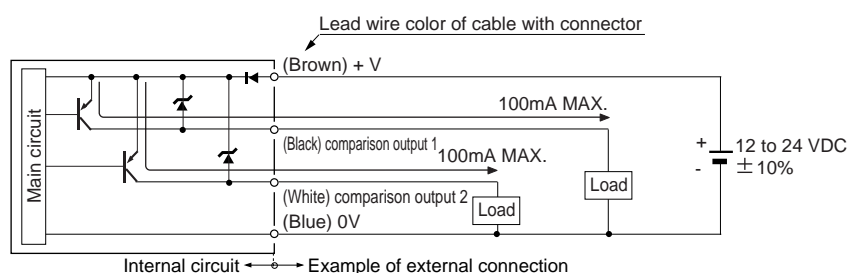


(Example of external input connection)

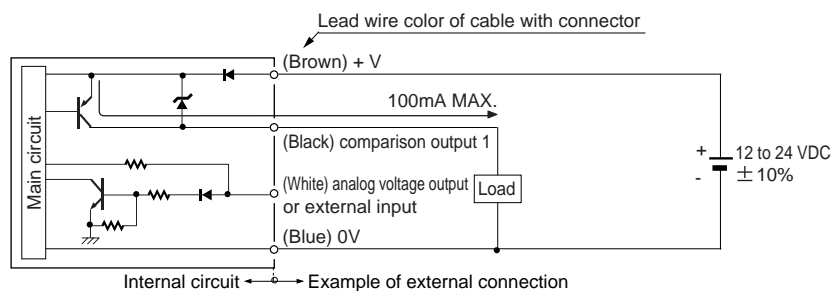


### PNP output type

#### ● Standard type



#### ● High-function type



(Example of external input connection)

