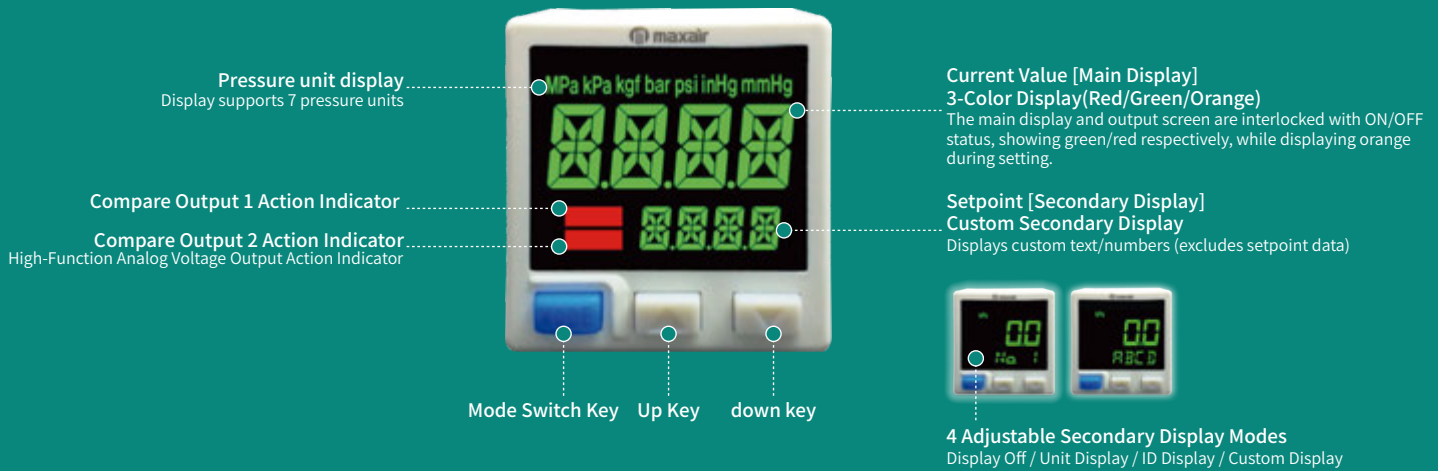


## ▶ MPX Series (High-precision, Three-color, Dual Digital Display Pressure Switch)



### More convenient functions

Enhanced Alphanumeric Display with Copy Function for Error Prevention.

Peak and valley value holding functions

Use two screens to display the maximum and minimum values of the changing pressure

The response time can be changed in 10 stages (2.5ms to 5000ms)

Display Settings via Code Number



### 3 Selectable Detection Modes

Compact design for space-saving installation

Simple Mode: Switch Output ON/OFF Control

Hysteresis Mode - Set the comparison output's differential (hysteresis) to execute ON/OFF control

Window Switch Mode - Controls ON/OFF Output Based on Pressure Range Settings



### Product Feature

#### Multiple Features to Enhance Efficiency

Equipped with independent dual outputs (standard type): Equipped with 2 independent switch outputs, allowing selection of separate detection modes

Reinforced output circuit: The transistor output circuit is equipped with a reverse connection protection circuit

It can display units in real time and 7 units are adjustable: kPa, MPa, bar, kgf, psi, inHg, and mmHg. These 7 units can be switched with each other.



### 3-Color Display

#### Product Status at a Glance

Main Display & Output Screen ON/OFF Interlock with Color Logic

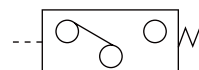


# Digital Pressure Sensor

## MPX SERIES



### Symbol



## Standard Specifications

Item		Standard Type	
		For low pressure use: MPX-R01□	For high pressure use: MPX-R01□
Pressure Sensing Element		Diffused semiconductor pressure sensor	
Applicable Fluids		Air / Non-Corrosive Gas	
Pressure Type		Gauge pressure	
Rated Pressure Range		-101.3~+101.3kPa	-101.3kPa~+1MPa
Set Pressure Range		-101.3~+101.3kPa	-101.3kPa~+1MPa
Display Unit		kPa	MPa
Minimum Display Unit		0.1kPa	0.001MPa
Unit Switching Function		Mpa, kPa, kgf/cm <sup>2</sup> , bar, psi, mmHg, inchHg	
Guaranteed Withstand Pressure		200kPa	1.5MPa
Repeatability		±0.1% FS (within ±2 digits)	±0.2% FS (within ±2 digits)
Temperature Characteristics (Referenced at +20°C)		Within ±0.5% FS	Within ±1% FS
Display		4-digit + 4-digit 3-color LCD (Display update cycle: 250ms, 1000ms selectable via operation keys)	
Indicator Lights		Red, green, orange LEDs (Comparison Output 1 and 2 action indicators: Lights up when output is ON)	
Power Supply		12~24V DC ±10%, ripple P-P ≤10%	
Power Consumption		Normal mode: ≤840 mW (≤35 mA at 24V) Energy-saving mode: ≤600 mW (≤25 mA at 24V, standard) ≤480 mW (≤20 mA at 24V, full scale)	
Comparison Output (Switch Output)	NPN Output Type	NPN diode, open connector: Max. sink current: 100mA Applied voltage: ≤30V DC (when comparison output is 0V) Residual voltage: ≤2V (at 100mA sink current)	
	Output action	NO/NC (selectable via key operation)	
	Output mode	Simple mode/Hysteresis mode/Window comparison mode	
	Response Deviation (Hysteresis)	Minimum 1 digit (variable)	
	Response Time	2.5ms, 5ms, 10ms, 25ms, 50ms, 100ms, 250ms, 500ms, 1000ms, 5000ms (selectable via key operation)	
Environmental Resistance	Short Circuit Protection	Standard	
	Protection Structure	IP40 (IEC)	
	Operating Temperature	-10 ~ +50°C (storage: -10 ~ +60°C)	
	Operating Humidity	35~85%RH (non-condensing, non-freezing) Storage: 35~85%RH	
	Withstand Voltage	AC 1000V for 1 minute (between all live parts and enclosure)	
	Insulation Resistance	≥50 MΩ (measured with 500V DC megohmmeter between all live parts and enclosure)	
	Vibration Resistance	Vibration test conditions: 10-500Hz, 3mm amplitude, 2 hours per XYZ axis (When mounted: 10-150Hz, 0.75mm amplitude, 2 hours per XYZ axis)	
Shock Resistance		100m/S <sup>2</sup> (approx. 10G), 3 shocks per XYZ axis	
Connection Method		Connector	
Connection Port		M5 Internal Thread + R(PT)1/8 External Thread	
Weight		Body weight: Approx. 40g Package weight: Approx. 135g	
Accessories		1 × MPX-C2 wiring cable (2m length with connector)	

# Digital Pressure Sensor

## MPX SERIES

### Model Selection



① Pressure Range		② Output Type		③ Measure liquid	④ Pipe Shape	⑤ Connection Cable	⑥ Unit switch	⑦ Display Angle
R00	-10~10Kpa	N	Dual NPN Transistor Outputs (Standard Type)	Blank	Air or Non-Corrosive Gas	6M	Blank	2 meter connector cable
		P	Dual NPN Transistor Outputs (Standard Type)					
R01	-101.3~101.3kPa	NH	1 NPN Transistor Output + 1 Analog Voltage Output/External Input (High-Function Type)	R	Fluids Non-Corrosive to SUS 316 Stainless Steel & Fluororubber	R1/8(BSPT) Internal Thread + M5 Metric Internal Thread	Blank	2 meter connector cable
		PH	1 NPN Transistor Output + 1 Analog Voltage Output/External Input (High-Function Type)					
R10	-101.3kPa~1MPa	-485	RS485 Communication (Modbus Protocol)				KA	With unit switching function
								Blank
								Standard 12 o'clock direction
								D6
								From bottom to top, upward-looking display orientation

### Selection Item - Single Unit Mode



① Option	
Symbol	Content
C2	2m Cable with Connector
KL	Installation Bracket (Including Fasteners)
KHS	With Panel Mounting Bracket
KCB	Transparent Panel Protective Cover

[Note] In "MPX-R□□-R-6M-KA", the "R" denotes Corrosion-Resistant Pressure Switch

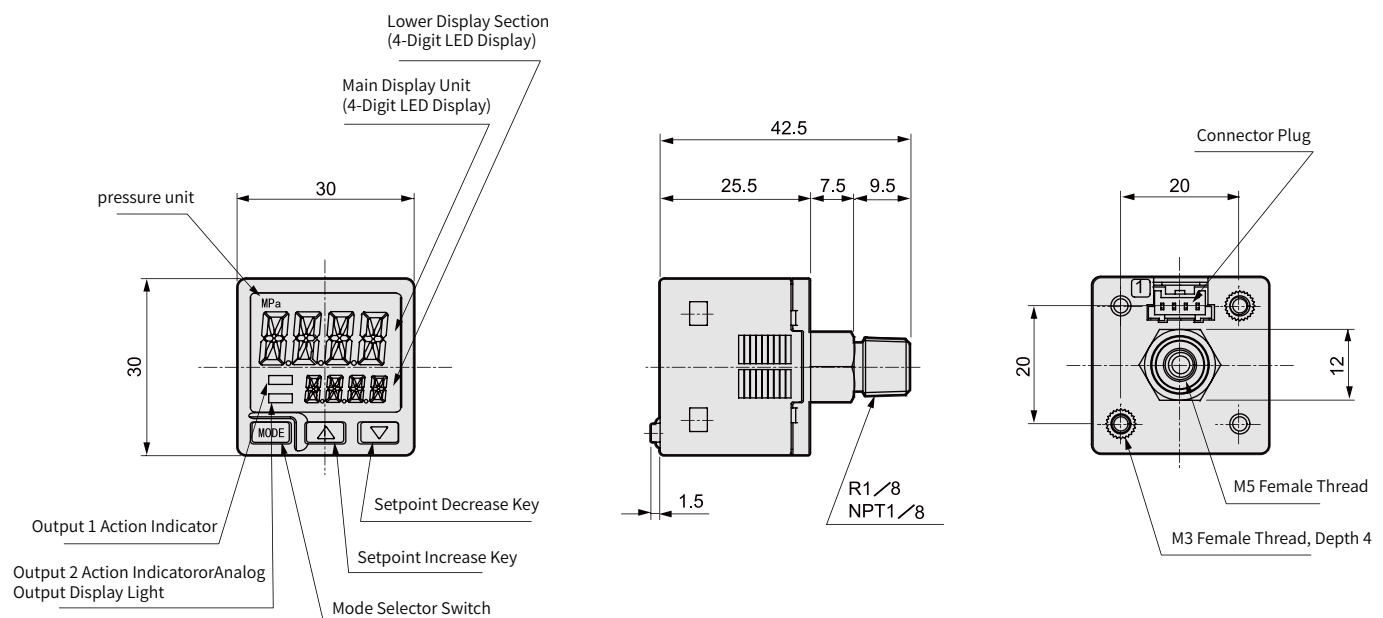
### Notice



[Note] When using the viewing direction as shown in the left picture, please use the product with D6 display direction.

### Outline Dimension Drawing

#### ▶ MPX-R□□-6M(R Thread)

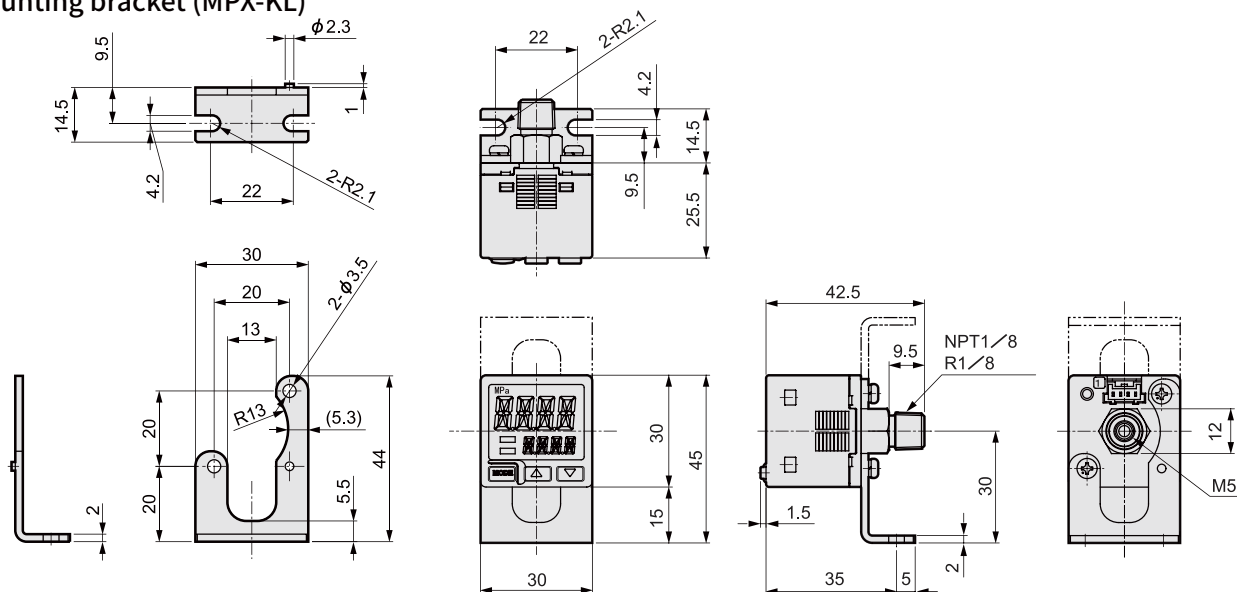


# Digital Pressure Sensor

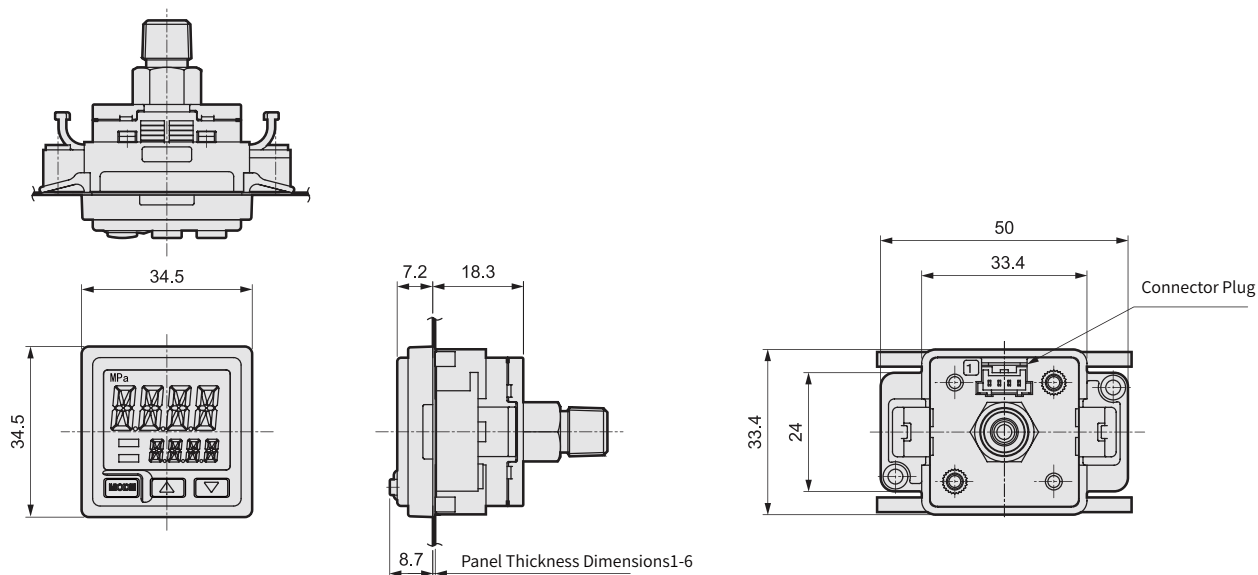
## MPX SERIES

### Outline dimension drawing with options

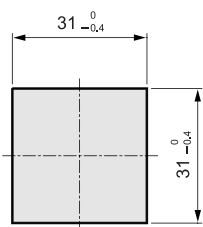
#### ► Mounting bracket (MPX-KL)



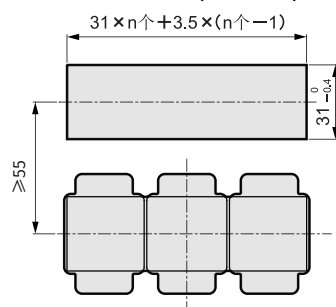
#### ► Panel Mounting Bracket (MPX-KHS) Assembly Drawing



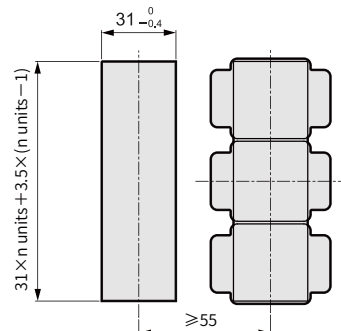
#### ► Panel Cutout Dimensions (Single Unit Installation)



#### ► Horizontal Side-by-Side Installation (n units)



#### ► Vertical Stacked Installation (n units)



[Note 1]: Panel thickness shall be set to 0.5–6mm