

# Display Type Pressure Sensors



## PSAN Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Features

- Pressure measurement of any gas, liquid or oil (except substances which may corrode stainless steel 304/316L)
- Auto shift function: with change in the original pressure, the external input adjusts the determined level to match the change in pressure (only available in models with auto shift/hold function)
- Hold function: hold current display value or control output
- Forced output control mode for device testing and maintenance
- One-touch connector type for easy wiring and maintenance
- Zero-point adjustment function, peak value monitoring function, chattering prevention function

### Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

**P S A N - ① ② ③ ④ ⑤ - ⑥**

#### ① Medium / Port fitting position

No mark: Pneumatic type (gas) / Back  
D: Pneumatic type (gas) / Bottom  
B: Fluid type (liquid, gas) / Back  
L: Fluid type (liquid, gas) / Bottom

#### ② Pressure type and Range

	Pressure	Rated range
01	Static	0.0 to 100.0 kPa
1		0 to 1,000 kPa
V01	Negative	0.0 to -101.3 kPa
C01	Compound	-101.3 to 100.0 kPa

#### ③ Wiring

No mark: Cable type (fluid type)  
C: Connector type

#### ④ Control output

No mark: NPN open collector output  
P: PNP open collector output

#### ⑤ Option input / output

V: Voltage output  
A: Current output  
H: External input

#### ⑥ Pressure port

Port	Medium	
	Pneumatic	Fluid
R1/8	○	○
Rc1/8	○	-
NPT1/8	○	○
7/16-20UNF	-	○
9/16-18UNF	-	○

### Product Components

- Product
- Instruction manual
- Unit sticker
- Connector type: Bracket A / B, Connector wiring (PSO-C01)
- Cable type: Bracket C

### Specifications

Model	PSAN-□V01C□□-□	PSAN-□01C□□-□	PSAN-□1□□□-□	PSAN-□C01□□□-□
Pressure Type	Pneumatic type model: Gauge pressure Fluid type model: Gauge pressure <sup>(01)</sup> or sealed gauge pressure <sup>(02)</sup>			
Pressure	Negative	Static	Compound	
Min display unit	0.1 kPa	0.1 kPa	1 kPa	0.1 kPa
Rated pressure range	0.0 to -101.3 kPa	0.0 to 100.0 kPa	0 to 1,000 kPa	-101.3 to 100.0 kPa
Display & setting pressure range	5.0 to -101.3 kPa	-5.0 to 110.0 kPa	-101.3 to 1,100 kPa	-101.3 to 110.0 kPa
Display type	7 Segment LED, 4 1/2 digit			
Display accuracy	-10 to 0 °C: ≤ ±1% F.S., 0 to 50 °C: ≤ ±0.5% F.S.			
Max. pressure	Rated pressure ×2	Rated pressure ×2	• Pneumatic type: Rated pressure ×1.5 • Fluid type: Rated pressure ×2	Rated pressure ×2

01) Only for static pressure, rated pressure range 100.0 kPa model

02) The unit is sealed structure. It is based on atmospheric pressure 101.3 kPa.

Applicable medium	Pneumatic type (air, non-corrosive gas)	Fluid type (non-corrosive gas and fluid that do not corrode stainless steel 316L)
Connection type	Connector type	Cable type / connector type
Cable	∅ 4 mm, 5-core, 2 m	Connector type: ∅ 4 mm, 5-core, 2 m Cable type: ∅ 4 mm, 5-core, 3 m
Wire spec.	AWG24 (0.08 mm, 40-core), insulator diameter: ∅ 1 mm	
Material	Front case: PC Back case: (back port) PC / (bottom port) PBT+GF15% Pressure port: Brass-nickel plated	Front case: PC Back case: PA6 Pressure port: SUS304/SUS316L
Protection structure	Connector type: IP40 (IEC standard)	Connector type: IP40 (IEC standard) Cable type: IP65 (IEC standard)
Approval	CE EAC	
Unit weight (packaged)	Back port: ≈ 80 g (≈ 165 g) Bottom port: ≈ 85 g (≈ 170 g)	Connector type: ≈ 88 g (≈ 173 g) Cable type: ≈ 90 g (≈ 167 g)

<b>Power supply</b>	12 - 24 VDC≐ (ripple P-P: ≤ 10%)
<b>Allowable voltage range</b>	90 to 110% of rated voltage
<b>Current consumption</b>	≤ 50 mA <sup>(01)</sup>
<b>Control output</b>	NPN open collector output / PNP open collector output model
Load voltage	≤ 30 VDC≐
Load current	≤ 100 mA
Residual voltage	NPN: ≤ 1 VDC≐, PNP: ≤ 2 VDC≐
Hysteresis	According to output operation mode <sup>(02)</sup>
Repeat error	±0.2% F.S. ±min display interval
Response time	2.5, 5, 100, 500, 1000 ms
<b>Protection circuit</b>	Output short over-current protection circuit
<b>Insulation resistance</b>	≥ 50 MΩ (500 VDC≐ megger)
<b>Dielectric strength</b>	1,000 VAC ~ 50 / 60 Hz for 1 min
<b>Vibration</b>	1.5 mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X, Y, Z direction for 2 hours
<b>Ambient temperature</b>	-10 to 50 °C, Storage: -20 to 60 °C (no freezing or condensation)
<b>Ambient humidity</b>	30 to 80%RH, Storage: 30 to 80%RH (no freezing or condensation)

01) Current output: ≤ 75 mA

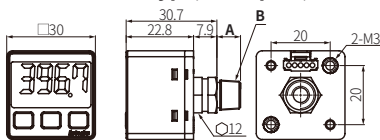
02) Refer to 'Output operation mode'. ±1digit error may occur due to pressure unit operation.

Analog output	Voltage (1 - 5 VDC≐ ±2% F.S)	Current (DC 4 - 20mA ±2% F.S)
Output impedance	1 kΩ	-
Linearity	≤ ±1% F.S	≤ ±1% F.S
Zero-point	≤ 1 VDC≐ ±2% F.S.	≤ DC 4 mA ±2% F.S.
Span	≤ 4 VDC≐ ±2% F.S.	≤ DC 16 mA ±2% F.S.
Resolution	1/1000 or 1/2000 (different by pressure type and display unit)	
Response time	50 ms	70 ms

## Dimensions

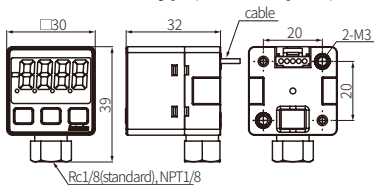
• Unit: mm, For the detailed drawings, follow the Autonics website.

### ■ Pneumatic type, back port, connector type

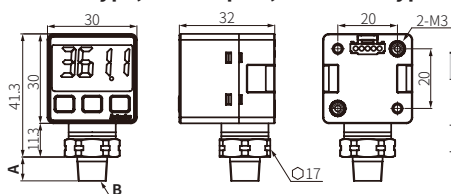


Port	A	B
Rc1/8 (standard)	0	-
NPT1/8	0	Inner M5 tap
R1/8	8	-

### ■ Pneumatic type, bottom port, connector type

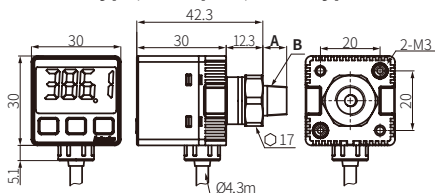


### ■ Fluid type, bottom port, connector type



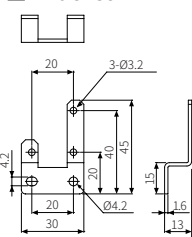
Port	A	B
R1/8 (standard)	8	Inner M5 tap
NPT1/8	11	-
7/16-20UNF	11	-

### ■ Fluid type, back port, cable type

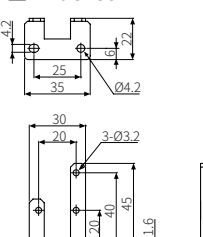


Port	A	B
R1/8 (standard)	8	Inner M5 tap
9/16-18UNF	15.4	-

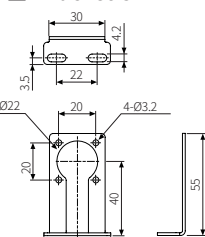
### ■ Bracket A



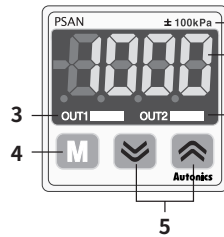
### ■ Bracket B



### ■ Bracket C



## Unit Descriptions



### 1. Pressure range (sticker)

### 2. Display part (red)

1 Run mode: Displays PV (present value), SV (setting value)  
2 Setting mode: Displays parameter and setting value

### 3. Output indicator (OUT1: red, OUT2: green)

3 Turns ON when the corresponding control output is ON.

### 4. [M] key

Enters parameter group, selects item and returns run mode.

### 5. [▼], [▲] key

Sets preset of output operation mode, runs the mode or changes parameter.

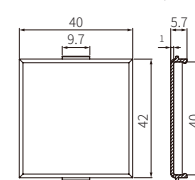
## Sold Separately

- Front cover (PSO-P01), Panel bracket (PSO-B02/B03)
- Pneumatic type: M5 gender (PSO-Z01)

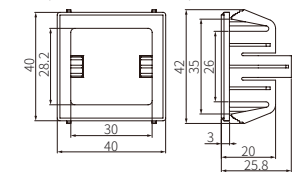
## Sold Separately: Protection cover / Panel brackets

• Unit: mm, For the detailed drawings, follow the Autonics website.

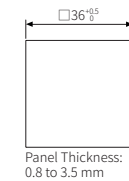
### ■ Front cover (PSO-P01)



### ■ Panel bracket (PSO-B02/B03)



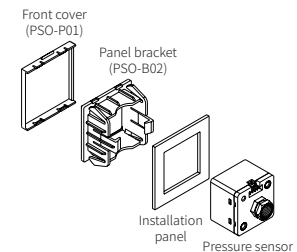
### ■ Panel cut-out



Panel Thickness: 0.8 to 3.5 mm

### ■ Installation configuration

- Sold separately: Front cover (PSO-P01), Panel bracket (PSO-B02/B03)
- Panel thickness: 0.8 to 3.5 mm



### ■ M5 gender (PSO-Z01)

