

DIGITAL PRESSURE SENSOR

(Single Output) Series PS

Cat No PS - 01 - 02 - A

2 Colour Display Digital Pressure Sensor - R1/8

Features

- 2 Colours display (Red / Green)
- Set pressure selectable (kPa, psi, kgf/cm², bar)
- Both upper and lower limits of pressure can be set independently
- Panel mountable
- Direct mountable
- Both PNP & NPN versions
- Single output



Technical Specifications

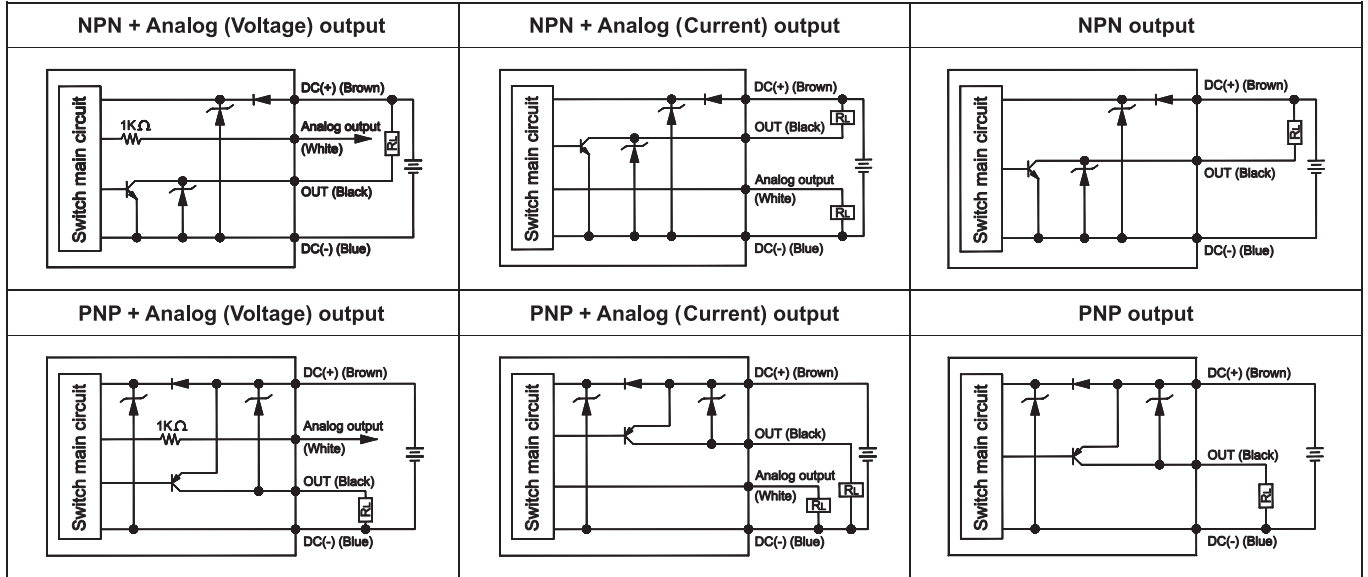
Model	PS01, PS20, PS40	
Port size	R 1/8	
Rated pressure range	0 ~ 10 bar	
Operating / Setting pressure range	-1 ~ 10 bar	
Withstand pressure	15 bar	
Fluid	Air, Non-corrosive gases, Incombustible gases	
Set pressure resolution	kPa	1
	Kgf/cm ²	0.01
	Bar	0.01
	Psi	0.1
Power supply voltage	12 to 24V DC $\pm 10\%$, Ripple (P-P) 10% or less	
Current consumption	≤ 45 mA (With no load)	
Switch output	NPN: open collector 1 output Max. load current: 125 mA Max. supply voltage: 30V DC Residual voltage: ≤ 1.5 V (load current 125 mA)	PNP: open collector 1 output Max. load current: 125 mA Max. supply voltage: 24V DC Residual voltage: ≤ 1.5 V (load current 125 mA)
Repeatability (Switch output)	$\leq \pm 0.2\%$ F.S. ± 1 digit	
Hysteresis	Hysteresis mode	Adjustable
	Window comparator mode	
Response time	≤ 2.5 ms (chattering-proof function: 24ms, 250ms, 500ms, 1000ms and 1500ms selections)	
Output short circuit protection	Yes	
7 segment LED display	Two colour (Red / Green) display (Sampling rate: 5 times/1sec.)	
Indicator accuracy	$\leq \pm 2\%$ F.S. ± 1 digit (ambient temperature: 25 $\pm 3^\circ$ C)	
Switch on Indicator	Green out Indicator	
Analog output (Voltage output)	Output voltage: 1 to 5V $\leq \pm 2.5\%$ FS (within rated pressure range) Linearity: $\leq \pm 1\%$ F.S. Output impedance: about 1k Ω	
Analog output (Current output)	Output current: 4 to 20mA $\leq \pm 2.5\%$ FS (within rated pressure range) Linearity: $\leq \pm 1\%$ F.S. Maximum load impedance: 300 Ω at power supply of 12V 600 Ω at power supply of 24V Minimum load impedance: 50 Ω	
Environment	Enclosure	IP40
	Ambient temp. range	Operation : 0 ~ 50 $^\circ$ C, Storage : -10 ~ 60 $^\circ$ C (No condensation or freezing)
	Ambient humidity range	Operation / Storage : 35 ~ 85% RH (No condensation)
	Withstand voltage	1000VAC in 1-min (between case and lead wire)
	Insulation resistance	50Mohm min. (at 500V DC M, 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	100m/s ² (10G), 3 times each in direction of X, Y and Z
Temperature characteristic	$\leq \pm 2\%$ F.S. of detected pressure (25 $^\circ$ C) at temp. Range of 0~50 $^\circ$ C	
Lead wire	Oil-resistance cable (0.15mm ²)	
Product weight	Approximate 75g (with 2-metre lead wire)	

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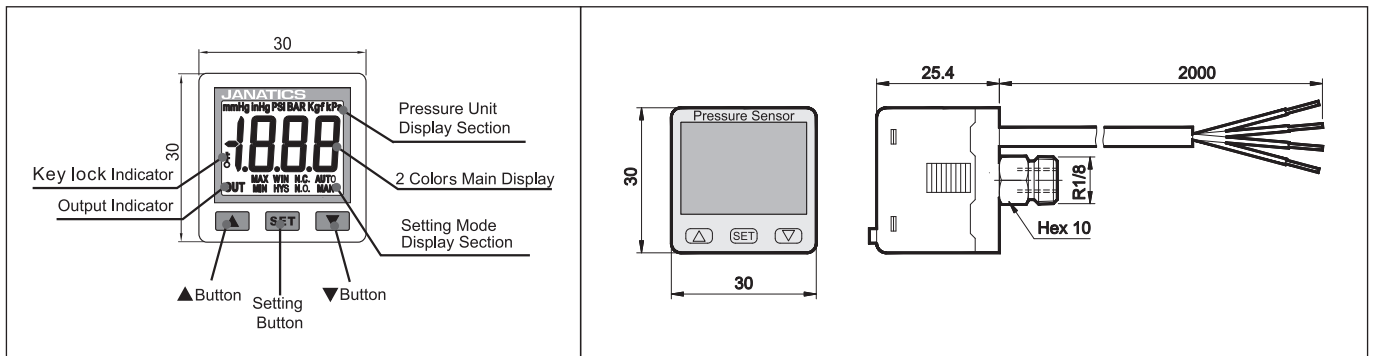
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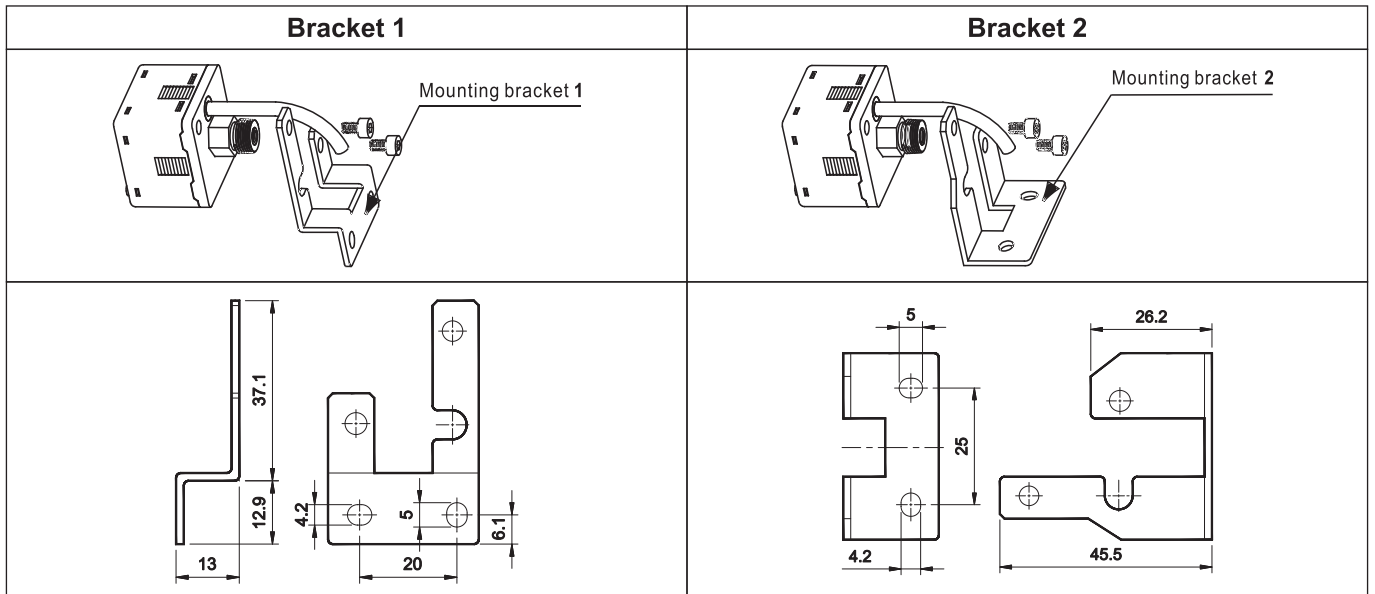
Output circuit wiring graph



Panel instructions / Dimensions



1. Mounting Bracket

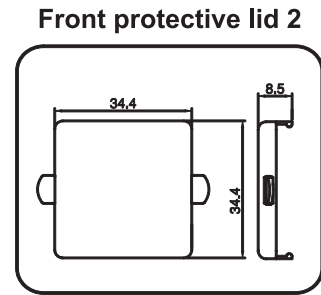
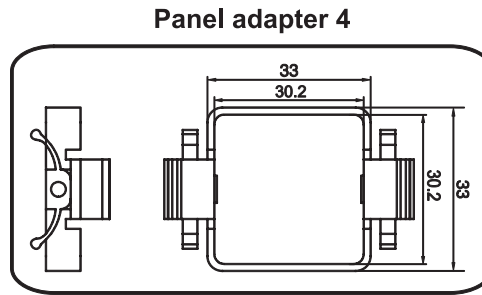
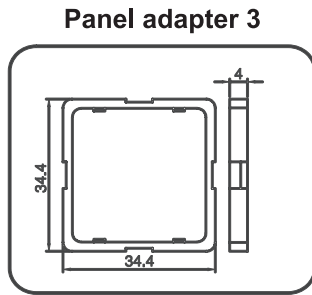
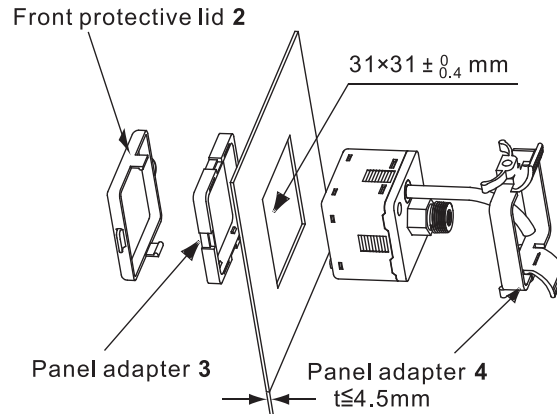


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2. Panel type



Optional spare parts

S. No.	Optional spare parts	Ordering No.
1	Mounting bracket	A4C10
2.	Panel adapter 3 + Panel adapter 4	A4C13
3.	Panel adapter 3 + Panel adapter 4 + Front productive lid 2	A4C14

How to order

PS	01	07	50	4	A
Series	Switch type	Port size	Pressure range	Mounting	
01 Voltage version with Analog	07 1 NPN output	50 R1/8	4 0 to 10 bar	A Mounting bracket	
20 Current version with Analog	08 1 PNP output			B Panel adapter 3&4	
40 Without analog				C Panel adapter 3&4 + Front productive lid	

No code: Without mounting

Ordering example:

- Pressure sensor Voltage version with analog, 1 NPN output, R1/8 port size, 0 to 10 bar pressure range with mounting bracket - **PS0107504A**
- Pressure sensor Voltage version with analog, 1 NPN output, R1/8 port size, 0 to 10 bar pressure range without mounting - **PS0107504**