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
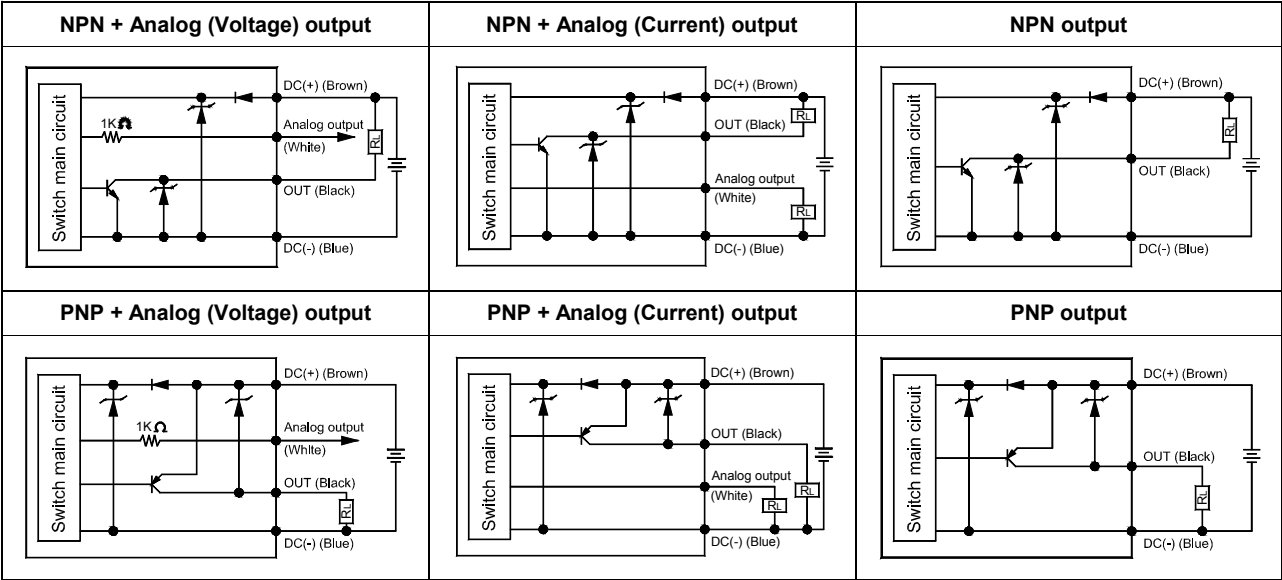❑ Both PNP & NPN versions
❑ Single output

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 ±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: ≤ 1.5V (load current 125 mA)	**PNP**: open collector 1 output Max. load current: 125 mA Max. supply voltage: 24V DC Residual voltage: ≤ 1.5V (load current 125 mA)
Repeatability (Switch output)		≤ ±0.2% F.S. ± 1 digit	
Hysteresis	Hysteresis mode	Adjustable	
	Window comparator mode		
Response time		≤ 2.5ms (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		≤ ±2% F.S. ±1 digit (ambient temperature: 25 ±3°C)	
Switch on Indicator		Green out Indicator	
Analog output (Voltage output)		Output voltage: 1 to 5V ≤ ±2.5% FS (within rated pressure range) Linearity: ≤ ±1% F.S. Output impedance: about 1kΩ	
Analog output (Current output)		Output current: 4 to 20mA ≤ ±2.5% FS (within rated pressure range) Linearity: ≤ ±1% F.S. Maximum load impedance: 300Ω at power supply of 12V 600Ω at power supply of 24V Minimum load impedance: 50Ω	
Environment	Enclosure	IP40	
	Ambient temp. range	Operation : 0 ~ 50°C, Storage : -10 ~ 60°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		≤ ±2% F.S. of detected pressure (25°C) at temp. Range of 0~50°C	
Lead wire		Oil-resistance cable (0.15mm^2)	
Product weight		Approximate 75g (with 2-metre lead wire)	

DIGITAL PRESSURE SENSOR
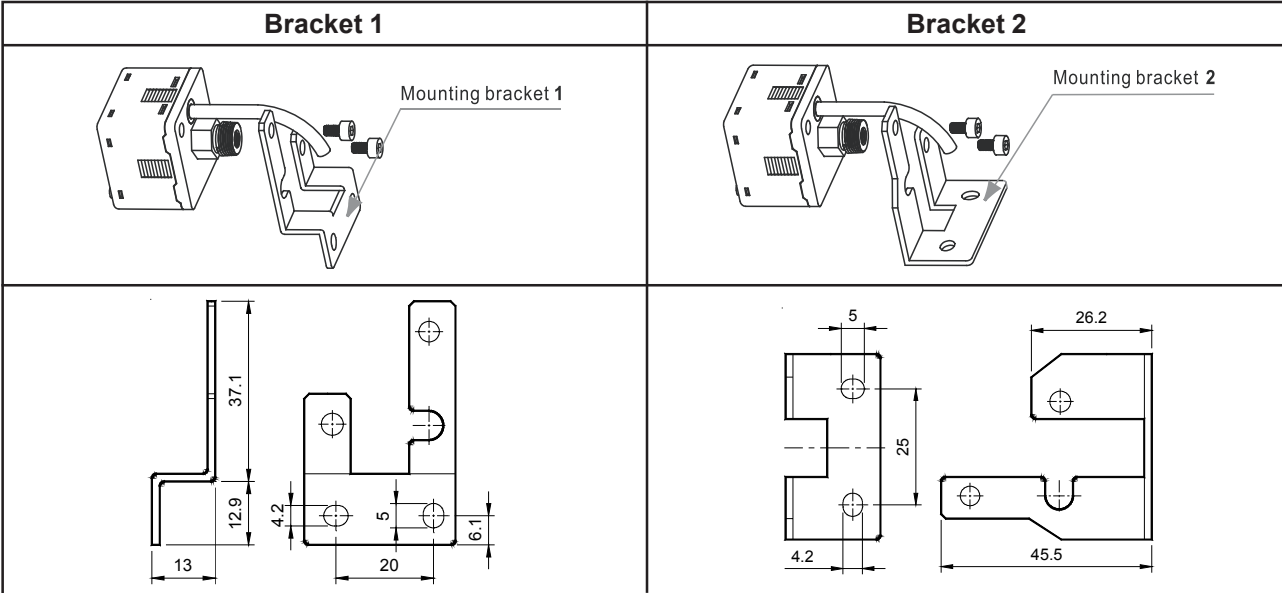## (Single Output) Series PS

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Output circuit wiring graph

NPN + Analog (Voltage) output	NPN + Analog (Current) output	NPN output

PNP + Analog (Voltage) output	PNP + Analog (Current) output	PNP output

Panel instructions / Dimensions
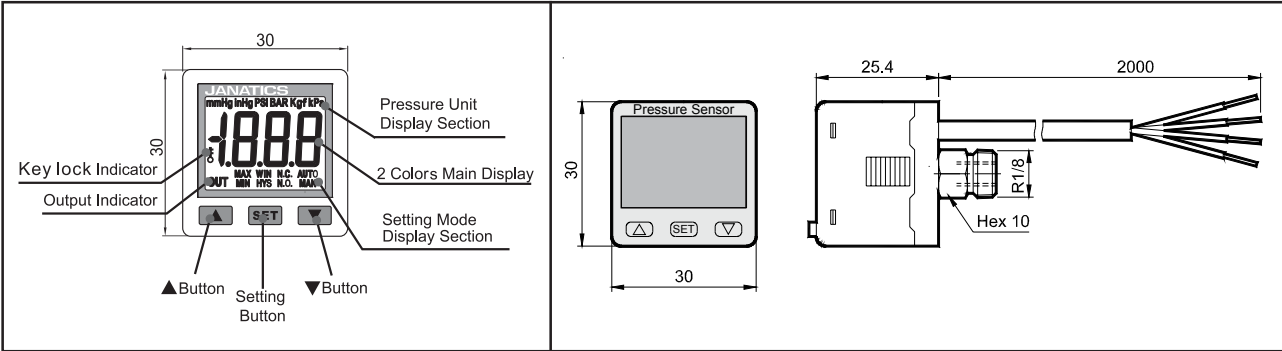
1. Mounting Bracket

Bracket 1	Bracket 2

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2. Panel type

Front protective lid **2**

$31 \times 31 \pm {}^{0}_{0.4}$ mm

Panel adapter **3**

Panel adapter **4**
t≦4.5mm

Panel adapter 3

Panel adapter 4

Front protective lid 2
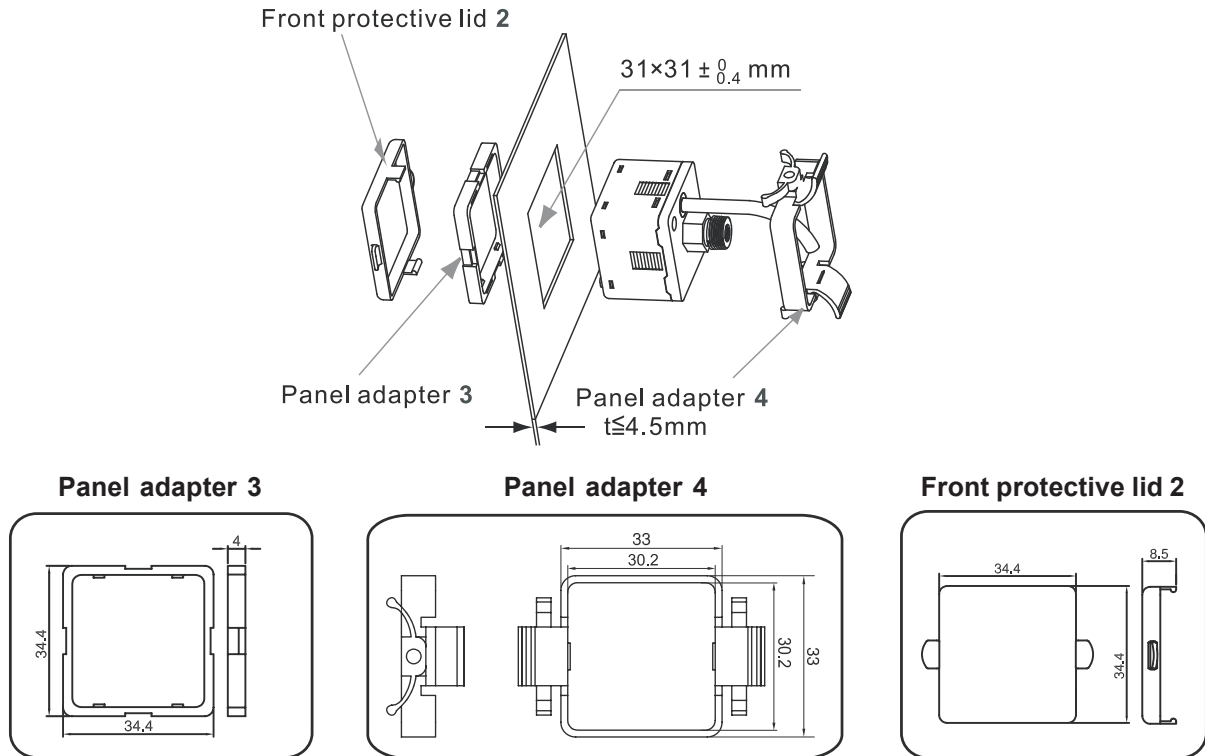
Optional spare parts

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

Series	
01	Voltage version with Analog
20	Current version with Analog
40	Without analog

Switch type	
07	1 NPN output
08	1 PNP output

Port size	
50	R1/8

Pressure range	
4	0 to 10 bar

Mounting	
A	Mounting bracket
B	Panel adapter 3&4
C	Panel adapter 3&4 + Front productive lid

No code: Without mounting

Ordering Example :

1. Pressure sensor Voltage version with analog, 1 NPN output, R1/8 port size, 0 to 10 bar pressure range with mounting bracket - **PS0107504A**

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