

DIGITAL PRESSURE SENSOR

Series PS48

Cat No PS48 - 01 - 01 - A

4 Colour Display Digital Pressure Sensor - R1/8

Features

- ❑ Main / Sub display 4½ Digit 7 segment LCD display
- ❑ 4 Colour display (Red / White / Pink / Orange)
- ❑ Set pressure selectable (kPa, psi, kgf/cm², bar, inHg, mmHg, mmAq)
- ❑ Panel or Direct mountable
- ❑ User defined analog output
- ❑ Easy installation
- ❑ RS485 communication for remote monitoring



Technical Specifications

Model			PS48						
Rated pressure range			-1.013 ~ 10.000 bar						
Set pressure range			-1.013 ~ 10.000 bar						
Withstand pressure			15 bar						
Fluid			Filtered air, Non-corrosive / Non-flammable gas						
Set pressure resolution			kPa: 0.1	Kgf/cm ² : 0.001	bar: 0.001	psi: 0.01	inHg: 0.1	mmHg: 1	mmAq (mmH2O): 1 ※1
Power supply voltage			15 ~ 24 V DC, Ripple (P-P) ≤ 10 %						
Current consumption			≤ 40 mA (with no load)						
Switch output			2 NPN open collector outputs Max. Load Current: 150 mA Max. Supply Voltage: 30 V DC Residual Voltage: ≤ 1 V			2 PNP open collector outputs Max. Load Current: 150 mA Max. Supply Voltage: 24 V DC Residual Voltage: ≤ 1 V			
Repeatability ※ 2			±0.2 % S.R (Ambient temperature : 25 ±3°C)						
Switch output mode	One point set mode		Adjustable ※ 3						
	Hysteresis mode								
	Window comparator mode								
Response time of digital filter ※ 4			OFF, 25, 100, 250, 500, 1000, 1500, 3000 ms selectable						
Overcurrent protection			Yes						
Display			4½ digit, 7 segment LCD display (Red / White / Pink / Orange)						
Sampling rate			0.2, 0.5, 1 sec. / time selectable						
Indicator accuracy			Compound: -1.000 ~ 1.000 bar ±1 % S.R..			Positive : -1.000 ~ 10.000 bar ±0.5 % S.R			
			Vacuum: -1.013 ~ 0.0 bar ±1 % S.R.			All : -1.013 ~ 10.000 bar ±0.5 % S.R.			
Switch on Indicator			Orange Indicator 1: OUT1 & Orange Indicator 2: OUT2						
Analog output		Voltage output	Output Voltage: 0 ~ 10 V ±0.5 % F.S., Linearity: ±0.5 % F.S. Output Impedance 2 KΩ						
		Current output	Output Voltage: 4 ~ 20 mA ±0.5 % F.S., Linearity: ±0.5 % F.S. Max. Load Impedance: 250 Ω at power supply of 15 V, 600 Ω at power supply of 24 V, Min. Load Impedance: 50 Ω						
Environment	Enclosure		IP40						
	Ambient temp. range		0 ~ 50° C, Storage: -10 ~ +60° C (No condensation or freezing)						
	Ambient humidity range		Operation / Storage: 35 ~ 85 % RH (No condensation)						
	Withstand voltage		1000 V AC in 1-min (between case and lead wire)						
	Insulation resistance		≥ 50 MΩ (at 500 V DC, between case and lead wire)						
	Vibration		Total amplitude 1.5 mm or 10 G, 10 Hz ~ 150 Hz ~ 10 Hz scan for 1 minute, 2 hours each direction of X, Y and Z						
	Shock		100 m/s ² (10 G), 3 times each in direction of X, Y and Z						
Temp. characteristic (Range of 0 ~ 50° C)			±0.5 % F.S. of detected pressure						
Communication Interface※5			RS485 Modbus RTU						
Port size			R1/8"						
Lead wire			Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm ²) - 5 cores						
Weight (with 2 meter lead wire)			Approx. 67 g						

※1 : If set pressure unit is mmAq, the actual value is 10 times of display value.

※2 : S.R. : Set range

※3 : Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

※4 : When digital filter function is OFF, the response time is 4ms ~ 6ms.

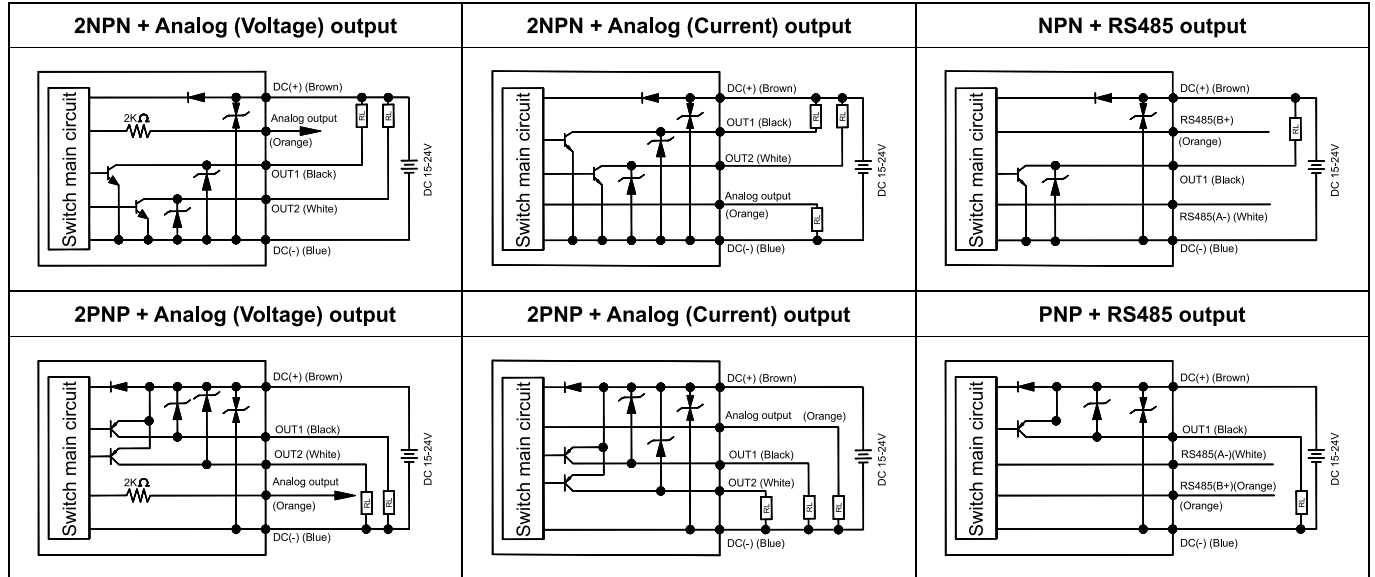
※5 : This function is only available in PS4805504 and PS4806504 models.

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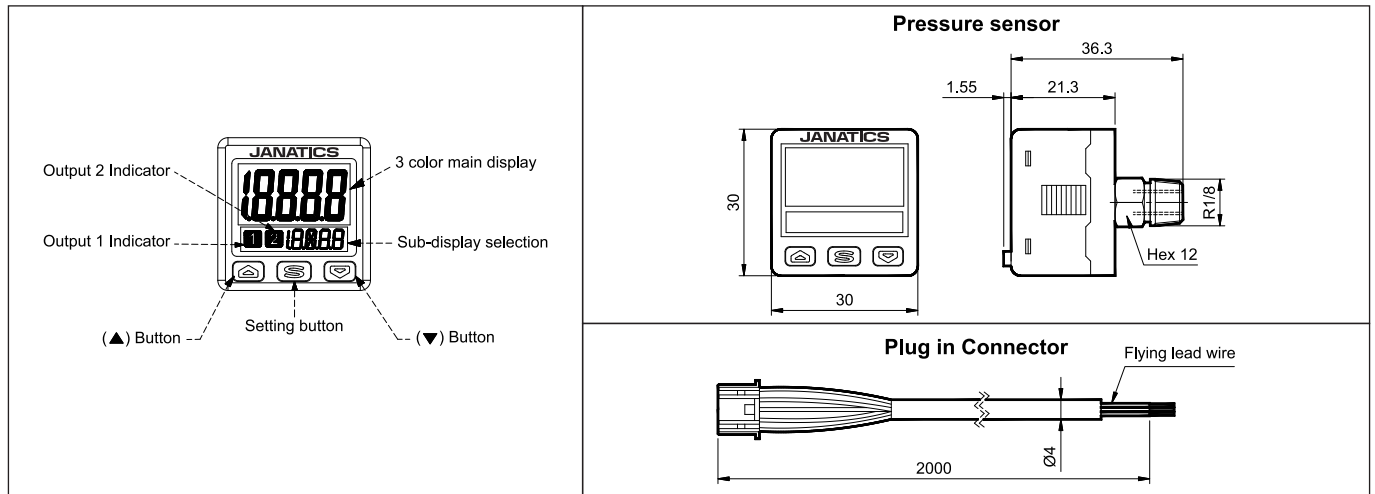
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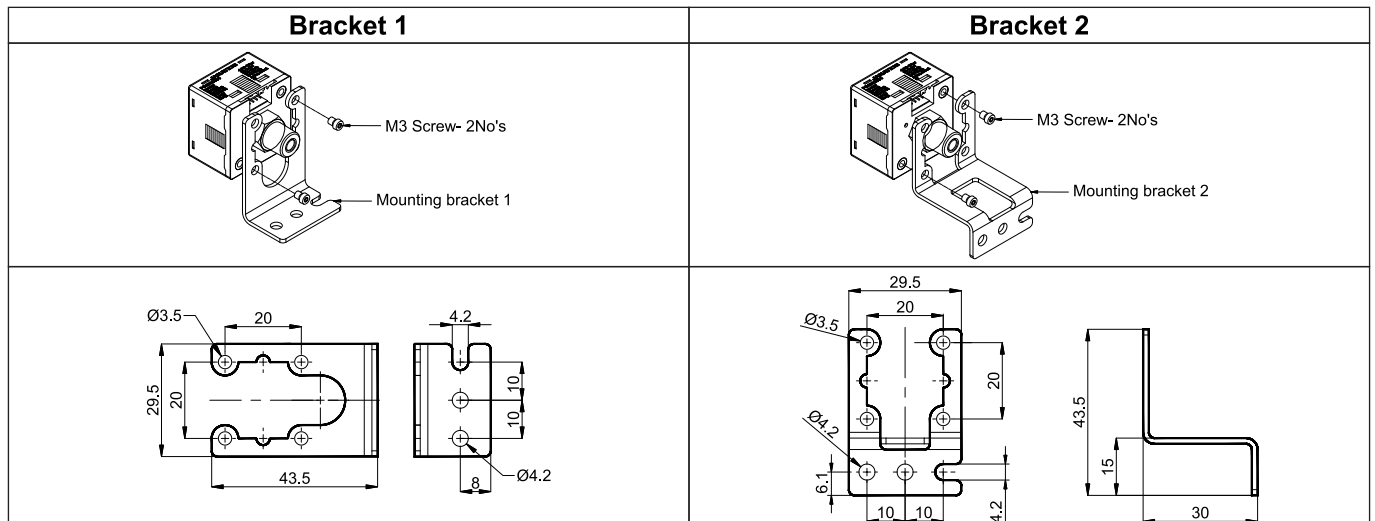
Output circuit wiring graph



Panel instructions / Dimensions



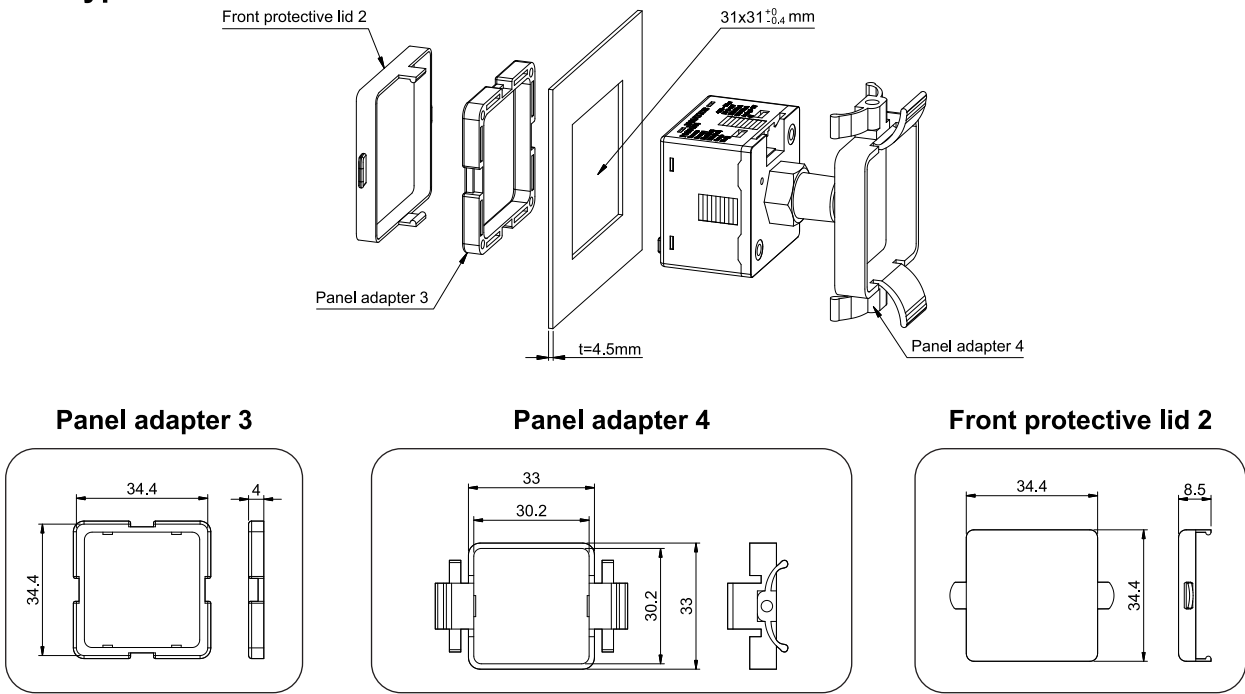
1. Mounting Bracket



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2. Panel type



Optional spare parts

S. No.	Optional spare parts	Ordering No.
1	Mounting bracket	A4C29
2.	Panel adapter 3 + Panel adapter 4	A4C13
3.	Panel adapter 3 + Panel adapter 4 + Front productive lid 2	A4C14

How to order

PS	48	01	50	4	A				
Series		Switch type		Port size		Pressure range		Mounting	
48	IP40	01	2 NPN output + voltage version	50	R1/8	4	0 to 10 bar	A	Mounting bracket
		02	2 NPN output + current version					B	Panel adapter 3&4
		03	2 PNP output + voltage version					C	Panel adapter 3&4 + Front productive lid
		04	2 PNP output + current version						
		05	1 NPN output + RS485						
		06	1 PNP output + RS485						

No code: Without mounting

Ordering example:

- Pressure sensor IP40, 2 NPN output with voltage output, R1/8 port size, 0 to 10 bar pressure range with mounting bracket - **PS4801504A**
- Pressure sensor IP40, 2 NPN output with voltage output, R1/8 port size, 0 to 10 bar pressure range without mounting - **PS4801504**