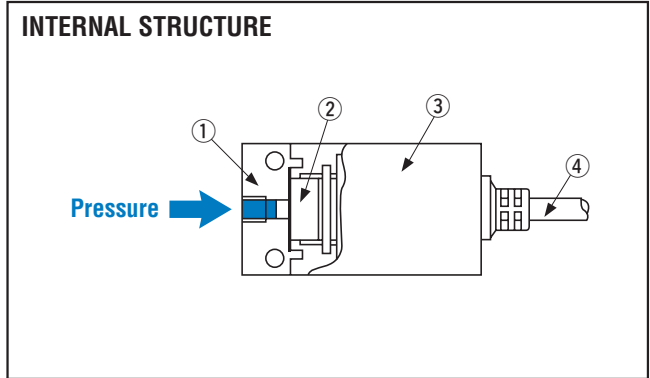


PS4

PRESSURE SWITCHES

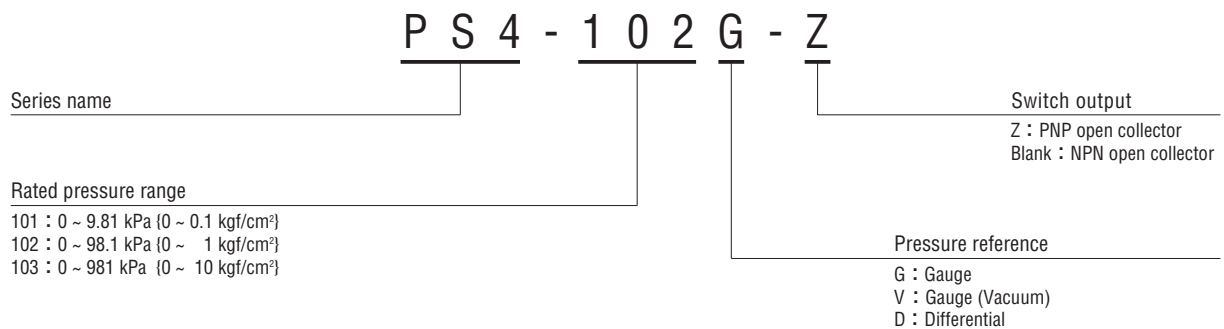


	Part name	Material
①	Pressure port	Aluminum
②	Pressure transducer	P-2000
③	Housing	PC (Polycarbonate)
④	Cable	Vinyl chloride resin

FEATURES

- For non-corrosive gases
- Electrical pressure switch with no mechanical moving parts
- Fast response of 1 ms
- Equips analog output function (1 ~ 5 V)
- Three pressure references to choose from (Gauge, Differential, Vacuum)

MODEL NUMBER DESIGNATION



- Rated pressure range
- 101 : 0 ~ 98.1 kPa {0 ~ 0.1 kgf/cm²}
 - 102 : 0 ~ 98.1 kPa {0 ~ 1 kgf/cm²}
 - 103 : 0 ~ 981 kPa {0 ~ 10 kgf/cm²}

LIST OF MODEL NUMBERS

Switch output configuration	Pressure reference		Gauge			Differential
	Pressure port	Rated pressure range kPa {kgf/cm ² }	0 ~ 98.1 {0 ~ 1}	0 ~ 981 {0 ~ 10}	0 ~ -98.1 {0 ~ -1}	0 ~ ± 9.81 {0 ~ ± 0.1}
NPN open collector output	M 5		PS4-102G	PS4-103G	PS4-102V	⊕ PS4-101D
PNP open collector output			⊕ PS4-102G-Z	⊕ PS4-103G-Z	⊕ PS4-102V-Z	

☐ : Not available
 ※ Verify the above model numbers when placing orders.
 The products mared ⊕ are manufactured upon receipt of order basis.

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25 ± 5 °C and excitation voltage of 12 V DC.

Item	Model number	PS4				
		102G	102V	103G	101D	
General specifications	Pressure reference	Gauge			Differential	
	Rated pressure range	kPa {kgf/cm ² }	98.1 {1}	- 98.1 {-1}	981 {10}	± 9.81 {± 0.1}
	Maximum pressure	kPa {kgf/cm ² }	196 {2}		1471 {15}	± 19.6 {± 0.2}
	Break-down pressure	kPa {kgf/cm ² }	490 {5}		1961 {20}	± 49.0 {± 0.5}
	Operating temp. range	°C	- 20 ~ 70			
	Compensated temp. range	°C	0 ~ 50			
	Operating humidity	%RH	35 ~ 85 (No condensation)			
	Storage temp.	°C	- 20 ~ 80 (Atmospheric pressure, humidity 65 %RH maximum)			
	Pressure medium		Non-corrosive gases			
	Insulation resistance	MΩ minimum	100 (500 V DC)			
	Dielectric strength		500 V AC, 60 s (Leakage current 1 mA maximum)			
	Pressure port		M5 "O" ring groove (Posi. : P10, Nega. : P8)			M 5
	Net weight	g	Approx. 80			Approx. 90
Power	Supply voltage	V DC	12 ~ 24 ± 10 %			
	Ripple content	maximum	10 % (P-P)			
	Consumption current	maximum	20 mA			
Switch output	No. of output		1			
	Output interface		NPN open collector output ※1			
	Setting method		Adjustable by VR			
	Adjustable range		Zero through rated pressure, minimum			
	Display		Red LED (lighted when output is ON.)			
	Accuracy 0 ~ 50 °C (Reference temp.: 25 °C)	% F.S.	± 3			
	Hysteresis	% F.S. maximum	2			
	Switching capacity		28 V DC 80 mA以下 28 V DC 80 mA maximum			
	Residual voltage	V maximum	0.8 ※2			
	Response	ms	Approx. 1			

※1 : PS4-□□□□-Z series are PNP open collector output.

※2 : 1.2 V (maximum) for PS4-□□□□-Z

PS4
PRESSURE SWITCHES

Item		Model number	PS4			
			102G	102V	103G	101D
Analog output	Output voltage	V	1 ~ 5			1 ~ 3
	Zero voltage	V	1 ± 0.4			2 ± 0.4
	Span voltage	V	4 ± 0.4			1 ± 0.2
	Output current	mA maximum	1 (Load resistance: 5 kΩ minimum)			
	Linearity/Hysteresis	%F.S.	± 1			
	Thermal error 0 ~ 50 °C (Reference temp.: 25 °C)	ZERO %F.S./°C	± 0.12			
SPAN %F.S./°C		± 0.12				

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each	Switch output setting and analog output (Zero voltage/span voltage): ± 1 %F.S., maximum, each
Shock	981 m/s ² ※ 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure, 10 ⁶ cycles	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	

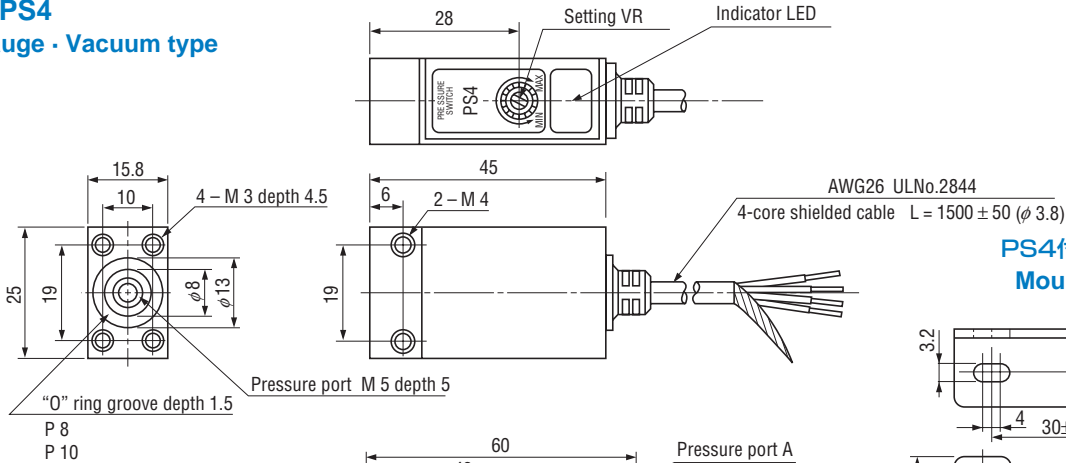
※PS4-101Dは490 m/s² 490 m/s² for PS4-101D

PS4 PRESSURE SWITCHES

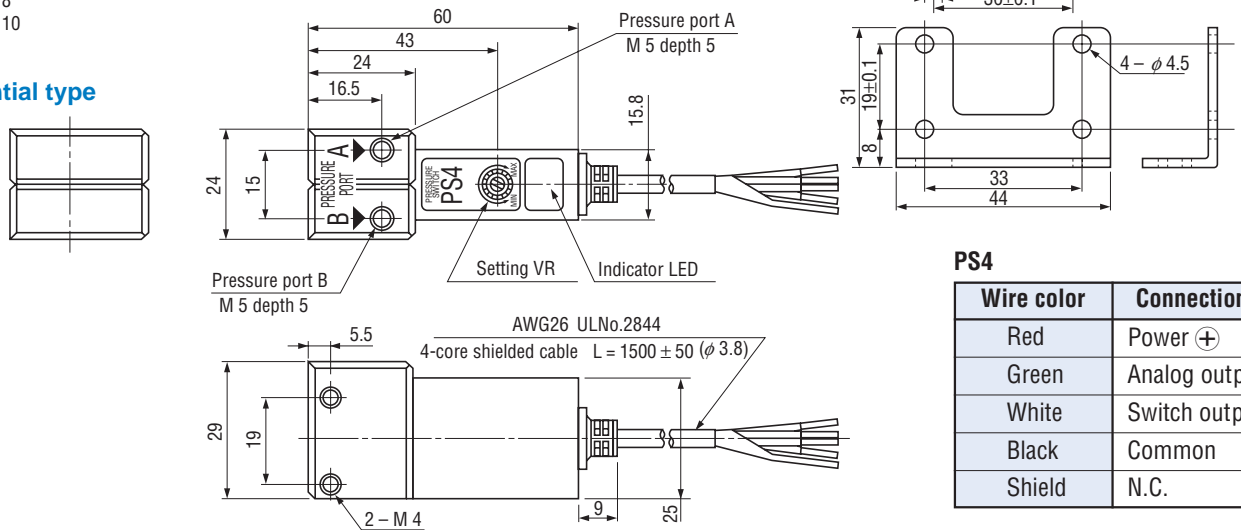
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

PS4 Gauge - Vacuum type



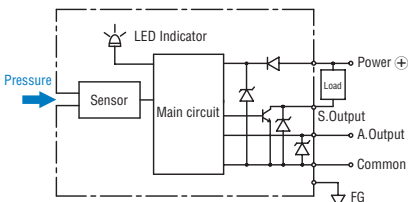
PS4 Differential type



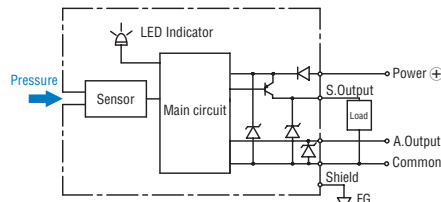
Wire color	Connection
Red	Power ⊕
Green	Analog output
White	Switch output
Black	Common
Shield	N.C.

INTERNAL ELECTRICAL SCHEMATICS

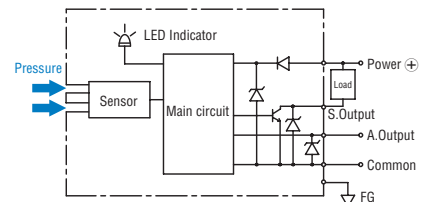
PS4 (NPN) Gauge - Vacuum type



PS4 (PNP) Gauge - Vacuum type

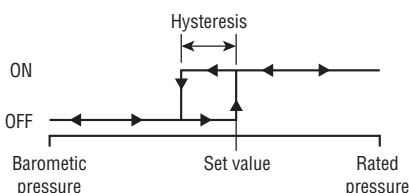


PS4 Differential type

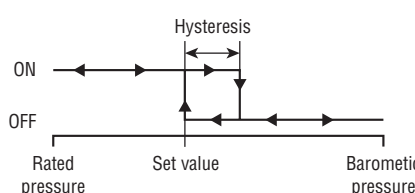


SWITCH OUTPUT SCHEMATICS

PS4-***G



PS4-102V



PS4-101D

