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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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PRESSURE SWITCHES

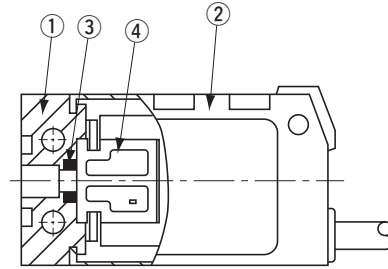
PS40



FEATURES

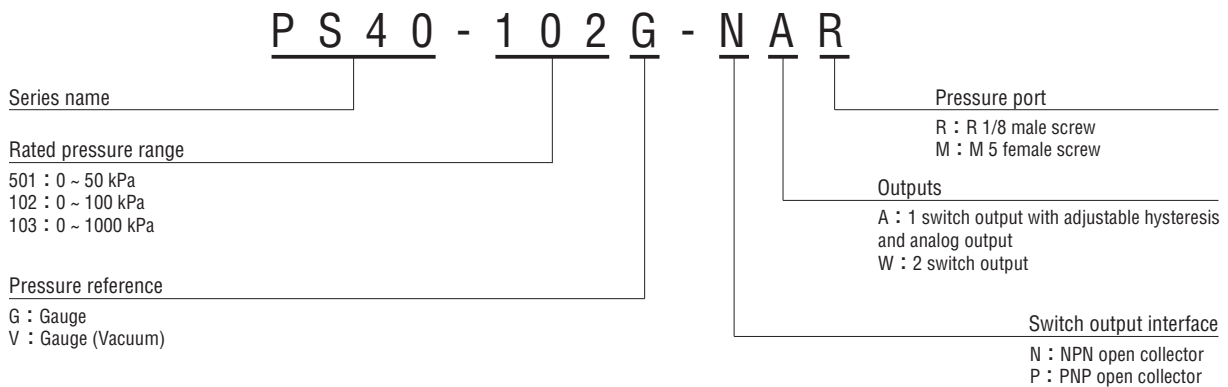
- Compatible with non-corrosive gases
- Solidstate pressure switch with no mechanical moving parts
- 2 types of pressure ports are available
- Open collector output of either NPN or PNP is available
- Analog output type available

INTERNAL STRUCTURE (M5 female screw)



Part name	Material
① Pressure port	POM (Polyoxymethylene)
② Housing	PC (Polycarbonate)
③ "O" ring	Fluoro-rubber
④ Port block	LCP (Liquid crystal polymer)

MODEL NUMBER DESIGNATION



LIST OF MODEL NUMBERS

Pressure port	Outputs	Switch output	102V	501G	102G	103G
			-100 kPa	50 kPa	100 kPa	1000 kPa
R 1/8 male screw	Adjustable hysteresis switch output + Analog output	NPN open collector output	PS40-102V-NAR	PS40-501G-NAR	PS40-102G-NAR	PS40-103G-NAR
		PNP open collector output	PS40-102V-PAR		PS40-102G-PAR	PS40-103G-PAR
	2 points switch output	NPN open collector output	PS40-102V-NWR	PS40-501G-NWR	PS40-102G-NWR	PS40-103G-NWR
		PNP open collector output	PS40-102V-PWR		PS40-102G-PWR	PS40-103G-PWR
M 5 female screw	Adjustable hysteresis switch output + Analog output	NPN open collector output	PS40-102V-NAM	PS40-501G-NAM	PS40-102G-NAM	PS40-103G-NAM
		PNP open collector output	PS40-102V-PAM		PS40-102G-PAM	PS40-103G-PAM
	2 points switch output	NPN open collector output	PS40-102V-NWM	PS40-501G-NWM	PS40-102G-NWM	PS40-103G-NWM
		PNP open collector output	PS40-102V-PWM		PS40-102G-PWM	PS40-103G-PWM

☐ : Not available

* Verify the above model numbers when placing orders.

PS40

PRESSURE SWITCHES

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	102V	501G	102G	103G
General specifications	Pressure reference		Gauge			
	Rated pressure range	kPa	- 100	50	100	1000
	Maximum pressure	kPa	200	100	200	1500
	Break-down pressure	kPa	500	250	500	2000
	Operating temp. range	°C	- 20 ~ 70			
	Compensated temp. range	°C	0 ~ 50			
	Operating humidity	%RH	35 ~ 85 (No condensation)			
	Storage temp.	°C	- 20 ~ 80			
	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		R 1/8 (M5 Female screw) or "O" ring groove (M5 Female screw)			
Net weight	g	Approx. 50				
Power	Supply voltage	V DC	10.8 ~ 30 V (Including ripple percentage)			
	Consumption current	maximum	17 mA (Only W type 25 mA maximum)			
Switch output	No. of outputs		1 or 2			
	Output interface		Open collector output (NPN or PNP)			
	Setting method		Adjustable by VR			
	Adjustable range		Zero through rated pressure minimum			
	Display		Red LED ON (W type only : SW1 Red, SW2 Green)			
	Accuracy 0 ~ 50 °C (Reference temp.: 25 °C)	% F.S.	± 3			
	Hysteresis		Approx. 1 ~ 15 % of the set value (W type only 2 % F.S. maximum)			
	Switching capacity		30 V 80 mA			
	Residual voltage	V maximum	0.8 (NPN), 1.2 (PNP)			
	Response	ms	Approx. 1			
Analog output	Output voltage	V	1 ~ 5			
	Zero voltage	V	1 ± 0.1			
	Span voltage	V	4 ± 0.1			
	Output current	mA maximum	1 (Load resistance 5 kΩ minimum)			

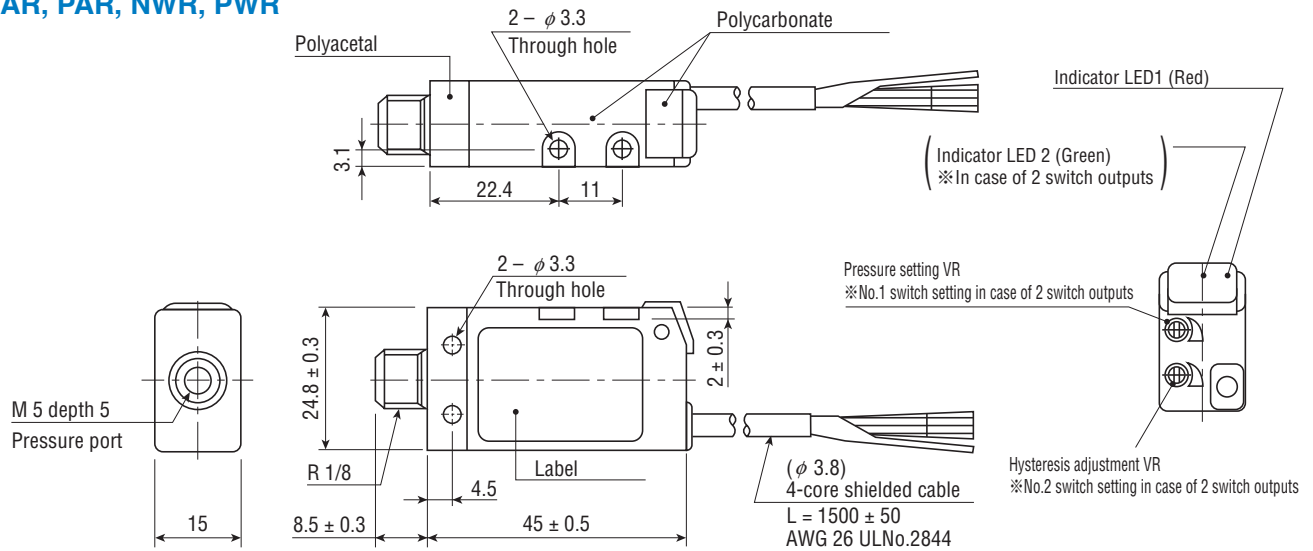
ENVIRONMENTAL CHARACTERISTICS

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): ± 2 %F.S. maximum, each
Shock	490 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.	

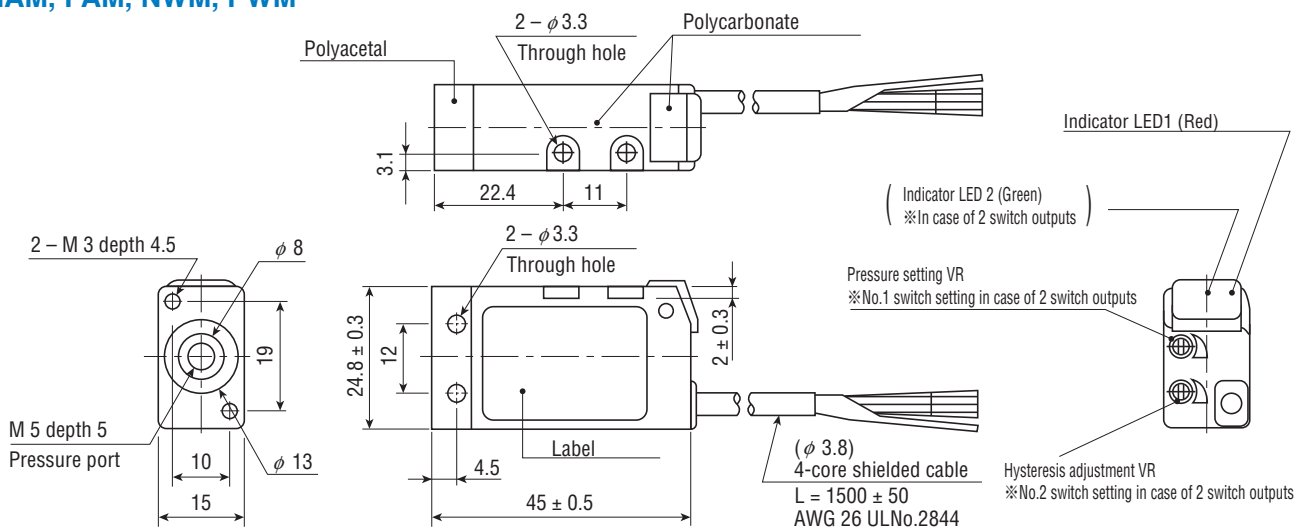
OUTLINE DIMENSIONS

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

NAR, PAR, NWR, PWR



NAM, PAM, NWM, PWM



PS40

PRESSURE SWITCHES

PS40 (NAM, NAR, PAM, PAR)

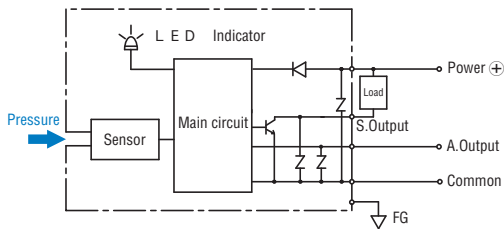
Wire color	Connection
Brown	Power ⊕
Black	Switch output
White	Analog output
Blue	Common
Shield	N.C.

PS40 (NWM, NWR, PWM, PWR)

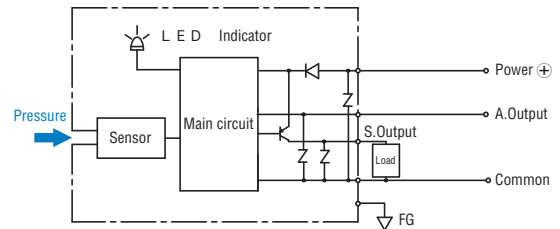
Wire color	Connection
Brown	Power ⊕
Black	Switch output 1
White	Switch output 2
Blue	Common
Shield	N.C.

INTERNAL ELECTRICAL SCHEMATICS

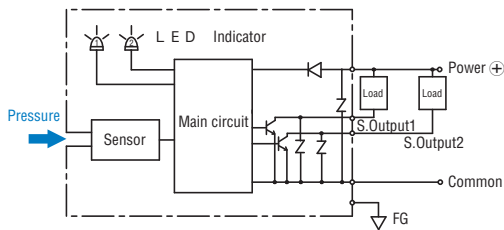
● NAM, NAR (NPN)



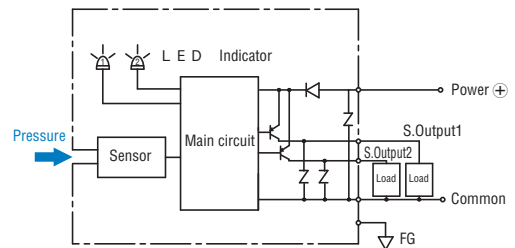
● PAM, PAR (PNP)



● NWM, NWR (NPN)

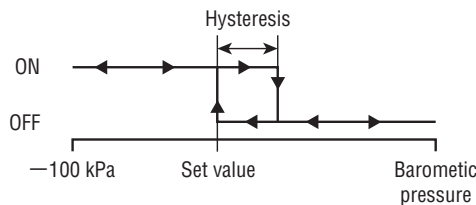


● PWM, PWR (PNP)

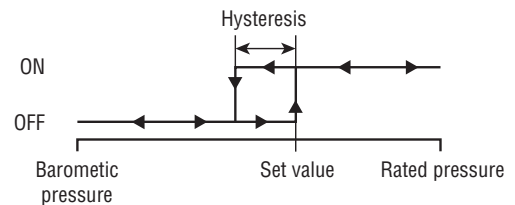


SWITCH OUTPUT SCHEMATICS

● PS40-102V



● PS40- * * * G



※ * A * is adjustable hysteresis type.