

# PS91

## PRESSURE SWITCHES



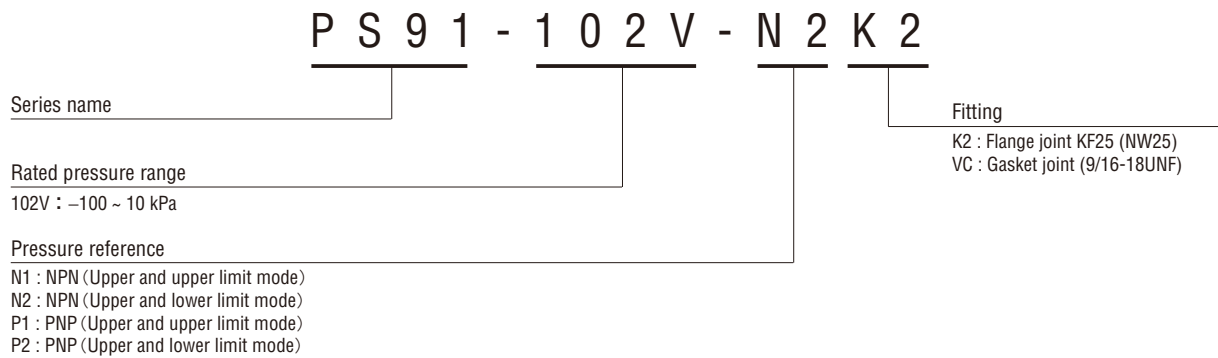
**INTERNAL STRUCTURE (KF25 (NW25))**

Part name	Material
① Fitting	SUS316L
② Housing	Aluminum
③ Sensor module	SUS316L

### FEATURES

- Can be used in HVAC
- Selection of Quick-release coupling (ISO standard) and Gasket joint
- Switch setting adjustable by 2 VRs on the back

### MODEL NUMBER DESIGNATION



### LIST OF MODEL NUMBERS

		Gauge	
Rated pressure range	Switch output interface	K2 : Flange joint KF25 (NW25)	VC : Gasket joint (9/16-18UNF)
102V	NPN (Upper and upper limit mode)	PS91-102V-N1K2	PS91-102V-N1VC
	NPN (Upper and lower limit mode)	PS91-102V-N2K2	PS91-102V-N2VC
	PNP (Upper and upper limit mode)	PS91-102V-P1K2	PS91-102V-P1VC
	PNP (Upper and lower limit mode)	PS91-102V-P2K2	PS91-102V-P2VC

**STANDARD SPECIFICATIONS**

Item		Model number	PS91	
			102V	
General specifications	Pressure reference		Gauge	
	Rated pressure range	kPa	-100 ~ 10	
	Maximum pressure	kPa	200	
	Break-down pressure	kPa	300	
	Operating temp. range	°C	-20 ~ 80	
	Compensated temp. range	°C	0 ~ 50	
	Pressure medium		Corrosive gases/liquids compatible with SUS 316L	
	Pressure port		K2 (Flange joint : KF25) 、 VC (9/16-18UNF)	
	Net weight	g	Approx. 250	
Power	Supply voltage	V DC	12 ~ 24 ± 10 %	
	Consumption current	maximum	15	
Switch output	No. of outputs		2 (NPN / PNP open collector)	
	Setting method		Adjustable by VR	
	Adjustable range		0 ~ 100 %	
	Output mode		Upper and upper limit mode / Upper and lower limit mode	
	Accuracy	0~50 °C (Reference temp.: 25 °C) %F.S.		± 3
	Hysteresis	%F.S. maximum		2
	Response	ms		Approx. 2

**ENVIRONMENTAL CHARACTERISTICS**

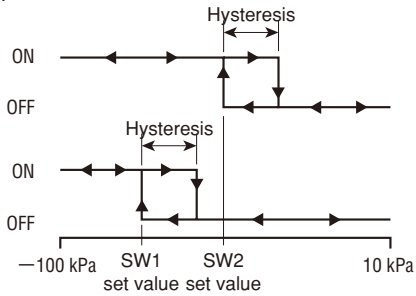
Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s <sup>2</sup> , 3 directions for 2 hours each	Switch output setting: ± 2 %F.S. maximum ※1
Shock	490 m/s <sup>2</sup> , 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure, 10 <sup>6</sup> cycles	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	
EMC	EMI : EN55011 Group 1, ClassB(1998) ENS : EN61326-1(1997)/A1(1998)	Switch output setting: ± 5 %F.S. maximum ※2

※1 Working pressure of switch output is variation ±2 %F.S. before or after test.  
 ※2 Working pressure of switch output is variation ±5 %F.S. during EMC test.

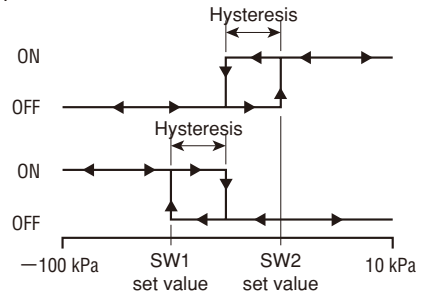
## PS91 PRESSURE SWITCHES

### SWITCH OUTPUT SCHEMATICS

#### ● N1/P1 type

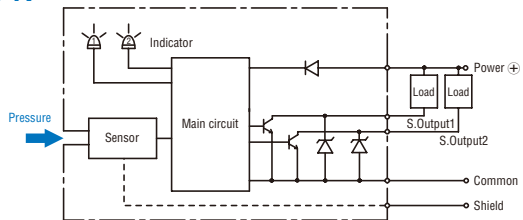


#### ● N2/P2 type

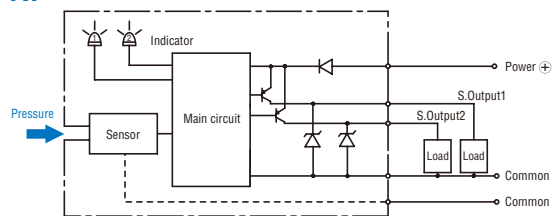


### INTERNAL ELECTRICAL SCHEMATICS

#### ● NPN



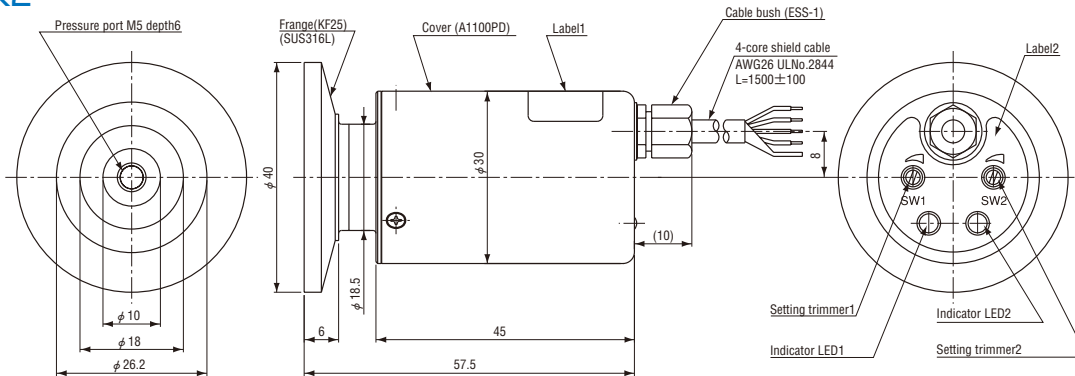
#### ● PNP



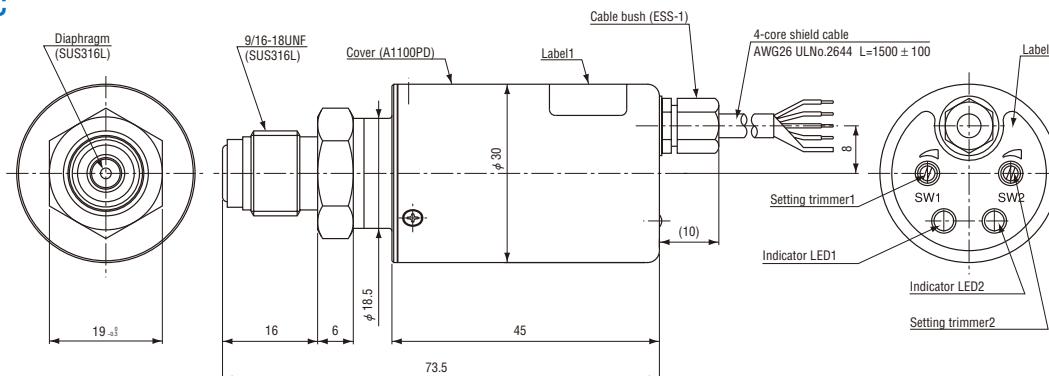
### OUTLINE DIMENSIONS

Unless otherwise specified, tolerance :  $\pm 0.5$  (Unit: mm)

#### ● K2



#### ● VC



Wire color	Connection
Red	Power
Green	Switch output 1
White	Switch output 2
Black	Common
Shield	Fitting