

Gas Pressure Switch (Variable)

(SGPS-3V) (SGPS-10V) (SGPS-50V) (SGPS-150V) (SGPS-500V)

PRODUCT SPECIFICATION SHEET



FEATURES

- Monitoring low pressure.
- This switch has a function to monitor gas pressure in the pipe line of gas.
- This switch has a structure that user can control the setting by a dial wheel.
- This switch has a various models of pressure setup.

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APPLICATION

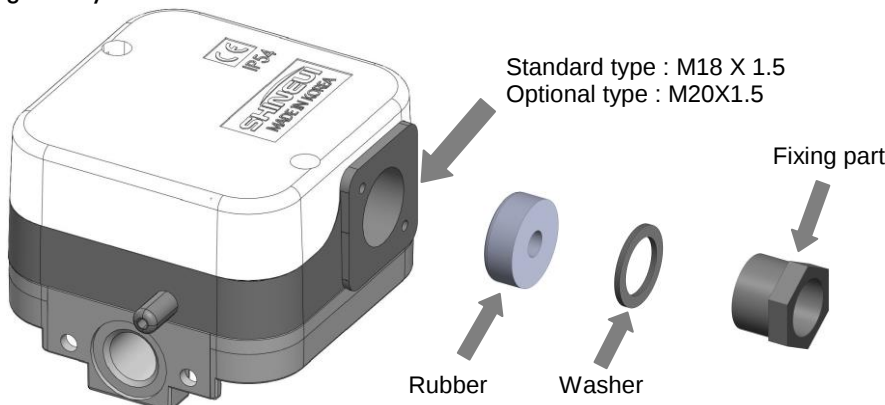
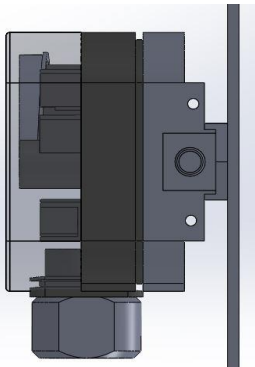
Combustion control system, Industrial Gas Burner, Gas train, etc.

This pressure switch can be used autonomously or integrated into a multifunctional gas control.

SPECIFICATIONS

Type	: Adjustable type	
Materials	: Body	Aluminum die casting
	: Diaphragm	H-NBR
	: Switching contact	Ag-SnO ₂ (Optional : Au-plated),
	Switch part	Polycarbonate
Temperature	: Ambient temperature : -15 ~ 60 °C, : Storage temperature : - 30 ~ 80 °C	
Electrical rating	: Switching Voltage	AC eff. min. 24V max. 250V DC min. 24V max. 48V
	: Nominal current	AC eff. max. 6A
	: Switching current	AC eff. max. 4 A at cos ϕ 1 AC eff. max. 2 A at cos ϕ 0,6 AC eff. min. 20 mA DC min. 20 mA, DC max. 100mA DC
Control fluid	Gas family 1,2 and 3 according to EN 437+A1 : 2009: Air	

SPECIFICATIONS

Model		SGPS-3V	SGPS-10V	SGPS-50V	SGPS-150V	SGPS-500V
Standard Pressure Range (mbar)		0.4 ~ 3.0	2.0 ~ 10	5 ~ 50	30 ~ 150	100 ~ 500
Workable pressure range (mbar)		0.4 ~ 3.0	2.0 ~ 10	2.5 ~ 50	30 ~ 150	100 ~ 500
Factory setting pressure (mbar)		0.4	2.0	5.0	30	100
Permissible pressure (Inrush pressure)		500 mbar				1 bar
Switching Difference (ΔP)		≤0.4 mbar	≤0.5 mbar	≤1.5 mbar	≤5 mbar	≤13 mbar
Setting tolerance at room temperature		± 15% switch point deviation referred to setpoint, adjusted for rising pressure, vertical diaphragm position. (Optional setpoint : adjusted for dropping pressure)				
Permissible Deviation		Permissible deviation of the set value ≤ ± 15 % in the service life test according to EN 1854				
Dielectric strength	Terminal – Terminal	: 1000 VAC/1 min				
	Terminal – Earth	: 1500 VAC/1 min				
Insulation resistance		: 100 MΩ, Min. DC500V Megger				
Humidity		: RH 0 ~ 80%				
Electrical connection (Refer to the picture) (Refer to the picture of page 3)		In the bellow picture, usually Adaptor standard is used when we have a shipment generally  Standard type : M18 X 1.5 Optional type : M20X1.5 Rubber Washer Fixing part				
Pressure connection		BSPF1/4"(PF 1/4")				
Measuring connection		ø 9, length 10 mm, with screw plug (Test nipple integrated in metal housing ø9)				
Installation Instructions		Standard : Veritcal installation(like below picture) According to the angle of the installation, the set point for the pressure move up or move down a little. 				
Degree of protection		IP 54 as per IEC 529 (EN60529)				

Leak – Tightness	(Pmax X1.5 for 1minute) or Standard (EN1854 (7.2.2))
Drift	Drift of the operating pressure shall be within $\pm 15\%$ between before and after the endurance test.
Weight	193.5g

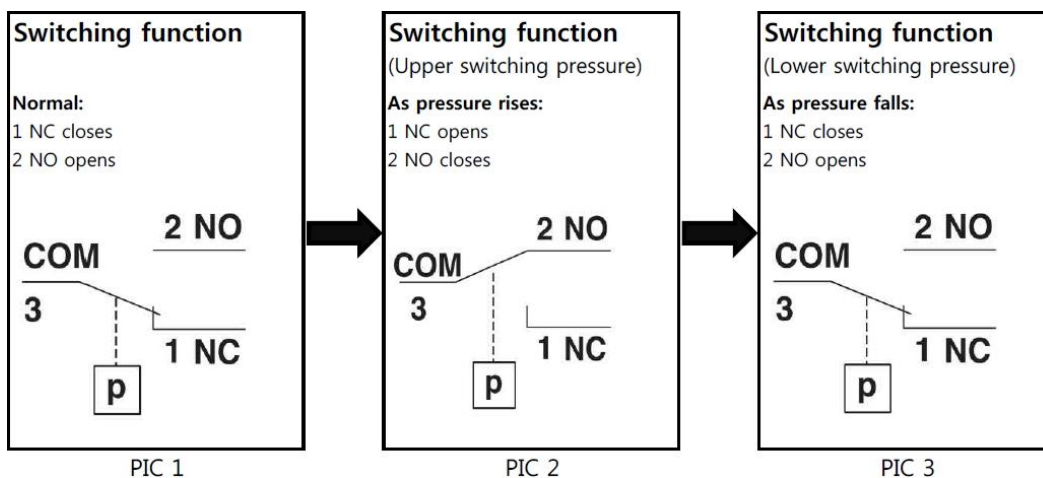
SCHEMATIC 1

Definition of switching difference Δp

The switching difference Δp is the pressure difference between the upper and lower switching pressures.



SCHEMATIC 2



Notice

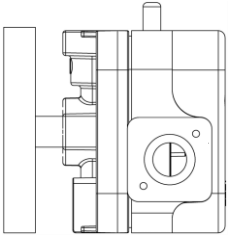
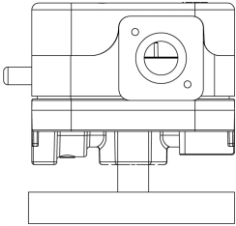
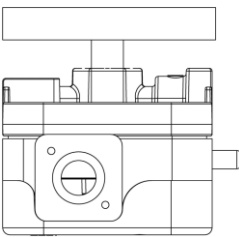
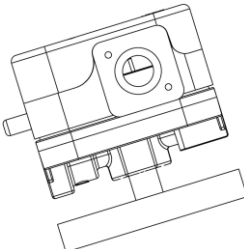
In case of following circumstance, we recommend to discuss with us before using.

1. Only use silicone tube which have been sufficiently cured.
2. Vapours containing silicone can adversely affect the functioning of electrical contacts. In the case of low switching capacities such as 24V, less than 20mA, for example, we recommend using RC module or electronic switch(no-contact switch) in air containing silicone or oil.

In case of high humidity or aggressive gas components (H₂S), we recommend using a pressure switch with gold contact.

Closed-circuit current monitoring is recommended under difficult operating conditions.

Installation position

	Standard installation position if a different installation position is used, pay attention to the changed operating points
	When installed horizontally, the pressure switch switches at the higher pressure.
	When installed horizontally overhead, the pressure switch switches at the lower pressure.
	When installed in an intermediate installation position, the pressure switch switches at the higher pressure.

DIMENSIONS

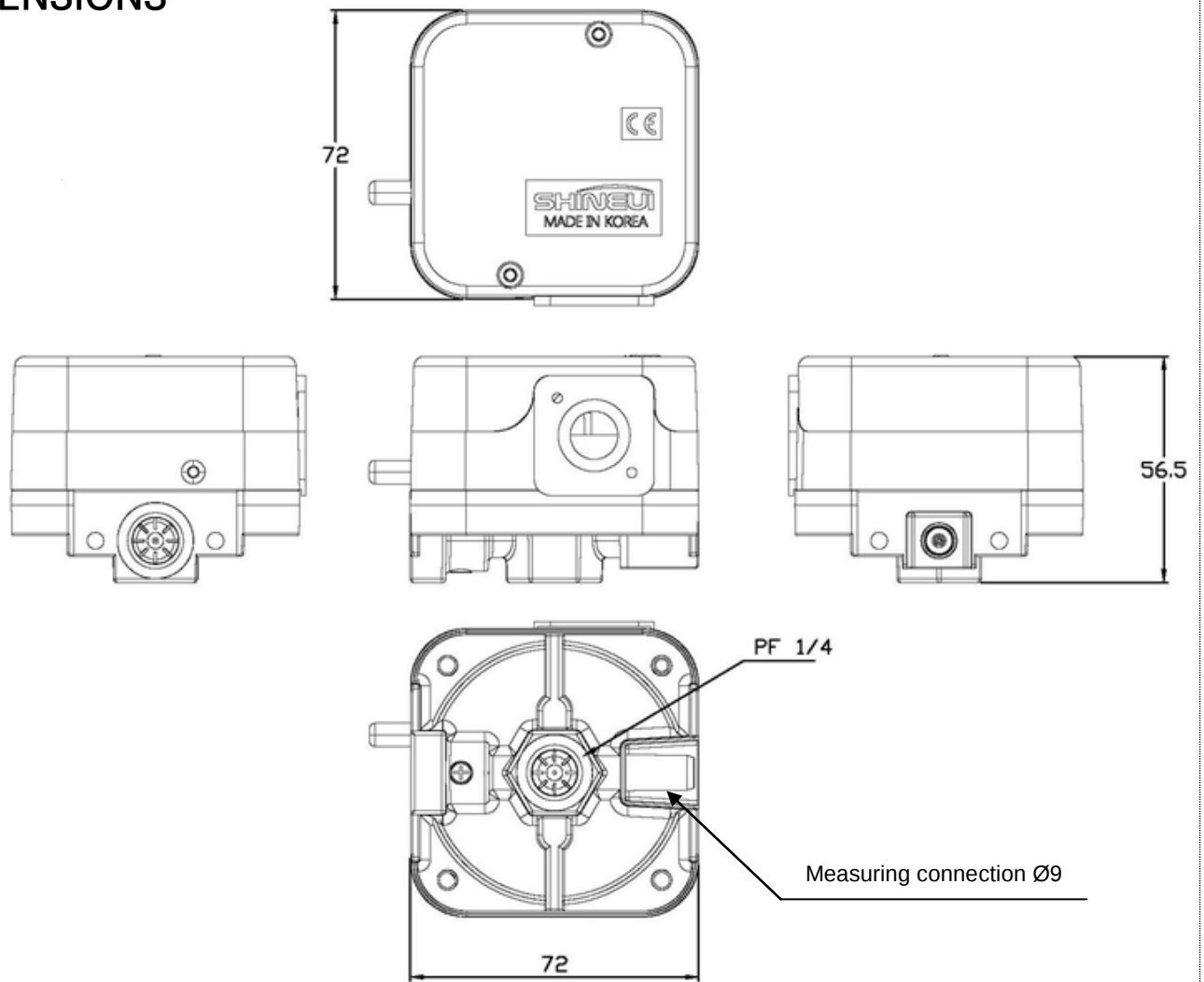


Fig 1. Gas pressure switch (V)

The specifications and dimensions can be changed without warning

Dimensions for reference only