SHINEUI

283, Bupyeong-daero, Bupyeong-gu, Incheon, Republic of Korea
Tel : +82-32-503-3796

Gas Pressure Switch (Variable)

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

PRODUCT SPECIFICATION SHEET

FEATURES

- The gas pressure switch is used to detect the gas.
- 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 himself.
- This switch has a various models of pressure setup.
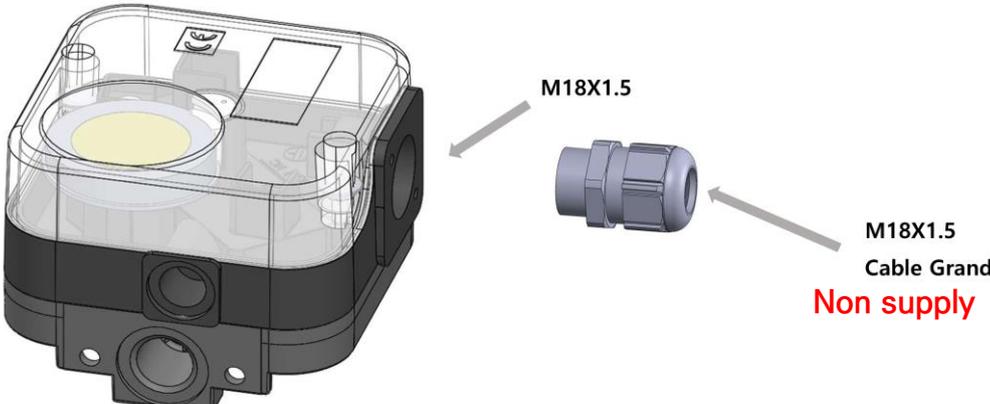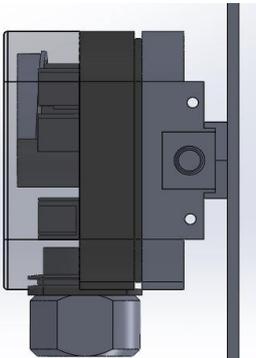
CONTENTS

APPLICATION

This gas pressure switch is designed to monitor gas pressure and activate switch contacts accordingly.

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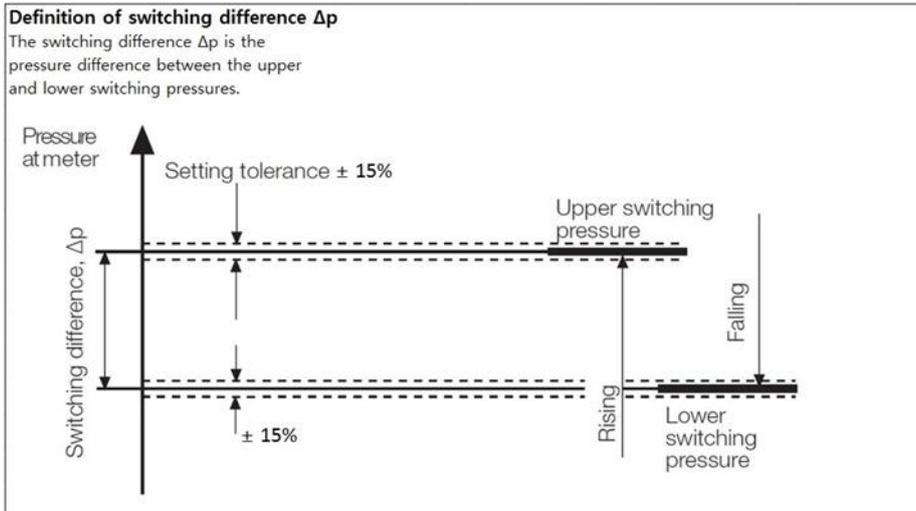
SPECIFICATIONS

Type	: Adjustable type		
Materials	: Body	Aluminum die casting	
	: Diaphragm	H−NBR	
	: Switching contact	Ag−Sn02 (Optional : Au−plated)	
	Switch part	Polycarbonate	
Temperature	: Ambient temperature : −15 ~ 60 ℃, : Storage temperature : − 20 ~ 80 ℃		
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	POSITIVE : LNG, LPG, AIR		
	NEGATIVE : AIR		

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SPECIFICATIONS

Model		SGPS–3V	SGPS–10V	SGPS–50V	SGPS–150V	SGPS–500V
Max. Permissible pressure (In rush pressure)		500 mbar				1 bar
Stand pressure setting range	Factory set point (mbar)	0.4 ~ 3.0	2.0 ~ 10	2.5 ~ 50	30 ~ 150	100 ~ 500
	Switching Difference ($\triangle$P)	≤0.3 mbar	≤0.4 mbar	≤1.5 mbar	≤5 mbar	≤13 mbar
	Adjustable tolerance	± 15%				
	Differential	± 15%				
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 M18X1.5 M18X1.5 Cable Grand **Non supply**				
Pressure connection		POSITIVE : BSPF1/4"(PF 1/4") NEGATIVE : PF1/8 (See dimensions)				
Measuring connection		ø 9, length 10 mm, with screw plug (Test nipple integrated in metal housing ø9)				
Installation Instructions		Standard :Vertical installation(like below picture) According to the angle of the installation, the set point for the pressure move up or move down a little.				
Leak – Tightness		Non – leakage (Pmax X1.5 for 1minute) or Standard (EN1854 (7.2.2))				

Endurance	50,000 Cycles (ON : 5sec / OFF : 5sec) Test pressure : Pmax X1.2 Standard : EN1854 (7.4.3)
Warranty	1 year
Weight	229g

SCHEMATIC 1

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

Pressure at meter

Setting tolerance ± 15%

Upper switching pressure

Switching difference, Δp

± 15%

Rising

Falling

Lower switching pressure

SCHEMATIC 2

Switching function

Normal:
1 NC closes
2 NO opens

2 NO

COM

3

1 NC

p

PIC 1

Switching function
(Upper switching pressure)

As pressure rises:
1 NC opens
2 NO closes

2 NO

COM

3

1 NC

p

PIC 2

Switching function
(Lower switching pressure)

As pressure falls:
1 NC closes
2 NO opens

2 NO

COM

3

1 NC

p

PIC 3

Notice
In case of following circumstance, we recommend to discuss with us before using.
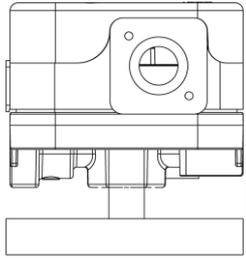1. Only use silicone tube which have been sufficiently cured
2. Vapours containing silicone can adversely affect the functioning of electrical contacts. In the case of low switching capacities such as 24V, less than 20mA, for example, we recommend using RC module or electronic switch(no-contact switch) in air containing silicone or oil.
3. Fall or shock can adversely affect the safety functions. Such products must not be put into operation, even if they do not exhibit any damage.
4. In case of high humidity or aggressive gas components (H2S), we recommend using a pressure switch with gold contact.
5. Closed-circuit current monitoring is recommended under difficult operating conditions.
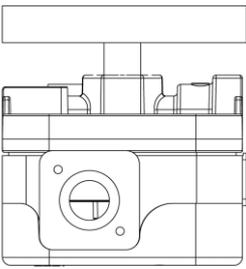6. Do not use at the lower than the minimum setting pressure.

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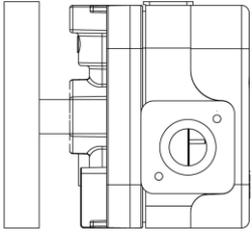
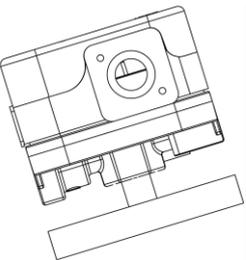|	
	Standard installation position if a different installation position is used, pay attention to the changed operating points
	When installed horizontally, the pressure switch switches at the higher pressure.
	When installed horizontally overhead, the pressure switch switches at the lower pressure.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

DIMENSIONS

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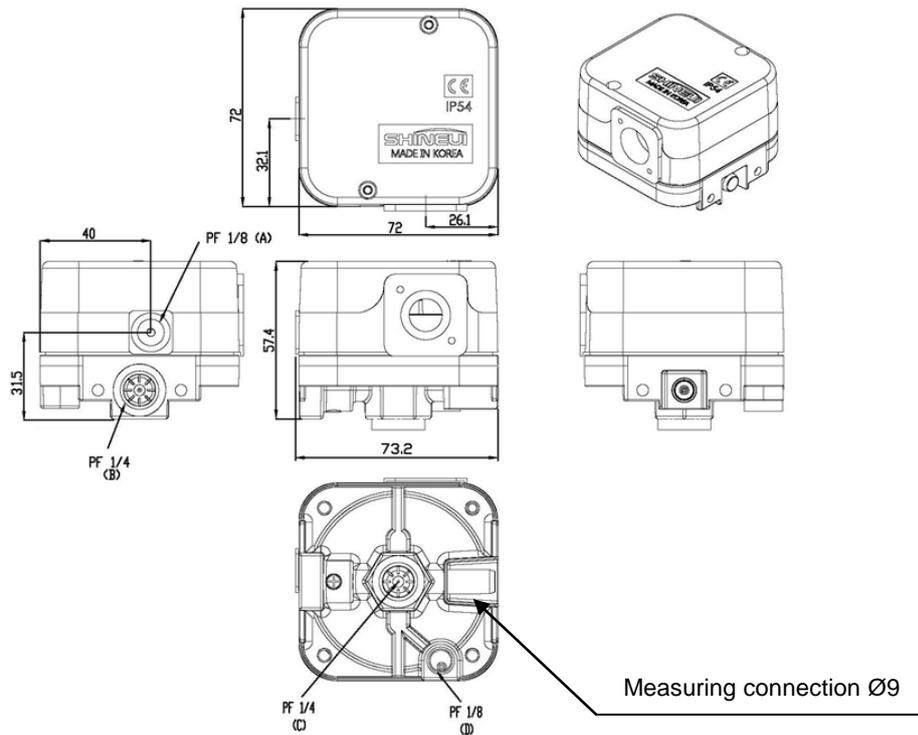
※ NOTICE

- Holes and screw-thread-shapes -

A,C : Always opened and shaped

B,D : Depend on Customer's request
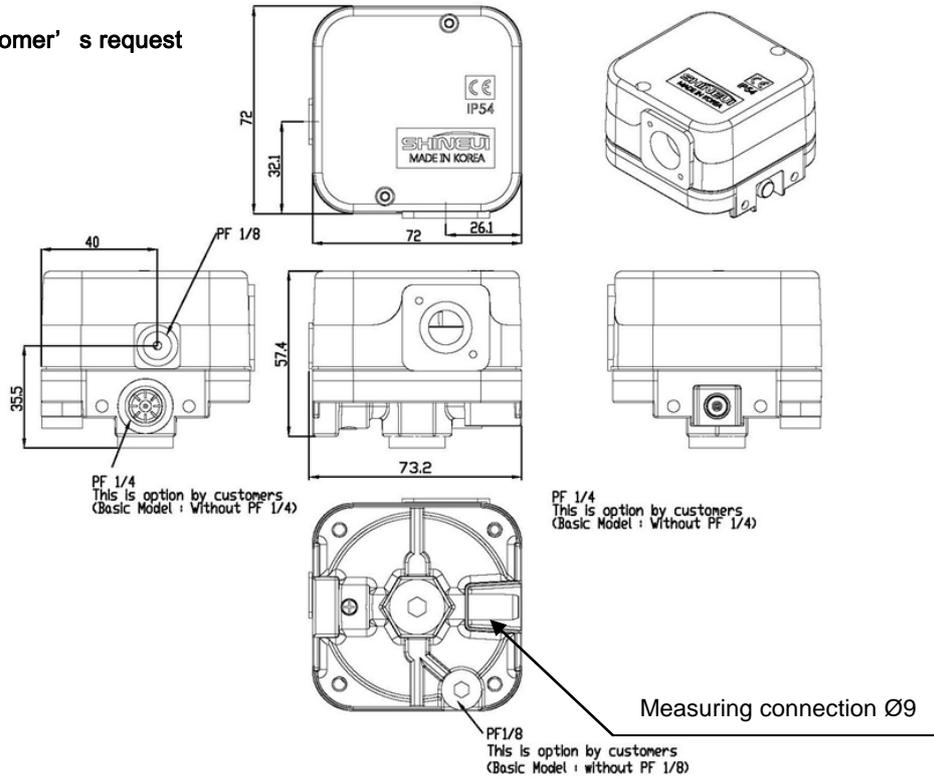

Fig 1. Gas pressure switch (V)

The specifications and dimensions can be changed without warning