

## Gas Pressure Switch for Explosion Proof (Variable)

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

### PRODUCT SPECIFICATION SHEET

EX Rating : Ex nR II T6

Certi No : 13-GA2BO-0767X

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### ■ Features

- This switch sends electrical signal at the point of setting pressure
- It's possible for users to adjust the setting point within the range of pressure marked.
- This switch has a structure for proof-explosion so that it can keep gas from outside.
- Easy installing, Having slim and unique design.



### ■ APPLICATION

- . Applied to industrial boiler, Gas burner for boiler and so on.
- . Installing in dangerous place with having possibility to explode.
- . Applied to the dangerous place with having possibility to explode by mixture of air, gas, steam and mist.

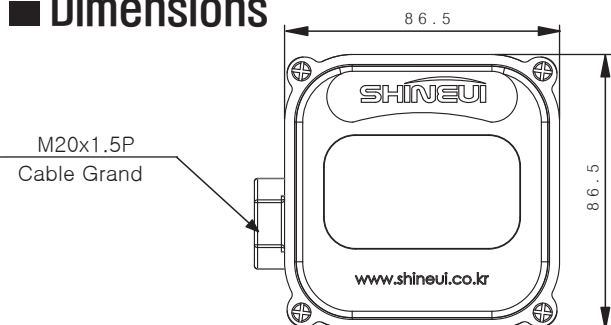
### ■ SPECIFICATIONS

TYPE	Diaphragm type / Adjustable type	
Material	BASE	ALDC12
	COVER	ALDC12
	UPPER	POLYCARBONATE
	Diaphragm and PACKING	NBR
	Terminal	Brass
	ETC	AL5052,AL2021,SUS
Ambient temperature	$-15^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$	
Electrical rating	Min AC24V ~ Max AC250V , 6A (Resistive Load)	
Control fluid	LNG, LPG, AIR	

## SPECIFICATIONS

Model		SGPS-EX-3V	SGPS-EX-10V	SGPS-EX-50V	SGPS-EX-150V	SGPS-EX-500V
Max. Sustained pressure		500 mbar				800 mbar
Stand pressure setting range	Factory set point	0.4~3.0 mbar	1.0~10 mbar	2.5~50 mbar	30~150 mbar	100 ~ 500 mbar
	Switching Difference	≤ 0.3 mbar	≤ 0.5 mbar	≤ 1.5 mbar	≤ 5 mbar	≤ 13 mbar
	Adjustable tolerance	± 15%				
	Differential	± 15%				
Degree of protection		IP65				
Electrical connection		At the terminal screw directly, or you have to connect an adapter if you want to use the standard cable grand(M20X1.5). Refer to the below picture				
Pressure connection		PF 1/4"				

## ■ Dimensions



### \* Precautions\*

1. Max. Sustained pressure (SGPS-EX-500V) must not be supplied more than a few second.
2. It can bring about leakage due to missing screws, Foreign Materials, Debris and assembly-mistake.  
(It's customer's error, so please be careful)

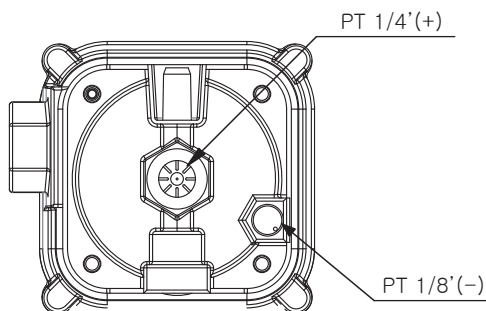
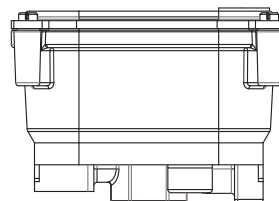
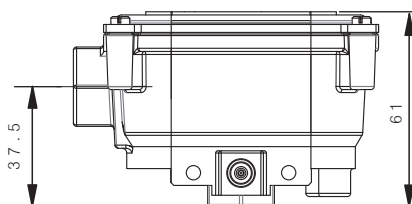


Fig 1. Proof - Explosion Gas pressure switch (V)

The specifications and dimensions can be changed without warning

No. 2013 - 0767



## Safety Certificate

- Manufacturer **ShinEui Entec Co., LTD**
- Address **34 #297 Road, Bupyeong-Daero, Bupyeong-Gu, Incheon, Republic of Korea**

The following equipment fabricated by the above manufacturer has been certified for the use of the Safety Certification Mark as the equipment is assessed and tested in accordance with the article 34 of the Occupational Safety & Health Act and the article 58 (4) 4 of the Enforcement Rule thereof.

- Product **Gas Pressure Switch for Explosion Proof**
- Type(Model) **SGPS-EX-\*\*\*V**
- Rating **Max. AC 250 V, 6A**
- Type of Protection **Ex nR II T6**
- Certification No. **13-GA2BO-0767X**
- Safety Certification Standards **Notification of Protective device Mandatory Safety Certification (Notice of Ministry of Employment and Labor No. 2010-36)**
  - 1.  $T_{amb} = -15\text{ }^{\circ}\text{C} \sim +60\text{ }^{\circ}\text{C}$
  - 2. Use only Ex certified cable gland or sealing fitting with more than IP54
  - 3. Routine test for dielectric test is necessary.
  - 4. Refer to the manual before use.
- Certification condition
- Date of issue **September 24th, 2013**

Approved for issue on behalf of the president : **Ki youn Song**  
position : **General Manager**

Signature



**Korea Gas Safety Corporation**

# TEST REPORT

## 1. Applicant

Name : ShinEui Entec co., Ltd.  
Address : 34, Bupyeong-daero 297 beon-gil, Bupyeong-gu, Incheon, Korea

## 2. Products

Name : Gas Pressure Switch (Variable)  
Model/Type : SGPS-150V  
Manufacturer : ShinEui Entec co., Ltd.  
Remark :

3. Test Standard/Method : IEC 60529:2001, KS C IEC 60529:2006

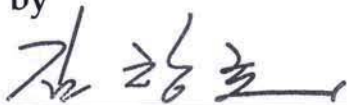
4. Test Results : IP65 (Refer to document)

5. Use of Report : For Quality Control

6. Date of Application : 2014. 03. 07

7. Date of Issue : 2014. 03. 14

Tested by



Base Technology Center

Chang-ho Kim

Approved by



Base Technology Center

Leader Jun-gu Kang

*The above test report is the accredited test results by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.*

# Korea Testing Laboratory



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## TEST RESULTS

for Degree of protection provided by enclosures(IP Code)

### 1. Test Results

Code letters	IP	Test method and Record	Results
<b>1st</b> <b>Characteristic numerals</b> Against ingress of solid foreign objects	<b>6</b>	1. CONDITIONS 1.1 Talcum powder(mesh) : <b>Wire diameter=50 <math>\mu</math>m, width between wires=75 <math>\mu</math>m</b> 1.2 Amount of talcum powder of the test chamber : <b>2kg/m<sup>3</sup></b> 2. TEST 2.1 Volume of the enclosures: <b>about 120 cm<sup>3</sup></b> 2.2 Reduction air pressure : <b>-2.0 kPa (-200 mmH<sub>2</sub>O)</b> 2.3 Flow rate : <b>0.1 LPM</b> 2.4 Extraction rate per hour : <b>50 volumes/h</b> 2.5 Test duration : <b>2 hours</b>	<b>Pass</b>
<b>2nd</b> <b>Characteristic numerals</b> Against ingress of water with harmful effects	<b>5</b>	1. CONDITIONS 1.1 Internal diameter of the nozzle : <b>6.3 mm</b> 1.2 Delivery rate : <b>12.5 LPM<math>\pm</math>5%</b> 1.3 Core of the substantial stream : <b>Circle of 40 mm diameter at 2.5 m distance from the nozzle</b> 1.4 Distance from nozzle to enclosure surface : <b>Between 2.8 m</b> 2. TEST 2.1 The duration of the test is : <b>3 minutes</b>	<b>Pass</b>

### 2. Reference Data

- (1) Test conditions : 21.3  $^{\circ}$ C, 53 %RH, 86~106 kPa
- (2) Size : 86.5 mm $\times$ 86.5 mm $\times$ 61 mm
- (3) Rating : AC 24~250 V, 6 A
- (4) Identical Model : SGPS-3V, SGPS-10V, SGPS-50V, SGPS-500V  
(86.5 mm $\times$ 86.5 mm $\times$ 61 mm)