

# Model PSG

## Low Pressure Transducer

### Description

PSG sensing element is suitable for low pressure measurement below 1MPa by applying the piezoresistive cells. It is applied to non-corrosion gas measurement such as the air, as at a low cost.

### Features

- ▶ Built-in amplifier circuit(VDC, mA)
- ▶ Measuring range -100~1000kPa
- ▶ 0.5%FS accuracy
- ▶ Piezoresistive silicon cell
- ▶ Use with non-corrosive, non-ionic media

### Applications

- ▶ Gas leak detection
- ▶ Gas monitoring
- ▶ Gas & Air process control
- ▶ Vacuum system



### Specifications

#### Range

0 ~ 10 ... 1000kPa (Gauge)  
-100 ~ 0, 10 ... 1000kPa (Gauge)

#### Performance

Accuracy	±0.5%FS(RSS)
Thermal Effect on Zero	±0.06%FS/°C
Thermal Effect on Span	±0.06%FS/°C
Compensated Temperature Range	-10 ~ 70°C
Operating Temperature Range	-20 ~ 80°C

#### Electrical

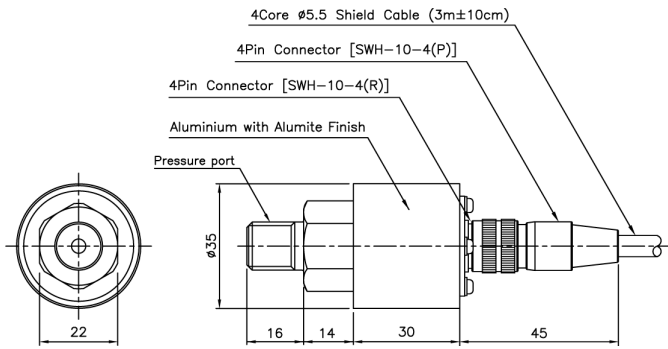
Excitation	11 ~ 28VDC
Output	0~5, 1~5, 0~10VDC, 4~20mA(2Wire)
Electrical Connection	Connector, Cable, Din Connector, Head

#### Physical

Proof Pressure	150%FS Max.
Burst Pressure	200%FS Min.
Vibration	49.1m/s <sup>2</sup> {5G}, 10~500Hz
Shock	490m/s <sup>2</sup> {50G}
Pressure port	R(PT)1/8", G(PF)1/8", R(PT)1/4", G(PF)1/4", R(PT)3/8", G(PF)3/8"
Media-Wetted Materials	Stainless Steel 303, SiO <sub>2</sub> , VITON
Weight	Connector type : Approx. 110g (Sensor Only)

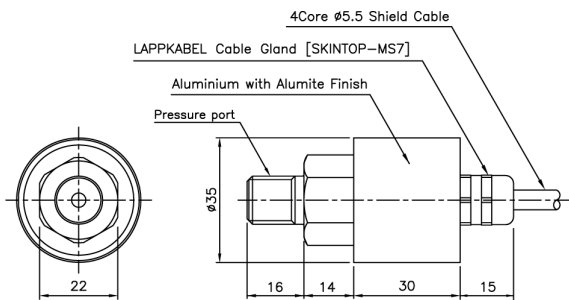
# Dimension

## ► Connector Type



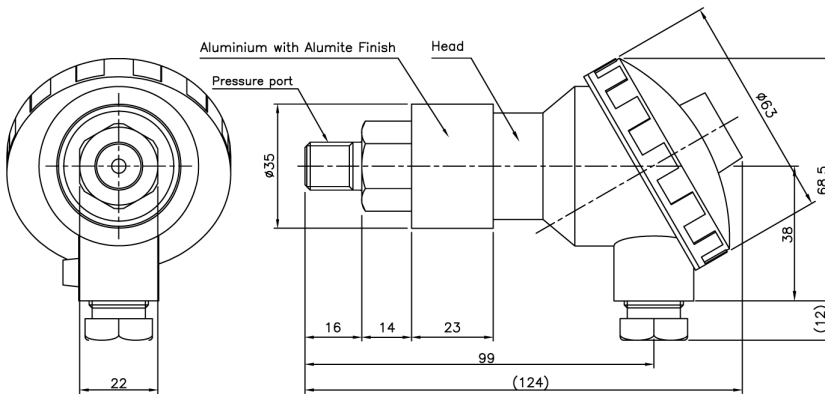
Pin No.	Wire Color	Connections		
		4Wire	3Wire	2Wire
1	Red	Input ⊕	Input ⊕	Input ⊕
2	White	Output ⊖	Common ⊖	×
3	Black	Input ⊖	×	Output ⊕
4	Green	Output ⊕	Output ⊕	×
5	Shield	Earth	Earth	Earth

## ► Cable Gland Type



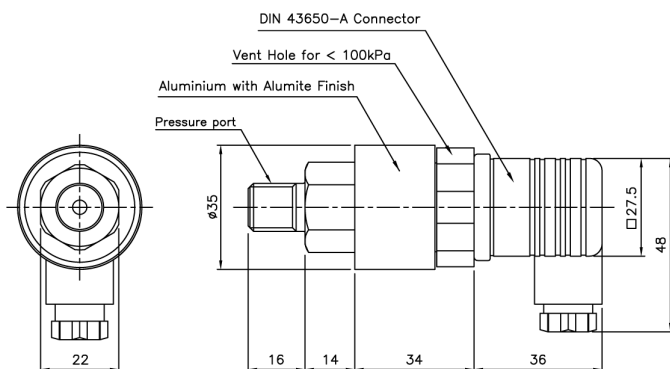
Wire Color	Connections		
	4Wire	3Wire	2Wire
Red	Input ⊕	Input ⊕	Input ⊕
White	Output ⊖	Common ⊖	×
Black	Input ⊖	×	Output ⊕
Green	Output ⊕	Output ⊕	×
Shield	Earth	Earth	Earth

## ► Head Type



No.	Connections
	2Wire
+	Input ⊕
⊖	Earth
-	Output ⊕

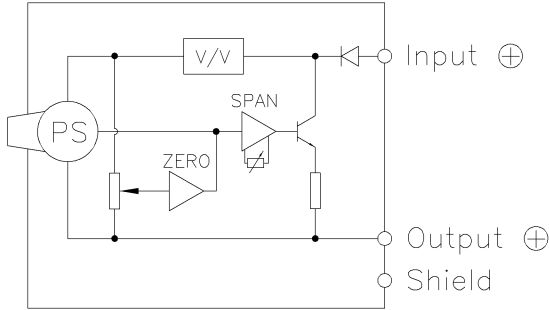
## ► Din connector Type



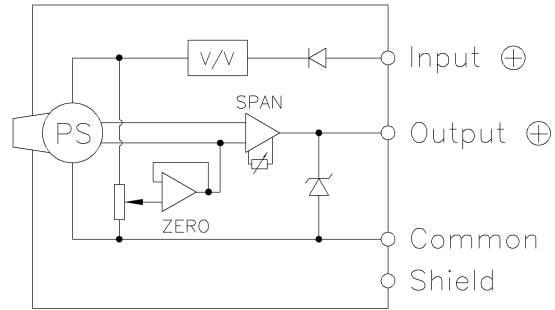
Pin No.	Connections	
	3Wire	2Wire
1	Input ⊕	Input ⊕
2	Common ⊖	Output ⊕
3	Output ⊕	×
⊕	Earth	Earth

## Internal Circuit Diagram

### ▶ 2Wire mA Output Type



### ▶ 3, 4Wire VDC Output Type



## Ordering Information

Model Name		PSG E 0010 R A P A		Option	
Output		B : 4Wire 0~5V    J : 3Wire 0~10V		A : Normal	
C : 3Wire 0~5V    K : 4Wire 0~10V		D : 4Wire 1~5V    H : 2Wire 4~20mA		Connecting Methods	
E : 3Wire 1~5V				P : Connector	
Pressure Range				S : Cable Gland	
XXXX : Pressure				H : Head	
CXXX : Compound Pressure				I : Din 43650-A connector	
				Pressure port	
				A : R(PT)3/8"    D : G(PF)1/4"	
				B : G(PF)3/8"    G : R(PT)1/8"	
				C : R(PT)1/4"    H : G(PF)1/8"	
				Pressure Unit	
				R : kPa    M : MPa	
				B : bar    K : kgf/cm <sup>2</sup>	
				P : psi    H : mmHg	



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· Specifications are subject to change without notice.