

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 ~ 3 ... 1000kPa (Gauge)
 -100 ~ 0, 3 ... 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

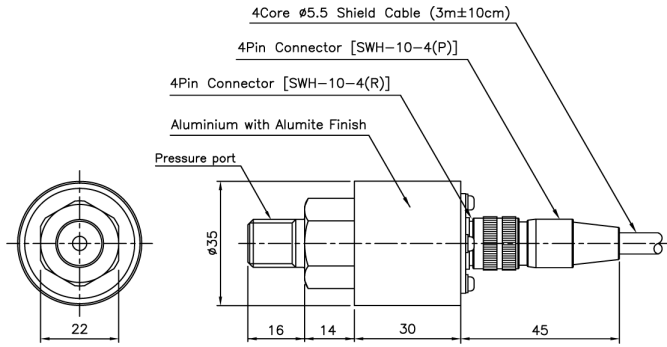
Excitation	11 ~ 28VDC
Output	0~5, 1~5, 0~10VDC, 4~20mA(2Wire)
Electrical Connection	Connector, Cable, Din Connector, Head

Physical

Proof Pressure	150%FS Max.
Burst Pressure	200%FS Min.
Vibration	49.1m/s ² {5G}, 10~500Hz
Shock	490m/s ² {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 ₂ , VITON
Weight	Connector type : Approx. 110g (Sensor Only)

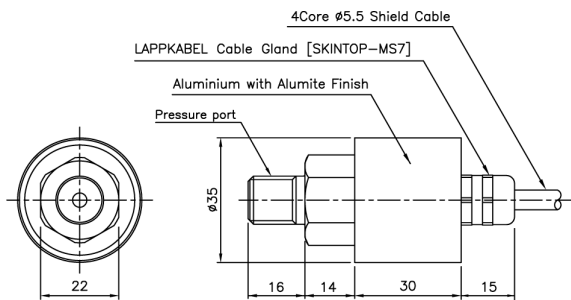
Dimension

► Connector Type



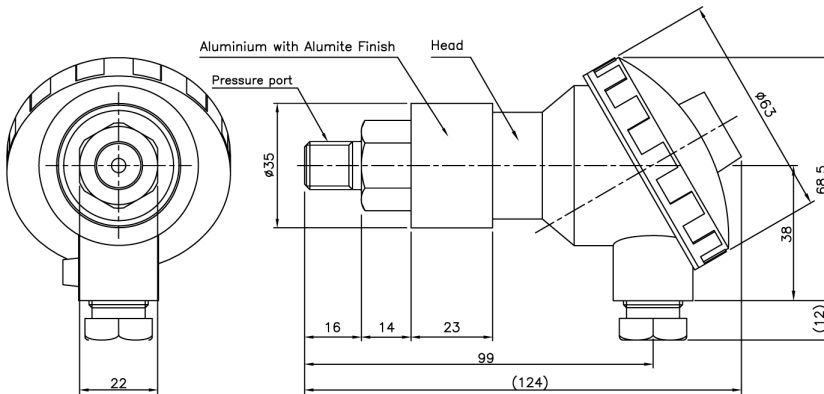
Pin No.	Wire Color	Connections		
		4Wire	3Wire	2Wire
1	Red	Input ⊕	Input ⊕	Input ⊕
2	White	Output ⊖	Common ⊖	x
3	Black	Input ⊖	x	Output ⊕
4	Green	Output ⊕	Output ⊕	x
5	Shield	Earth	Earth	Earth

► Cable Gland Type



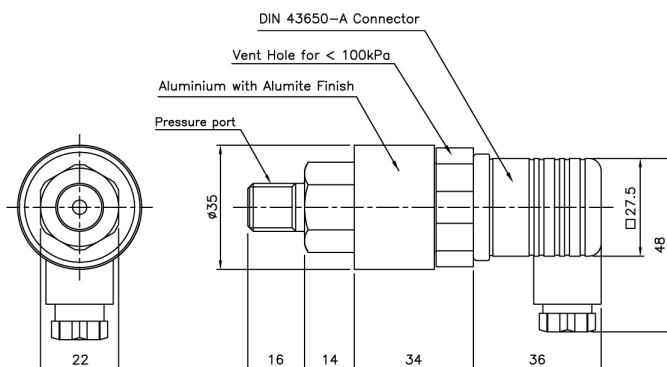
Wire Color	Connections		
	4Wire	3Wire	2Wire
Red	Input ⊕	Input ⊕	Input ⊕
White	Output ⊖	Common ⊖	x
Black	Input ⊖	x	Output ⊕
Green	Output ⊕	Output ⊕	x
Shield	Earth	Earth	Earth

► Head Type



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

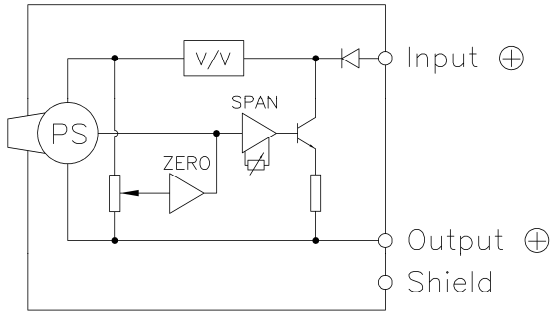
► Din connector Type



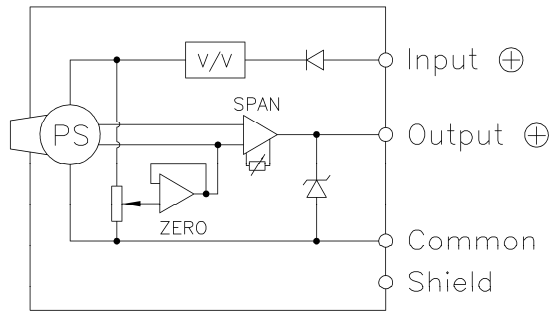
Pin No.	Connections	
	3Wire	2Wire
1	Input ⊕	Input ⊕
2	Common ⊖	Output ⊕
3	Output ⊕	x
⊕	Earth	Earth

Internal Circuit Diagram

▶ 2Wire mA Output Type



▶ 3, 4Wire VDC Output Type



Ordering Information

PSG E 0010 R A P A

Model Name

Output

B : 4Wire 0~5V J : 3Wire 0~10V
 C : 3Wire 0~5V K : 4Wire 0~10V
 D : 4Wire 1~5V H : 2Wire 4~20mA
 E : 3Wire 1~5V

Pressure Range

XXXX : Pressure
 CXXX : Compound Pressure

Option

A : Normal

Connecting Methods

P : Connector
 S : Cable Gland
 H : Head
 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/cm²
 P : psi H : mmHg