

Model PSG/공압전용 압력센서

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

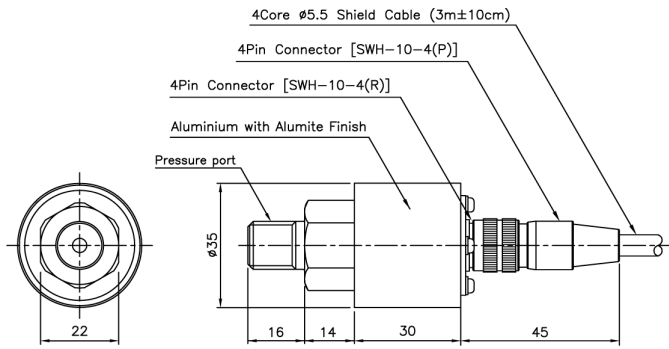
| | |
|-----------------------|---------------------------------------|
| Excitation | 11 ~ 28VDC |
| Output | 0~5, 1~5, 0~10VDC, 4~20mA(2Wire) |
| Electrical Connection | Connector, Cable, Din Connector, Head |

Physical

| | |
|------------------------|--|
| Proof Pressure | 150%FS Max. |
| Burst Pressure | 200%FS Min. |
| Vibration | 49.1m/s 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) |

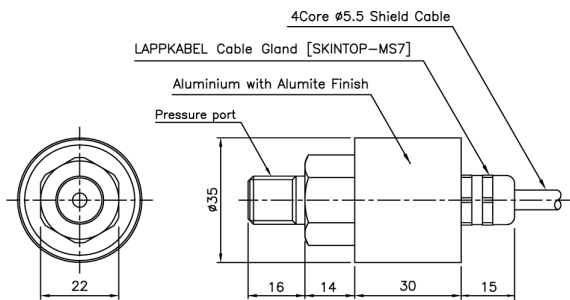
Dimension

► Connector Type



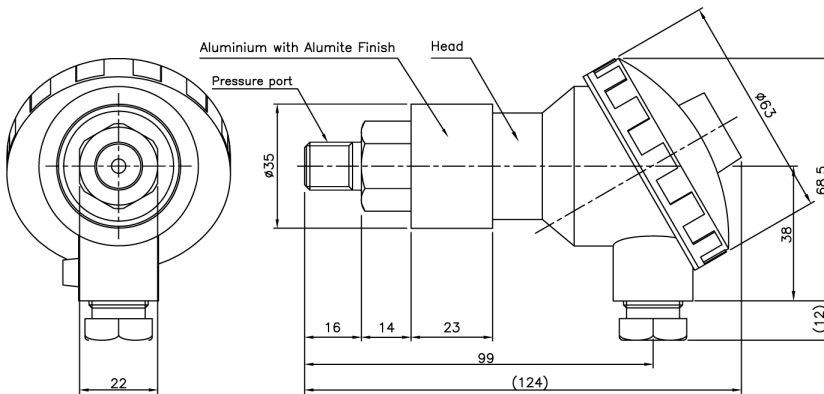
| Pin No. | Wire Color | Connections | | |
|---------|------------|-------------|----------|----------|
| | | 4Wire | 3Wire | 2Wire |
| 1 | Red | Input ⊕ | Input ⊕ | Input ⊕ |
| 2 | White | Output ⊖ | Common ⊖ | x |
| 3 | Black | Input ⊖ | x | Output ⊕ |
| 4 | Green | Output ⊕ | Output ⊕ | x |
| 5 |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

► Cable Gland Type



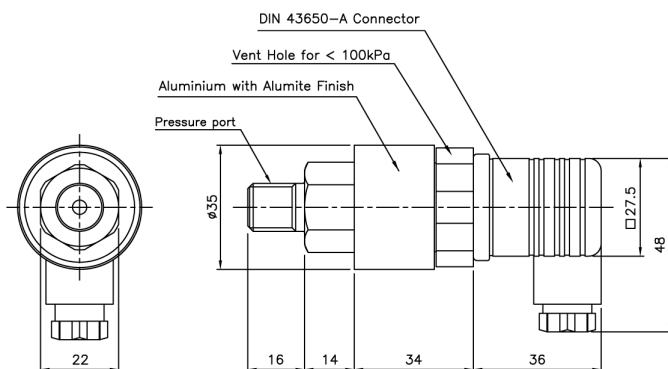
| Wire Color | Connections | | |
|------------|-------------|----------|----------|
| | 4Wire | 3Wire | 2Wire |
| Red | Input ⊕ | Input ⊕ | Input ⊕ |
| White | Output ⊖ | Common ⊖ | x |
| Black | Input ⊖ | x | Output ⊕ |
| Green | Output ⊕ | Output ⊕ | x |
| Shield | Earth | Earth | Earth |

► Head Type



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

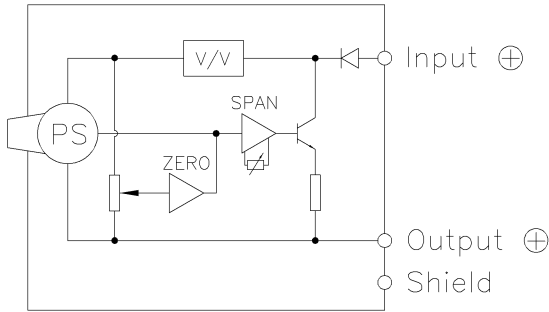
► Din connector Type



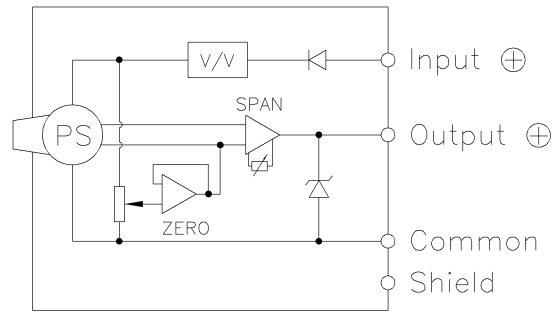
| Pin No. | Connections | |
|---------|-------------|----------|
| | 3Wire | 2Wire |
| 1 | Input ⊕ | Input ⊕ |
| 2 | Common ⊖ | Output ⊕ |
| 3 | Output ⊕ | x |
| ⊕ | Earth | Earth |

Internal Circuit Diagram

▶ 2Wire mA Output Type



▶ 3, 4Wire VDC Output Type



Ordering Information

| Model Name | | PSG E 0010 R A P A | | Option | |
|--------------------------|--|--------------------|--|---------------------------------|--|
| Output | | E : 3Wire 1~5V | | A : Normal | |
| B : 4Wire 0~5V | | J : 3Wire 0~10V | | Connecting Methods | |
| C : 3Wire 0~5V | | K : 4Wire 0~10V | | P : Connector | |
| D : 4Wire 1~5V | | H : 2Wire 4~20mA | | S : Cable Gland | |
| E : 3Wire 1~5V | | | | H : Head | |
| Pressure Range | | | | I : Din 43650-A connector | |
| XXXX : Pressure | | | | Pressure port | |
| CXXX : Compound Pressure | | | | 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 ² | |
| | | | | P : psi H : mmHg | |