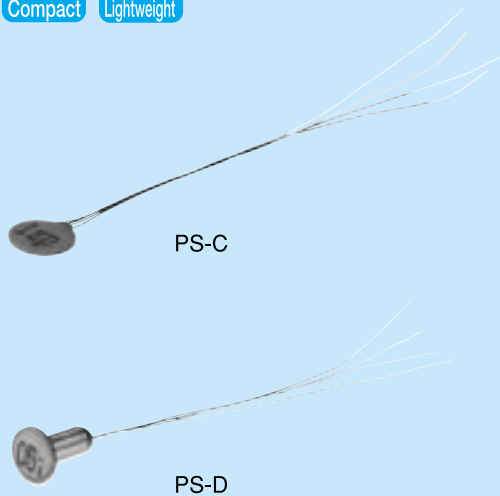


PS

Miniature Pressure Sensors

● For Pressure Distribution Measurement ● 50 kPa to 7 MPa



PS series is the strain gage pressure transducers having the bridge formed in the ultra-thin miniature structure. Installation is made with adhesive. Suitable for pressure distribution measurement by using multiple units.

Features

- Ultra-thin design
- Compact
- Wide range of rated capacities

Specifications

Performance

Rated Capacity:

Model		Rated Capacity	Natural Frequency (Approx.)
Cable Direction to Sensing Surface			
Horizontal	Vertical		
PS-05KC	PS-05KD	50 kPa	10 kHz
PS-1KC	PS-1KD	100 kPa	10 kHz
PS-2KC	PS-2KD	200 kPa	14 kHz
PS-5KC	PS-5KD	500 kPa	20 kHz
PS-10KC	PS-10KD	1 MPa	37 kHz
PS-20KC M2	PS-20KD M2	2 MPa	46 kHz
PS-30KC M2	PS-30KD M2	3 MPa	58 kHz
PS-50KC M2	PS-50KD M2	5 MPa	71 kHz
PS-70KC M2	PS-70KD M2	7 MPa	86 kHz

Measuring liquids of PS-20 to 70KC/D M2 are limited to oils.

Nonlinearity: Within $\pm 1\%$ RO

Hysteresis: Within $\pm 1\%$ RO

Rated Output:

0.25 mV/V (500 $\mu\text{m}/\text{m}$) or more (PS-05KC/D)

0.5 mV/V (1000 $\mu\text{m}/\text{m}$) or more (PS-1KC/D)

0.85 mV/V (1700 $\mu\text{m}/\text{m}$) $\pm 30\%$ (PS-2KC/D)

1 mV/V (2000 $\mu\text{m}/\text{m}$) $\pm 20\%$ (PS-5 to 70KC/D)

Note: Rated output is sorted to one of the classes divided by every 2% difference in output value. Since the rated output stated in the Test Data Sheet is the center value of the class, it may have a maximum error of $\pm 1\%$.

Environmental Characteristics

Safe Temperature Range: -20 to 70°C

Compensated Temperature Range: 0 to 50°C

Temperature Effect on Zero Balance:

Within $\pm 0.8\%$ RO/ $^\circ\text{C}$ (PS-05KC/D)

Within $\pm 0.4\%$ RO/ $^\circ\text{C}$ (PS-1KC/D)

Within $\pm 0.3\%$ RO/ $^\circ\text{C}$ (PS-2KC/D)

Within $\pm 0.2\%$ RO/ $^\circ\text{C}$ (PS-5 to 70KC/D)

Temperature Effect on Output:

Within $\pm 0.3\%$ / $^\circ\text{C}$ (PS-05 to 2KC/D)

Within $\pm 0.2\%$ / $^\circ\text{C}$ (PS-5 to 70KC/D)

Electrical Characteristics

Safe Excitation Voltage: 3 VAC or DC

Recommended Excitation Voltage: 1 to 2 VAC or DC

Input Resistance: $350\ \Omega \pm 10\%$

Output Resistance: $350\ \Omega \pm 10\%$

Cable: Polyurethane coated copper wires, 0.1 mm diameter (0.08 mm diameter with PS-05KD & 1KD) by 5 cm long, soldering finish at each tip (Shield wire is not connected to mainframe.)

Mechanical Properties

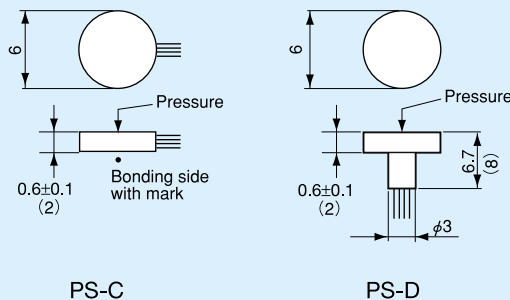
Safe Overload Rating: 150% (100% with PS-70KC/D M2)

Materials: Metallic finish

Weight: Approx. 0.5 g $\pm 20\%$ (including cable)

Dedicated Adhesive: RC-19 (Request when ordering, charge-free)

Dimensions



Figures in parentheses are for PS-20 to 70KC/D M2.