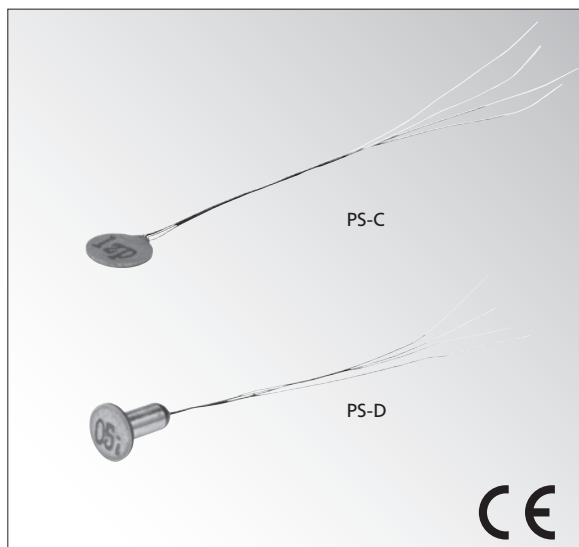


Miniature Pressure Sensor

Ultra-thin & compact design
Wide range of rated capacity

PS series pressure transducers have a bridge of strain gages inside, achieving ultra-thin compact structure. They are installed by adhesives. They are suitable for distributed pressure measurement by using multiple units.

(Note 1) Copper alloy is used for sensing element. Avoid measuring corrosive liquid or gas.

(Note 2) Epoxy adhesive has been used to assemble the liquid contacting section. Measuring liquids of PS-20 to 70KC/D M2 are limited to oil.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Rated Output	1 mV/V (2000×10^{-6} strain) $\pm 20\%$
	05KC, D: 0.25 mV/V (500×10^{-6} strain) or more
	1KC, D: 0.5 mV/V (1000×10^{-6} strain) or more
	2KC, D: 0.85 mV/V (1700×10^{-6} strain) $\pm 30\%$

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 include a maximum error of $\pm 1\%$.

Environmental Characteristics

Safe Temperature	-20 to 70°C
Compensated Temperature	0 to 50°C
Temperature Effect on Zero	Within $\pm 0.2\%$ RO/°C
	(0.5K: Within $\pm 0.8\%$ RO/°C)
	(1K: Within $\pm 0.4\%$ RO/°C)
	(2K: Within $\pm 0.3\%$ RO/°C)
Temperature Effect on Output	Within $\pm 0.2\%$ /°C
	(0.5 to 2K: Within $\pm 0.3\%$ /°C)

Electrical Characteristics

Safe Excitation	3 V AC or DC
Recommended Excitation	1 to 2 V AC 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, bared at the tip

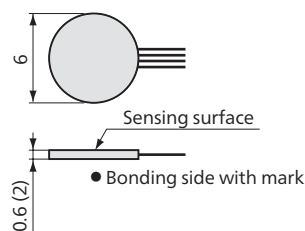
Mechanical Properties

Safe Overloads	150% (100% with 70K M2)
Natural Frequencies	See table below.
Weight	Approx. 0.5 g (Excluding cable)
Materials	Metallic finish
Dedicated Adhesive	RC-19 (Request the RC-19 when ordering the transducer. Free of charge.)
RoHS Directive	EN50581

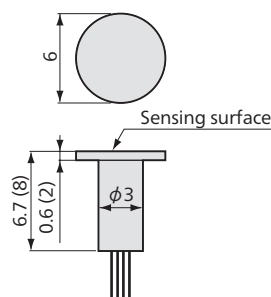
Models		Rated Capacity	Natural Frequencies
Cable Direction to Sensing Surface			
Horizontal	Vertical		
PS-05KC	PS-05KD	50 kPa	≈ 10 kHz
PS-1KC	PS-1KD	100 kPa	≈ 10 kHz
PS-2KC	PS-2KD	200 kPa	≈ 14 kHz
PS-5KC	PS-5KD	500 kPa	≈ 20 kHz
PS-10KC	PS-10KD	1 MPa	≈ 37 kHz
PS-20KC M2	PS-20KD M2	2 MPa	≈ 46 kHz
PS-30KC 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.

■ Dimensions



PS-C



PS-D

Figures in parentheses are for 2 to 7 MPa.

● Physical quantity indication

● Static measurement

● Dynamic measurement

PS
Recommended
products for
combination

