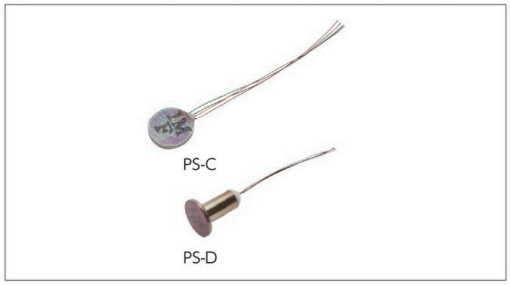
PS
Miniature Pressure Sensor



Ultra-thin and compact types with wide capacity range

- **Rated capacity: 50 kPa to 7 MPa**
- **Ultra-thin type (0.6 mm [PS-05 to 10KC/D])**
- **Attached using dedicated adhesive (RC-19)***

*Request when ordering.

Pressure sensor with a compact and thin structure that use a strain gage as a sensing element with a bridge formed inside the sensor. They are installed by adhesives. They are suitable for measuring point pressure distribution using many units.

Specifications

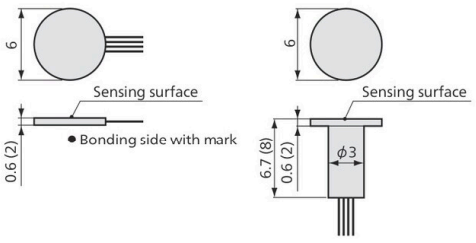
Performance	
Rated Capacity	See table below.
Nonlinearity	Within ±1% RO
Hysteresis	Within ±1% RO
Rated Output	See table below.
Environmental Characteristics	
Safe Temperature	−20 to 70℃
Compensated Temperature	0 to 50℃
Temperature Effect on Zero	See table below.
Temperature Effect on Output	Within ±0.2%/℃ (05K to 2K: Within ±0.3%/℃)
Electrical Characteristics	
Safe Excitation	3 V AC or DC
Recommended Excitation	1 to 2 V AC or DC
Input Resistance	350 Ω ±10%
Output Resistance	350 Ω ±10%
Cable	Polyurethane coated copper wires, 0.1 mm diameter by 5 cm long (red, brown, black, green each), pre-soldering at the tip 05KD, 1KD: Polyurethane coated copper wires, 0.08 mm diameter by 5 cm long (red, brown, black, green each), pre-soldering at the tip
Mechanical Properties	
Safe Overloads	150% (70K M2: 100%)
Natural Frequencies	See table below.
Weight	Approx. 0.5 g (Excluding cable)
Exterior	Metallic finish
Dedicated Adhesive	RC-19 (Request the RC-19 when ordering the transducer.)
Compliance	Directive 2011/65/EU,(EU)2015/863(10 restricted substances) (RoHS)

Models

Model: Cable Direction to Sensing Surface		Rated Capacity	Rated Output*1	Temperature Effect on Zero	Natural Frequencies (Approx.)
Horizontal	Vertical				
PS-05KC	PS-05KD	50 kPa	0.25 mV/V or more	Within ±0.8% RO/℃	10 kHz
PS-1KC	PS-1KD	100 kPa	0.5 mV/V or more	Within ±0.4% RO/℃	10 kHz
PS-2KC	PS-2KD	200 kPa	0.85 mV/V ±30%	Within ±0.3% RO/℃	14 kHz
PS-5KC	PS-5KD	500 kPa	1 mV/V ±20%	Within ±0.2% RO/℃	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

*1 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 ±1%.

Dimensions



PS-C
Figures in parentheses are for 2 to 7 MPa.

PS-D
Figures in parentheses are for 2 to 7 MPa.

To Ensure Proper Usage

- Copper alloy material used for the liquid-contacting part. Do not use with liquids or gases that could corrode this material.
- Epoxy adhesive is used to assemble the liquid-contacting part. This sensor cannot be used to measure organic solvents (toluene, ketone, etc.).
- Only oil may be measured for PS-20 to 70KC M2/D M2.
- These are direct discrete wire cables. Please handle these thin, fragile wire cables with care, especially at the base. Please contact us if you would like the cable finished before delivery.

(standard)