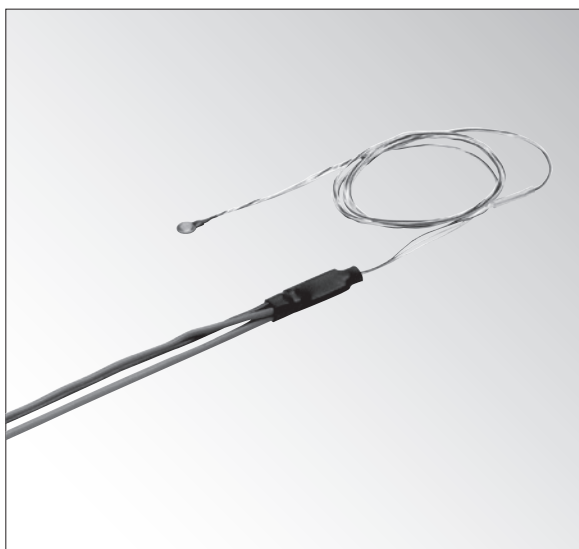


PSM-AB

Miniature Pressure Sensor

- Kyowa's smallest pressure sensors
- 100 & 200 kPa



Ultra-small sized pressure transducers with strong fluoroplastic coated cable

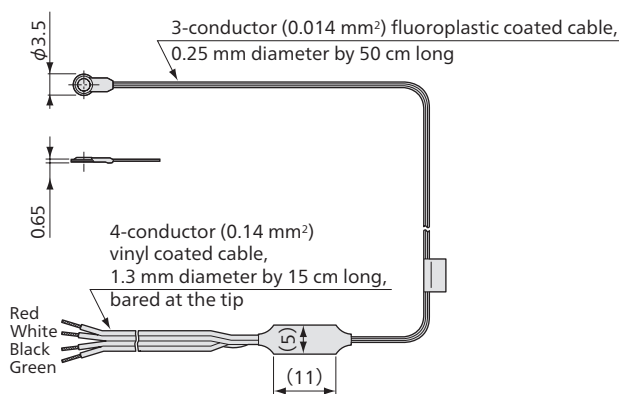
- The bridge adapter is provided.

PSM-AB series are the smallest pressure sensors in Kyowa's products designed based on integration of sensor element and diaphragm. This sensor adopts quarter-bridge 3-wire system and configures a full bridge in a bridge adapter. In addition, this sensor is installed by adhesives. Developed mainly for gas pressure measurement, PSM-AB series allow denser points than conventional transducers to be measured.

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

(Note 2) The mainframe has been assembled using an epoxy adhesive. Do not therefore use the transducer to measure organic solvent. (e.g. Toluene, ketone and others)

■ Dimensions



Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Rated Output	PSM-1KAB: 0.275 mV/V (550×10^{-6} strain) $\pm 25\%$ PSM-2KAB: 0.38 mV/V (760×10^{-6} strain) $\pm 25\%$
Note: Rated output is sorted to one of the classes divided by every 0.007 mV/V 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 ± 0.0035 mV/V.	

Environmental Characteristics

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

Electrical Characteristics

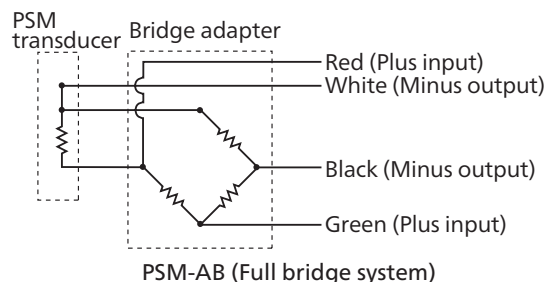
Safe Excitation	5 V AC or DC
Recommended Excitation	2 V AC or DC
Input Resistance	350 $\Omega \pm 1\%$
Output Resistance	350 $\Omega \pm 1\%$
Cable	Sensor side: 3-conductor fluoroplastic coated cable, 0.25 mm diameter by 50 cm long Measuring instrument side: 4-conductor vinyl coated cable, 1.3 mm diameter by 15 cm long, bared at the tip (Shield wire is not connected to the case.)

Mechanical Properties

Safe Overloads	150%
Weight	Approx. 0.5 g (Including cable but not bridge adapter)
Degree of Protection	IP61 (IEC 60529) (Excluding bridge adapters)
Dedicated Adhesive	RC-19 (Request the RC-19 when ordering the transducer. Free of charge.)

Models	Rated Capacity	Natural Frequencies	Remarks
PSM-1KAB	100 kPa	≈ 3 kHz	Bridge adapter Attached standard
PSM-2KAB	200 kPa	≈ 3 kHz	

■ Circuit Diagram



- Physical quantity indication
- Static measurement
- Dynamic measurement

PSM-AB
Recommended
products for
combination

