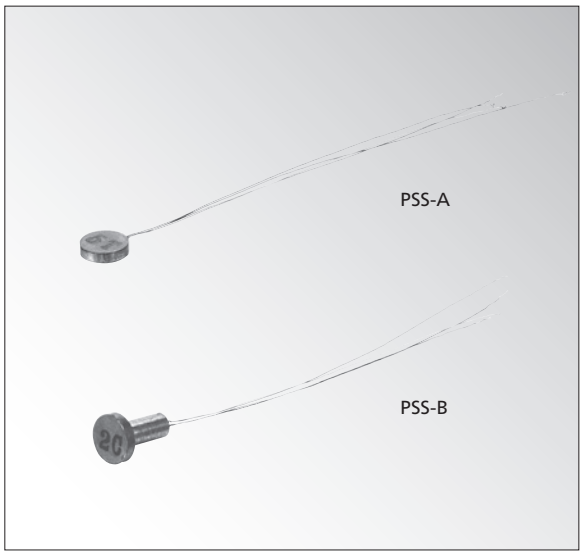
PSS

Miniature Pressure Sensor

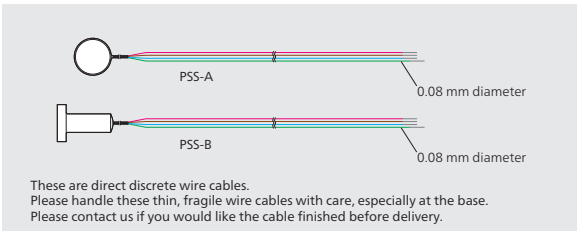
●Ultra-small
●20 to 100 kPa



Ultra-small & lightweight design with small rated capacities

PSS series pressure transducers have a bridge of strain gages inside, achieving ultra-thin compact structure. A thin-film strain gage is directly formed on a diaphragm by sputtering and photo lithography. PSS transducers are installed by adhesives and developed mainly for gas pressure measurement.

(Note 1) Copper alloy is used for liquid-contacting part.
Avoid measuring corrosive liquid or gas.
(Note 2) An epoxy adhesive is used to assemble the liquid-contacting part.
Therefore, avoid using the sensor to measure organic solvents (Toluene, ketone, etc.)
(Note 3) It should not be used under high temperature and high humidity environments for a long time.
(Note 4) It should not be used under water.



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.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within ±3% RO (02K), ±1% RO (05K, 1K)
Hysteresis	Within ±3% RO (02K), ±1% RO (05K, 1K)
Repeatability	1% RO or less (02K)
	0 .5% RO or less (05K,1K)
Rated Output	1 mV/V or more
	02KAF, BF: 0.75 mV/V or more
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 ±1%.	

Environmental Characteristics

Safe Temperature	-20 to 70°C (Non-condensing)
Compensated Temperature	0 to 50°C (Non-condensing)
Temperature Effect on Zero	Within ±0.8% RO/°C (05K, 1K)
	Within ±0.6% RO/°C (02K)
Temperature Effect on Output	Within ±0.3%/°C
	(02KAF, BF: Within ±0.5%/°C)

Electrical Characteristics

Initial Unbalance	Within ±2.5mV/V
Safe Excitation	4 V AC or DC
Recommended Excitation	1 to 2 V AC or DC
Input Resistance	350 to 1000 Ω
Output Resistance	350 to 1000 Ω
Cable	Polyurethane coated copper wires, 0.08 mm diameter by 5 cm long × 3 (red, brown, blue each), 6 cm long × 1 (green), pre-soldering at the tip

Mechanical Properties

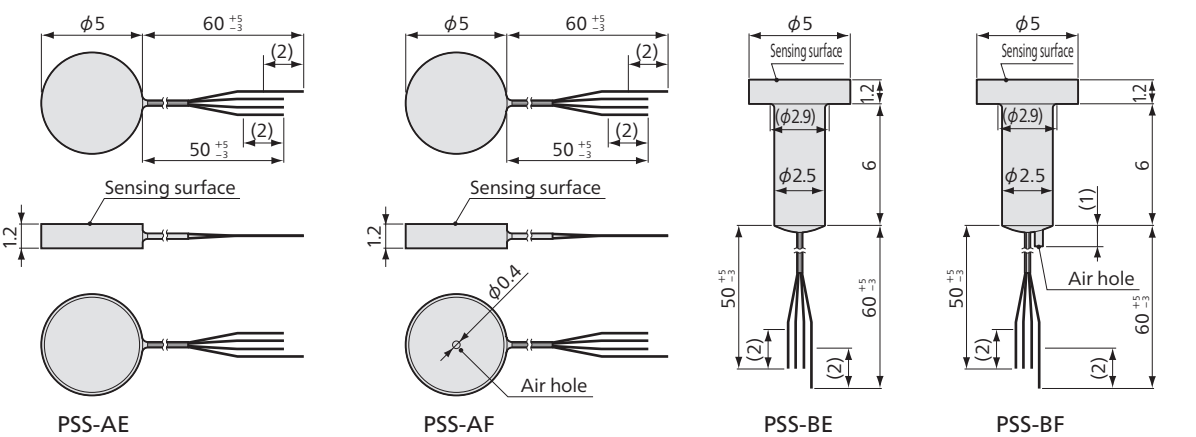
Safe Overloads	150%
Natural Frequencies	See table below.
Weight	PSS-A: Approx. 0.15 g (Excluding cable)
	PSS-B: Approx. 0.3 g (Excluding cable)
Dedicated Adhesive	RC-19 (Request the RC-19 when ordering the transducer.)

Models		Rated Capacity	Natural Frequencies (Approx.)	Remarks
Cable Direction to Sensing Surface				
Horizontal	Vertical			
PSS-05KAE	**PSS-05KBE**	50 kPa	18 kHz	Sealed type
PSS-1KAE	**PSS-1KBE**	100 kPa	31 kHz	
PSS-02KAF	**PSS-02KBF**	20 kPa	6 kHz	Atmospheric

To Ensure Safe Usage

High-carrier-based dynamic strain amplifier DPM-912, 913 or 952 may not satisfy the specified rated output in some rare case. Use dynamic strain amplifier DPM-911, 951, signal conditioner CDV-900A or request us to calibrate the transducer in combination with the strain amplifier.

Dimensions



PSS-AE PSS-AF PSS-BE PSS-BF