S-2000series Eddy Current Vibration/Displacement Transducer

S-2000 series transducer system are designed for non-contacting vibration and displacement measurements in the following applications:

- Shaft vibration monitoring and analysis
- Axial (thrust) position measurements
- Ramp differential expansion measurements on steam turbines
- Rod position or rod drop measurements on reciprocating compressors
- Tachometer and zero speed measurements
- Phase reference signals

Features:

The tip of the probe is molded with the latest PPS engineering plastic molds, and featured by high strength, high temperature (220°C) resistance, corrosion resistance, and high reliability.

The tip of the high temperature probe is made of microcrystalline glass, which is resistance to the high temperature of 450 °C, and can endure the high temperature of the combustion gas and the steam.

The magnetic field interference resisting capability of these eddy transducers has been significantly improved, and they can be applied in the generators and other equipment that produces strong magnetic field;

The coaxial cable and extension coaxial cable for probe signal output are cables with broad temperature range (-55 °C ~200 °C).

S2100-series transducers (For position, case / differential expansion...)

Operating Temperature:

Probe and extension cable at -30°C ~120°C, and conditioner at -30°C ~80°C (in the relatively humidity of 95%) shall work over a long period of time.

Technical Specifications:

Under the conditions of room temperature of 22°C, material 40CrMoA of the tested object, power supply of -24V, and load of 10KΩ, the system shall meet the following requirements:

- Frequency response DC~500Hz
- Interchangeable deviation ±5% (including linearity and sensitivity)
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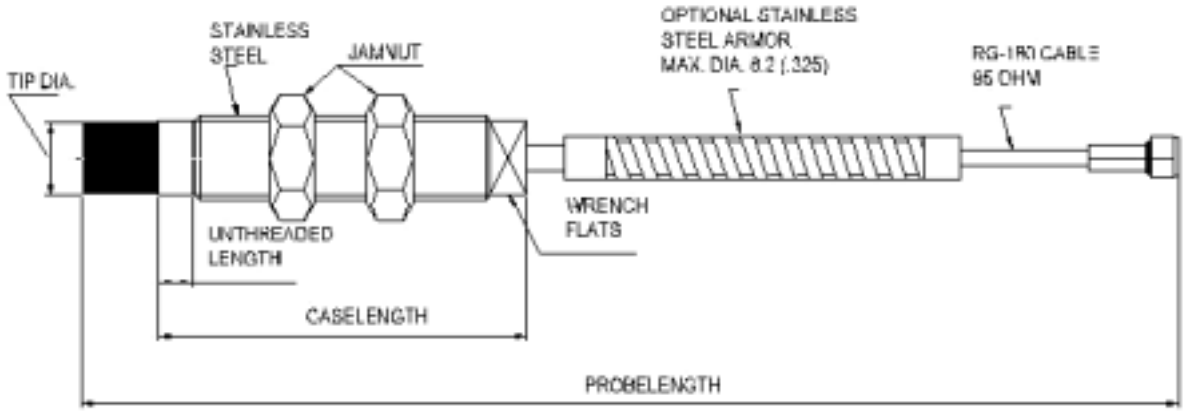
Probe Diameter (mm)	Linear Range (mm)	Linearity	Sensitivity	Sensitivity Accuracy
Ø 18	1.15~7.15	±1.3%	2.0v / mm	±4.0%
Ø 22	1.20~11.20	±1.4%	0.8v / mm	±4.0%
Ø 25	1.25~13.75	±1.5%	0.8v / mm	±4.0%
Ø 35	1.30~21.30	±1.5%	0.8v / mm	±4.0%
Ø 50	2.50~27.50	±2.0%	0.4v / mm	±4.0%
Ø 60	2.00~52.00	±2.0%	0.2v / mm	±4.0%

Note: Output ripple ≤10mV

- Temperature sensivity of linearity and sensitivity: (probe at 0°C ~100°C, conditioner at 0°C ~70°C, tested in the middle of the full range):

Probe Diameter (mm)	Ø 18	Ø 22	Ø 25	Ø 35	Ø 50	Ø 60
Temp. sensivity of sensitivity	±0.10%/°C	±0.10%/°C	±0.12%/°C	±0.12%/°C	±0.12%/°C	±0.15%/°C

S2200-series tranducer (For vibration and displacement measurement... Conform to API670 Standard of American Petroleum Institute)



Operating Temperature:

Probe at -20˚C ~180˚C, extension cable at -30˚C ~120˚C, and conditioner at -30˚C ~100˚C (in the relatively humidity of 95%) shall work over a long period of time.

Technical Specifications:

Under the conditions of room temperature of 22˚C, material 40CrMoA of the tested object, power supply of -24V, and load of 10KΩ, the system shall meet the following requirements:

- Frequency response DC~10kHz
- Interchangeable deviation ±5% (including linearity and sensitivity)
-

Probe Diameter (mm)	Linear Range (mm)	Linearity	Sensitivity	Sensitivity Accuracy
Ø 5	0.25~1.25	±1.0%	8.0v / mm	±4.0%
Ø 8	0.40~2.40	±1.0%	8.0v / mm	±4.0%
Ø 11	1.00~5.00	±1.0%	4.0v / mm	±4.0%
Ø 14	1.10~6.10	±1.2%	3.0v / mm	±4.0%

Note: output ripple ≤5mV

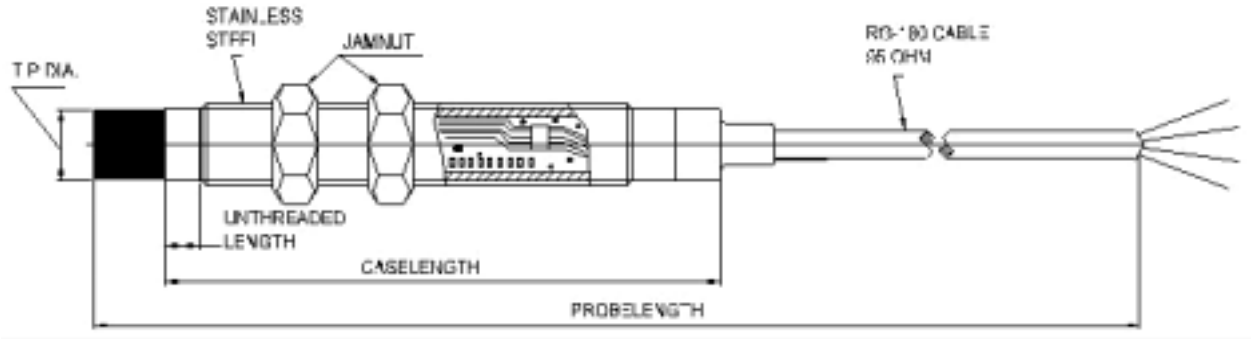
- Temperature sensivity of linearity and sensitivity: (probe at -20˚C ~180˚C, conditioner at -20 ˚C ~80˚C, tested in the middle of the full range):

Probe Diameter (mm)	Temp.sensivity of linearity	Temp.sensivity of sensitivity
Ø 5	±3.0%	±0.10%/˚C
Ø 8	±3.0%	±0.10%/˚C
Ø 11	±3.0%	±0.10%/˚C
Ø 14	±4.0%	±0.10%/˚C

S2900-series integral transducer (For vibration and displacement)

Technical specifications:

- Frequency response: 0~5KHz (-1.5dB)
- Measuring range: 2mm
- Sensitivity (±5% accuracy): +2.5V/mm
- Weight: 120g
- Working temperature: -20˚C ~ 80˚C
- Maximun cable length: 300m
- 4-core cable: +15Vdc, -15Vdc, OUT, COM



Compatibility relation between S2200-series and others manufacturers:

Specification	Probe Dia. / Meas. Range	Sendig	Bently	Philips	Shenck
		S2200 Series	3300 Series		
English screw 1/4-28UNF-2A no armor	Ø 5 / 1mm	**S220521**	330171	6422/10	SD-051/2
English screw 1/4-28UNF-2A armored	Ø5 / 1mm	**S220522**	330172	6422/11	
Metric screw M6 x 0.5 no armor	Ø5 / 1mm	**S220507**		6422/00	SD-051/1
Metric screw M6 x 0.5 armored	Ø5 / 1mm	**S220508**		6422/01	
Metric screw M8 x 1.0 no armor	Ø5 / 1mm	**S220503**	330173		SD-051/7
Metric screw M8 x 1.0 armored	Ø5 / 1mm	**S220504**	330174		
Reverse English screw 3/8-24UNF-2A	Ø5 / 1mm	**S220525**	330205		
Reverse English screw M10 x 1.0	Ø5 / 1mm	**S220506**	330206		
English screw 3/8-24UNF-2A no armor	Ø8 / 2mm	**S220821**	330101	6423/10	
English screw 3/8-24UNF-2A armored	Ø8 / 2mm	**S220822**	330102	6423/11	SD-052/4
Metric screw M10 x 1.0 no armor	Ø8 / 2mm	**S220803**	330103	6423/00	
Metric screw M10 x 1.0 armored	Ø8 / 2mm	**S220804**	330104	6423/01	SD-052/3
Reverse English screw 3/8-24UNF-2A	Ø8 / 2mm	**S220825**	330105		
Reverse Metric screw M10 x 1.0	Ø8 / 2mm	**S220806**	330106		
English screw 1/2-20UNF-2A no armor	Ø11 /4mm	**S221121**			
English screw 1/2-20UNF-2A armored	Ø11 /4mm	**S221122**			
Metric screw M14 x 1.5 no armor	Ø11 /4mm	**S221103**			
Metric screw M14 x 1.5 armored	Ø11 /4mm	**S221104**			
Metric screw M16 x 1.0 no armor	Ø11 /4mm	**S221108**			
Metric screw M16 x 1.0 armored	Ø11 /4mm	**S221109**			
Metric screw M18 x 1.5 no armor	Ø11 /4mm	**S221106**			
Metric screw M18 x 1.5 armored	Ø11 /4mm	**S221107**		6424/00	
Reverse English screw 3/8-24UNF-2A	Ø11 /4mm	**S221125**		6424/01	
English screw 5/8-18 no armor	Ø14 /5mm	**S221421**			
English screw 5/8 -18 armored	Ø14 /5mm	**S221422**			
Metric screw M16 x 1.5 no armor	Ø14 /5mm	**S221403**			
Metric screw M16 x 1.5 armored	Ø14 /5mm	**S221404**			
Metric screw M16 x 1.5 armored	Ø14 /5mm	**S221404**			

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