

P571 Pressure Sensor for Transducers



The Series 571 Pressure Sensor is a high stability, small diameter, stainless steel pressure sensor intended for use in pressure transducers and other OEM pressure measurement applications. It's thin-film metal strain gauge circuit enables a long-term stability of better than 0.1% per year. Options include Hastelloy™, 500 Vac insulation resistance, and integral Pt. RTD, as well as various specifications on TC Zero and TC Span. The unique design can be used with an infinite variety of pressure fittings, which can be supplied by SMD or provided by the customer.

Product Specifications:

Bridge Resistance:	10,000 Ω
Bridge Configuration:	4 Wire Closed Bridge (5 wire optional)
Output:	2 mV/V Nominal
Zero Offset:	± 0.2 mV/V
Excitation (Recommended):	Up to 20 Vdc
Ranges	
Low Range:	100, 160, 500 psi
High Range:	1000, 1500, 3000, 4000, 5000, 6000, 10k, 12k, & 15k
Operating Temp. Range:	-40 to 150°C (200°C optional)
Calibrated Temp. Range:	-40 to 125°C
Wetted Material:	Stainless Steel 15-5 PH
Insulation Resistance	
Option S:	>1,000MΩ @ 50Vdc
Option C:	500 Vac for 1 minute
Temp. Effect on Zero Balance	
Option 1:	±0.03% FSO/ °C
Option 2:	±0.015% FSO/°C (Tighter Tolerances Available)
Temp. Effect on Span	
Option A:	± 0.04% Readng/ °C
Option B:	< ± 0.01% Reading/ °C
Repeatability:	<0.02% FSO
Long Term Stability	
Option X:	<0.8% FSO per year
Option Y:	<0.09% FSO per year (Offset spec +/-0.4 mV/V)
Proof Pressure:	2X
Burst Pressure:	6X up to 500 psi; 5X up to 6000 psi; 4X for 10K psi
Linearity	
100 psi:	<0.5% (0.25% BFSL)
160 psi:	<0.3% (0.15% BFSL)
500-1,000 psi:	<0.15% (0.08% BFSL)
1,500-3,000 psi:	<0.1% (0.05% BFSL)
4,000-10,000 psi:	<0.05% (0.025% BFSL)
Optional RTD Sensor:	Pt RTD, 1,000Ω standard

Features:

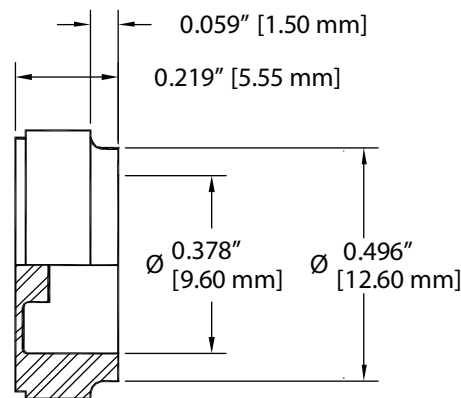
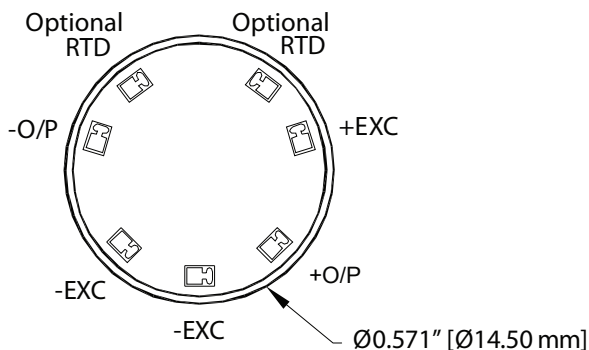
- Thin-Film Strain Gauge
- Flexible Mounting
- CENELEC
- Long Term Stability
- Hastelloy®

Applications:

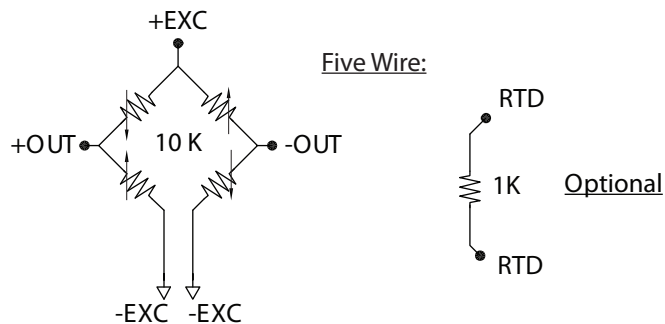
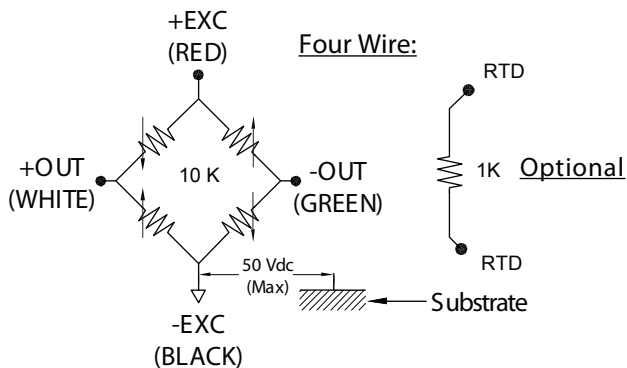
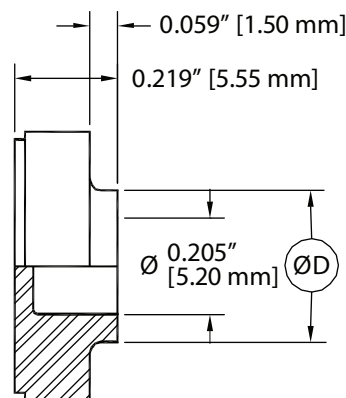
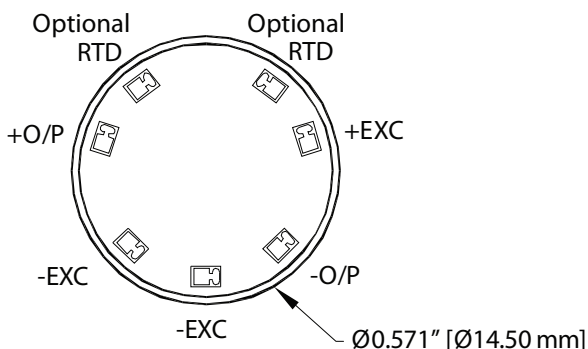
- Pressure Transducer/Transmitter
- Pressure Calibrator
- Process Control
- Hydraulics
- Down-Hole
- Aerospace



100 thru 500 psi
[7 thru 35 bar]



1,000 thru 15,000 psi
[70 thru 1035 bar]



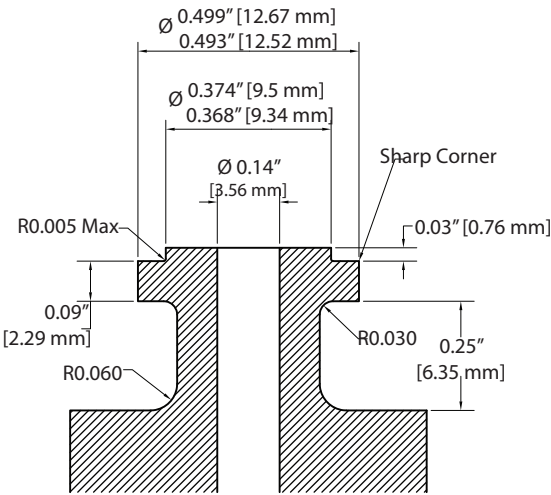
USA
Strain Measurement Devices
55 Barnes Park North, Wallingford, CT 06492
sales@smdsensors.com | (203) 294-5800

Europe
Strain Measurement Devices
Bury Road, Chedburgh, Bury St Edmunds IP29 4UQ
sales@smdsensors.co.uk | +44 (0)1284 852 000

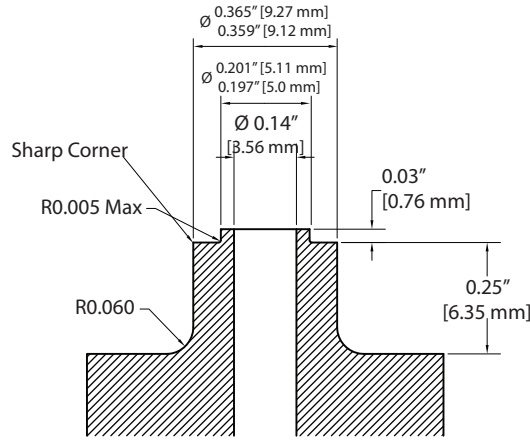
Strain Measurement Devices reserves the right to modify its design and specifications without notice.

www.smdsensors.com

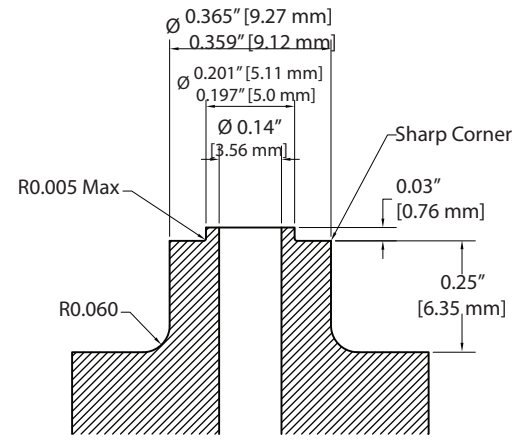
P571 Mating Parts



Ranges: 100 to 500 psi

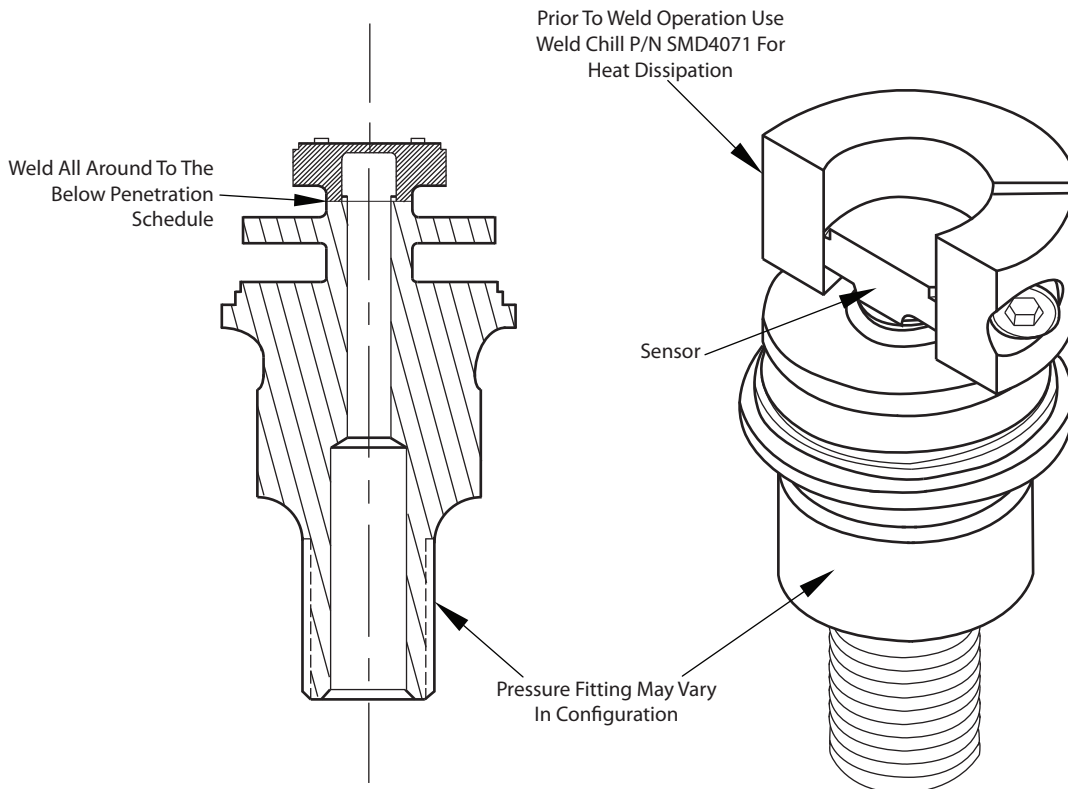


Ranges: 1,000 to 10,000 psi



Ranges: 12,000 to 15,000 psi

P571 Welding Assembly



Range (psi)	Weld Depth
100	.020"
200	.020"
500	.020"
1000	.045"
1500	.045"
3000	.045"
4000	.045"
5000	.045"
6000	.045"
10,000	.045"
15,000	.075"