

# P940 Thin Film Pressure Diaphragm



The Series **940 Pressure Sensor** is a stainless-steel wetted surface pressure diaphragm with a proprietary sputtered thin-film full-bridge strain gauge circuit. The sputtered metal strain gauge circuit offers superior long term stability and higher temperature capability than other strain gauge technologies. A unique lead out pad design provides ease of soldering and rugged construction. The 10K ohm bridge offers low power consumption for transmitters. Ideal for pressure transducer OEMs.

## Product Specifications:

<b>Rated Output (R.O.):</b>	2.0 mV						
<b>Excitation:</b>	5-20 Vdc						
<b>Bridge Configuration</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>Full Bridge, 4 Wire Closed</td> </tr> <tr> <td><b>Optional:</b></td> <td>Full Bridge, 5 Wire Open</td> </tr> </table>	<b>Standard:</b>	Full Bridge, 4 Wire Closed	<b>Optional:</b>	Full Bridge, 5 Wire Open		
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<b>Bridge Resistance:</b>	10,000Ω ±2%						
<b>Insulation Resistance</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>1,000MΩ @ 50Vdc</td> </tr> <tr> <td><b>Optional:</b></td> <td>500 Vac rms breakdown</td> </tr> </table>	<b>Standard:</b>	1,000MΩ @ 50Vdc	<b>Optional:</b>	500 Vac rms breakdown		
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<b>Over Pressure Limit, Proof:</b>	150% of Range						
<b>Over Pressure Limit, Burst:</b>	400% of Range						
<b>Repeatability:</b>	<0.03% Span						
<b>Long Term Stability</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>&lt;0.8% Span per year</td> </tr> <tr> <td><b>Optional:</b></td> <td>&lt;0.006% Span per year</td> </tr> </table>	<b>Standard:</b>	<0.8% Span per year	<b>Optional:</b>	<0.006% Span per year		
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<b>Temp. Effect on Zero Balance</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>&lt;0.03% Span/ °C</td> </tr> <tr> <td><b>Optional:</b></td> <td>&lt;0.006% Span/ °C</td> </tr> </table>	<b>Standard:</b>	<0.03% Span/ °C	<b>Optional:</b>	<0.006% Span/ °C		
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<b>Temp. Effect on Span</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>&lt;0.025% Reading/ °C</td> </tr> <tr> <td><b>Optional:</b></td> <td>&lt;0.006% Reading/ °C</td> </tr> </table>	<b>Standard:</b>	<0.025% Reading/ °C	<b>Optional:</b>	<0.006% Reading/ °C		
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<b>Operating Temp. Range</b>	<table border="0"> <tr> <td><b>Standard:</b></td> <td>-40°C (-40°F) to 150°C (302°F)</td> </tr> <tr> <td><b>Optional:</b></td> <td>-40°C (-40°F) to 200°C (392°F)</td> </tr> <tr> <td><b>Optional II:</b></td> <td>Consult Factory for higher temps.</td> </tr> </table>	<b>Standard:</b>	-40°C (-40°F) to 150°C (302°F)	<b>Optional:</b>	-40°C (-40°F) to 200°C (392°F)	<b>Optional II:</b>	Consult Factory for higher temps.
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<b>Optional II:</b>	Consult Factory for higher temps.						
<b>Calibrated Temp. Range:</b>	-20°C (-4°F) to 125°C (257°F)						
<b>Electrical Termination:</b>	Gold solder Pads on Ceramic Substrate						
<b>Wetted Material</b>	<table border="0"> <tr> <td><b>Sensor:</b></td> <td>15-5PH Vac CE Stainless Steel Cond. H900</td> </tr> <tr> <td><b>Sensor Optional:</b></td> <td>Hastelloy®</td> </tr> <tr> <td><b>Fitting:</b></td> <td>Stainless Steel</td> </tr> </table>	<b>Sensor:</b>	15-5PH Vac CE Stainless Steel Cond. H900	<b>Sensor Optional:</b>	Hastelloy®	<b>Fitting:</b>	Stainless Steel
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## Features:

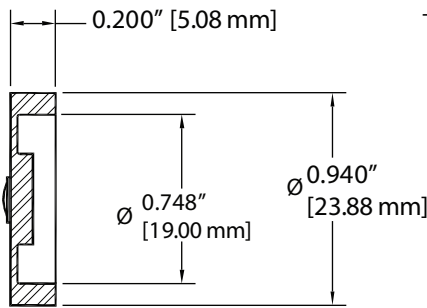
- Stainless Steel Wetted Surface
- Low Power Consumption
- Unsurpassed Stability
- Gold Contact Stability
- Rugged Construction

## Applications:

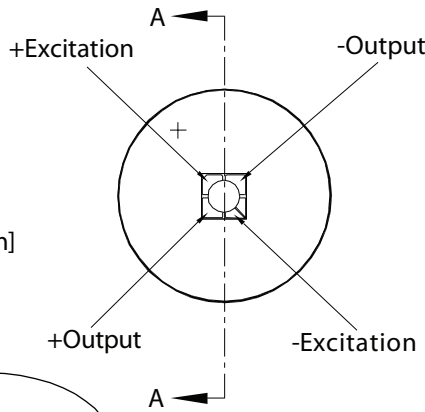
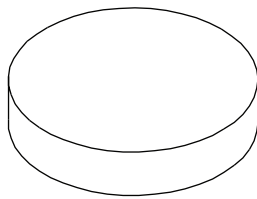
- Pressure Transducer/Transmitter
- Pressure Calibrator
- Process Control
- Hydraulics
- Down-Hole
- Aerospace



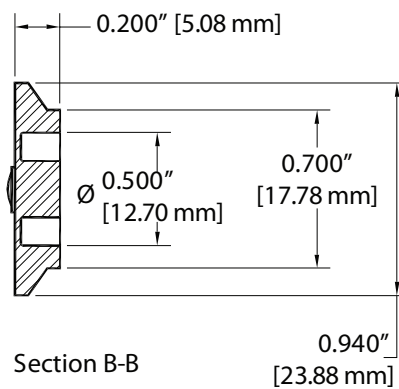
### 30 to 500 psi Ranges



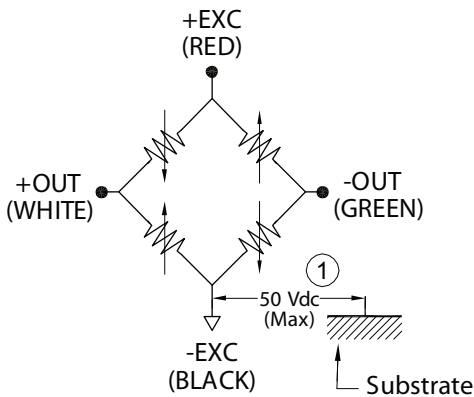
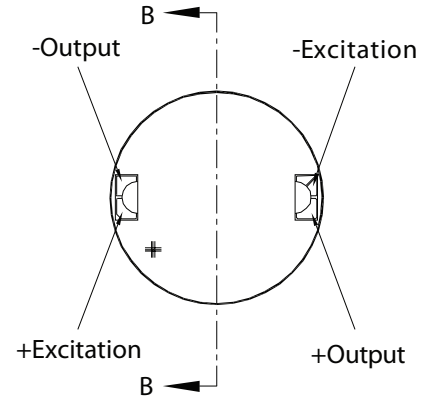
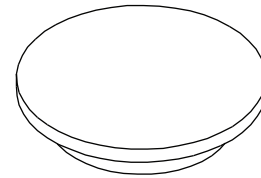
Section A-A



### 1000 to 6000 psi Ranges



Section B-B



① Dielectric Strength up to 500 Vac  
Available with CENELEC option

