

## Model D950 Precision Differential Series

Pressure/Temperature Transducer.

- Transmitter is customized to your specific temperature and pressure conditions
- Flexible – Transmitter output can be mapped to enhance accuracy at any specific Temperature or Pressure range.
- Multiple Outputs – TC, RTD, 4-20mA, 0-5V, 0-10V, RS232, RS485 and USB 2.0
- Suitable for high shock and vibration applications
- No Silicone oil, no internal o-rings, no welded diaphragms!
- Ranges 0-5 PSID to 1,000 PSID

### DESCRIPTION

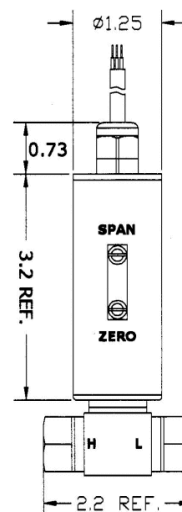
Spectre's D950 Differential Series Pressure Transducers offer the first available sensors that are manufactured, designed and calibrated to each customer's specific operating conditions. Each transducer output is digitally mapped to correct for any non-linearity or inaccuracies in the sensor. The model D950 offers wet/wet differential pressure measurements of gases and liquids compatible with stainless steel. The compact size contains no internal O-rings or fluid filled cavities, making it ideal for water management, gas pipeline instrumentation, filtration, natural gas compressors and many other applications. In the event that either pressure port is at full line pressure and the other at zero, no damage will be done to the transducer/transmitter.



### FEATURES

- Proprietary Fused Bond Sensor
- Accuracies 0.05%- 0.03% BFSL
- RFI/EMI Protection
- Digital Temperature Correction at operating conditions
- Sensor Wetted Material Machined From Solid Stainless Steel Bar Stock (No Welds)
- Unparalleled Long Term Stability

### DIMENSIONS



OPTIONS MAY CHANGE OVERALL DIMENSIONS,  
CONSULT FACTORY



**Spectre Sensors**

# Model D950 Precision Differential Series

Pressure/Temperature Transducer.

Ordering Guide. Example: D950-A-(0-50)-D-1-05-EC1

Please inquire for specials or options.

A	(0-50)	D	1	5	EC1
Pressure Port	Range	Pressure Output	Temperature Output	Accuracy	Connector
A=1/4"MNPT B=Other w/ adaptors	Specify Pressure Range. 0-5 psiD to 0-1,000 psiD	D=4-20mA E=0-5Vdc F=10Vdc G=RS232 H=RS485 UC=USB 2.0*	0=None 1=4-20mA 2=0-5VDC 3=TC 4=RTD 7=Other	05=0.05% BFSL 03=0.03% BFSL	EC1=36" pigtail EC2=DIN 43650 with mate. Large EC3=Mini DIN ECX=Other UA=USB "A" connector with 4' cable

\*No analog outputs available with UC option

Performance @ 25°C (77°F)
Accuracy(1): <math>\pm 0.05\%</math> BFSL to 0.03%BFSL
Stability (1 year): $\pm 0.25\%$ FS, typical
Over range protection: 2X Rated Pressure
Burst Pressure: 2.5X Minimum
Pressure Cycles: >50 Million
Temperature Range: -55 to 85°C (-65 to 185°F)
Temperature Accuracy: $\pm 1^\circ\text{F}$ ( $\pm 1^\circ\text{C}$ )

Electrical Data
Excitation: 14-36Vdc (0-10Vdc) 9-36Vdc (4-20mA and 0-5Vdc) Option C29 – Maximum 29 Vdc excitation
Optional Data Output: RS485, RS232 , USB 2.0
Current Consumption: <math>< 25\text{mA}</math>
Zero Offset: <math>< \pm 1\%</math> of FS
Span Tolerance: <math>< \pm 1\%</math> FS
Output load: > 10K Ohm

Environmental Data
<b>Temperature</b>
Operating: -40 to 85°C (-40 to 185°F)
Storage: -50 to 125°C (-60 to 250°F)
<b>Thermal Limits</b>
Compensated Range: 0 to 55°C (-32 to 130°F)
Temp Comp Zero: <math>< \pm 0.2\%</math> FS
Temp Comp Span: <math>< \pm 0.2\%</math> FS

Physical Data
Sensor: Wetted Material 17-4 pH SS (others on request)
Pressure Connection: 1/4" MNPT (others on request)
Electrical Connection: Cable, DIN, Cannon, Bendix. Others on request.

## Applications

The Model D950 offers wet/wet differential pressure measurements of gases And liquids compatible with stainless steel. The compact size contains no Internal O-rings or fluid filled cavities, making it ideal for water management, gas pipeline instrumentation, filtration, natural gas compressors and many other applications. In the event that either pressure port is at full line pressure and the other at zero, no damage will be done to the transducer.

On board digital compensation with analog through-path ensures low thermal errors with fast response times. Both voltage and current outputs are available over a wide operating temperature range.

The Model D950 has been designed specifically for applications with demanding price and performance requirements. Measurements are available in differential pressures covering line pressures up to 1,000 PSI.

## Contact Information

Spectre Sensors, Inc.  
1651-D Crossings Parkway  
Westlake, OH 44145  
877-297-6965 / Phone  
440-835-3599 / Fax  
info@spectresensors.com



**Spectre Sensors**