

## Model 9500 Precision Combination 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 – 4-20mA, 0-5V, 0-10V, RS232 and RS485
- Suitable for high shock and vibration applications
- No Silicone oil, no internal o-rings, no welded diaphragms!
- Ranges 0-10" WC to 30,000 PSI
- Gauge, Sealed Gauge, Absolute ranges

### DESCRIPTION

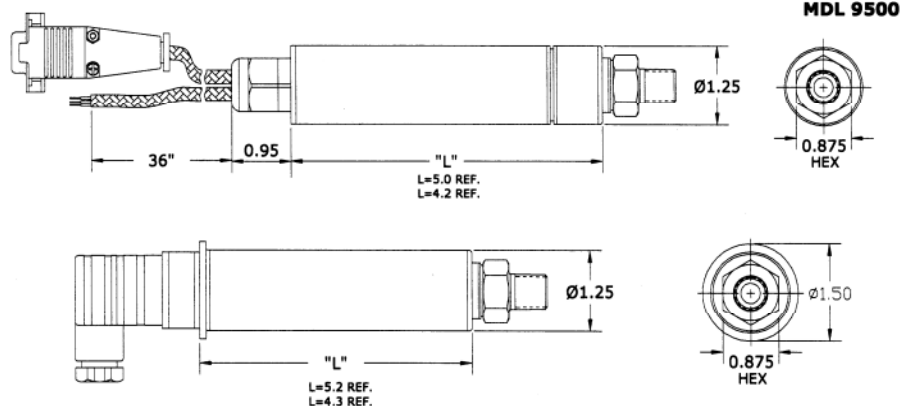
Spectre's 9500 Precision Series Pressure Transducers offer the first available sensors that are manufactured, designed and calibrated to each customers specific operating conditions. **Each transducer output is digitally mapped to correct for any non-linearity or inaccuracies in the sensor.** This digital correction and the inherent advantages of the fused bond sensor provide the most accurate and flexible transducer in the industry. Additionally, the unit can be designed for high pressures and still retain accuracies in the lower pressure range (i.e.: 10,000 psi sensor can accurately measure below 500 psi), or provide high accuracy in one specific area of the pressure range (i.e.: 500 psi sensor with highest accuracy band between 40-60 psi).



### 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
- Optional USB Connectivity

### DIMENSIONS



# Model 9500 Precision Combination Series

Ordering Guide. Example: 9500-A-(0-500)-2-D-1-05-EC1

Please inquire for specials or options.

| A  | (0-500)                | 2  | A  | 1   | 05                       | EC1   |
|--|------------------------|--|--|---|--------------------------|---|
| Pressure Port  | Range                  | Units  | Pressure Output  | Temperature Output  | Accuracy                 | Connector   |
| A=1/4"MNPT<br>B=SAE-4<br>C=other<br>E=Autoclave<br>F=250-C | Specify Pressure Range | 1=Absolute<br>2=Gauge<br>3=Vacuum<br>4=Sealed<br>5=Compound<br>6=Other | D=4-20mA<br>E=0-5Vdc<br>F=10Vdc<br>G=RS232<br>H=RS485<br>X=Other | 0=No analog<br>1=4-20mA<br>2=0-5VDC<br>3=TC<br>4=RTD<br>7=Other | 05=0.05%BFSL<br>03=0.03% | EC1=36" pigtail<br>EC2=DIN 43650 with mate. Large<br>EC3=Mini DIN<br>EC4=Bendix 6-pin<br>EC9=1/2" MNPT conduit with 36" leads<br>ECX=Other<br>DB9=DB9 for RS232/485 |

## Performance @ 25°C (77°F)

Accuracy: <math>\pm 0.05\%</math> BFSL to 0.03% BFSL

Stability (2 year):  $\pm 0.05\%$ 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

Comms: RS485, RS232, USB 2.0

Current Consumption: <math>< 25\text{mA}</math>

Zero Offset:  $< \pm 0.2\%$  of FS

Span Tolerance:  $< \pm 0.2\%$  FS

Output load: > 10K Ohm

## Environmental Data

### Temperature

Operating: -40 to 85°C (-40 to 185°F)

Storage: -50 to 125°C (-60 to 250°F)

### Thermal Limits

Compensated Range: -40 to 85°C (-40 to 185°F)

Temp Comp Zero:  $< \pm 0.2\%$  FS

Temp Comp Span:  $< \pm 0.2\%$  FS

## Physical Data

Sensor: Wetted Material 17-4 pH SS (others on application)

Pressure Connection: 1/4" MNPT (others on request)

Electrical Connection: Cable, DIN, Bendix, Cannon (others on request)

## Applications

The Model 9500's custom calibration.(digitally mapping the output to the specific application temperature and pressure conditions) make the 9500 the ultimate choice for any high accuracy applications.

Some of the Model 9500's applications include Industrial OEM Equipment, Diagnostic Tools, Research and Development, Hydraulic Systems with large overpressure requirements, Water Measurement, Refrigeration and Data Logging.

## Contact Information

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