



Model 8500 Precision Submersible Combination Series Pressure/Temperature/Level 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
- No Silicone oil, no internal o-rings, no welded diaphragms!
- Ranges 0-5 PSI to 500 PSI
- Gauge (vented), Sealed Gage, Absolute
- Built-in voltage surge protection
- Optional USB 2.0 Connectivity

DESCRIPTION



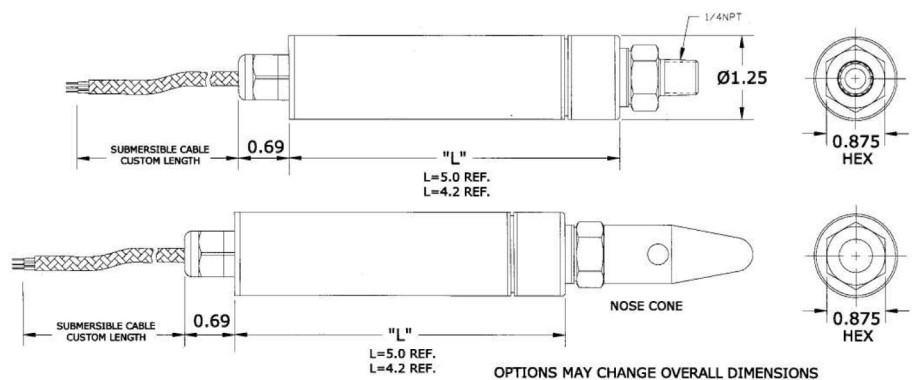
Spectre's 8500 Series Submersible Pressure Transducers offer the first available submersible sensors that are manufactured, designed and calibrated to each customers specific operating conditions. **Each transducer output is digitally mapped to correct for any non-linearity or inaccuracies in the sensor.** This digital correction and the inherent advantages of the fused bond sensor provide the most accurate and flexible transducer in the industry



FEATURES

- Proprietary Fused Bond Sensor
- Accuracy 0.05% 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





Model 8500 Precision Submersible Combination

Pressure/Temperature/Level Transducer.

Ordering Guide. Example: 8500-A-(0-50FT)-2-D-1-05-SCV

Please inquire for specials or options.

A	(0-50FT)	2	A	1	05	EC1
Pressure Port	Range	Units	Pressure Output	Temperature Output	Accuracy	Connector
A=1/4"MNPT B=Nose Cone C=other	Specify Pressure Range	1=Absolute 2=Gauge 4=Sealed 6=Other	D=4-20mA E=0-5Vdc F=10Vdc G=RS232 H=RS485 UC=USB *** X=Other	0=None 1=4-20mA 2=0-5VDC 3=TC 4=RTD X=Other	05=0.05% TEB	SCV=Vented Cable (gauge units) SCN=Non-vented Cable USB=USB "A" *** ECX=Other

** Analog outputs not available with "UC" pressure output

*** USB only used when "UC" pressure output specified – Supplied with 4 ft cable. Additional lengths available.

Performance @ 25°C (77°F)

Accuracy: $\pm 0.05\%$ Total Error Band (TEB)

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

Output: Serial RS485, RS232, USB 2.0

Current Consumption: <25mA

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: 0 to 55°C (-32 to 130°F)

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

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

Physical Data

Sensor: Wetted Material 17-4 pH SS (Inconel or Titanium on request)

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

Electrical Connection: Cable. Specialty submersible connectors on request.

Applications

The Model 8500's custom calibration (digitally mapping the output to the specific application temperature and pressure conditions) make the 8500 the ultimate choice for any high accuracy submersible level applications.

Model 8500 / 010407

