



## **Model 8500 Precision Submersible Combination Series**

### **Pressure and Temperature Level Transducer**

- Highest performance transducer over temperature. Zero thermal error/drift
- Units are individually calibrated from -40°C to 85°C for pressures ranging from 0-10" WC to 500 PSI
- 0.05% BFSI (STANDARD) – Contact Factory for other options
- 16 Point Calibration with Certificate (STANDARD)
- Unparalleled thermal stability from -40°C to 100°C
- Transducer maintains stated accuracy throughout entire temperature compensated range
- Multiple Temperature Outputs – TC, RTD, 4-20 mA, 0-5 VDC, 0-10 VDC
- Digital temperature correction at operating conditions

*Spectre's ZERO Drift High Performance Submersible Transducer is the world's only pressure transmitter that maintains performance over temperature by eliminating the largest sources of error:*

**Zero & Thermal Drift**



#### **FEATURES:**

**Proprietary Fused Bond Sensor**

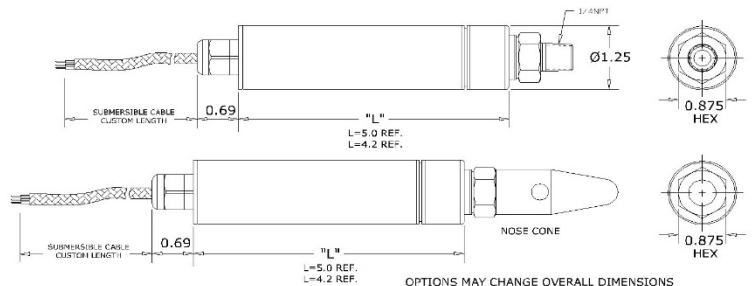
**Sensor Wetted Material Machined from Stainless Steel Bar Stock (No Welds)**

**RFI/EMI Protection**

**Digital Correction for non-linearity and inaccuracies within the sensing element**

**Multiple Temperature and Pressure Output Options (Custom on Request)**

#### **REFERENCE DIMENSIONS:**





## Model 8500 Precision Submersible Combination Series

Ordering Guide: 8500-A-(0-50"WC)-2-D-1-05-SCV

A	(0-50"WC)	2	D	1		SCV
PRESSURE PORT	RANGE <sup>1</sup>	TYPE	PRESSURE OUTPUT	TEMPERATURE OUTPUT	ACCURACY (BFSL)	CONNECTOR <sup>2</sup>
A = 1/4" MNPT	PSI	1 = ABSOLUTE	D = 4-20 mA	0 = NONE	05 = 0.05% BFSL	SCV = 1/2" MNPT WITH VENTED CABLE
B = NOSE CONE	BAR	2 = GAUGE	E = 0-5 VDC	1 = 4-20 mA		SCN = 1/2" MNPT WITH NON-VENTED CABLE
C = OTHER	kPA	4 = SEALED	F = 0-10 VDC	2=0-5 VDC		ECX = OTHER
	INCHES WC	6 = OTHER	M = mV/V	3 = TC		
	TORR			4 = RTD		
				X = OTHER		

<sup>1</sup> OTHER RANGES 1 AVAILABLE, CONSULT FACTORY

<sup>2</sup> HYTREL JACKETED CABLE STANDARD, CONSULT FACTORY FOR OTHER OPTIONS

### TYPICAL APPLICATIONS

Ground Water Monitoring	Wet-Well Monitoring
Ocean Research	Level Control
Soil Remediation	Surface Water Monitoring

### Performance @ 25 °C

Accuracy: < ± 0.05% BFSL

Stability: (2 year): <± 0.10% FSO, Typical

Overpressure Protection: 2X Rated Pressure

Burst Pressure: 5X Minimum

Pressure Cycles: > 50 Million

Temperature Range: -40 °C to 100°C

Response: ≤ 2 ms to 90%

### Environmental Data

#### Temperature

Operating: -40°C to 85°C

Storage: -50°C to 125°C

#### Thermal Limits

Compensated Range: -40°C to 85°C

Thermal Effect Zero: Negligible <sup>3</sup>

Thermal Effect Span: Negligible <sup>3</sup>

### Electrical Data

Excitation: 13-36 VDC

Current Consumption: < 5 mA

Zero Offset: ≤±0.1% of FS

Span Tolerance: ≤±0.1% of FS

Output Load: > 10K Ω

### Physical Data

#### Sensor

Wetted Material: 316 SS

Housing: 316 SS

#### Connections

Pressure: 1/4" MNPT (Others on request)

Electrical: 1/2" MNPT with vented or non-vented Hytrel cable

<sup>3</sup> THERMAL CHANGES WILL NOT AFFECT OVERALL ACCURACY

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