

Model 8000 Precision Submersible Transducer

- Transducer is customized to your specific temperature and pressure conditions
- Outputs: 4-20mA, 0-5 Vdc, 0-10 Vdc, mv/V. Optional RS232/RS485 or USB communications
- Pressure ranges 0-10" WC to 500 PSI
- Standard accuracy of 0.05% BFSL (optional 0.03%)
- Built-in, proprietary design, lightning and surge protection supplied as standard
- Unparalleled long-term stability
- Digital temperature correction at operating conditions
- Proprietary digital "AutoZero" / recalibration mode
- Field rangeable 5:1



Spectre's Series 8000 Submersible Transducers offers the first available submersible sensors that are designed, manufactured and calibrated to each application's specific operating conditions. **Each transducer's output is digitally mapped to correct for any non-linearity or inaccuracies in the sensing element.** This digital correction provides the most accurate and flexible submersible transducer in the industry.

Performance @ 25°C (77°F)

Accuracy: $<\pm 0.05\%$ Best Fit Straight Line (BFSL)
Stability (2 year): $<\pm 0.05\%$ FS, typical
Over pressure protection: 2X Rated Pressure
Burst Pressure: 2.5X minimum
Pressure Cycles: >50 Million
Temperature range: -55 to $+85^{\circ}\text{C}$ (-65 to $+185^{\circ}\text{F}$)
Temperature Accuracy: $\pm 1^{\circ}\text{C}$ ($\pm 1^{\circ}\text{F}$)
Total Error Band: $\pm 1.5\%$ (includes zero, span, static accuracy and temperature)

Environmental Data

Storage temp: -50 to $+125^{\circ}\text{C}$ (-60 to $+250^{\circ}\text{F}$)
Compensated range: 1 to 30°C ($+33$ to $+86^{\circ}\text{F}$)

Electrical Data

Excitation:

6-36 Vdc - 4-20mA output
9-36 Vdc - 0-5 Vdc output
14-36 Vdc - 0-10 Vdc output
5-10 Vdc - mV/V output
Option C29: Max 29 Vdc excitation

Optional serial comms: RS232, RS485 or USB

Current consumption: 0.12 Watt

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

Span tolerance: $<\pm 0.2\%$ of FS

Output load: $>10\text{K}$ Ohm

Physical data

Sensor wetted material: 316SS

Body material: 316SS

(Other materials on application)

Pressure connection: $\frac{1}{4}$ " Male NPT

(others on application)

Electrical Connection: $\frac{1}{2}$ MNPT with Hytrel vented or non-vented cable
(submersible disconnects on application)

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Ordering guide – Example: 8000-A-(0-15 PSIG)-2-D-05-SCV

A	(0-15PSIG)	2	D	05	SCV
Pressure Port	Range	Units	Output	Accuracy	Connector
A=1/4" MNPT B=Nose cone C=Other	Specify pressure range in: inches (mm) water, feet (meters) water, PSI or BAR	1=Absolute 2=Gauge (vented cable) 4=Sealed 6=Other	D=4-20mA** E=0-5VDC F=0-10VDC G=RS232** H=RS485** UC=USB 2.0 X=Other	05=0.05% BFSL* 03=0.03% BFSL*	SCV= 1/2" MNPT with Vented Cable*** SCN= 1/2" MNPT with Non-vented cable*** ECX=Other

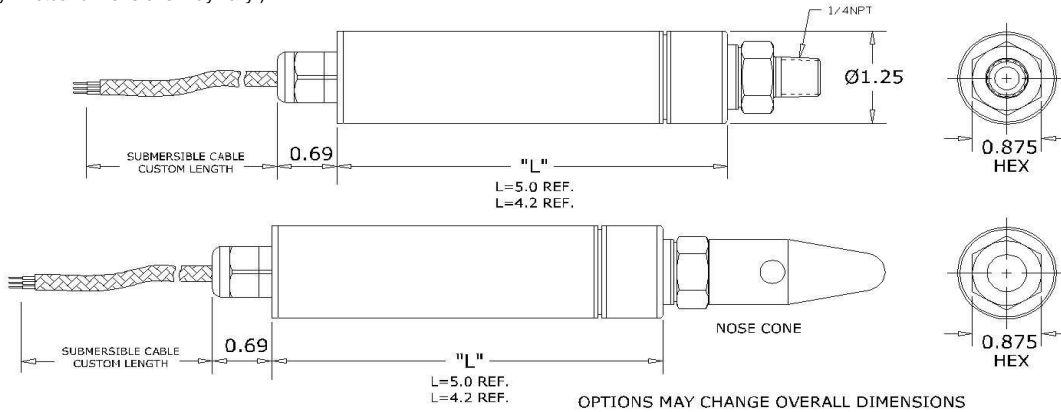
* BFSL = Best Fit Straight Line

**Combination 4-20mA + Comms available – contact factory for details

*** Standard cable jacket is Hytrel. Others available on request – contact factory.

Dimensions:

(For reference only. Actual dimensions may vary.)



Typical Applications:

- Ground Water Monitoring
- Wet-well Monitoring
- Ocean research
- Soil remediation
- Level Control
- Surface Water Monitoring