



## 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



CE

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:  $\leq \pm 0.05\%$  Best Fit Straight Line (BFSL)  
Stability (2 year):  $\leq \pm 0.05\%$  FS, typical  
Over pressure protection: 2X Rated Pressure  
Burst Pressure: 2.5X minimum  
Pressure Cycles: >50 Million  
Temperature range: -55 to +85°C (-65 to +185°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°C (-60 to +250°F)  
Compensated range: 1 to 30°C (+33 to +86°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:  $\leq \pm 0.2\%$  of FS  
Span tolerance:  $\leq \pm 0.2\%$  of FS  
Output load: >10K 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)





## 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

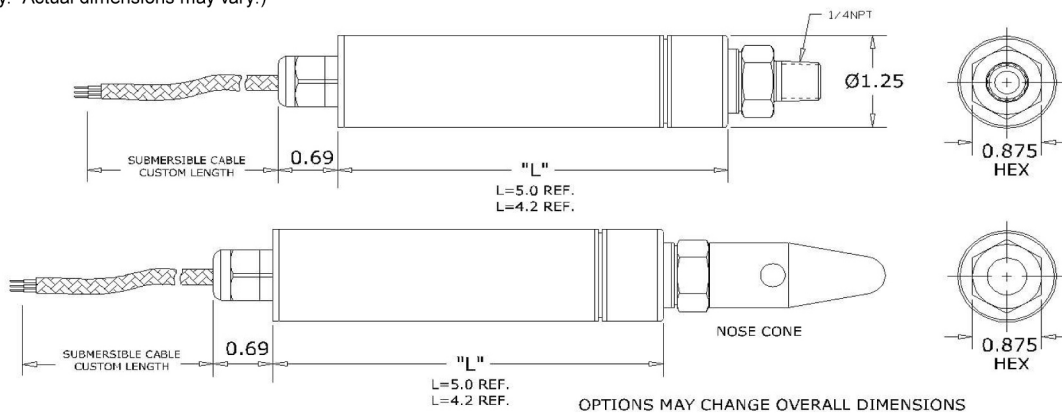
\* BFSL = Best Fit Straight Line

\*\*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

