

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1244  
CALIBRATION DATE: 06-Dec-07

SBE 37 PRESSURE CALIBRATION DATA  
1500 psia S/N 193465

## COEFFICIENTS:

PA0 = 5.032835e+000  
PA1 = 6.028662e-002  
PA2 = 2.131686e-008

PTCA0 = -7.314373e+001  
PTCA1 = 3.719426e+000  
PTCA2 = 1.248040e-002  
PTCB0 = 2.983100e+001  
PTCB1 = 2.133333e-003  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

| PRESSURE<br>PSIA | INST<br>OUTPUT | TEMP<br>ITS90 | COMPUTED<br>PRESSURE | ERROR<br>%FS |
|------------------|----------------|---------------|----------------------|--------------|
| 14.55            | 164.0          | 21.0          | 14.28                | -0.02        |
| 310.99           | 5065.8         | 20.9          | 309.92               | -0.07        |
| 607.92           | 9969.4         | 20.7          | 606.73               | -0.08        |
| 904.81           | 14863.8        | 20.8          | 903.91               | -0.06        |
| 1201.71          | 19742.1        | 20.6          | 1201.20              | -0.03        |
| 1498.64          | 24604.8        | 20.6          | 1498.52              | -0.01        |
| 1201.77          | 19761.2        | 20.6          | 1202.38              | 0.04         |
| 904.79           | 14896.8        | 20.5          | 906.00               | 0.08         |
| 607.89           | 10000.0        | 20.3          | 608.70               | 0.05         |
| 310.96           | 5097.8         | 20.2          | 312.05               | 0.07         |
| 14.54            | 171.0          | 20.2          | 14.90                | 0.02         |

## THERMAL CORRECTION

| TEMP<br>ITS90 | INST<br>OUTPUT | TEMP<br>ITS90 | SPAN<br>MV |
|---------------|----------------|---------------|------------|
| 32.50         | 233.30         | 0.00          | 29.83      |
| 29.00         | 219.80         | 30.00         | 29.90      |
| 24.00         | 196.60         |               |            |
| 18.50         | 173.20         |               |            |
| 15.00         | 156.80         |               |            |
| 4.50          | 120.00         |               |            |
| 1.00          | 102.00         |               |            |

$$x = \text{pressure output} - \text{PTCA0} - \text{PTCA1} * t - \text{PTCA2} * t^2$$

$$n = x * \text{PTCB0} / (\text{PTCB0} + \text{PTCB1} * t + \text{PTCB2} * t^2)$$

$$\text{pressure (psia)} = \text{PA0} + \text{PA1} * n + \text{PA2} * n^2$$

Date, Avg Delta P %FS

06-Dec-07 0.00

