

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 6520  
CALIBRATION DATE: 23-Apr-12

SBE16plus PRESSURE CALIBRATION DATA  
870 psia S/N 2992687

## COEFFICIENTS:

PA0 = -1.279730e-001  
PA1 = 2.635197e-003  
PA2 = 2.071371e-011  
PTEMPA0 = -5.652341e+001  
PTEMPA1 = 4.835559e+001  
PTEMPA2 = -6.644657e-001

PTCA0 = 5.249395e+005  
PTCA1 = -1.437740e+000  
PTCA2 = -3.941065e-002  
PTCB0 = 2.513038e+001  
PTCB1 = -7.250000e-004  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

| PRESSURE<br>PSIA | INST<br>OUTPUT | THERMISTOR<br>OUTPUT | COMPUTED<br>PRESSURE | ERROR<br>%FSR |
|------------------|----------------|----------------------|----------------------|---------------|
| 14.56            | 530457.0       | 1.7                  | 14.55                | -0.00         |
| 179.80           | 593093.0       | 1.7                  | 179.81               | 0.00          |
| 359.80           | 661246.0       | 1.7                  | 359.81               | 0.00          |
| 539.80           | 729318.0       | 1.7                  | 539.79               | -0.00         |
| 719.77           | 797321.0       | 1.7                  | 719.78               | 0.00          |
| 874.73           | 855805.0       | 1.7                  | 874.73               | -0.00         |
| 719.79           | 797323.0       | 1.7                  | 719.79               | -0.00         |
| 539.82           | 729325.0       | 1.7                  | 539.81               | -0.00         |
| 359.84           | 661253.0       | 1.7                  | 359.83               | -0.00         |
| 179.85           | 593101.0       | 1.7                  | 179.84               | -0.00         |
| 14.56            | 530461.0       | 1.7                  | 14.57                | 0.00          |

## THERMAL CORRECTION

| TEMP<br>ITS90 | THERMISTOR<br>OUTPUT | INST<br>OUTPUT |
|---------------|----------------------|----------------|
| 32.50         | 1.90                 | 530543.80      |
| 29.00         | 1.80                 | 530552.06      |
| 24.00         | 1.70                 | 530573.25      |
| 18.50         | 1.60                 | 530588.99      |
| 15.00         | 1.50                 | 530598.86      |
| 4.50          | 1.30                 | 530627.68      |
| 1.00          | 1.20                 | 530624.67      |

| TEMP (ITS90) | SPAN (mV) |
|--------------|-----------|
| -5.00        | 25.13     |
| 35.00        | 25.11     |

$$y = \text{thermistor output}; t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$$

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

$$n = x * PTCB0 / (PTCB0 + PTCB1 * t + PTCB2 * t^2)$$

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

Date, Avg Delta P %FS

23-Apr-12 -0.00

