# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3768
CALIBRATION DATE: 16-Nov-15

SBE 37 PRESSURE CALIBRATION DATA
1450 psia S/N 5757

COEFFICIENTS:

| | | | |
|---|---|---|---|
| PA0 = | 3.491084e-001 | PTCA0 = | -1.689713e+002 |
| PA1 = | 6.888693e-002 | PTCA1 = | 9.604186e-002 |
| PA2 = | -5.420834e-009 | PTCA2 = | 6.578265e-003 |
| | | PTCB0 = | 2.487912e+001 |
| | | PTCB1 = | -1.750000e-004 |
| | | PTCB2 = | 0.000000e+000 |

PRESSURE SPAN CALIBRATION

| PRESSURE (PSIA) | INSTRUMENT OUTPUT (counts) | TEMPERATURE (°C) | COMPUTED PRESSURE (PSIA) | RESIDUAL (%FSR) |
|---|---|---|---|---|
| 14.67 | 44.2 | 21.4 | 14.69 | 0.00 |
| 301.45 | 4207.4 | 21.6 | 301.41 | -0.00 |
| 588.36 | 8375.3 | 21.7 | 588.28 | -0.01 |
| 875.38 | 12547.7 | 21.7 | 875.26 | -0.01 |
| 1162.48 | 16726.6 | 21.7 | 1162.51 | 0.00 |
| 1449.48 | 20903.5 | 21.7 | 1449.42 | -0.00 |
| 1162.54 | 16728.3 | 21.7 | 1162.62 | 0.01 |
| 875.50 | 12552.3 | 21.7 | 875.58 | 0.01 |
| 588.55 | 8380.6 | 21.8 | 588.64 | 0.01 |
| 301.46 | 4208.0 | 22.5 | 301.43 | -0.00 |
| 14.64 | 44.3 | 22.6 | 14.66 | 0.00 |

THERMAL CORRECTION

| TEMP (°C) | INSTRUMENT OUTPUT (counts) |
|---|---|
| 32.50 | 61.55 |
| 29.00 | 59.81 |
| 24.00 | 57.74 |
| 18.50 | 55.50 |
| 15.00 | 54.25 |
| 4.50 | 52.32 |
| 1.00 | 51.46 |

| TEMPERATURE (°C) | SPAN (mV) |
|---|---|
| -5.00 | 24.88 |
| 35.00 | 24.87 |

x = instrument output - PTCA0 - PTCA1 * t - PTCA2 * $t^2$

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

pressure (PSIA) = PA0 + PA1 * n + PA2 * $n^2$

Residual (%FSR) = (computed pressure - true pressure) * 100 / Full Scale Range