

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 9309

CALIBRATION DATE: 28-Oct-13

SBE 37 PRESSURE CALIBRATION DATA

870 psia S/N 3270608

## COEFFICIENTS:

PA0 = 1.922727e-001

PA1 = 2.774759e-003

PA2 = 1.674744e-011

PTEMPA0 = -5.891095e+001

PTEMPA1 = 5.467377e-002

PTEMPA2 = -6.360741e-007

PTCA0 = 5.248376e+005

PTCA1 = 4.771240e+000

PTCA2 = -7.409516e-002

PTCB0 = 2.515675e+001

PTCB1 = -5.000000e-005

PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

| PRESSURE<br>PSIA | INST<br>OUTPUT | THERMISTOR<br>OUTPUT | COMPUTED<br>PRESSURE | ERROR<br>%FSR |
|------------------|----------------|----------------------|----------------------|---------------|
| 14.55            | 530090.0       | 1507.0               | 14.58                | 0.00          |
| 179.83           | 589609.0       | 1508.0               | 179.80               | -0.00         |
| 359.83           | 654415.0       | 1510.0               | 359.84               | 0.00          |
| 539.84           | 719166.0       | 1510.0               | 539.87               | 0.00          |
| 719.85           | 783857.0       | 1511.0               | 719.87               | 0.00          |
| 869.85           | 837712.0       | 1511.0               | 869.83               | -0.00         |
| 719.88           | 783862.0       | 1511.0               | 719.88               | 0.00          |
| 539.89           | 719172.0       | 1511.0               | 539.89               | 0.00          |
| 359.87           | 654419.0       | 1511.0               | 359.85               | -0.00         |
| 179.85           | 589615.0       | 1511.0               | 179.82               | -0.00         |
| 14.55            | 530085.0       | 1512.0               | 14.56                | 0.00          |

## THERMAL CORRECTION

| TEMP<br>ITS90 | THERMISTOR<br>OUTPUT | INST<br>OUTPUT |
|---------------|----------------------|----------------|
| 32.50         | 1706                 | 530390.00      |
| 29.00         | 1639                 | 530383.98      |
| 24.00         | 1544                 | 530384.69      |
| 18.50         | 1440                 | 530375.01      |
| 15.00         | 1374                 | 530366.19      |
| 4.50          | 1176                 | 530330.50      |
| 1.00          | 1110                 | 530316.63      |
| TEMP (ITS90)  |                      | SPAN (mV)      |
| -5.00         |                      | 25.16          |
| 35.00         |                      | 25.16          |

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

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

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

Date, Avg Delta P %FS

28-Oct-13 0.00

