

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1640
CALIBRATION DATE: 19-Jan-11

SBE 39 PRESSURE CALIBRATION DATA
508 psia S/N 5733

COEFFICIENTS:

PA0 = 8.130880e-002
PA1 = 2.384120e-002
PA2 = 1.578677e-009
PTHA0 = -8.783377e+001
PTHA1 = 4.617520e-002
PTHA2 = -3.807894e-007

PTCA0 = 7.584340e+001
PTCA1 = 4.282467e-001
PTCA2 = -1.194519e-002
PTCB0 = 2.526988e+001
PTCB1 = -2.025000e-003
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FSR
14.84	697.5	2471.0	14.85	0.00
105.10	4473.6	2472.0	105.08	-0.00
205.08	8657.3	2471.0	205.10	0.00
305.08	12837.9	2462.0	305.09	0.00
405.10	17016.1	2460.0	405.09	-0.00
505.09	21192.2	2458.0	505.09	-0.00
405.10	17017.0	2457.0	405.11	0.00
305.11	12838.6	2455.0	305.10	-0.00
205.09	8657.9	2454.0	205.10	0.00
105.12	4474.3	2453.0	105.09	-0.01
14.84	697.8	2453.0	14.85	0.00

THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1899.50	704.50
4.50	2033.60	706.56
11.50	2190.90	708.52
18.50	2348.30	708.85
25.50	2506.20	708.12
32.50	2664.50	706.35

TEMP (ITS90)	SPAN (mV)
-5.00	25.28
35.00	25.20

$$y = \text{thermistor output}; t = P_{\text{TEMPA0}} + P_{\text{TEMPA1}} * y + P_{\text{TEMPA2}} * y^2$$

$$x = \text{pressure output} - P_{\text{TC A0}} - P_{\text{TC A1}} * t - P_{\text{TC A2}} * t^2$$

$$n = x * P_{\text{TC B0}} / (P_{\text{TC B0}} + P_{\text{TC B1}} * t + P_{\text{TC B2}} * t^2)$$

$$\text{pressure (psia)} = P_{\text{A0}} + P_{\text{A1}} * n + P_{\text{A2}} * n^2$$

Date, Avg Delta P %FS

19-Jan-11 -0.00

