

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0991  
CALIBRATION DATE: 27-Jun-12

SBE 39 PRESSURE CALIBRATION DATA  
508 psia S/N 1344

## COEFFICIENTS:

PA0 = 3.025133e-001  
PA1 = 2.396725e-002  
PA2 = 1.937778e-009  
PTHA0 = -6.132662e+001  
PTHA1 = 5.050637e-002  
PTHA2 = -8.251312e-008

PTCA0 = 5.178575e+001  
PTCA1 = 8.122164e-001  
PTCA2 = -1.173622e-002  
PTCB0 = 2.516038e+001  
PTCB1 = 6.750000e-004  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FSR
14.63	662.4	1686.0	14.63	-0.00
104.87	4429.4	1686.0	104.89	0.00
204.89	8599.4	1684.0	204.88	-0.00
304.90	12766.7	1684.0	304.86	-0.01
404.88	16932.2	1683.0	404.87	-0.00
504.88	21095.3	1681.0	504.90	0.00
404.90	16933.1	1681.0	404.90	-0.00
304.91	12768.1	1681.0	304.90	-0.00
204.87	8601.8	1680.0	204.94	0.01
104.92	4430.1	1681.0	104.91	-0.00
14.63	662.1	1681.0	14.62	-0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1186.90	659.40
4.50	1306.00	663.99
11.50	1445.40	668.37
18.50	1584.50	671.68
25.50	1724.00	673.84
32.50	1863.30	674.49

TEMP (ITS90)	SPAN (mV)
-5.00	25.16
35.00	25.18

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

$$x = \text{pressure output} - P_{\text{TCA0}} - P_{\text{TCA1}} * t - P_{\text{TCA2}} * t^2$$

$$n = x * P_{\text{TCB0}} / (P_{\text{TCB0}} + P_{\text{TCB1}} * t + P_{\text{TCB2}} * t^2)$$

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

Date, Avg Delta P %FS

27-Jun-12 -0.00

