

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1636  
CALIBRATION DATE: 11-Feb-14

SBE 39 PRESSURE CALIBRATION DATA  
508 psia S/N 5635

## COEFFICIENTS:

PA0 = -1.208237e-002  
PA1 = 2.405815e-002  
PA2 = 1.567704e-009  
PTHA0 = -8.793930e+001  
PTHA1 = 4.598071e-002  
PTHA2 = -3.697736e-007

PTCA0 = -2.688738e+001  
PTCA1 = 1.734437e-001  
PTCA2 = -8.956305e-003  
PTCB0 = 2.496113e+001  
PTCB1 = -1.575000e-003  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.67	582.4	2437.0	14.68	0.00
104.93	4326.5	2438.0	104.91	-0.00
204.94	8474.8	2439.0	204.93	-0.00
304.96	12620.5	2439.0	304.95	-0.00
404.96	16763.6	2439.0	404.95	-0.00
504.97	20904.3	2439.0	504.96	-0.00
404.97	16765.1	2439.0	404.99	0.00
304.97	12622.0	2439.0	304.98	0.00
204.97	8476.2	2438.0	204.97	0.00
104.96	4328.7	2439.0	104.96	-0.00
14.67	582.4	2440.0	14.68	0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1909.10	595.10
1.00	1965.50	595.18
4.50	2044.10	595.64
8.00	2122.60	596.14
11.50	2201.60	595.87
15.00	2280.50	595.90
18.50	2359.60	595.38
22.00	2438.90	594.71
25.50	2518.20	593.78
29.00	2597.50	592.57
32.50	2676.90	591.42
TEMP(ITS90)		SPAN(mV)
-5.00		24.97
35.00		24.91

$y = \text{thermistor output}; t = \text{PTHA0} + \text{PTHA1} * y + \text{PTHA2} * y^2$

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

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

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

