

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3759  
CALIBRATION DATE: 02-Mar-15

SBE 39 PRESSURE CALIBRATION DATA  
870 psia S/N 2373768

## COEFFICIENTS:

PA0 = 7.114774e-002  
PA1 = 4.103805e-002  
PA2 = 5.881505e-009  
PTHA0 = -7.581233e+001  
PTHA1 = 4.981434e-002  
PTHA2 = -3.927216e-007

PTCA0 = 4.879078e+001  
PTCA1 = 2.210836e-001  
PTCA2 = -6.231998e-003  
PTCB0 = 2.544213e+001  
PTCB1 = -5.750000e-004  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.61	405.1	2032.0	14.63	0.00
179.89	4426.6	2037.0	179.87	-0.00
359.90	8802.6	2038.0	359.89	-0.00
539.90	13173.5	2039.0	539.92	0.00
719.91	17538.1	2039.0	719.92	0.00
869.90	21169.9	2040.0	869.87	-0.00
719.91	17538.6	2039.0	719.94	0.00
539.92	13173.6	2039.0	539.93	0.00
359.92	8803.0	2039.0	359.90	-0.00
179.91	4427.2	2038.0	179.89	-0.00
14.61	405.0	2039.0	14.63	0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1509.80	420.00
1.00	1561.10	420.46
4.50	1633.30	421.03
8.00	1705.30	421.51
11.50	1777.80	422.01
15.00	1850.10	422.10
18.50	1922.40	422.31
22.00	1994.90	422.03
25.50	2067.20	422.01
29.00	2140.40	421.41
32.50	2212.90	420.76
TEMP(ITS90)		SPAN(mV)
-5.00		25.45
35.00		25.42

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

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

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

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

