

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3774
CALIBRATION DATE: 02-Mar-15

SBE 39 PRESSURE CALIBRATION DATA
870 psia S/N 2476898

COEFFICIENTS:

PA0 = 5.689427e-002
PA1 = 4.100162e-002
PA2 = 3.476189e-009
PTHA0 = -7.910513e+001
PTHA1 = 4.895614e-002
PTHA2 = -3.863984e-007

PTCA0 = -5.764281e+000
PTCA1 = 1.756669e-001
PTCA2 = -4.933097e-003
PTCB0 = 2.548963e+001
PTCB1 = -6.750000e-004
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.61	350.7	2138.0	14.63	0.00
179.89	4376.7	2142.0	179.87	-0.00
359.90	8759.6	2143.0	359.89	-0.00
539.90	13139.5	2144.0	539.92	0.00
719.91	17515.3	2144.0	719.92	0.00
869.90	21158.4	2144.0	869.88	-0.00
719.91	17515.5	2144.0	719.93	0.00
539.92	13139.6	2143.0	539.93	0.00
359.92	8759.9	2143.0	359.90	-0.00
179.91	4377.3	2143.0	179.89	-0.00
14.61	350.8	2143.0	14.63	0.00

THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1605.50	363.10
1.00	1658.10	363.56
4.50	1731.40	364.03
8.00	1804.80	364.51
11.50	1878.60	364.81
15.00	1952.30	364.90
18.50	2026.20	364.91
22.00	2100.00	364.83
25.50	2174.10	364.61
29.00	2248.10	364.41
32.50	2322.20	363.86
TEMP(ITS90)		SPAN(mV)
-5.00		25.49
35.00		25.47

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

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

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

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

