

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1624  
CALIBRATION DATE: 11-Feb-14

SBE 39 PRESSURE CALIBRATION DATA  
508 psia S/N 5503

## COEFFICIENTS:

PA0 = 5.774611e-002  
PA1 = 2.398818e-002  
PA2 = 1.501950e-009  
PTHA0 = -8.946232e+001  
PTHA1 = 4.591780e-002  
PTHA2 = -3.636062e-007

PTCA0 = 2.759777e+001  
PTCA1 = 3.236310e-001  
PTCA2 = -9.756438e-003  
PTCB0 = 2.507613e+001  
PTCB1 = -1.750000e-004  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.66	639.2	2474.0	14.67	0.00
104.92	4398.4	2476.0	104.89	-0.01
204.93	8563.9	2477.0	204.91	-0.00
304.93	12726.7	2477.0	304.92	-0.00
404.94	16887.7	2478.0	404.93	-0.00
504.94	21045.3	2477.0	504.92	-0.00
404.94	16889.5	2476.0	404.98	0.01
304.94	12729.1	2477.0	304.98	0.01
204.94	8565.5	2476.0	204.95	0.00
104.94	4399.3	2476.0	104.91	-0.00
14.66	639.5	2474.0	14.68	0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1945.70	645.10
1.00	2001.80	645.78
4.50	2080.60	646.58
8.00	2159.30	647.29
11.50	2238.50	647.99
15.00	2317.60	648.22
18.50	2396.50	648.13
22.00	2476.10	647.90
25.50	2555.40	647.42
29.00	2635.00	646.65
32.50	2714.30	645.64
TEMP(ITS90)	SPAN(mV)	
-5.00	25.08	
35.00	25.07	

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

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

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

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

