

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0189  
 CALIBRATION DATE: 17-Jan-13

WEBB GLIDER PRESSURE CALIBRATION DATA  
 508 psia S/N 2870347

## COEFFICIENTS:

PA0 = -7.705705e-002	PTCA0 = 8.520894e+000
PA1 = 2.437979e-002	PTCA1 = 3.421585e-002
PA2 = 2.148199e-009	PTCA2 = -7.732159e-003
PTHA0 = -7.093408e+001	PTCB0 = 2.504325e+001
PTHA1 = 5.087308e-002	PTCB1 = -1.500000e-004
PTHA2 = -4.432822e-007	PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FSR
14.77	614.4	1868.0	14.77	0.00
105.03	4315.2	1867.0	105.05	0.00
205.05	8411.9	1868.0	205.05	0.00
305.06	12505.9	1868.0	305.06	0.00
405.07	16597.0	1868.0	405.07	0.00
505.08	20685.2	1868.0	505.08	-0.00
405.08	16597.5	1868.0	405.08	0.00
305.08	12506.3	1867.0	305.07	-0.00
205.08	8412.4	1867.0	205.06	-0.00
105.07	4316.0	1867.0	105.07	0.00
14.77	613.7	1866.0	14.76	-0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
32.50	2070.30	625.86
29.00	1999.30	627.77
24.00	1898.00	629.53
18.50	1785.20	631.07
15.00	1715.10	631.80
4.50	1502.00	632.92
1.00	1432.20	633.26

  

TEMP (ITS90)	SPAN (mV)
-5.00	25.04
35.00	25.04

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

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

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

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

Date, Avg Delta P %FS

17-Jan-13 0.00

