

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0047  
 CALIBRATION DATE: 25-Jan-07

90340 PRESSURE CALIBRATION DATA  
 2900 psia S/N 7689

**COEFFICIENTS:**

PA0 = -5.753644e-001  
 PA1 = 1.400781e-001  
 PA2 = -3.575001e-008  
 PTHA0 = -7.982337e+001  
 PTHA1 = 4.693919e-002  
 PTHA2 = -2.119431e-007

PTCA0 = -3.943184e+002  
 PTCA1 = -1.681827e-001  
 PTCA2 = -1.029137e-003  
 PTCB0 = 2.417600e+001  
 PTCB1 = -2.000000e-004  
 PTCB2 = 0.000000e+000

**PRESSURE SPAN CALIBRATION**

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FSR
14.72	-289.5	2181.6	14.68	-0.00
592.08	3835.8	2183.5	592.01	-0.00
1169.11	7967.1	2185.8	1168.97	-0.01
1746.30	12109.5	2187.1	1746.24	-0.00
2323.57	16261.1	2187.2	2323.56	-0.00
2900.37	20417.5	2188.2	2900.32	-0.00
2323.22	16259.3	2187.7	2323.31	0.00
1746.10	12109.1	2185.5	1746.18	0.00
1169.23	7969.3	2184.9	1169.27	0.00
591.84	3835.2	2184.3	591.93	0.00
14.72	-288.9	2183.1	14.77	0.00

**THERMAL CORRECTION**

TEMP ITS90	PRESS TEMP	INST OUTPUT
32.50	2419.20	-288.64
29.00	2343.20	-287.55
24.00	2234.80	-286.35
18.50	2115.10	-285.40
15.00	2038.40	-284.92
4.50	1811.20	-282.63
1.00	1735.60	-282.10

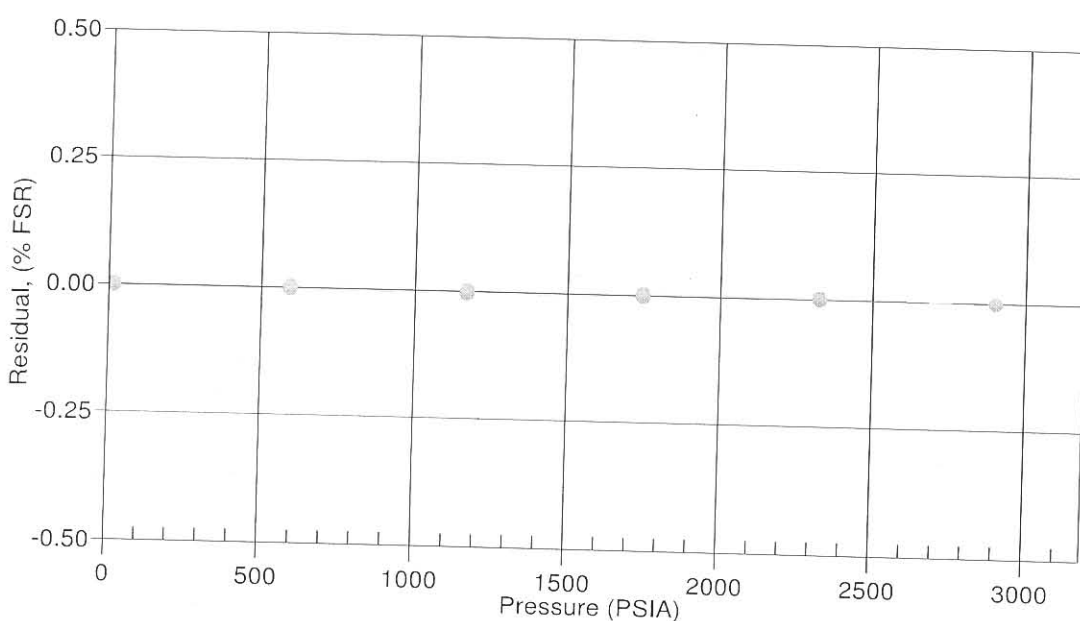
TEMP (ITS90)	SPAN (mV)
-5.00	24.18
35.00	24.17

$$y = \text{thermistor output}; t = P\text{TEMPA}0 + P\text{TEMPA}1 * y + P\text{TEMPA}2 * y^2$$

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

$$n = x * PTCB0 / (PTCB0 + PTCB1 * t + PTCB2 * t^2)$$

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



Date, Avg Delta P %FS

25-Jan-07 -0.00