

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0039
CALIBRATION DATE: 04-Feb-15

WEBB GLIDER PRESSURE CALIBRATION DATA
508 psia S/N 5631

COEFFICIENTS:

PA0 = 1.017992e-002	PTCA0 = 4.916944e+001
PA1 = 2.445795e-002	PTCA1 = 1.633166e-001
PA2 = 1.315630e-009	PTCA2 = -6.255219e-003
PTHA0 = -8.437944e+001	PTCB0 = 2.511137e+001
PTHA1 = 4.727137e-002	PTCB1 = -9.250000e-004
PTHA2 = -3.618783e-007	PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.56	644.4	2318.0	14.57	0.00
104.83	4329.6	2320.0	104.81	-0.00
204.84	8412.6	2321.0	204.82	-0.00
304.84	12493.8	2321.0	304.84	0.00
404.84	16572.7	2322.0	404.84	0.00
504.84	20649.0	2322.0	504.82	-0.00
404.84	16573.2	2322.0	404.85	0.00
304.84	12494.6	2323.0	304.86	0.00
204.84	8413.5	2324.0	204.84	0.00
104.83	4330.3	2323.0	104.82	-0.00
14.56	644.2	2324.0	14.57	0.00

THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
32.50	2521.30	653.00
29.00	2444.20	653.70
24.00	2334.10	654.61
18.50	2213.90	655.25
15.00	2137.60	655.25
4.50	1907.90	654.86
1.00	1831.90	654.46

TEMP(ITS90)	SPAN(mV)
-5.00	25.12
35.00	25.08

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

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

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

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

