

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3936
CALIBRATION DATE: 29-Nov-16

SBE 37 PRESSURE CALIBRATION DATA
10153 psia S/N 7325

COEFFICIENTS:

PA0 = 2.275215e+000
PA1 = 4.883415e-001
PA2 = -4.677459e-007

PTCA0 = -1.223226e+001
PTCA1 = 3.071060e-001
PTCA2 = -4.701890e-003
PTCB0 = 2.482850e+001
PTCB1 = 7.000000e-004
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

THERMAL CORRECTION

PRESSURE (PSIA)	INSTRUMENT OUTPUT (counts)	TEMPERATURE (°C)	COMPUTED PRESSURE (PSIA)	RESIDUAL (%FSR)	TEMP (°C)	INSTRUMENT OUTPUT (counts)
14.65	18.1	24.0	14.80	0.00	32.50	19.65
2014.81	4131.7	23.8	2014.30	-0.00	29.00	19.62
4014.89	8279.7	23.8	4014.51	-0.00	24.00	19.34
6015.17	12461.8	23.8	6014.88	-0.00	18.50	18.70
8014.97	16677.9	23.8	8014.98	0.00	15.00	18.18
10014.81	20927.7	23.8	10014.26	-0.01	4.50	15.98
8014.76	16679.5	23.8	8015.73	0.01	1.00	14.93
6015.17	12462.9	23.8	6015.41	0.00		
4014.81	8280.8	23.7	4015.05	0.00	TEMPERATURE (°C)	SPAN (mV)
2014.84	4132.4	23.7	2014.65	-0.00	-5.00	24.82
14.64	18.4	23.7	14.96	0.00	35.00	24.85

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

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

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

$$\text{Residual (\%FSR)} = (\text{computed pressure} - \text{true pressure}) * 100 / \text{Full Scale Range}$$

