

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0206
CALIBRATION DATE: 13-Feb-17

Glider Payload CTD PRESSURE CALIBRATION DATA
44 psia S/N 10527180

COEFFICIENTS:

PA0 = 4.781439e-002
PA1 = 1.360389e-004
PA2 = -1.441110e-012
PTempa0 = -8.870101e+001
PTempa1 = 4.554595e-002
PTempa2 = -1.971600e-007

PTCA0 = 5.250356e+005
PTCA1 = 2.242212e+001
PTCA2 = -3.089750e-001
PTCB0 = 2.514675e+001
PTCB1 = -4.500000e-004
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

THERMAL CORRECTION

PRESSURE (PSIA)	INSTRUMENT OUTPUT (counts)	THERMISTOR OUTPUT (volts)	COMPUTED PRESSURE (PSIA)	RESIDUAL (%FSR)	TEMP (°C)	THERMISTOR OUTPUT (volts)	INSTRUMENT OUTPUT (counts)
14.69	633110.0	2479.0	14.69	0.00	32.50	2692	637879.20
24.70	706907.0	2480.0	24.70	-0.00	29.00	2614	637769.60
29.71	743834.0	2480.0	29.71	-0.00	24.00	2502	637819.00
34.72	780812.0	2479.0	34.72	-0.00	18.50	2378	637825.20
39.73	817845.0	2479.0	39.73	-0.00	15.00	2300	637655.00
44.73	854891.0	2479.0	44.73	0.00	4.50	2064	637535.40
39.73	817875.0	2478.0	39.73	0.00	1.00	1987	637472.00
34.72	780873.0	2478.0	34.72	0.00			
29.71	743826.0	2478.0	29.71	0.00	TEMPERATURE (°C)		SPAN (mV)
24.71	706925.0	2477.0	24.71	0.00	-5.00		25.15
14.68	633051.0	2477.0	14.68	-0.00	35.00		25.13

y = thermistor output (counts)

$$t = P_{Tempa0} + P_{Tempa1} * y + P_{Tempa2} * y^2$$

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

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

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

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

Date, Offset (%FSR)

● 13-Feb-17 -0.00

