

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0164

CALIBRATION DATE: 25-Sep-15

Glider Payload CTD PRESSURE CALIBRATION DATA

FSR: 44 psia S/N 4384302

COEFFICIENTS:

PA0 = 2.482991e-002

PA1 = 1.388575e-004

PA2 = 4.445401e-012

PTEMPA0 = 1.919544e+002

PTEMPA1 = -6.338197e-002

PTEMPA2 = -2.616702e-008

PTCA0 = 5.247909e+005

PTCA1 = 2.833597e+001

PTCA2 = -8.976568e-001

PTCB0 = 2.491388e+001

PTCB1 = -2.500000e-005

PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.63	629799.0	2665.0	14.63	-0.00
24.64	701242.0	2668.0	24.64	0.00
29.65	736858.0	2660.0	29.65	0.00
34.65	772389.0	2656.0	34.65	0.00
39.66	807864.0	2658.0	39.66	0.00
44.67	843248.0	2659.0	44.67	-0.00
39.67	807881.0	2656.0	39.67	-0.00
34.65	772394.0	2653.0	34.66	0.00
29.65	736838.0	2661.0	29.65	-0.01
24.64	701246.0	2660.0	24.64	-0.00
14.63	629819.0	2656.0	14.63	0.00

THERMAL CORRECTION

TEMP ITS90	THERMISTOR OUTPUT	INST OUTPUT
32.50	2513	636523.80
29.00	2568	636575.70
24.00	2647	636660.20
18.50	2734	636746.20
15.00	2789	636765.00
4.50	2954	636664.10
1.00	3009	636528.00

TEMP (ITS90)	SPAN (mV)
-5.00	24.91
35.00	24.91

$y = \text{thermistor output}; t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$

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

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

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

