

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0173
CALIBRATION DATE: 05-Feb-16

Glider Payload CTD PRESSURE CALIBRATION DATA
44 psia S/N 10291303

COEFFICIENTS:

PA0 = 2.015171e-002
PA1 = 1.375476e-004
PA2 = -1.587024e-012
PTempa0 = -8.080248e+001
PTempa1 = 4.568299e-002
PTempa2 = 1.887746e-007

PTCA0 = 5.254913e+005
PTCA1 = 2.081830e+001
PTCA2 = -6.381934e-001
PTCB0 = 2.508975e+001
PTCB1 = 5.500000e-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	632445.0	2237.0	14.69	-0.00	32.50	2455	639938.50
24.69	705424.0	2242.0	24.69	-0.00	29.00	2380	640094.25
29.69	742014.0	2243.0	29.69	0.00	24.00	2273	640137.25
34.69	778587.0	2243.0	34.69	0.00	18.50	2155	640130.50
39.71	815287.0	2243.0	39.71	-0.00	15.00	2079	640105.75
44.71	851941.0	2243.0	44.71	-0.00	4.50	1853	640091.00
39.71	815316.0	2244.0	39.71	0.00	1.00	1778	639985.00
34.70	778664.0	2244.0	34.70	0.00			
29.70	742035.0	2245.0	29.70	0.00			
24.67	705445.0	2246.0	24.69	0.03			
14.68	632435.0	2246.0	14.68	0.00			
					TEMPERATURE (°C) SPAN (mV)		
					-5.00 25.09		
					35.00 25.11		

y = thermistor output (counts)

$$t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$$

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

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

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

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

Date, Offset (%FSR)

● 05-Feb-16 -0.00

