

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0150
CALIBRATION DATE: 03-Feb-16

Glider Payload CTD PRESSURE CALIBRATION DATA
44 psia S/N 4369483

COEFFICIENTS:

PA0 = 1.630620e-002
PA1 = 1.382514e-004
PA2 = 4.258961e-012
PTempa0 = 1.680473e+002
PTempa1 = -4.854549e-002
PTempa2 = -2.688213e-006

PTCA0 = 5.249990e+005
PTCA1 = 1.029479e+001
PTCA2 = -2.345149e-001
PTCB0 = 2.500575e+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)
14.66	630670.0	2617.0	14.66	0.00	32.50	2457	636592.80
24.67	702374.0	2621.0	24.67	-0.00	29.00	2515	636691.80
29.68	738173.0	2618.0	29.68	0.00	24.00	2595	636724.20
34.69	773898.0	2619.0	34.69	0.00	18.50	2683	636631.60
39.70	809525.0	2609.0	39.70	0.00	15.00	2737	636620.00
44.70	845048.0	2613.0	44.70	-0.00	4.50	2901	636596.80
39.70	809520.0	2616.0	39.70	0.00	1.00	2958	636571.40
34.69	773926.0	2617.0	34.69	0.00			
29.69	738238.0	2619.0	29.69	-0.00	TEMPERATURE (°C)		SPAN (mV)
24.67	702393.0	2618.0	24.67	-0.00	-5.00		25.01
14.66	630621.0	2618.0	14.66	-0.00	35.00		24.99

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)

● 03-Feb-16 0.00

