

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: 1638
CALIBRATION DATE: 11-Feb-14

SBE 39 PRESSURE CALIBRATION DATA
508 psia S/N 5731

COEFFICIENTS:

PA0 = 1.058823e-001
PA1 = 2.400804e-002
PA2 = 1.530246e-009
PTHA0 = -8.908173e+001
PTHA1 = 4.488193e-002
PTHA2 = -2.377415e-007

PTCA0 = -2.236571e+001
PTCA1 = 4.180607e-001
PTCA2 = -9.901248e-003
PTCB0 = 2.498363e+001
PTCB1 = -1.275000e-003
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.67	588.4	2508.0	14.68	0.00
104.93	4341.0	2509.0	104.90	-0.01
204.94	8499.3	2510.0	204.93	-0.00
304.96	12654.9	2510.0	304.95	-0.00
404.96	16808.1	2509.0	404.96	-0.00
504.97	20958.6	2510.0	504.95	-0.00
404.97	16809.4	2509.0	404.99	0.00
304.97	12656.7	2509.0	304.99	0.00
204.97	8500.9	2509.0	204.97	0.00
104.96	4343.7	2509.0	104.97	0.00
14.67	588.4	2509.0	14.68	0.00

THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1972.00	593.30
1.00	2029.00	594.18
4.50	2108.40	595.28
8.00	2188.40	596.39
11.50	2268.50	597.38
15.00	2348.10	597.92
18.50	2428.10	598.02
22.00	2508.30	598.10
25.50	2588.60	598.32
29.00	2668.80	597.65
32.50	2748.80	596.74
TEMP(ITS90)		SPAN(mV)
-5.00		24.99
35.00		24.94

$y = \text{thermistor output}; t = \text{PTHA0} + \text{PTHA1} * y + \text{PTHA2} * y^2$

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

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

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

