

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: 0041
CALIBRATION DATE: 05-Mar-15

SBE 49 PRESSURE CALIBRATION DATA
FSR: 508 psia S/N 1987

COEFFICIENTS:

PA0 = 6.368520e-002
PA1 = 1.560846e-003
PA2 = 6.643140e-012
PTEMPA0 = -7.290909e+001
PTEMPA1 = 5.054490e+001
PTEMPA2 = -4.314378e-001

PTCA0 = 5.246921e+005
PTCA1 = 5.359845e+000
PTCA2 = -1.554112e-001
PTCB0 = 2.490013e+001
PTCB1 = 2.250000e-004
PTCB2 = 0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.79	534169.0	1.9	14.79	-0.00
105.07	591989.0	1.9	105.05	-0.00
205.08	656023.0	1.9	205.06	-0.00
305.08	720011.0	1.9	305.05	-0.01
405.09	783979.0	1.9	405.07	-0.00
505.09	847918.0	1.9	505.09	0.00
405.09	783997.0	1.9	405.10	0.00
305.09	720040.0	1.9	305.10	0.00
205.08	656046.0	1.9	205.09	0.00
105.08	592023.0	1.9	105.10	0.01
14.79	534169.0	1.9	14.79	-0.00

THERMAL CORRECTION

TEMP ITS90	THERMISTOR OUTPUT	INST OUTPUT
32.50	2.12	534772.58
29.00	2.05	534789.36
24.00	1.95	534804.16
18.50	1.84	534809.26
15.00	1.77	534808.77
4.50	1.55	534783.21
1.00	1.48	534770.20
TEMP(ITS90) SPAN(mV)		
-5.00		24.90
35.00		24.91

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

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

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

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

