

# 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: 3769  
CALIBRATION DATE: 02-Mar-15

SBE 39 PRESSURE CALIBRATION DATA  
870 psia S/N 2471022

## COEFFICIENTS:

PA0 = 1.204597e-001  
PA1 = 4.213030e-002  
PA2 = 3.276851e-009  
PTHA0 = -7.574111e+001  
PTHA1 = 5.049225e-002  
PTHA2 = -5.286128e-007

PTCA0 = 1.224508e+001  
PTCA1 = 2.850263e-001  
PTCA2 = -6.913012e-003  
PTCB0 = 2.484813e+001  
PTCB1 = -9.750000e-004  
PTCB2 = 0.000000e+000

## PRESSURE SPAN CALIBRATION

PRESSURE PSIA	INST OUTPUT	THERMISTOR OUTPUT	COMPUTED PRESSURE	ERROR %FS
14.61	359.1	2019.0	14.63	0.00
179.89	4276.1	2022.0	179.87	-0.00
359.90	8540.7	2025.0	359.89	-0.00
539.90	12802.7	2025.0	539.92	0.00
719.91	17061.2	2025.0	719.92	0.00
869.90	20606.9	2025.0	869.88	-0.00
719.91	17061.3	2025.0	719.92	0.00
539.92	12803.0	2025.0	539.93	0.00
359.92	8541.2	2024.0	359.91	-0.00
179.91	4276.7	2024.0	179.89	-0.00
14.61	359.1	2023.0	14.63	0.00

## THERMAL CORRECTION

TEMP ITS90	PRESS TEMP	INST OUTPUT
-1.50	1493.70	368.20
1.00	1545.00	369.22
4.50	1616.40	369.99
8.00	1688.30	370.65
11.50	1760.20	371.12
15.00	1832.20	371.50
18.50	1904.40	371.74
22.00	1976.90	371.67
25.50	2049.00	371.50
29.00	2121.60	371.29
32.50	2194.00	370.78
TEMP(ITS90)		SPAN(mV)
-5.00		24.85
35.00		24.81

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

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

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

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

