SEA-BIRD SCIENTIFIC
Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

+1 425-643-9866
seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 21145
CALIBRATION DATE: 22-Aug-19

SBE 37 V2 PRESSURE CALIBRATION DATA
2901 psia S/N 5044127

COEFFICIENTS:

PA0 =	-2.210438e-001	PTCA0 =	5.235283e+005
PA1 =	9.217035e-003	PTCA1 =	-9.301318e+000
PA2 =	5.193349e-011	PTCA2 =	3.597627e-001
PTEMPA0 =	-9.488639e+001	PTCB0 =	1.026713e+002
PTEMPA1 =	4.092708e-002	PTCB1 =	-2.833067e-003
PTEMPA2 =	9.322241e-007	PTCB2 =	0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE (PSIA)	INSTRUMENT OUTPUT (counts)	THERMISTOR OUTPUT (counts)	COMPUTED PRESSURE (PSIA)	RESIDUAL (%FSR)
14.65	525119.1	2708.5	14.68	0.00
591.08	587579.4	2708.8	590.96	-0.00
1168.20	650067.7	2709.8	1167.89	-0.01
1738.88	710865.5	2709.9	1729.61	-0.32
2322.75	775028.9	2710.7	2322.85	0.00
2899.87	837379.5	2711.2	2899.73	-0.00
2322.75	775032.1	2711.1	2322.88	0.00
1745.54	712599.4	2711.1	1745.64	0.00
1168.36	650126.5	2711.7	1168.43	0.00
591.15	587611.5	2711.5	591.25	0.00
14.65	525120.9	2711.9	14.69	0.00

THERMAL CORRECTION

TEMP (°C)	THERMISTOR OUTPUT (counts)	INSTRUMENT OUTPUT (counts)
32.50	2918	525292.90
29.00	2843	525252.53
24.00	2735	525202.63
18.50	2615	525168.24
15.00	2538	525157.24
4.50	2307	525182.21
1.00	2230	525209.27

TEMPERATURE (°C)	SPAN
-5.50	102.69
34.49	102.57

y = thermistor output (counts)

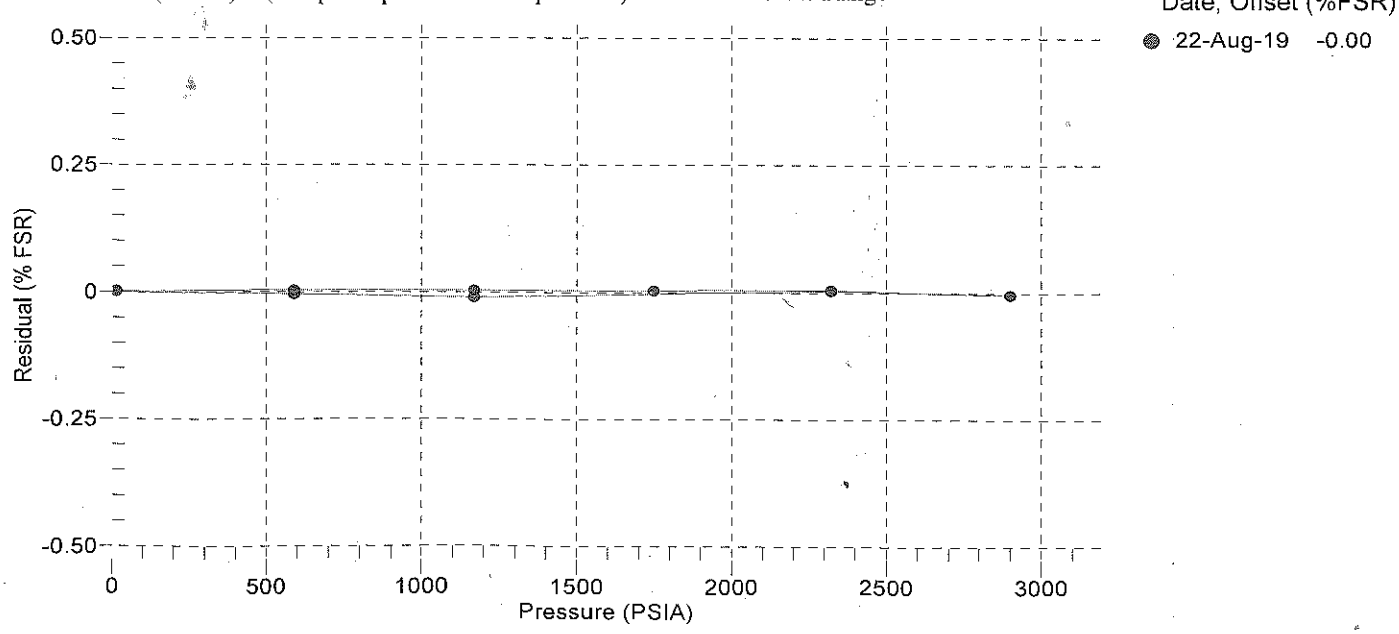
$t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$

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

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

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

Residual (%FSR) = (computed pressure - true pressure) * 100 / Full Scale Range



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SENSOR SERIAL NUMBER: 21145
CALIBRATION DATE: 28-Aug-19

SBE 37 V2 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

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g = -1.008209e+000
h =  1.439967e-001
i = -1.319204e-004
j =  2.960761e-005

CPcor = -9.5700e-008
CTcor =  3.2500e-006
WBOTC =  1.5738e-007
```

BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (Hz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2647.35	0.00000	0.00000
1.0000	34.7916	2.97405	5256.56	2.97406	0.00001
4.5000	34.7718	3.28094	5454.66	3.28093	-0.00001
15.0000	34.7286	4.26199	6043.90	4.26199	-0.00001
18.5000	34.7191	4.60686	6237.58	4.60687	0.00000
24.0000	34.7080	5.16429	6538.24	5.16430	0.00001
29.0000	34.7002	5.68544	6807.04	5.68544	-0.00000
32.4999	34.6909	6.05658	6992.00	6.05658	-0.00000

f = Instrument Output(Hz) * sqrt(1.0 + WBOTC * t) / 1000.0

t = temperature (°C); p = pressure (decibars); δ = CTcor; ε = CPcor;

Conductivity (S/m) = $(g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \varepsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity