

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2774
CALIBRATION DATE: 04-Dec-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.32567347e-003
h = 6.47169632e-004
i = 2.43009236e-005
j = 2.50450969e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121259e-003
b = 6.05176997e-004
c = 1.65783942e-005
d = 2.50613901e-006
f0 = 2805.352

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2805.352	-1.5000	-0.00002
1.0000	2965.654	1.0000	0.00003
4.5000	3201.050	4.5000	0.00002
8.0000	3449.569	8.0000	-0.00005
11.5000	3711.568	11.5000	-0.00001
15.0000	3987.368	15.0000	-0.00001
18.5000	4277.299	18.5000	0.00004
22.0000	4581.663	22.0000	0.00004
25.5000	4900.752	25.5000	-0.00004
29.0000	5234.868	29.0000	-0.00003
32.5000	5584.278	32.5000	0.00002

Temperature ITS-90 = $1 / \{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature IPTS-68 = $1 / \{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

