

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 22-Sep-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35185569e-003
h = 6.42827557e-004
i = 2.32876635e-005
j = 2.25889837e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121067e-003
b = 6.00538278e-004
c = 1.59881773e-005
d = 2.26043960e-006
f0 = 2948.180

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2948.180	-1.4999	0.00002
1.0001	3117.969	1.0001	-0.00003
4.5001	3367.417	4.5001	-0.00002
8.0001	3630.910	8.0001	0.00000
11.5001	3908.825	11.5001	0.00002
15.0001	4201.530	15.0001	0.00005
18.5001	4509.367	18.5000	-0.00005
22.0001	4832.704	22.0001	-0.00001
25.5001	5171.857	25.5001	0.00003
29.0001	5527.135	29.0001	-0.00003
32.5001	5898.862	32.5001	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

