

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5171
CALIBRATION DATE: 22-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39243178e-003
h = 6.45512521e-004
i = 2.30311835e-005
j = 2.14969050e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121226e-003
b = 6.01419785e-004
c = 1.56842600e-005
d = 2.15119505e-006
f0 = 3137.637

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3137.637	-1.5000	0.00000
1.0000	3318.062	1.0000	-0.00000
4.5000	3583.084	4.5000	-0.00000
8.0000	3862.970	8.0000	-0.00002
11.5000	4158.122	11.5000	0.00002
15.0000	4468.920	15.0000	0.00005
18.5000	4795.726	18.5000	-0.00004
22.0000	5138.919	22.0000	-0.00004
25.5000	5498.845	25.5000	0.00003
29.0000	5875.822	29.0000	0.00001
32.5000	6270.176	32.5000	-0.00001

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

