

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5017
CALIBRATION DATE: 22-Jun-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33033138e-003
h = 6.35929927e-004
i = 2.12198066e-005
j = 1.89136503e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121226e-003
b = 5.97636139e-004
c = 1.52642996e-005
d = 1.89279490e-006
f0 = 2870.126

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2870.126	-1.5000	0.00000
1.0000	3036.239	1.0000	-0.00001
4.5000	3280.332	4.5000	0.00000
8.0000	3538.228	8.0000	-0.00001
11.5000	3810.308	11.5000	0.00001
15.0000	4096.940	15.0000	0.00004
18.5000	4398.468	18.5000	-0.00005
22.0000	4715.262	22.0000	0.00000
25.5000	5047.638	25.5000	-0.00002
28.9999	5395.925	29.0000	0.00006
32.5000	5760.438	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

