

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 5052
CALIBRATION DATE: 21-Sep-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39596332e-003
h = 6.45118196e-004
i = 2.29878647e-005
j = 2.15185081e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121082e-003
b = 6.00929330e-004
c = 1.55913127e-005
d = 2.15334817e-006
f0 = 3158.194

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3158.194	-1.4999	0.00001
1.0000	3339.946	1.0000	0.00002
4.5001	3606.937	4.5000	-0.00007
8.0001	3888.919	8.0001	-0.00002
11.5001	4186.288	11.5001	0.00003
15.0001	4499.434	15.0002	0.00010
18.5001	4828.712	18.5001	-0.00003
22.0001	5174.511	22.0000	-0.00009
25.5001	5537.191	25.5001	0.00003
29.0001	5917.056	29.0001	0.00001
32.5001	6314.444	32.5001	0.00000

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

