

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2864
CALIBRATION DATE: 06-Nov-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38018846e-003
h = 6.47492923e-004
i = 2.33541005e-005
j = 2.16189542e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121076e-003
b = 6.03459171e-004
c = 1.61172715e-005
d = 2.16343924e-006
f0 = 3065.101

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3065.101	-1.4999	0.00001
1.0001	3240.746	1.0001	-0.00002
4.5001	3498.712	4.5001	-0.00001
8.0001	3771.104	8.0001	0.00000
11.5001	4058.304	11.5001	-0.00000
15.0001	4360.691	15.0001	0.00004
18.5001	4678.613	18.5001	-0.00002
22.0001	5012.435	22.0001	-0.00001
25.5001	5362.488	25.5001	0.00000
29.0001	5729.092	29.0001	-0.00001
32.5001	6112.564	32.5001	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

