

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0015
CALIBRATION DATE: 02-Apr-11

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.18256174e-003$
 $h = 5.90541957e-004$
 $i = 6.49639474e-007$
 $j = -2.61527635e-006$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763624e-003$
 $b = 5.83000349e-004$
 $c = 7.81408739e-006$
 $d = -2.61505209e-006$
 $f_0 = 2484.484$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2484.484	0.9999	-0.00010
4.5000	2688.667	4.5002	0.00017
14.9999	3371.971	14.9999	0.00001
18.5000	3624.516	18.4997	-0.00025
24.0000	4047.784	24.0001	0.00014
29.0000	4461.520	29.0002	0.00017
32.5000	4768.094	32.4999	-0.00014

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

