

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0650
CALIBRATION DATE: 02-Apr-11

SBE19 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.12020997\text{e-}003$
 $h = 5.85148008\text{e-}004$
 $i = 3.25526193\text{e-}006$
 $j = -2.39159842\text{e-}006$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763488\text{e-}003$
 $b = 5.75240709\text{e-}004$
 $c = 9.11585758\text{e-}006$
 $d = -2.39124914\text{e-}006$
 $f_0 = 2255.773$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2255.773	1.0000	0.00001
4.5000	2443.788	4.5000	0.00000
14.9999	3074.951	14.9998	-0.00007
18.5000	3308.923	18.5000	-0.00003
24.0000	3701.772	24.0004	0.00036
29.0000	4086.542	28.9995	-0.00048
32.5000	4372.284	32.5002	0.00021

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

