

# Sea-Bird GmbH

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SENSOR SERIAL NUMBER: 2492  
CALIBRATION DATE: 19-Dec-13

SBE3 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

g = 4.40003747e-003  
h = 6.61011323e-004  
i = 2.56107579e-005  
j = 2.41027511e-006  
f0 = 1000.0

## IPTS-68 COEFFICIENTS

a = 3.68121300e-003  
b = 6.12449341e-004  
c = 1.74554969e-005  
d = 2.41197658e-006  
f0 = 3101.279

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3101.279	-1.5001	0.00005
0.9999	3276.327	0.9999	-0.00003
4.5000	3533.222	4.4999	-0.00008
8.0000	3804.243	8.0000	-0.00002
11.5000	4089.753	11.5000	0.00004
15.0000	4390.103	15.0001	0.00006
18.5000	4705.633	18.5000	0.00005
22.0000	5036.674	22.0000	0.00002
25.5000	5383.534	25.4999	-0.00010
29.0000	5746.538	28.9999	-0.00009
32.4999	6125.971	32.5000	0.00009

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

Date, Offset(mdeg C)

