

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 5122
CALIBRATION DATE: 04-Nov-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39911926e-003
h = 6.43961888e-004
i = 2.25136093e-005
j = 2.05392775e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121069e-003
b = 6.00269403e-004
c = 1.54136604e-005
d = 2.05539647e-006
f0 = 3179.351

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3179.351	-1.4999	0.00002
1.0001	3362.529	1.0001	-0.00001
4.5001	3631.618	4.5001	-0.00004
8.0001	3915.830	8.0001	-0.00002
11.5001	4215.574	11.5002	0.00007
15.0001	4531.233	15.0002	0.00013
18.5001	4863.162	18.5000	-0.00014
22.0001	5211.784	22.0000	-0.00013
25.5001	5577.456	25.5002	0.00011
29.0001	5960.465	29.0002	0.00007
32.5001	6361.158	32.5001	-0.00005

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

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)

