

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: 4303
CALIBRATION DATE: 29-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38502264e-003
h = 6.47531691e-004
i = 2.19459331e-005
j = 1.65074507e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121118e-003
b = 6.04526043e-004
c = 1.63962127e-005
d = 1.65224383e-006
f0 = 3084.134

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3084.134	-1.4999	0.00008
1.0000	3260.544	0.9999	-0.00008
4.5000	3519.633	4.4999	-0.00010
8.0000	3793.214	8.0000	-0.00004
11.4999	4081.679	11.5000	0.00015
14.9999	4385.414	15.0001	0.00024
18.5000	4704.756	18.4998	-0.00021
22.0000	5040.152	21.9999	-0.00013
25.5000	5391.930	25.5000	0.00004
29.0000	5760.410	29.0001	0.00007
32.5000	6145.929	32.5000	-0.00002

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

