

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: 5171
CALIBRATION DATE: 07-Jul-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39240829e-003
h = 6.45456549e-004
i = 2.29894153e-005
j = 2.13935012e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121228e-003
b = 6.01418704e-004
c = 1.56779486e-005
d = 2.14085318e-006
f0 = 3137.644

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3137.644	-1.5000	0.00000
1.0000	3318.070	1.0000	0.00000
4.5000	3583.092	4.5000	-0.00001
8.0000	3862.980	8.0000	-0.00001
11.5000	4158.131	11.5000	0.00001
15.0000	4468.929	15.0000	0.00003
18.5000	4795.739	18.5000	-0.00002
22.0000	5138.934	22.0000	-0.00003
25.5000	5498.862	25.5000	0.00003
29.0000	5875.840	29.0000	-0.00001
32.5000	6270.204	32.5000	0.00000

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

