

Sea-Bird GmbH

Postfach 1167, 87401 Kempten, Germany

Phone: +49 831 960994 701 Fax: +49 831 960994 709 Email: seabird.eu@seabird.com

SENSOR SERIAL NUMBER: 5147
CALIBRATION DATE: 19-Dec-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40619122e-003
h = 6.44555656e-004
i = 2.33279424e-005
j = 2.23692800e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121367e-003
b = 5.99341214e-004
c = 1.55124364e-005
d = 2.23842779e-006
f0 = 3217.711

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3217.711	-1.5001	0.00000
0.9999	3403.401	0.9999	0.00002
4.5000	3676.217	4.5000	-0.00002
8.0000	3964.397	8.0000	-0.00003
11.5000	4268.361	11.5000	0.00001
15.0000	4588.502	15.0000	0.00002
18.5000	4925.204	18.5000	-0.00001
22.0000	5278.852	22.0000	0.00004
25.5000	5649.787	25.5000	-0.00001
29.0000	6038.362	28.9999	-0.00007
32.4999	6444.914	32.4999	0.00004

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

