

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0041
CALIBRATION DATE: 12-Mar-15

SBE 49 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = 8.699538e-004
a1 = 2.752088e-004
a2 = -1.413401e-006
a3 = 1.899056e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	682087.426	1.0001	0.0001
4.5000	601808.090	4.4998	-0.0002
14.9999	399699.975	15.0000	0.0001
18.5000	344654.393	18.5001	0.0001
23.9999	269326.529	23.9999	-0.0000
29.0000	211474.623	28.9998	-0.0002
32.5000	176292.115	32.5002	0.0002

$$MV = (n - 524288) / 1.6e+007$$

$$R = (MV * 2.295e+010 + 9.216e+008) / (6.144e+004 - MV * 5.3e+005)$$

$$\text{Temperature ITS-90} = 1 / \{a_0 + a_1[\ln(R)] + a_2[\ln^2(R)] + a_3[\ln^3(R)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Residual = instrument temperature - bath temperature

