



Sea-Bird Scientific
 13431 NE 20th Street
 Bellevue, WA 98005
 USA

+1 425-643-9866
 seabird@seabird.com
 www.seabird.com

SENSOR SERIAL NUMBER: 5017
 CALIBRATION DATE: 15-Jan-19

SBE 3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

g = 4.33014613e-003
 h = 6.35551793e-004
 i = 2.09329665e-005
 j = 1.82169294e-006
 f0 = 1000.0

| BATH TEMP (° C) | INSTRUMENT OUTPUT (Hz) | INST TEMP (° C) | RESIDUAL (° C) |
|--------------------|---------------------------|--------------------|-------------------|
| -1.5000 | 2870.013 | -1.5000 | 0.00002 |
| 1.0000 | 3036.118 | 1.0000 | -0.00001 |
| 4.5000 | 3280.196 | 4.5000 | -0.00004 |
| 8.0000 | 3538.079 | 8.0000 | -0.00001 |
| 11.5000 | 3810.144 | 11.5001 | 0.00005 |
| 15.0000 | 4096.754 | 15.0001 | 0.00007 |
| 18.5000 | 4398.254 | 18.4999 | -0.00009 |
| 22.0000 | 4715.027 | 22.0000 | -0.00002 |
| 25.5000 | 5047.389 | 25.5000 | 0.00003 |
| 29.0000 | 5395.658 | 29.0000 | -0.00000 |
| 32.5000 | 5760.157 | 32.5000 | 0.00000 |

f = Instrument Output (Hz)

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

$$\text{Residual (°C)} = \text{instrument temperature} - \text{bath temperature}$$

