



Sea-Bird Electronics, Inc.

Advancing the Science of Ocean Measurement

SBE 56 ECO Temperature Logger

Instrument Configuration

Instrument Serial Number: 56-04737
Instrument Firmware Version: 0.96
Communications Format: RS232

Installed Devices/Sensors

| <i>Data Format</i> | <i>Measurement</i> | <i>Sensor Type</i> | <i>Serial Number</i> | <i>Rating</i> |
|--------------------|--------------------|--------------------|----------------------|---------------|
| Count | Temperature | Internal | N/A | N/A |

Maximum Depth: **1500m**

CAUTION - The maximum deployment depth will be limited by the measurement range of the pressure sensor, if installed, an attached sensor, if installed, or the housing.



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SENSOR SERIAL NUMBER: 04737

CALIBRATION DATE: 09-Aug-14

SBE 56 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = -1.098515e-003

a1 = 3.240989e-004

a2 = -5.365460e-006

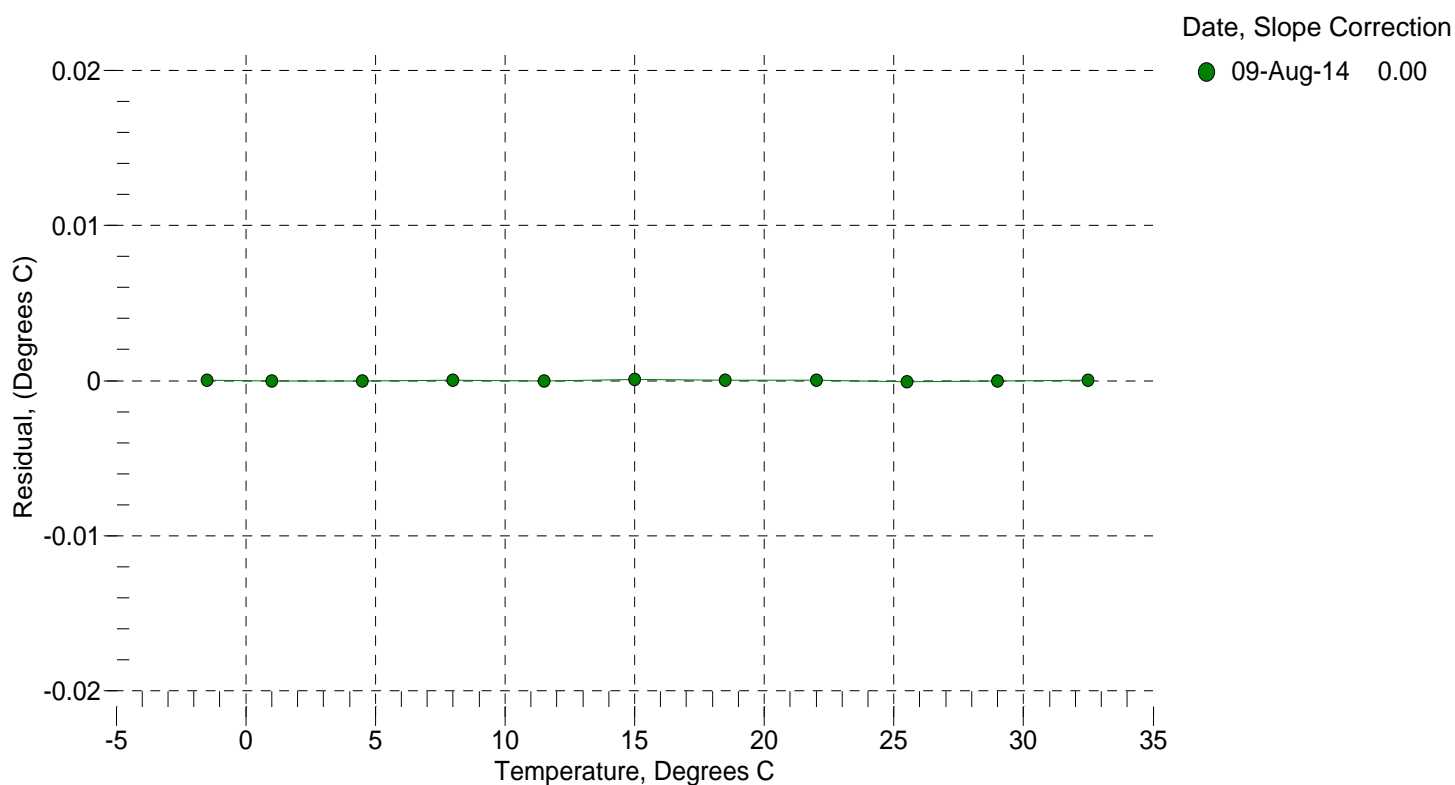
a3 = 1.771620e-007

| BATH TEMP (ITS-90) | INSTRUMENT OUTPUT | INST TEMP (ITS-90) | RESIDUAL (ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| -1.5000 | 20403252.8 | -1.5000 | 0.0000 |
| 1.0000 | 18199145.6 | 1.0000 | -0.0000 |
| 4.5000 | 15553358.9 | 4.5000 | -0.0000 |
| 8.0000 | 13336767.1 | 8.0000 | 0.0000 |
| 11.5000 | 11473388.7 | 11.5000 | -0.0000 |
| 15.0000 | 9901572.5 | 15.0001 | 0.0001 |
| 18.5000 | 8571415.6 | 18.5000 | 0.0000 |
| 22.0000 | 7442122.7 | 22.0000 | 0.0000 |
| 25.5000 | 6480424.0 | 25.4999 | -0.0001 |
| 29.0000 | 5658903.8 | 29.0000 | -0.0000 |
| 32.5000 | 4955105.5 | 32.5000 | 0.0000 |

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

Residual = instrument temperature - bath temperature

n = instrument output





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Pressure Test Certificate

Test Date: **08/04/14**

Description: **SBE-56 Temperature Sensor**

Sensor Information:

Model Number: **56**

Serial Number: **04737**

Pressure Test Protocol:

Low Pressure Test: **40** PSI Held For: **15** Minutes

High Pressure Test: **2300** PSI Held For: **15** Minutes

Passed Test: **Yes**

Tested By: **DC**

High pressure is generally equal to the maximum depth rating of the instrument

