



Sea-Bird Electronics, Inc.

*Advancing the Science of Ocean Measurement*

## SBE 56 ECO Temperature Logger

### Instrument Configuration

Instrument Serial Number: 56-04612

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.



Support Telephone: (+1)425-643-9866

Support Email: seabird@seabird.com

# 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: 04612

CALIBRATION DATE: 25-Jun-14

SBE 56 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = -1.174229e-003

a1 = 3.335737e-004

a2 = -5.822202e-006

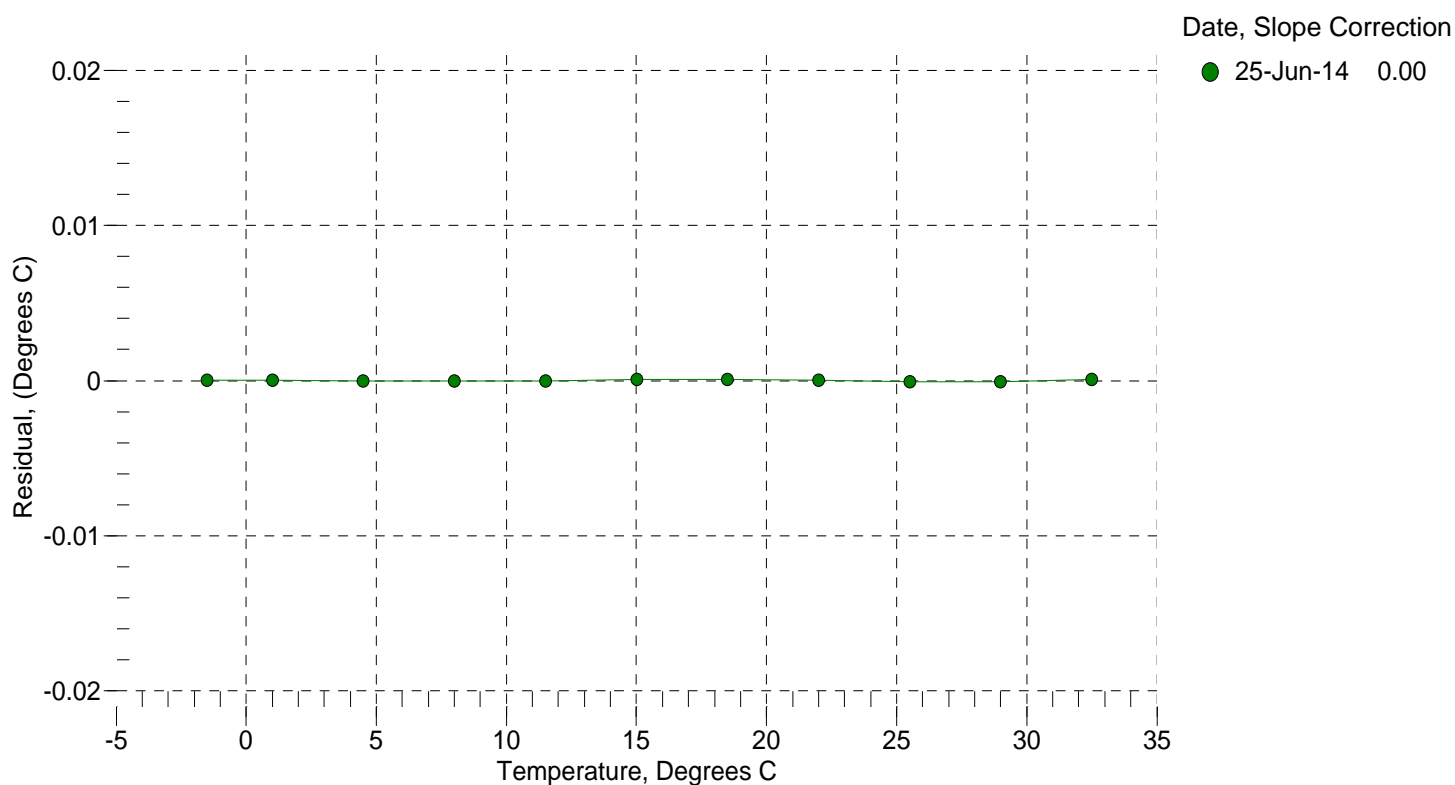
a3 = 1.876178e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| -1.5000               | 20115150.1           | -1.5000               | 0.0000               |
| 1.0000                | 17962075.4           | 1.0000                | 0.0000               |
| 4.5000                | 15374199.3           | 4.5000                | -0.0000              |
| 8.0000                | 13202923.7           | 8.0000                | -0.0000              |
| 11.5000               | 11374893.2           | 11.5000               | -0.0000              |
| 15.0000               | 9830680.3            | 15.0001               | 0.0001               |
| 18.5000               | 8522054.8            | 18.5001               | 0.0001               |
| 22.0000               | 7409537.5            | 22.0000               | 0.0000               |
| 25.5001               | 6460792.7            | 25.5000               | -0.0001              |
| 29.0001               | 5649305.5            | 29.0000               | -0.0001              |
| 32.5000               | 4953196.0            | 32.5001               | 0.0001               |

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





**Sea-Bird Electronics, Inc.**

13431 NE 20<sup>th</sup> St. Bellevue, Washington 98005 USA  
www.seabird.com

Phone: (425) 643-9866

Fax: (425) 643-9954

Email: seabird@seabird.com

## Pressure Test Certificate

Test Date: **06/14/14**

Description: **SBE-56 Temperature Sensor**

### Sensor Information:

Model Number: **56**

Serial Number: **04612**

### 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**

