



SEA-BIRD
SCIENTIFIC

SBE38 Digital Oceanographic Thermometer

Instrument Configuration

Instrument Serial Number: 38-1362
Instrument Firmware Version: 1.4
Communications Format: RS232
Communications Settings: 9600 baud, 8 Data Bits, No Parity

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: **10500m**

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: 1362
 CALIBRATION DATE: 05-Jan-23

SBE 38 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

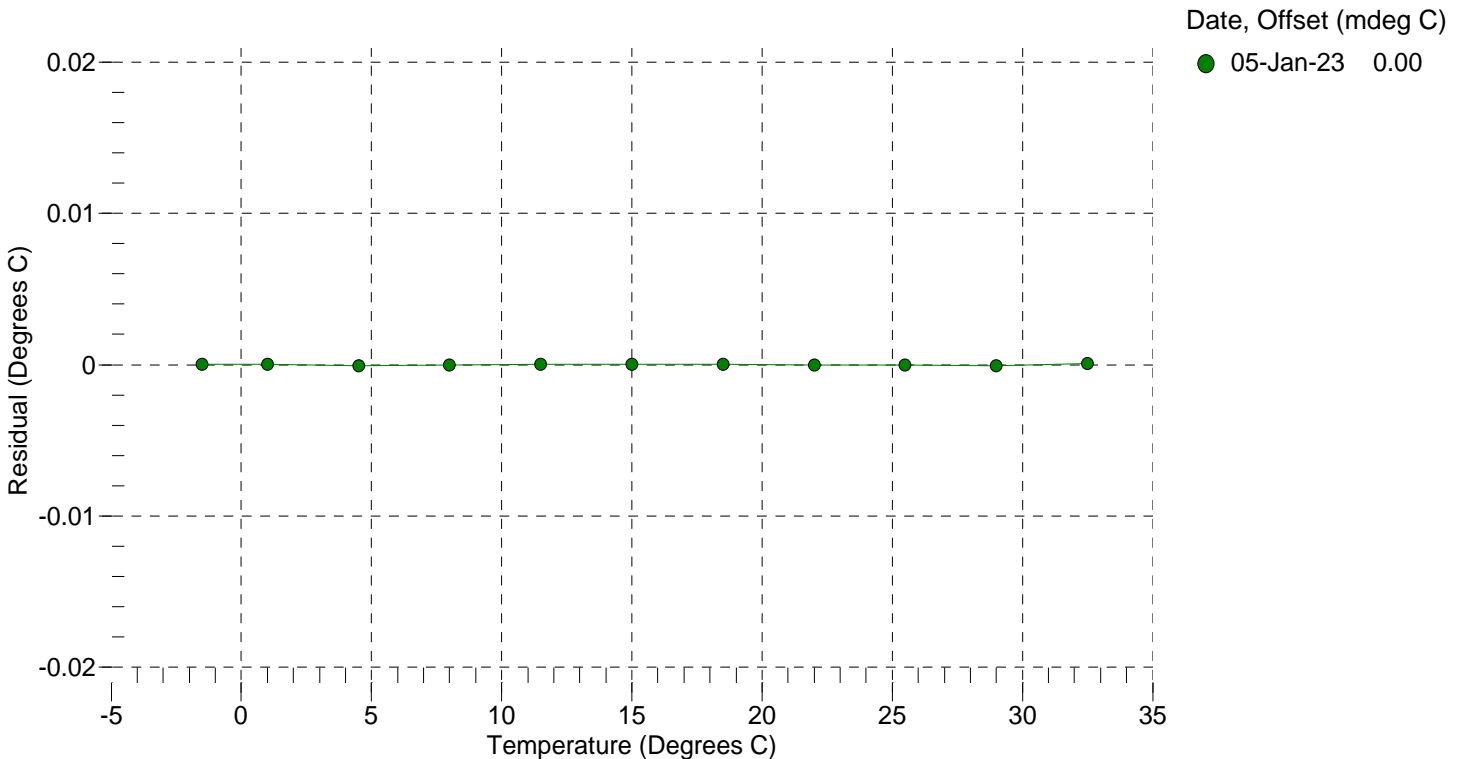
a0 = -4.239508e-005
 a1 = 2.811969e-004
 a2 = -2.781202e-006
 a3 = 1.633560e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	813842.6	-1.5000	0.0000
1.0000	726538.1	1.0000	0.0000
4.5000	621612.3	4.4999	-0.0001
8.0000	533586.1	8.0000	-0.0000
11.5000	459487.7	11.5000	0.0000
15.0000	396907.3	15.0000	0.0000
18.5000	343883.8	18.5000	0.0000
22.0000	298817.1	22.0000	-0.0000
25.5000	260395.7	25.5000	-0.0000
29.0000	227542.5	28.9999	-0.0001
32.5000	199368.2	32.5001	0.0001

n = Instrument Output (counts)

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

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





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Pressure Test Certificate

Test Date: **2022-12-10**

Description: **SBE-38 Digital Thermometer**

Sensor Information:

Model Number: **SBE-38**

Serial Number: **1362**

Pressure Test Protocol:

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

High Pressure Test: **10000** PSI Held For: **15** Minutes

Passed Test: **True**

Tested By: **db**

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

