



SEA-BIRD
SCIENTIFIC

SBE38 Digital Oceanographic Thermometer

Instrument Configuration

Instrument Serial Number: 38-1360
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: 1360
 CALIBRATION DATE: 05-Jan-23

SBE 38 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

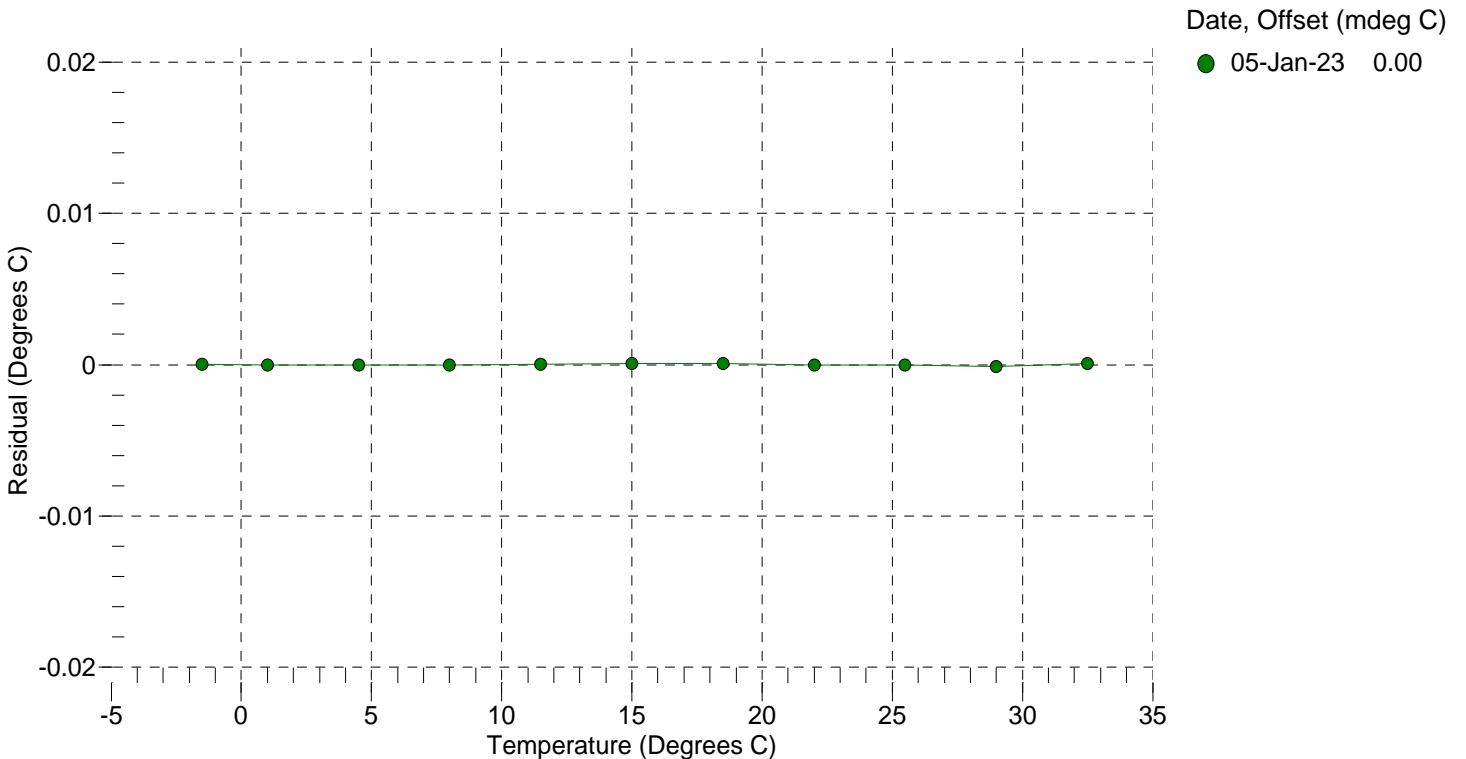
a0 = 4.426124e-006
 a1 = 2.789678e-004
 a2 = -2.620276e-006
 a3 = 1.604637e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
-1.5000	713470.9	-1.5000	0.0000
1.0000	636816.6	1.0000	-0.0000
4.5000	544709.7	4.5000	-0.0000
8.0000	467458.8	8.0000	-0.0000
11.5000	402446.6	11.5000	0.0000
15.0000	347553.0	15.0001	0.0001
18.5000	301053.6	18.5001	0.0001
22.0000	261541.6	22.0000	-0.0000
25.5000	227862.3	25.5000	-0.0000
29.0000	199071.4	28.9999	-0.0001
32.5000	174385.3	32.5001	0.0001

n = Instrument Output (counts)

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

Residual (°C) = instrument temperature - bath temperature





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Pressure Test Certificate

Test Date: **2022-07-21**

Description: **SBE-38 Digital Thermometer**

Sensor Information:

Model Number: **SBE-38**

Serial Number: **1360**

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: **DRF**

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

