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

+1 425-643-9866
seabird@seabird.com
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Pressure Test Certificate

Test Date: 2019-08-22

Description: SBE-37 Microcat

Sensor Information:

Model Number: SBE-37

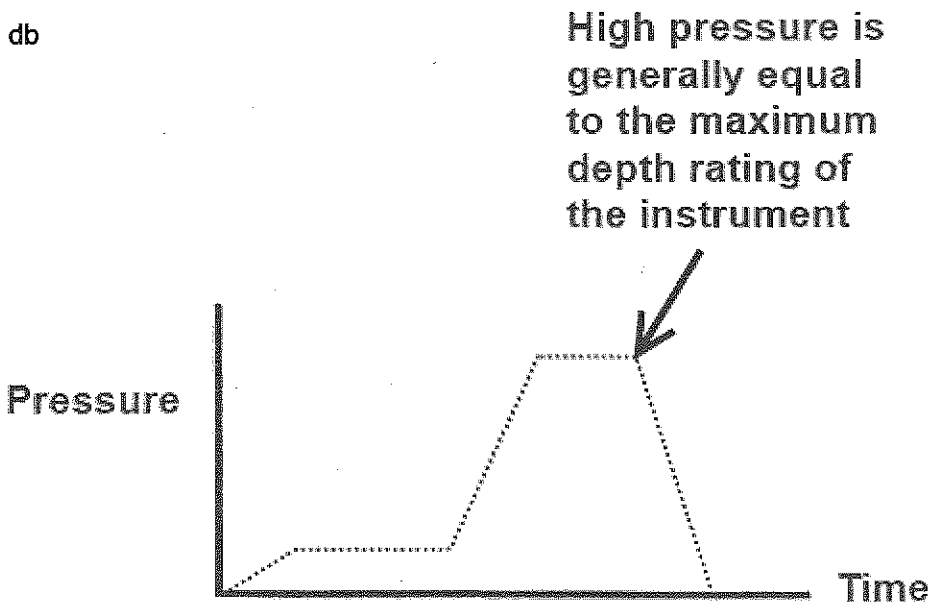
Serial Number: 21148

Pressure Test Protocol:

Low Pressure Test: 40	PSI	Held For: 15	Minutes
High Pressure Test: 2900	PSI	Held For: 15	Minutes

Passed Test: True

Tested By: db



Typical Test Profile

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SENSOR SERIAL NUMBER: 21148
CALIBRATION DATE: 22-Aug-19

SBE 37 V2 PRESSURE CALIBRATION DATA
2900 psia S/N 5059701

COEFFICIENTS:

PA0 =	-2.262003e+000	PTCA0 =	5.236666e+005
PA1 =	8.964117e-003	PTCA1 =	-1.410288e+001
PA2 =	3.452364e-011	PTCA2 =	9.898535e-002
PTEMPA0 =	-9.390802e+001	PTCB0 =	1.027948e+002
PTEMPA1 =	3.968933e-002	PTCB1 =	-6.491298e-003
PTEMPA2 =	1.220902e-006	PTCB2 =	0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE (PSIA)	INSTRUMENT OUTPUT (counts)	THERMISTOR OUTPUT (counts)	COMPUTED PRESSURE (PSIA)	RESIDUAL (%FSR)
14.66	525300.0	2699.0	14.76	0.00
614.87	592119.0	2708.0	614.79	-0.00
1214.88	658904.0	2709.0	1214.79	-0.00
1714.81	714540.0	2710.0	1714.87	0.00
2314.75	781258.0	2711.0	2314.84	0.00
2914.66	847910.0	2712.0	2914.53	-0.00
2314.75	781259.0	2711.0	2314.85	0.00
1714.83	714537.0	2711.0	1714.85	0.00
1214.87	658906.0	2712.0	1214.83	-0.00
614.89	592120.0	2711.0	614.82	-0.00
14.65	525281.0	2713.0	14.65	-0.00

THERMAL CORRECTION

TEMP (°C)	THERMISTOR OUTPUT (counts)	INSTRUMENT OUTPUT (counts)
32.50	2922	525202.32
29.00	2847	525219.52
24.00	2740	525267.93
18.50	2621	525325.64
15.00	2545	525366.04
4.50	2315	525486.87
1.00	2237	525538.51

TEMPERATURE (°C)	SPAN
-5.50	102.83
34.49	102.57

y = thermistor output (counts)

$t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$

$x = \text{instrument output} - PTCA0 - PTCA1 * t - PTCA2 * t^2$

$n = x * PTCB0 / (PTCB0 + PTCB1 * t + PTCB2 * t^2)$

$\text{pressure (PSIA)} = PA0 + PA1 * n + PA2 * n^2$

Residual (%FSR) = (computed pressure - true pressure) * 100 / Full Scale Range