

RBR

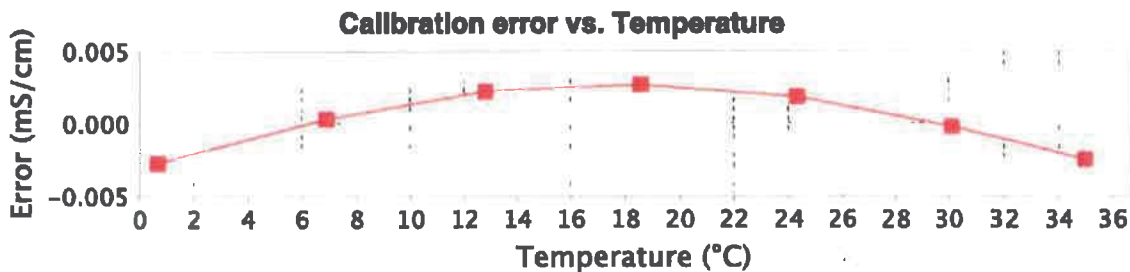
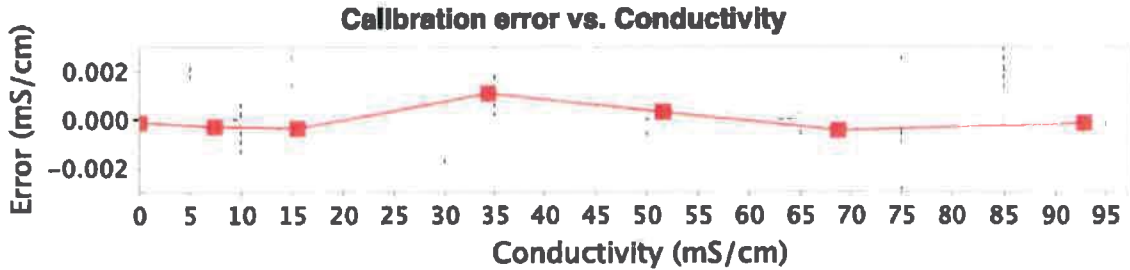
Conductivity Calibration Certificate

RBRlegato³ C.T.D, Teledyne Webb Slocum, dry bay (1000dbar) s/n: 208550
 References: Autosal8400B#66289, MS-315#15506, SSW P164, RC#002


Reference Resistance (ohm)	Reference Conductivity (mS/cm)	Voltage Ratio, V	Measured Conductivity (mS/cm)	Calibration Error (mS/cm)	Coefficients
open	0.0000	-0.000131	-0.0001	-0.0001	
694.033	7.4284	0.038925	7.4281	-0.0003	C1: 190.19795
331.927	15.5322	0.081531	15.5318	-0.0004	(K) C2: 1.001942
150.016	34.3666	0.180565	34.3677	0.0011	X0: 391.58508E-6
100.011	51.5498	0.270904	51.5501	0.0003	X1: 113.12677E-9
75.019	68.7237	0.361195	68.7232	-0.0005	X2: 1.8469999E-6
55.516	92.8663	0.488130	92.8661	-0.0002	X3: -947.2E-12
					X4: 211.199E-15
					X5: 14.995523
					X6: 10
Bath	Voltage Ratio	Temperature (ITS-90)	Salinity (PSB-78)	Conductivity (mS/cm)	
T15835	0.2254568	14.99552	34.9936	42.9061	
T25835	0.2733184	23.98544	34.9937	52.0057	

Cell Constant @T15835 = 5.15555 1/cm

$$C_c = \frac{C_0 + C_1 * C_2 * V - X_0 * (T - X_5)}{1 + X_1 * (T - X_5) + X_2 * (P - X_6) + X_3 * (P - X_6)^2 + X_4 * (P - X_6)^3}$$



Calibration Date: 2022-01-28
 Issue Date: 2022-01-28
 File Name: 208550_20220128_1505C.rsk

Operator: 
 jwang

Approver: 
 ishkvetz



Temperature Calibration Certificate

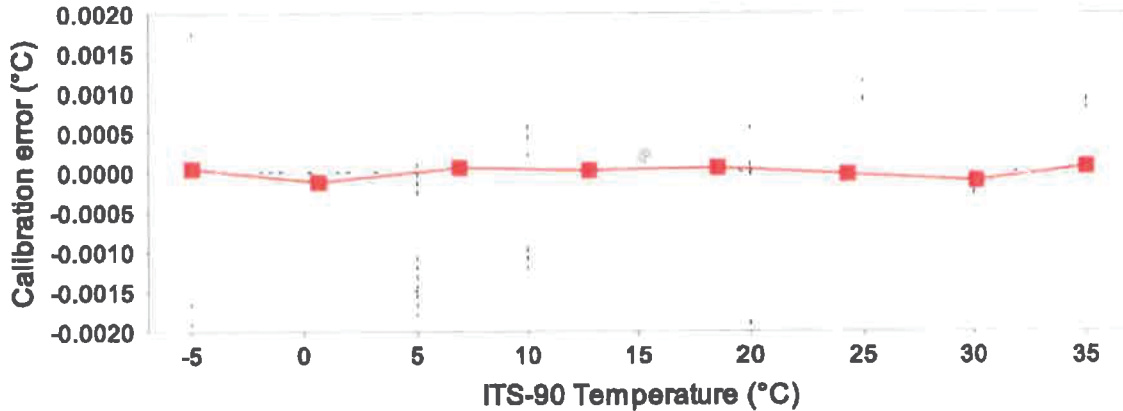
Logger ID: RBRlegato³ Serial No: 208550 Channel No: 2

Reference Temperature, ITS-90	Voltage ratio, V	Measured Temperature, ITS-90	Calibration error	Coefficients
-4.97245	0.730860	-4.97240	0.00005	C0: 3.4773217E-3
0.67257	0.667287	0.67245	-0.00012	C1: -249.20417E-6
6.89876	0.592353	6.89882	0.00006	C2: 2.5232316E-6
12.80651	0.519750	12.80653	0.00002	C3: -80.77274E-9
18.57518	0.450467	18.57524	0.00006	
24.32013	0.385516	24.32010	-0.00003	
30.11474	0.325851	30.11463	-0.00011	
35.00030	0.280848	35.00037	0.00007	

$$T_m = \ln\left(\frac{1}{V-1}\right)$$


$$T_c = \frac{1}{(C_0 + C_1 T_m + C_2 T_m^2 + C_3 T_m^3)} - 273.15$$

Calibration error vs. Temperature



Calibration Date: 2022-01-23
 Issue Date: 2022-01-23
 Calibration ID: 51987

Operator: 
 kmalomy

Approver: 
 kmalomy



Pressure Calibration Certificate

RBRlegato³ C.T.D, Teledyne Webb Slocum, dry bay (1000dbar) s/n: 208550

Instrument rating: 1,000 dbar s/n: M100246

Nominal accuracy: 0.05%FS (0.5 dbar)

Reference Instrument: Mensor CPC6050 s/n: 41000CAM

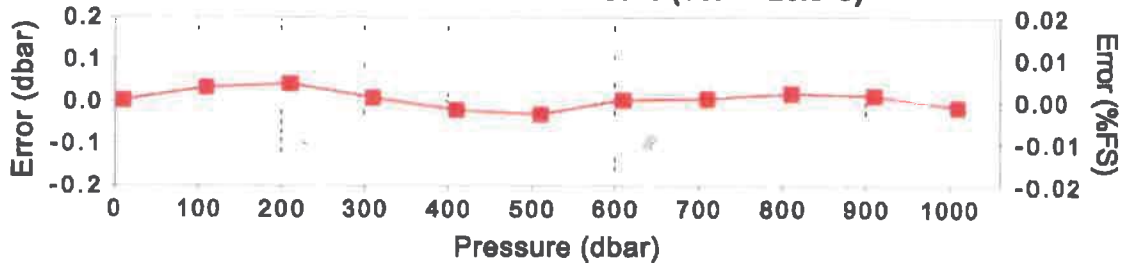
Applied pressure, P _{app} (dbar)	Voltage ratio, V	Measured pressure, P _o (dbar)	Calibration error (dbar)	Coefficients
10.048	0.019242	10.0515	0.0034	C0: -35.801914
109.999	0.060966	110.0321	0.0331	C1: 2.3941492E3
209.997	0.102662	210.0388	0.0418	C2: 30.776852
309.997	0.144309	310.0058	0.0088	C3: -28.145193
409.998	0.185930	409.9780	-0.0200	X0: 10.0481
509.999	0.227537	509.9686	-0.0304	X1: 71.6173E-3
609.995	0.269144	609.9991	0.0041	X2: 13.088927E-6
710.000	0.310729	710.0065	0.0065	X3: -415.5821E-9
809.997	0.352309	810.0162	0.0192	X4: -118.32061E-6
909.997	0.393881	910.0114	0.0144	X5: 20.644585
1010.000	0.435447	1009.9867	-0.0133	

$$P_c = X_0 + \frac{P_m - X_0 - X_1(T - X_5) - X_2(T - X_5)^2 - X_3(T - X_5)^3}{1 + X_4(T - X_5)}$$

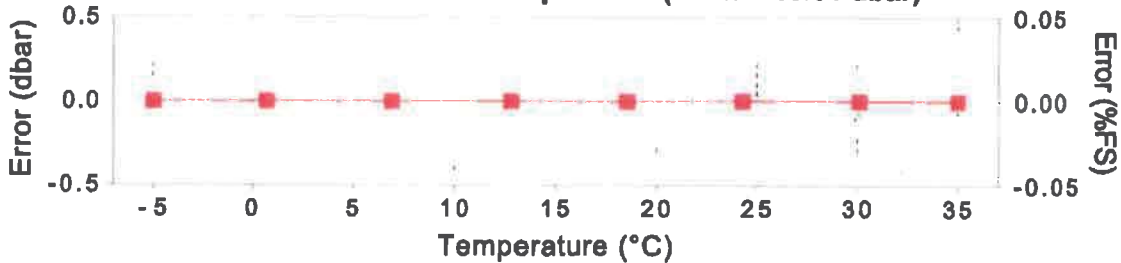
Head (mm) = 251

$$P_m = C_0 + C_1V + C_2V^2 + C_3V^3$$

Calibration error vs. Pressure (Tcal = 20.6°C)



Calibration error vs. Temperature (Patm = 10.01 dbar)



Calibration Date: 2022-01-24

Issue Date: 2022-01-24

File Name: 208550_20220124_1254P.rsk

Operator:

afalicki

Approver:

kmalorny