

RBR Conductivity Calibration Certificate

RBRmaestro C.T.D.DOrinko.FI.FI.PAR.trans.Tu.V|fast6 s/n: 80330
 References: Autosal8400B#66289, MS-315#15506, SSW P160, RC#002

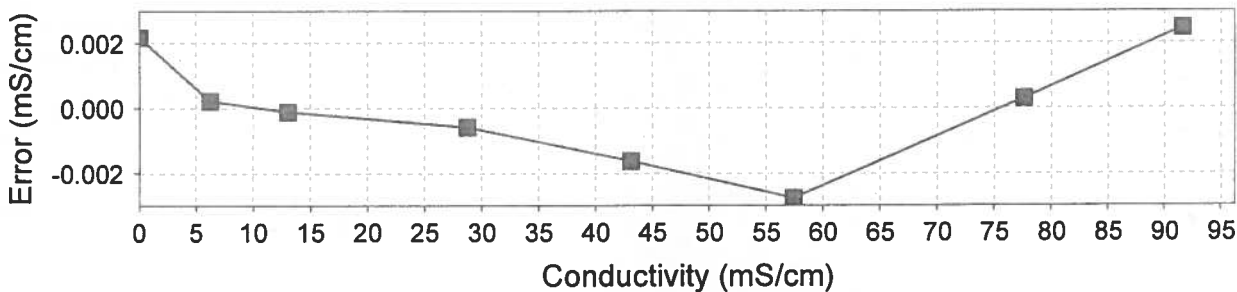
Reference Resistance (ohm)	Reference Conductivity (mS/cm)	Voltage Ratio, V	Measured Conductivity (mS/cm)	Calibration Error (mS/cm)	Coefficients
open	0.0000	-0.000149	0.0022	0.0022	C0: 25.691472E-3
694.027	6.2107	0.039089	6.2109	0.0002	C1: 158.23533
331.920	12.9863	0.081906	12.9862	-0.0001	X0: 262.49732E-6
150.012	28.7338	0.181423	28.7332	-0.0006	X1: -10.31377E-6
100.011	43.0993	0.272202	43.0977	-0.0016	X2: 600E-9
75.013	57.4621	0.362964	57.4594	-0.0028	X3: 15.129989
55.511	77.6496	0.490562	77.6499	0.0003	X4: 10
47.018	91.6755	0.579215	91.6780	0.0025	

Bath	Voltage Ratio	Temperature (ITS-90)	Salinity (PSS-78)	Conductivity (mS/cm)
T15S35	0.2719207	15.12999	35.0070	43.0532
T25S35	0.3436270	26.25793	35.0100	54.4029

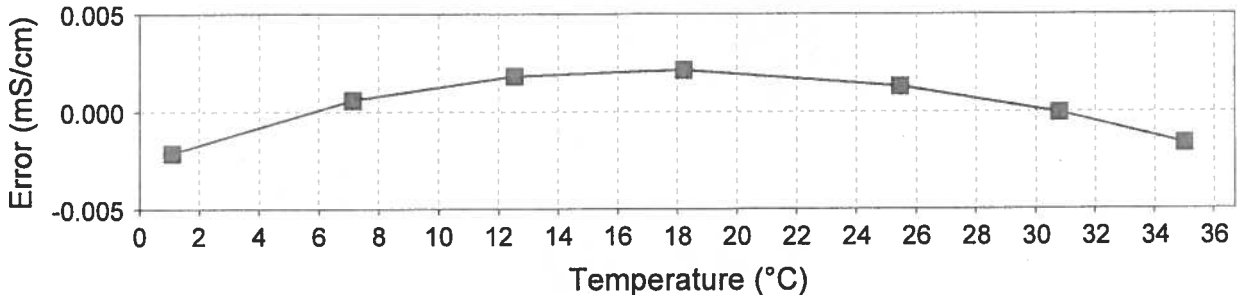
Cell Constant @T15S35 = 4.31041 1/cm

$$C_{cor} = \frac{C_0 + C_1 * V - X_0 * (T - X_3)}{1 + X_1 * (T - X_3) + X_2 * (P - X_4)}$$

Calibration error vs. Conductivity



Calibration error vs. Temperature



Calibration Date: 12/Feb/2019
 Issue Date: 13/Feb/2019
 File Name: 080330_20190212_1719C.rsk

Operator: *I. Schubert*

Approver: *[Signature]*



Pressure Calibration Certificate

RBRmaestro C.T.D.DOrinko.FI.FI.PAR.trans.Tu.V|fast6 s/n: 80330

Sensor rating: 500 dbar s/n: I003547

Nominal accuracy: 0.05%FS (0.25 dbar)

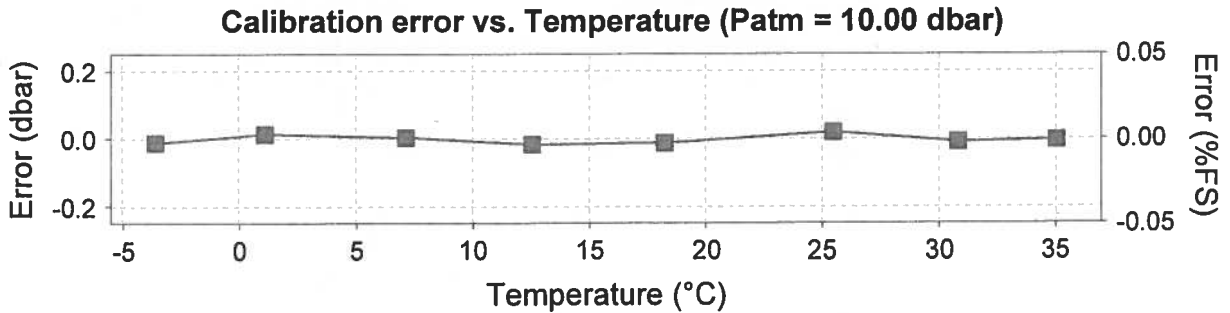
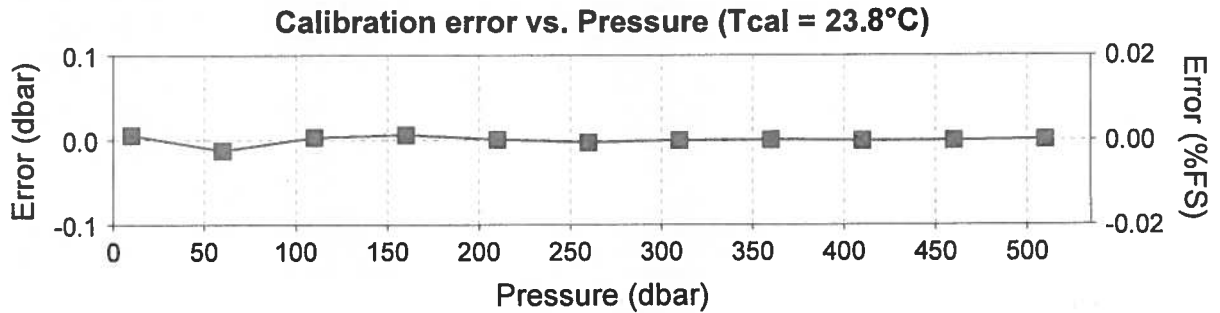
Reference instrument: Mensor CPC6000 s/n: 612676

Applied pressure, P_{app} (dbar)	Voltage ratio, V	Measured pressure, P_{meas} (dbar)	Calibration error (dbar)	Coefficients
9.9513	-0.030788	9.9570	0.0057	C0: 80.69054272
59.9998	-0.008835	59.9873	-0.0125	C1: 2284.01184600
110.0000	0.013058	110.0030	0.0030	C2: 126.12095943
159.9990	0.034892	160.0048	0.0058	C3: -20.87812729
210.0000	0.056673	210.0008	0.0008	X0 (Patm): 9.946
259.9990	0.078403	259.9965	-0.0025	X1: -0.16683894
309.9990	0.100086	309.9988	-0.0002	X2: -0.00041667
359.9990	0.121720	359.9994	0.0004	X3: -0.00000079
409.9980	0.143305	409.9971	-0.0009	X4: -0.00011992
459.9980	0.164844	459.9976	-0.0004	X5 (Tcal): 23.8
510.0020	0.186339	510.0028	0.0008	

$$P_{meas} = C_0 + C_1 \cdot V + C_2 \cdot V^2 + C_3 \cdot V^3$$

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

Head (mm) = 532



Calibration Date: 8/Feb/2019
 Issue Date: 8/Feb/2019
 File Name: 080330_20190208_1428P.rsk

Operator: T. Akwethel

Approver: [Signature]



DO Calibration Certificate

RBRmaestro s/n: 80330
Sensor: Rinko-III ARO-CAV s/n: 281
Channel: 4

Reference DO (%)	Rinko DO (%)	Coefficients
0.000	5.5515192	C0: -5.545
98.602	105.8625091	C1: 1.058
		X0: -44.47759
		X1: 137.98010
		X2: -0.32318
		X3: 0.01023
		X4: 0.00400
		X5: 0.00005
		X6: 4.16600
		X7: 0.00000
		X8: 0.00000

Calibration conditions

Temperature: 24.1 °C
Patm: 99.95 kPa
Salinity: 0.0 PSU

Calibration Date: 8/Feb/2019
Issue Date: 8/Feb/2019

Operator: T. Akwethel

Approver: [Signature]