



Sea-Bird Electronics, Inc. FAX: (425) 643-9954

1808 136th Place NE, Bellevue, Washington 98005 USA Tel:(425)643-9866

Website: <http://www.seabird.com>

Email: seabird@seabird.com

DISSOLVED OXYGEN SENSOR CALIBRATION: S/N 130120 18 March 2003

Sensor type: Beckman Module 5-05-37

Sensor Current

m = 4.1344 E-7

b = -1.0749 E-9

The use of these constants in a linear equation of the form

$$I = mV + b$$

will yield DO sensor membrane current as a function of sensor output voltage.

Sensor Compensation Temperature

k = 4.0325

c = 15.2840

The use of these constants in a linear equation of the form

$$T = kV + c$$

will yield membrane temperature as a function of temperature channel voltage with a maximum error of about 0.5 deg C. The correction to dissolved oxygen resulting from the use of this calibration should be sufficient to achieve the precision of which the sensor is capable.

SEASOFT Coefficients based on Oxfit Calibration Results

Soc	2.6335	
Boc	-0.0353	
tcor	-0.033	(nominal)
pcor	1.50e-4	(nominal)
tau	2.0	(for profiling applications only)
tau	0.0	(for moored applications only)
wt	0.67	(for Beckman type sensors)
wt	0.85	(for YSI type sensors)

barometer	=	1016.419	mB
Twater	=	5.553	deg C
Tcomp	=	5.073	deg C
Isat	=	0.458	uA
Iair	=	0.977	uA
Izero	=	0.013	uA