

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

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# **DISSOLVED OXYGEN SENSOR CALIBRATION: S/N 230903 21 February 2007** Sensor type:

**YSI** 

#### Sensor Current

m = 1.00086 E-05 b = -9.80850 E-09

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 = 6.5015 c = -1.7160

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		0.0761	
Boc		-0.0092	
tcor		-0.033	(nominal)
pcor	1.50e-4		(nominal)
tau	2.0		(for profiling applications only)
tau		0.0	(for moored applications only)
wt		0.85	(for YSI type sensors)
barometer	=	1006.981	mB
Twater	=	1.718	deg C
Tcomp	=	1.593	deg C
Isat	=	13.611	uA
Iair	=	24.681	uA
Izero	=	0.120	uA