SEA-BIRD ELECTRONICS, INC.
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Digiquartz Pressure Calibration dP/dT Corrected Coefficients

(Changed coefficients are posted in italics)

Pressure Transducer Serial Number: 132931
Original Calibration Date: 2014-11-03
Date of Correction: 2014-11-18
Installed in: SBE 9Plus S/N 1213

PRESSURE COEFFICIENTS

C1	***-41326.81***	***psia***
C2	***-4.4584627e-01***	***psia/deg C***
C3	1.3315e-02	psia/deg C^2
D1	0.034889	
D2	0.0	
T1	***30.3213***	***µsec***
T2	***-4.098794e-04***	***µsec/deg C***
T3	3.9678e-06	µsec/deg C^2
T4	3.64375e-09	µsec/deg C^3
T5	0e+00	

AD590M =
AD590B =
Slope = 1.0
Offset = 0.0

Corrected at Sea-Bird Electronics as per Paroscientific Calibration and Sea-Bird Electronics dP/dT tests. The original calibration from Paroscientific assumes an operating temperature range of 0 to 125 degrees C. dP/dT correction adjusts this operating range to a nominal range of 0 to 22 degrees C. This increases the accuracy of the transducer in this temperature range.

NOTE: Original coefficients from Paroscientific are attached to this form for informational purposes and should not be used.

CALIBRATION COEFFICIENTS

SERIAL NO : **132931**

PRESSURE TRANSDUCER

DATE : 11-04-2014

MODEL :	PRESSURE RANGE :	TEMP. RANGE :	PORT :
410K-134	0 to 10000 psia	0 to 125 deg C	

PRESSURE COEFFICIENTS

U = temperature (deg C)

$C = C_1 + C_2U + C_3U^2$

$D = D_1 + D_2U$

$T_0 = T_1 + T_2U + T_3U^2 + T_4U^3 + T_5U^4$

T = pressure period (μsec)

Pressure : (psia)

$$P = C\left(1 - \frac{T_0^2}{T^2}\right)\left(1 - D\left(1 - \frac{T_0^2}{T^2}\right)\right)$$

C_1	-41324.33 psia
C_2	-4.66874E-01 psia/deg C
C_3	1.33150E-02 psia/deg C^2

D_1	0.034889
D_2	0

T_1	30.32211 μsec
T_2	-4.17047E-04 μsec/deg C
T_3	3.96781E-06 μsec/deg C^2
T_4	3.64375E-09 μsec/deg C^3
T_5	0

(11-03-2014)

PAROSCIENTIFIC, INC.
4500 148th AVENUE N.E.
REDMOND, WA. 98052

CUSTOMER : SEABIRD ELECTRONICS, INC.

PARO TEST 17

SALES ORDER : 31634 PREPARED BY : WMR

CALIBRATION COEFFICIENTS

SERIAL NO : **132931**

PRESSURE TRANSDUCER

DATE : 11-04-2014

MODEL :	PRESSURE RANGE :	TEMP. RANGE :	PORT :
410K-134	0 to 10000 psia	0 to 125 deg C	

PRESSURE COEFFICIENTS AT FIXED TEMPERATURE

(only valid at specified temperature)

T = pressure period (μsec)

Pressure equation : (psia)

$$P = C\left(1 - \frac{T_0^2}{T^2}\right)\left(1 - D\left(1 - \frac{T_0^2}{T^2}\right)\right)$$

Temperature: 21.0 C

C (psia)	-41328.26				
D	0.034889				
T_0 (μsec)	30.31514				

(11-03-2014)

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