



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: 157142

Original Calibration Date: 28-Aug-23

Date of Correction: 2023-10-04

Installed in: SBE 9Plus S/N 1549

PRESSURE COEFFICIENTS

<i>C1</i>	<i>-51358.44</i>	<i>psia</i>
<i>C2</i>	<i>0.8263159</i>	<i>psia/deg C</i>
<i>C3</i>	<i>1.822700e-002</i>	<i>psia/deg C²</i>

<i>D1</i>	<i>3.741700e-002</i>
<i>D2</i>	<i>0.000000e+000</i>

<i>T1</i>	<i>29.87354</i>	<i>μsec</i>
<i>T2</i>	<i>7.25366e-05</i>	<i>μsec/deg C</i>
<i>T3</i>	<i>3.972850e-006</i>	<i>μsec/deg C²</i>
<i>T4</i>	<i>1.706510e-009</i>	<i>μsec/deg C³</i>
<i>T5</i>	<i>0.000000e+000</i>	

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.

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

CUSTOMER : SEABIRD ELECTRONICS, INC.
 SALES ORDER : 38959
 PREPARED BY : WMR



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)

$$P = C \left(1 - \frac{T_0}{T_2} \right) \left(1 - D \left(1 - \frac{T_0}{T_2} \right) \right)$$

C ₁	-51355.67	psia
C ₂	7.84883E-01	psia/deg C
C ₃	1.82273E-02	psia/deg C ²
D ₁	0.037417	
D ₂	0	
T ₁	29.87428	μsec
T ₂	6.13967E-05	μsec/deg C
T ₃	3.97285E-06	μsec/deg C ²
T ₄	1.70651E-09	μsec/deg C ³
T ₅	0	

(04-25-2023)

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

CALIBRATION COEFFICIENTS
 PRESSURE TRANSDUCER
 SERIAL NO : 157142
 DATE : 04-25-2023

UNITED STATES
DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

REPORT OF INVESTIGATION



LABORATORY: CHEMISTRY DIVISION

Case No. 100-100000-1000

Date of Report: 10/10/50

Location: New York, New York

Subject: [Illegible]

Reference: [Illegible]

No.	Description
1	...
2	...
3	...
4	...
5	...
6	...
7	...
8	...
9	...
10	...

Item	Description	Quantity	Remarks
...
...

ANALYST: [Illegible] DATE: 10/10/50

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(04-25-2023)

T ₀ (μsec)	29.87734		
D	0.037417		
C (psia)	-51331.15		

Temperature: 21.0 C

$$P = C \left(1 - \frac{T_0}{T_2} \right) \left(1 - D \left(1 - \frac{T_0}{T_2} \right) \right)$$

Pressure equation : (psia)

T = pressure period (μsec)

(only valid at specified temperature)

PRESSURE COEFFICIENTS AT FIXED TEMPERATURE

MODEL :	410K-134	PRESSURE RANGE :	0 to 10000 psia	TEMP. RANGE :	0 to 125 deg C	PORT :
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CALIBRATION COEFFICIENTS
 PRESSURE TRANSDUCER
 SERIAL NO : 157142
 DATE : 04-25-2023