Pile Dynamics, Inc.

Certificate of Calibration

Transducer Model: PDI Transducer

Serial Number: V457

PDI Gage Factor: 144.6 me/V

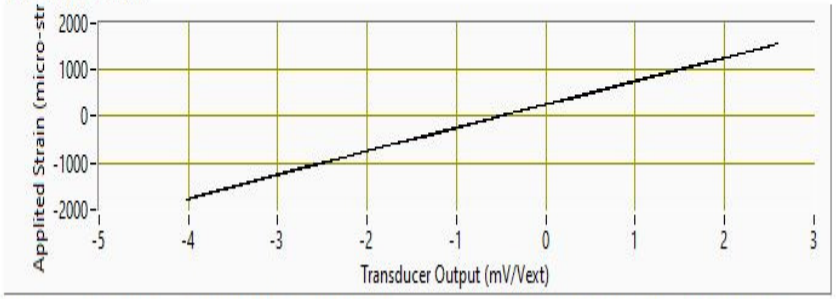
General Gage Factor: 502.2 **me**/mV/V$_{ext.}$

Initial Offset Voltage: -0.224 mV/V$_{ext.}$

Table 1: Representative Calibration Data

Applied Strain (micro-strain)	Transducer Output (mV/Vext.)	Applied Strain (micro-strain)	Transducer Output (mV/Vext.)
-13.112	-0.552	51.389	-0.403
-78.449	-0.666	190.538	-0.157
-280.951	-1.108	428.576	0.362
-542.051	-1.604	720.838	0.919
-822.658	-2.175	1021.976	1.522
-1112.279	-2.751	1320.315	2.123
-1398.275	-3.305	1568.537	2.592
-1683.185	-3.900	1498.023	2.473
-1766.963	-4.019	1185.895	1.816
-1551.618	-3.607	875.784	1.212
-1259.868	-3.023	576.363	0.619
-969.403	-2.422	293.235	0.031
-677.081	-1.881	99.603	-0.313
-394.019	-1.287	1.410	-0.539
-147.192	-0.813	-18.519	-0.561
-53.698	-0.625	-17.100	-0.560

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999954

LCC Standard Deviation: 1.961564E-6

Calibrated By: Kay Tol

Signature: _____

Temperature (Degrees C): 25.7

Specifications

PDI Automated Strain Transducer Calibration System (PDI - ASTCS)

ASTCS Serial Number:	PDI CAL 2015-02-
ASTCS Software Version Number:	3.001
ASTCS Independant Verification Date:	12/8/2020 1:28 PM
Transducer Gage Length:	3 inches (76.2 mm)
Full Scale Displacement Range:	+/- 0.0075 (inches)
Method for Applying Displacement:	Precision Stepper Motor Connected to Linear Stage
Excitation Voltage for Calibration:	2.5 VDC
Displacement Measurements:	Dual Precision LVDTs, Output Averaged
Displacement Certification:	NIST 274437-07
Linearity Verification Technique:	Linear Correlation Coefficient < 0.9996
Repeatability Verification Technique	Standard Deviation < 0.5% of mean

ASTCS System Check

Reference Strain Transducer:	B5580
Reference General Gage Factor:	529.70 micro-strain/mV/V
LVDT #1 Sensitivity (inches/volt):	0.0056
LVDT #2 Sensitivity (inches/volt):	0.0055
System Temperature Status	Passed
Date/Time of Last System Check	12/8/2020 1:28 PM

PDI Strain Transducer Connections

Black	Excitation +
Green:	Excitation -
Red:	Signal +
White	Signal -
Grey/BARE	Shield

NIST Reference:

PDI certifies the above PDI-ASTCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique. The calibration of this instrument was performed in accordance with the PDI Quality Assurance program. Measurements and information provided on this report are valid at the time of calibration only.