Pile Dynamics, Inc.

Certificate of Calibration

Transducer Model: PDI Transducer

Serial Number: V456

PDI Gage Factor: 146.6 με/V

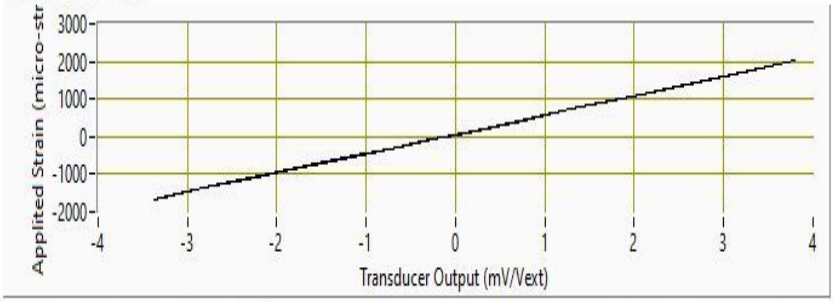
General Gage Factor: 509.1 με/mV/V$_{ext.}$

Initial Offset Voltage: -0.065 mV/V$_{ext.}$

Table 1: Representative Calibration Data

Applied Strain (micro-strain)	Transducer Output (mV/Vext.)	Applied Strain (micro-strain)	Transducer Output (mV/Vext.)
66.780	0.025	225.673	0.316
-86.570	-0.278	521.117	0.897
-373.727	-0.842	822.730	1.490
-636.167	-1.364	1130.442	2.095
-879.334	-1.836	1445.095	2.707
-1129.199	-2.335	1759.853	3.328
-1375.723	-2.818	2005.970	3.793
-1603.817	-3.267	1955.566	3.705
-1663.040	-3.381	1630.803	3.096
-1565.308	-3.215	1315.010	2.473
-1311.927	-2.725	1005.670	1.868
-1042.270	-2.190	715.123	1.291
-778.615	-1.665	442.092	0.758
-512.401	-1.141	177.112	0.240
-253.582	-0.619	64.141	0.021
-6.699	-0.143	65.698	0.028

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999975

LCC Standard Deviation: 4.729183E-7

Calibrated By: DJC

Signature: _____

Date and Time: 7/21/2021 8:48 AM

Temperature (Degrees C): 25.1

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:	9/22/2015 1:48 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):	0.0079
LVDT #2 Sensitivity (inches/volt):	0.0081
System Temperature Status	Passed
Date/Time of Last System Check	9/22/2015 1:48 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.