



Pile Dynamics, Inc.

Certificate of Calibration

Transducer Model: PDI Transducer

Serial Number: E984

PDI Gage Factor: 96.6 $\mu\epsilon/V$

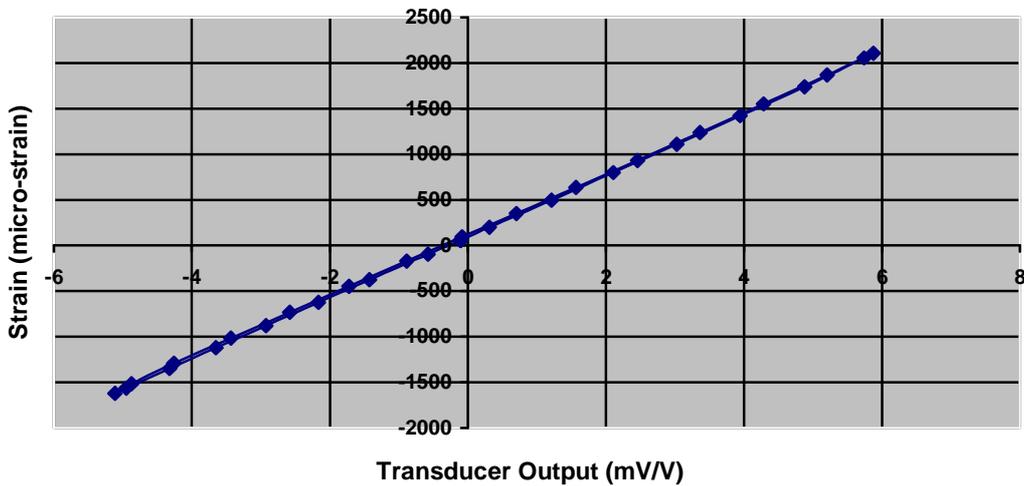
General Gage Factor: 335.5 $\mu\epsilon/mV/V_{ext}$

Initial Offset Voltage: -0.020 mV/V_{ext}

Table 1 – Representative Calibration Data

Applied Strain ($\mu\epsilon$)	Transducer Output (mV/V_{ext})	Applied Strain ($\mu\epsilon$)	Transducer Output (mV/V_{ext})
57	-0.103	350	0.702
-97	-0.578	633	1.566
-376	-1.426	931	2.461
-625	-2.168	1236	3.363
-879	-2.924	1549	4.286
-1122	-3.651	1868	5.207
-1350	-4.324	2104	5.873
-1563	-4.952	2053	5.741
-1621	-5.116	1738	4.880
-1516	-4.872	1421	3.946
-1292	-4.262	1109	3.027
-1017	-3.433	798	2.106
-732	-2.581	494	1.211
-448	-1.722	197	0.314
-172	-0.887	56	-0.105
92	-0.082	56	-0.105

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 9.998900E-1

LCC Standard Deviation: 2.432805E-6

Calibrated By: Erik

Signature: _____

Date/Time: 7/29/2015 1:40 PM

Temperature ($^{\circ}C$): 26.5

Specifications

PDI Automated Strain Transducer Calibration System (PDI-ASTCS)

ASTCS Calibration Information	
ASTCS Serial Number:	ASTCS-0005
ASTCS Software Version:	2.310
ASTCS Independent Verification Date:	11/5/2014 11:54 AM
Strain Transducer Gage Length:	3.0 inches (76.2 mm)
Applied Full Scale Displacement Range:	$\pm 7.500000E-3$ inches
Method for Applying Displacement:	Precision Step Motor Coupled to Linear Stage
Excitation Voltage for Calibration:	2.5 VDC
Displacement Measurements:	Dual Precision AC LVDT's, Output Averaged
Displacement Certification:	NIST 274437-07
Linearity Verification Technique:	Linear Correlation Coefficient > 0.9999
Repeatability Verification Technique:	Standard Deviation < 0.5 % (of mean)
ASTCS System Check	
Reference Strain Transducer:	4367T
Reference General Gage Factor:	293.000 $\mu\epsilon/mV/V$
LVDT #1 Sensitivity (inches/volt):	7.916500E-3
LVDT #2 Sensitivity (inches/volt):	8.042000E-3
Date/Time of Last System Check:	7/29/2015 1:34 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.