



Pile Dynamics, Inc.

Certificate of Calibration

Transducer Model: PDI Transducer

Serial Number: L038

PDI Gage Factor: 91.3 $\mu\epsilon/V$

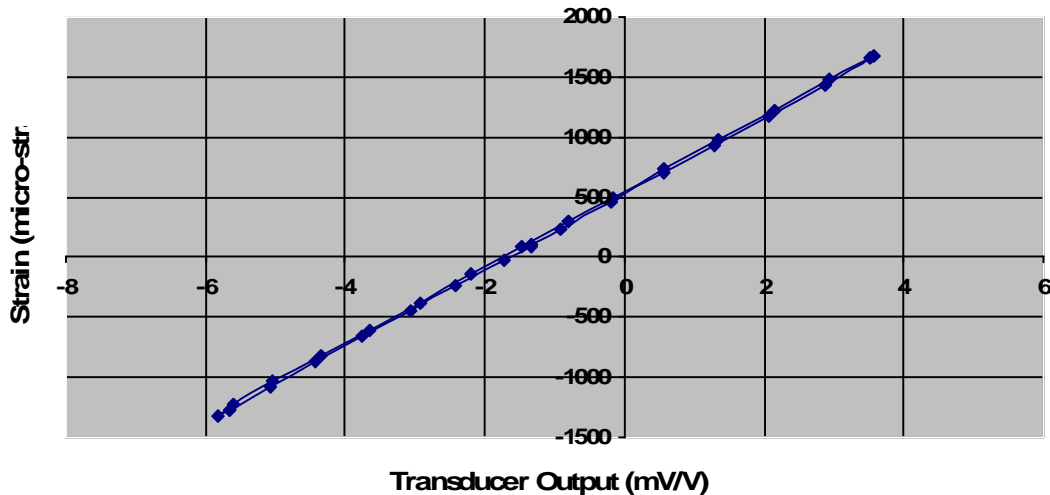
General Gage Factor: 317.1 $\mu\epsilon/mV/V_{ext}$

Initial Offset Voltage: -0.592 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})
95	-1.347	298	-0.808
-21	-1.728	499	-0.162
-237	-2.414	731	0.575
-447	-3.067	973	1.344
-664	-3.754	1222	2.138
-876	-4.417	1475	2.935
-1081	-5.063	1683	3.585
-1274	-5.663	1662	3.518
-1322	-5.814	1426	2.867
-1230	-5.598	1175	2.077
-1037	-5.036	931	1.300
-819	-4.348	698	0.553
-601	-3.643	465	-0.182
-376	-2.929	230	-0.925
-144	-2.201	98	-1.346
87	-1.473	96	-1.347

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 9.998546E-1

LCC Standard Deviation: 1.729657E-6

Calibrated By: vt

Signature: _____

Date/Time: 10/28/2014 2:34 PM

Temperature: 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:	5/15/2014 9:00 AM
Strain Transducer Gage Length:	3.0 inches (762 mm)
Applied Full Scale Displacement Range:	$\pm 6.000000E-3$ 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 Certificate #729970 & #821/274437-07
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):	8.045400E-3
LVDT #2 Sensitivity (inches/volt):	7.986200E-3
Date/Time of Last System Check:	10/28/2014 12:58 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.