



*Pile Dynamics, Inc.*

# Certificate of Calibration

Transducer Model: PDI Transducer

**Serial Number: L042**

**PDI Gage Factor: 91.2  $\mu\epsilon/V$**

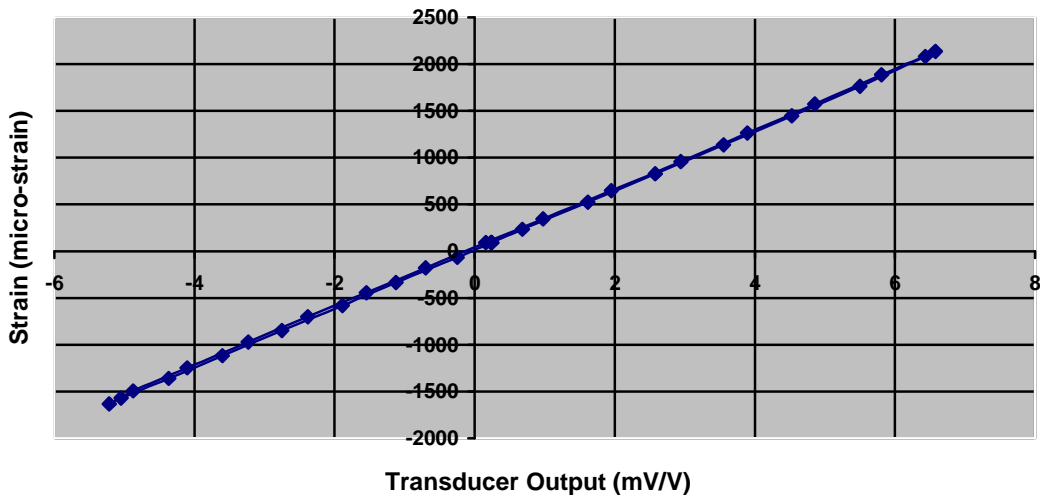
General Gage Factor: 316.6  $\mu\epsilon/mV/V_{ext}$

Initial Offset Voltage: 0.138  $mV/V_{ext}$

Table 1 – Representative Calibration Data

Applied Strain ( $\mu\epsilon$ )	Transducer Output ( $mV/V_{ext}$ )	Applied Strain ( $\mu\epsilon$ )	Transducer Output ( $mV/V_{ext}$ )
91	0.244	345	0.975
-64	-0.247	649	1.951
-335	-1.122	957	2.940
-580	-1.889	1265	3.893
-848	-2.752	1574	4.856
-1116	-3.600	1886	5.807
-1359	-4.366	2138	6.578
-1571	-5.047	2084	6.433
-1632	-5.218	1765	5.502
-1494	-4.874	1447	4.525
-1246	-4.106	1138	3.550
-972	-3.234	828	2.579
-702	-2.385	526	1.615
-444	-1.546	234	0.683
-178	-0.701	91	0.242
91	0.156	91	0.234

## Calibration Curve



Mean Linear Correlation Coefficient (LCC): 9.999017E-1

LCC Standard Deviation: 3.187397E-6

Calibrated By: VT

Signature: \_\_\_\_\_

Date/Time: 1/26/2015 10:51 AM

Temperature: 25.7

# Specifications

## PDI Automated Strain Transducer Calibration System (PDI-ASTCS)

<b>ASTCS Calibration Information</b>	
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 (762 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 Certificate #729970 & #821/274437-07
Linearity Verification Technique:	Linear Correlation Coefficient > 0.9999
Repeatability Verification Technique:	Standard Deviation < 0.5 % (of mean)
<b>ASTCS System Check</b>	
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:	1/26/2015 8:20 AM
<b>PDI Strain Transducer Connections</b>	
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.