



Certificate of Calibration

Transducer Model: PDI Transducer

Pile Dynamics, Inc.

Serial Number: T969

PDI Gage Factor: 143.5 me/V

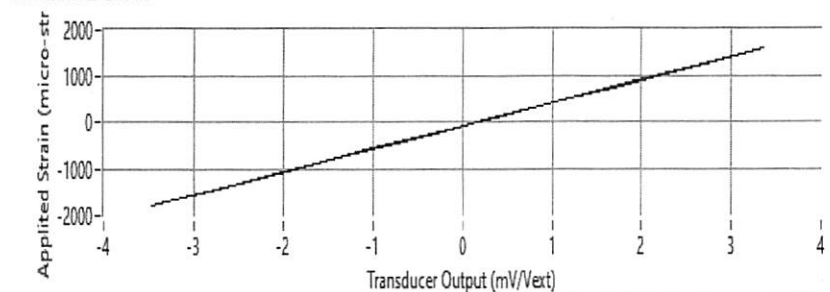
General Gage Factor: 498.3 me/mV/V_{ext}

Initial Offset Voltage: 0.053 mV/V_{ext}

Table 1: Representative Calibration Data

Applied Strain (micro-strain)	Transducer Output (mV/V _{ext})	Applied Strain (micro-strain)	Transducer Output (mV/V _{ext})
33.262	0.163	112.379	0.367
-44.343	0.028	246.891	0.630
-280.152	-0.450	479.234	1.100
-554.944	-1.017	770.720	1.698
-842.634	-1.561	1069.255	2.258
-1131.602	-2.177	1366.157	2.890
-1424.336	-2.732	1606.956	3.362
-1708.032	-3.304	1534.258	3.199
-1768.378	-3.471	1224.686	2.587
-1590.739	-3.034	918.163	1.938
-1297.460	-2.487	615.111	1.374
-1007.059	-1.870	329.310	0.771
-716.871	-1.301	142.845	0.406
-431.686	-0.739	56.285	0.232
-182.701	-0.220	32.507	0.160
-11.434	0.080	31.787	0.200

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999951

Calibrated By: Vanna Ouk

LCC Standard Deviation: 3.052960E-6

Signature: Vanna Ouk

Temperature (Degrees C): 26.3

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Pile Dynamics, Inc.

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ORIGINAL

Specifications

PDI Automated Strain Transducer Calibration System (PDI - ASTCS)

ASTCS Serial Number:	PDI CAL 2015-02-
ASTCS Software Version Number:	3.001
ASTCS Independent Verification Date:	12/14/2018 10:34 AM
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	12/14/2018 10:34 AM

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.