



Certificate of Calibration

Transducer Model: PDI Transducer

Pile Dynamics, Inc.

Serial Number: T966

PDI Gage Factor: 142.7 me/V

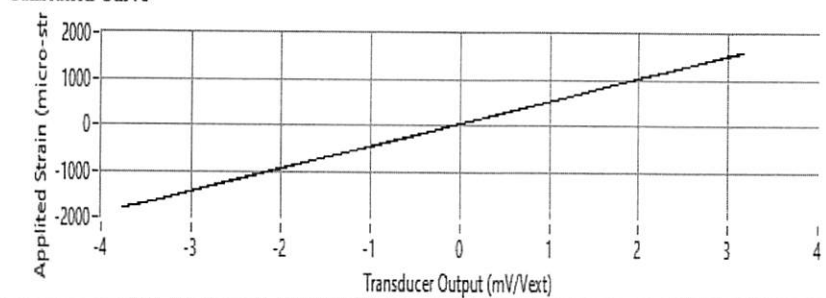
General Gage Factor: 495.5 me/mV/V_{ext}

Initial Offset Voltage: -0.069 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})
4.009	-0.132	105.013	0.101
-56.834	-0.248	246.566	0.383
-291.494	-0.708	491.979	0.882
-563.972	-1.284	786.353	1.492
-852.899	-1.840	1088.546	2.062
-1142.883	-2.450	1390.530	2.706
-1435.800	-3.027	1634.398	3.175
-1724.826	-3.596	1548.392	3.008
-1801.508	-3.771	1235.283	2.366
-1597.299	-3.319	921.624	1.716
-1304.924	-2.756	614.917	1.133
-1008.351	-2.140	322.847	0.504
-716.237	-1.562	125.646	0.123
-433.596	-1.004	17.759	-0.093
-183.615	-0.472	-0.577	-0.139
-9.162	-0.156	1.432	-0.110

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999963

Calibrated By: Vanna Ouk

LCC Standard Deviation: 1.435302E-6

Signature: *[Handwritten Signature]*

Temperature (Degrees C): 26.2

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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.