



Certificate of Calibration

Transducer Model: PDI Transducer

Pile Dynamics, Inc.

Serial Number: Q022

PDI Gage Factor: 147.3 mV/V

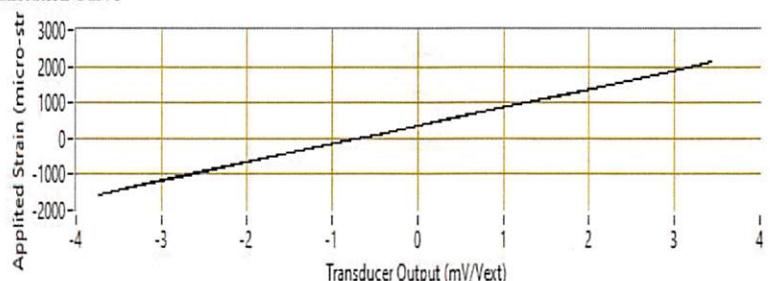
General Gage Factor: 511.4 mV/V_{ext}

Initial Offset Voltage: -0.181 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})
119.007	-0.465	371.293	0.011
-26.268	-0.758	645.926	0.548
-297.225	-1.288	946.053	1.133
-547.672	-1.783	1250.829	1.733
-814.156	-2.300	1563.332	2.344
-1066.722	-2.791	1883.162	2.966
-1235.186	-3.246	2127.448	3.430
-1497.660	-3.640	2089.165	3.361
-1549.490	-3.742	1772.149	2.755
-1494.931	-3.650	1457.421	2.139
-1263.618	-3.192	1156.533	1.553
-999.951	-2.680	854.749	0.964
-726.797	-2.143	560.240	0.386
-447.783	-1.594	264.840	-0.184
-166.720	-1.039	119.550	-0.464
109.824	-0.497	118.497	-0.466

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999990

LCC Standard Deviation: 5.289701E-7

Calibrated By: DJC

Signature:

Date and Time: 2/19/2020 10:34 AM

Temperature (Degrees C): 25.8

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:	9/22/2015 1:48 PM	
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):	0.0079	
LVDT #2 Sensitivity (inches/volt):	0.0081	
System Temperature Status	Passed	
Date/Time of Last System Check	9/22/2015 1:48 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.