



# Certificate of Calibration

Transducer Model: PDI Transducer

**Pile Dynamics, Inc.**

Serial Number: P438

PDI Gage Factor: 92.6 meV

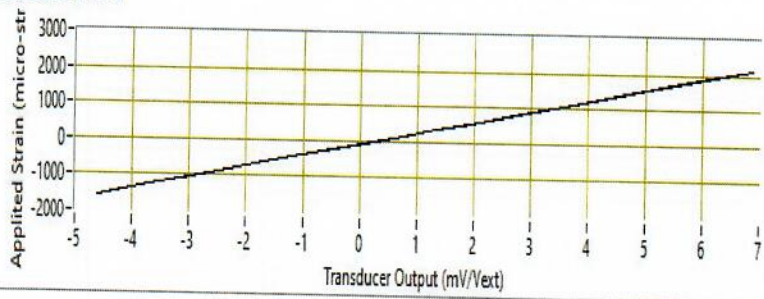
General Gage Factor: 321.5 me/mV/V<sub>ext</sub>

Initial Offset Voltage: 0.318 mV/V<sub>ext</sub>

Table 1: Representative Calibration Data

Applied Strain (micro-strain)	Transducer Output (mV/V <sub>ext</sub> )	Applied Strain (micro-strain)	Transducer Output (mV/V <sub>ext</sub> )
168.032	0.780	343.154	1.327
43.682	0.385	646.577	2.277
-238.957	-0.502	955.093	3.236
-515.415	-1.371	1269.926	4.197
-762.243	-2.161	1585.043	5.157
-1011.184	-2.943	1909.829	6.113
-1260.775	-3.714	2157.450	6.870
-1493.465	-4.425	2102.072	6.709
-1558.047	-4.611	1776.592	5.727
-1454.205	-4.334	1452.607	4.739
-1190.851	-3.523	1138.565	3.770
-917.341	-2.666	833.998	2.836
-654.755	-1.834	552.279	1.964
-400.409	-1.020	300.772	1.166
-159.177	-0.252	168.708	0.770
62.326	0.450	167.647	0.768

### Calibration Curve



Mean Linear Correlation Coefficient (LCC): 0.999964

LCC Standard Deviation: 2.686527E-7

Calibrated By: DJC

Signature: *[Handwritten Signature]*

Date and Time: 5/20/2021 2:48 PM

Temperature (Degrees C): 26.3

## Specifications

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

ASTCS Serial Number:	PDI CAL 2015-02
ASTCS Software Version Number:	3.001
ASTCS Independant 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.