



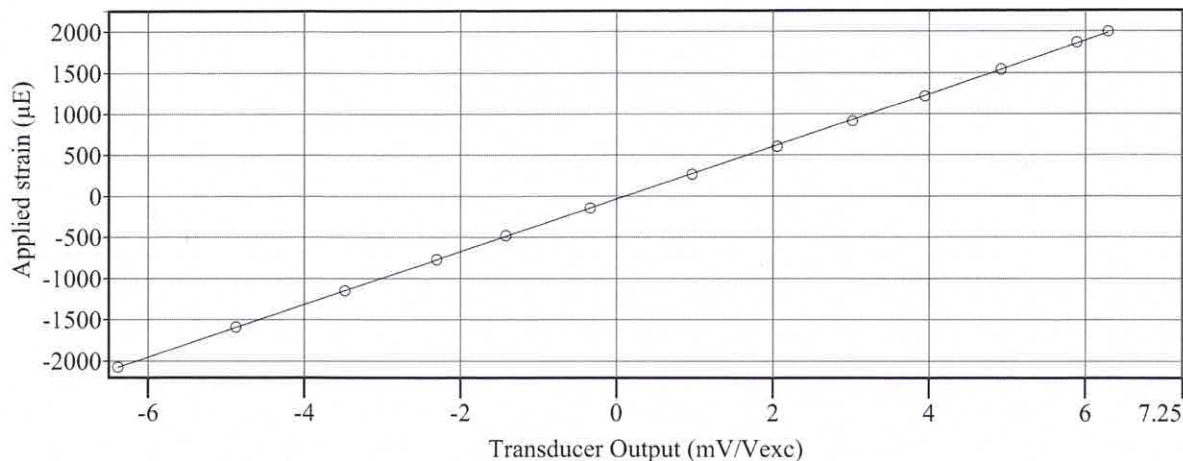
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: 211A
 PDI Gage Factor: 92.4
 Mean Linear Correlation Coefficient: 0.999932

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2073.5	-6.385	603.7	2.055
-1587.9	-4.870	912.1	3.014
-1148.3	-3.475	1220.5	3.945
-767.7	-2.303	1542.0	4.919
-479.0	-1.416	1863.5	5.889
-144.4	-0.340	1994.8	6.291
264.7	0.965		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Kay Tol

Signature: Kay Tol

PDI Gage: 211A

Calibration Date: OCT 01 2024





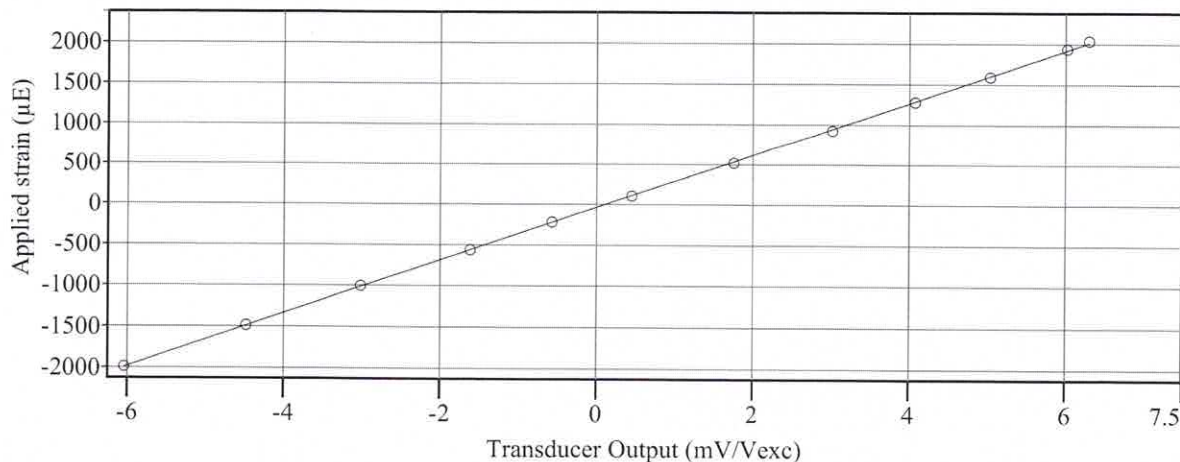
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 106A
PDI Gage Factor: 93.7
Mean Linear Correlation Coefficient: 0.999905

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1988.2	-6.042	518.4	1.753
-1480.8	-4.477	925.2	3.015
-1003.9	-3.014	1279.5	4.077
-559.9	-1.617	1587.9	5.032
-216.5	-0.568	1935.7	6.022
105.0	0.454	2034.1	6.300

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 106A

Calibration Date: OCT 01 2024





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: Z678

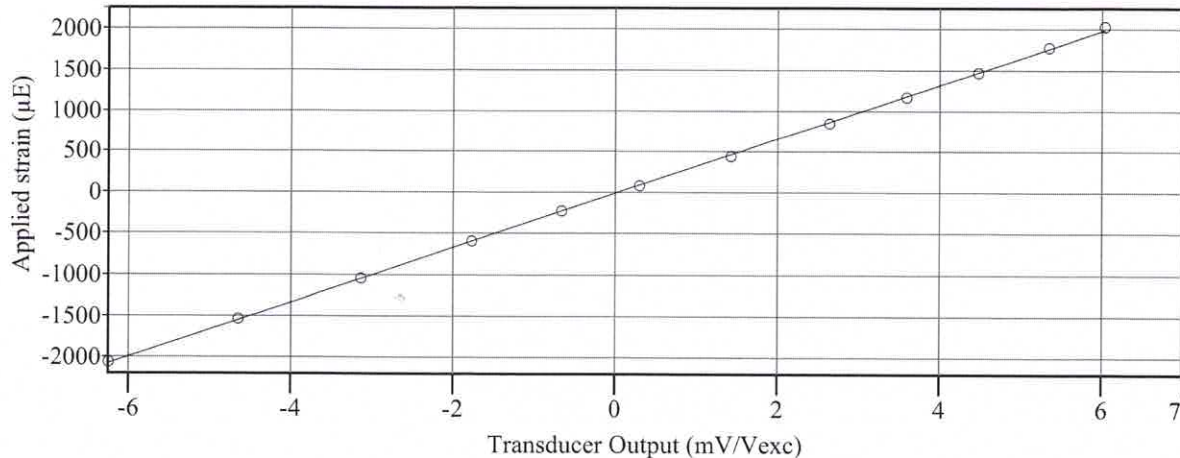
PDI Gage Factor: 95.7

Mean Linear Correlation Coefficient: 0.999836

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2062.6	-6.246	439.6	1.423
-1535.4	-4.644	846.5	2.641
-1043.3	-3.133	1168.0	3.593
-597.1	-1.768	1469.8	4.477
-229.7	-0.663	1778.2	5.350
78.7	0.298	2027.6	6.037

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: Z678

OCT 04 2024

Calibration Date: _____





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: Z670

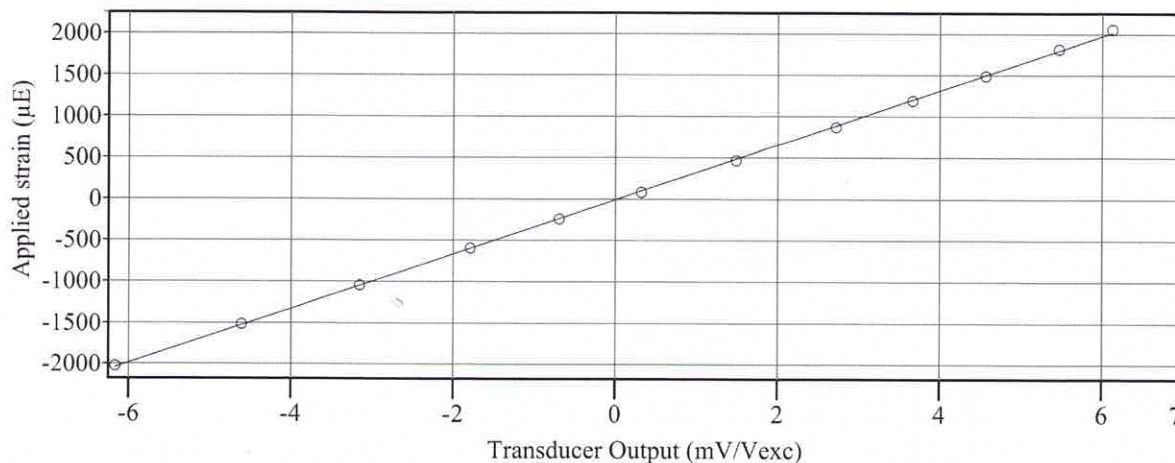
PDI Gage Factor: 95.3

Mean Linear Correlation Coefficient: 0.999822

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2027.6	-6.165	465.9	1.486
-1515.7	-4.605	872.7	2.718
-1043.3	-3.150	1187.7	3.665
-597.1	-1.787	1489.5	4.564
-242.8	-0.694	1813.2	5.468
78.7	0.321	2053.8	6.127

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: Z670

Calibration Date: _____

OCT 04 2024





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: Z672

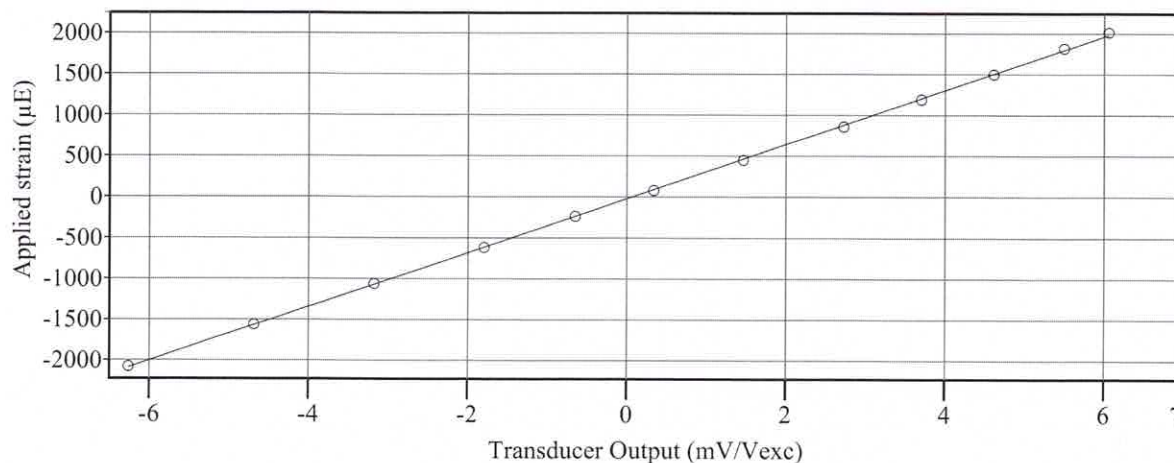
PDI Gage Factor: 95.6

Mean Linear Correlation Coefficient: 0.999855

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2080.1	-6.260	446.2	1.461
-1561.7	-4.683	859.6	2.724
-1063.0	-3.173	1187.7	3.702
-616.8	-1.792	1496.1	4.610
-236.2	-0.649	1817.6	5.496
78.7	0.339	2014.4	6.056

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: Z672

Calibration Date: **OCT 04 2024**



Certificate of Calibration

Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: 80430 Temperature: 23.5 °C

Model: PE Humidity: 42%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

917.9 g's/volt

R²: 0.999968 [Chip programmed]

Ref Acc 1: 78270! Cal on: 11Jan2024
971 g's/volt

Ref Acc 2: 78268! Cal on: 11Jan2024
986 g's/volt

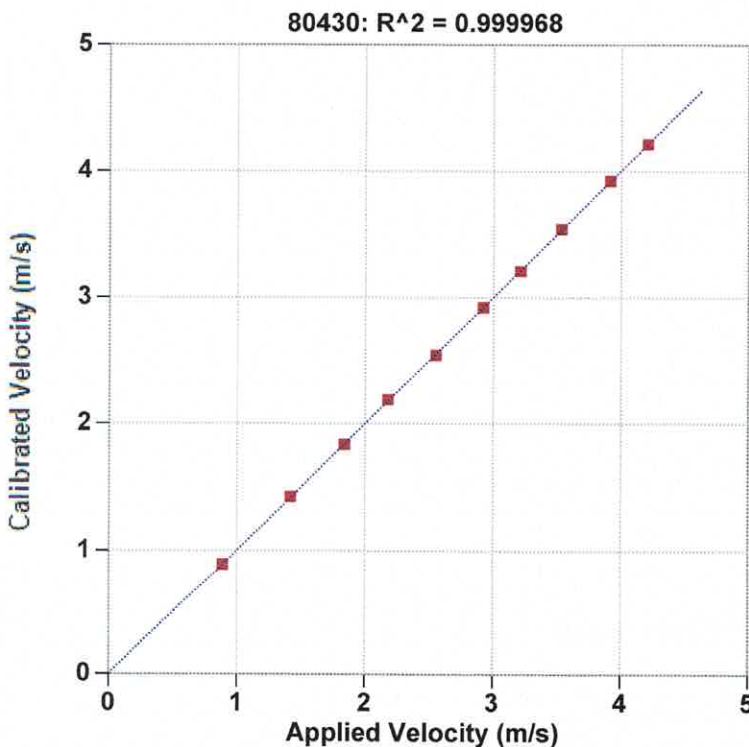
Operator: William Johnson


Signed

Calibration valid 2 years

From: **OCT 03 2024**

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N 80430 Velocity
m/s	m/s
0.892	0.894
1.424	1.430
1.843	1.837
2.186	2.194
2.559	2.547
2.926	2.927
3.220	3.215
3.541	3.546
3.921	3.924
4.214	4.213

Maximum Acceleration: 921 g's



Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on

OCT 03 2024

Serial No: LW502684 Temperature: 25.1 °C

Model: PE Humidity: 42%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

10.5 g's/volt

R²: 0.999966 [Chip programmed]

Operator: William Johnson

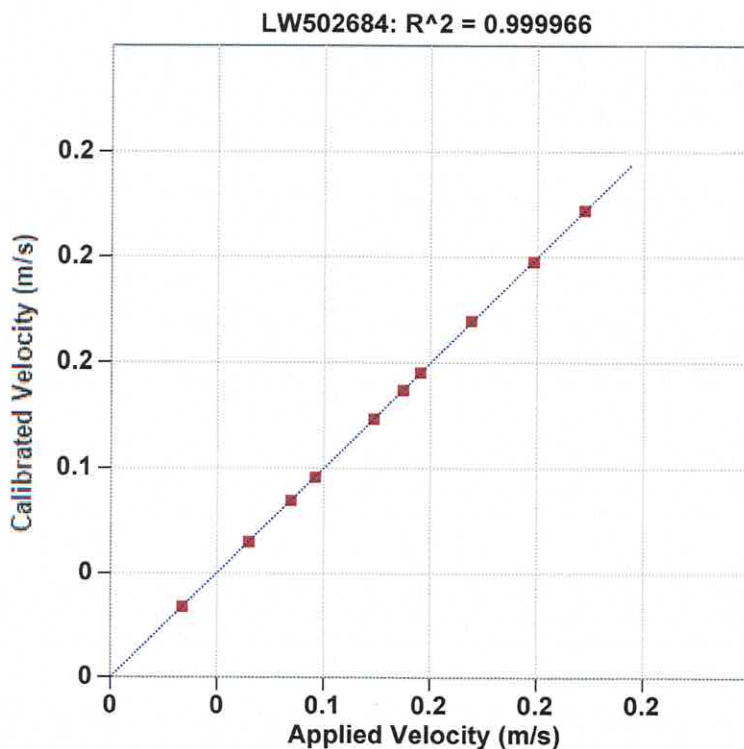
Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt

Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



Reference Velocity	S/N LW502684 Velocity
m/s	m/s
0.034	0.034
0.065	0.065
0.085	0.085
0.096	0.096
0.123	0.124
0.137	0.137
0.145	0.145
0.169	0.170
0.198	0.198
0.222	0.222
Maximum Acceleration: 26 g's	

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on **SEP 26 2024**

Serial No: LW500760 Temperature: 25.1 °C

Model: PE Humidity: 48%

Calibrated on: Channel 4 on 8G 5161 LE

Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt

Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

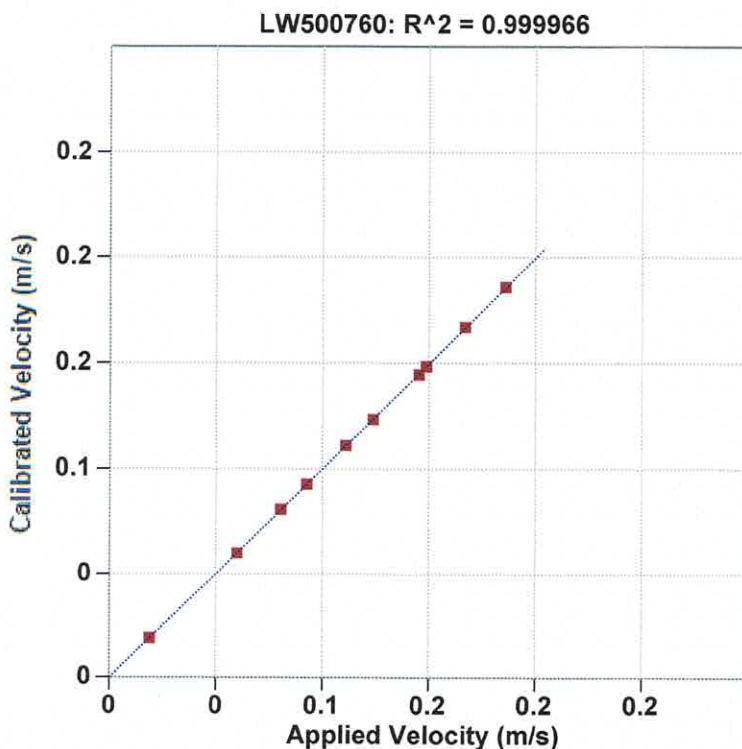
PDA CALIBRATION FACTOR

9.7 g's/volt

R²: 0.999966 [Chip programmed]

Operator: William Johnson

Signed



Reference Velocity	S/N LW500760 Velocity
m/s	m/s
0.019	0.019
0.060	0.060
0.080	0.081
0.093	0.093
0.111	0.111
0.124	0.123
0.145	0.145
0.149	0.149
0.167	0.167
0.186	0.186

Maximum Acceleration: 21 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on SEP 26 2024

Serial No: LW500761 Temperature: 25.1 °C

Model: PE Humidity: 48%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.8 g's/volt

R²: 0.999950 [Chip programmed]

Operator: William Johnson

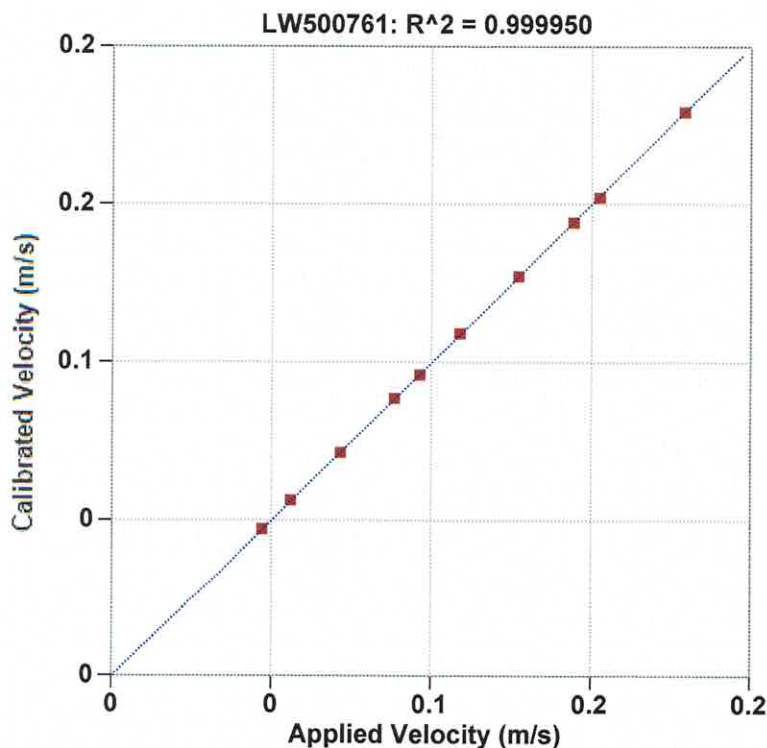
Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt

Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



Reference Velocity	S/N LW500761 Velocity
m/s	m/s
0.047	0.047
0.056	0.056
0.071	0.071
0.088	0.089
0.096	0.096
0.109	0.109
0.127	0.127
0.144	0.144
0.153	0.152
0.179	0.179
Maximum Acceleration: 20 g's	

Certificate of Calibration

Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: K14167 Temperature: 23.6 °C

Model: KICHER PR Humidity: 52%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

368.0 mv/5000g

(73.6 μ v/g)

R²: 0.999927 [Chip programmed]

Ref Acc 1: 78268! Cal on: 11Jan2024
986 g's/volt

Ref Acc 2: 78270! Cal on: 11Jan2024
971 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

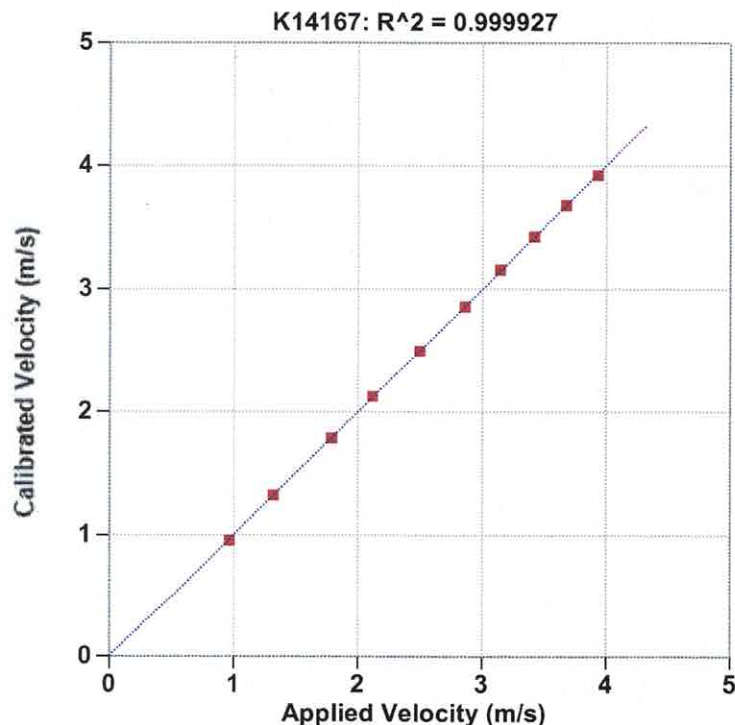
Operator: William Johnson

Signed

Calibration valid 2 years

SEP 06 2024

From: _____



Reference Velocity	S/N K14167 Velocity
m/s	m/s
0.971	0.957
1.323	1.321
1.792	1.787
2.124	2.128
2.502	2.500
2.865	2.862
3.146	3.163
3.423	3.429
3.680	3.681
3.935	3.923

Maximum Acceleration: 848 g's

Certificate of Calibration Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: K14161 Temperature: 24.0 °C

Model: KICHER PR Humidity: 53%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

341.1 mv/5000g

(68.2 μ v/g)

R²: 0.999964 [Chip programmed]

Operator: William Johnson

Signed

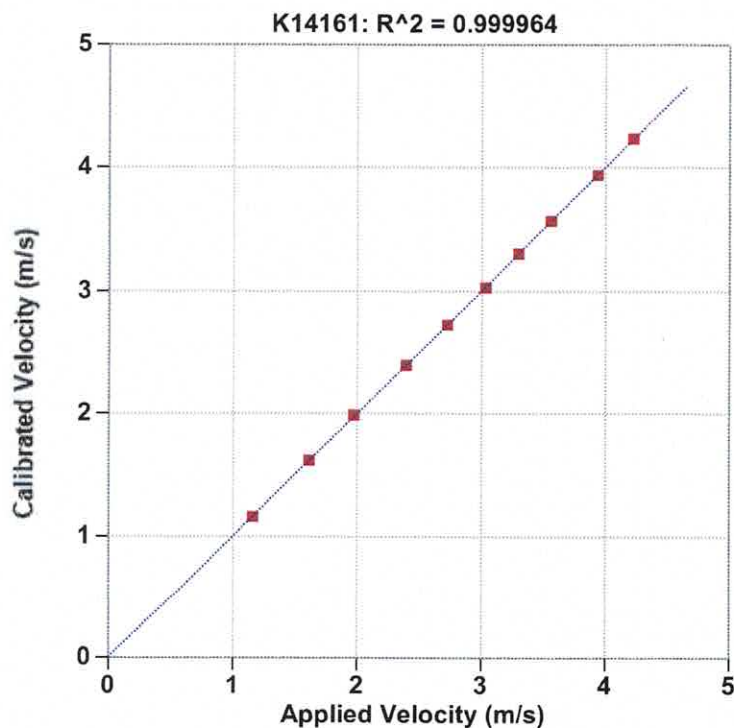
Calibration valid 2 years

From: **SEP 06 2024**

Ref Acc 1: 78268!
986 g's/volt Cal on: 11Jan2024

Ref Acc 2: 78270!
971 g's/volt Cal on: 11Jan2024

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K14161 Velocity
m/s	m/s
1.166	1.159
1.618	1.615
1.978	1.993
2.401	2.400
2.728	2.730
3.038	3.032
3.304	3.304
3.567	3.567
3.940	3.938
4.229	4.230

Maximum Acceleration: 919 g's

Certificate of Calibration
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: K14162 Temperature: 24.0 °C
Model: KICHER PR Humidity: 53%
Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

360.8 mv/5000g
(72.2 μv/g)
R^2: 0.999950 [Chip programmed]

Ref Acc 1: 78268! Cal on: 11Jan2024
986 g's/volt

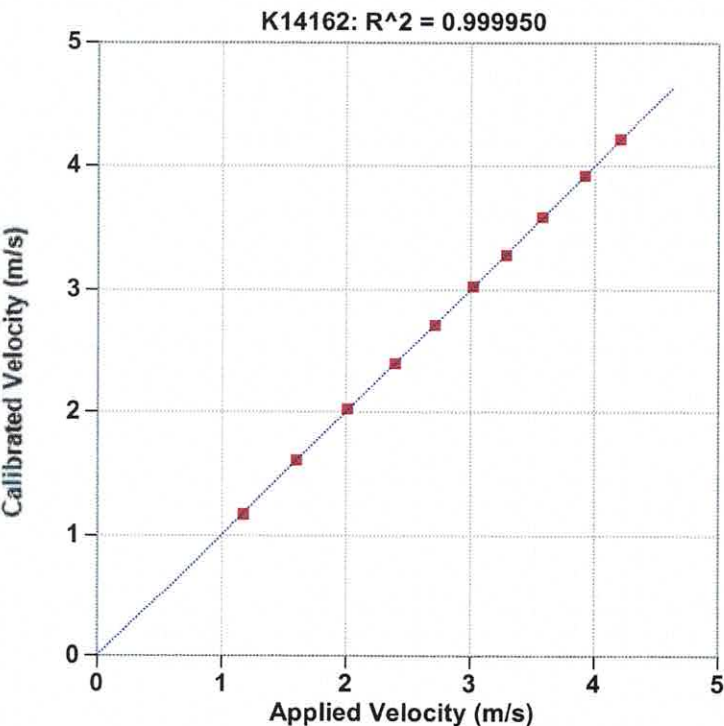
Ref Acc 2: 78270! Cal on: 11Jan2024
971 g's/volt

Operator: William Johnson

William Johnson
Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

Calibration valid 2 years
SEP 06 2024
From: _____



Reference Velocity	S/N K14162 Velocity
m/s	m/s
1.181	1.171
1.607	1.608
2.015	2.026
2.401	2.398
2.720	2.716
3.026	3.030
3.295	3.284
3.584	3.589
3.925	3.922
4.210	4.216

Maximum Acceleration: 914 g's



Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 96A

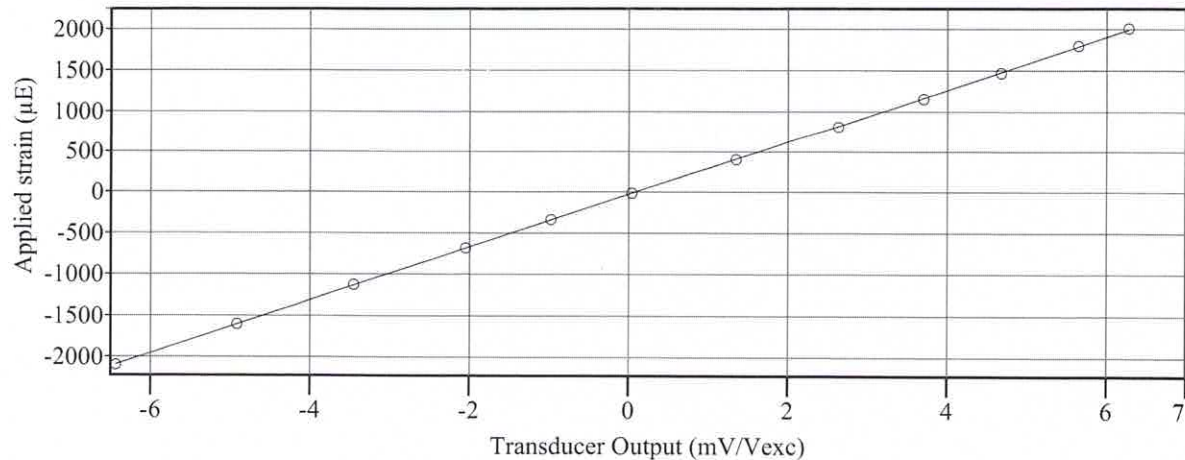
PDI Gage Factor: 92.9

Mean Linear Correlation Coefficient: 0.999964

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2099.7	-6.434	400.3	1.345
-1601.0	-4.912	811.5	2.630
-1128.6	-3.449	1154.9	3.702
-682.4	-2.048	1469.8	4.674
-334.6	-0.977	1797.9	5.647
-15.3	0.040	2007.9	6.274

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 96A

SEP 06 2024

Calibration Date: _____





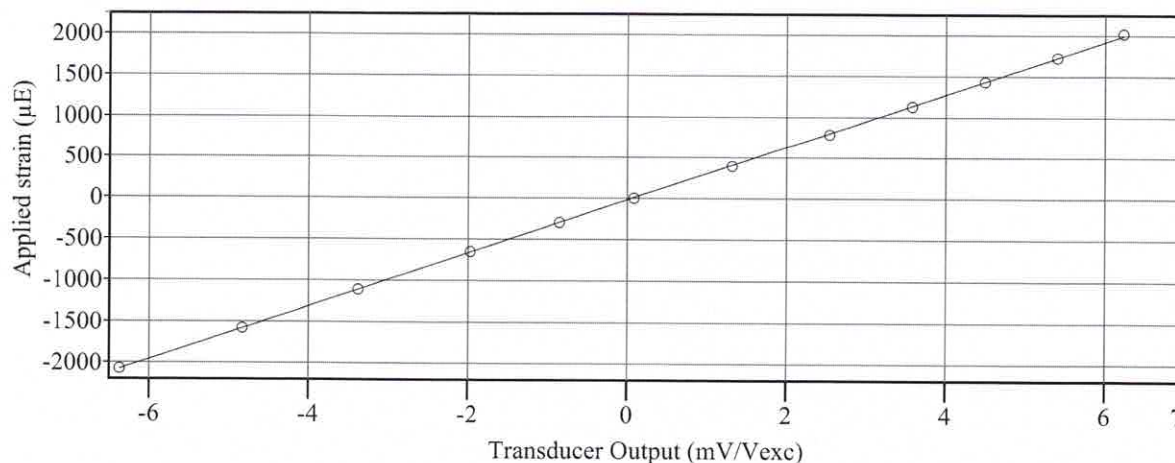
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 97A
PDI Gage Factor: 93.4
Mean Linear Correlation Coefficient: 0.999933

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2073.5	-6.370	393.7	1.313
-1574.8	-4.830	787.4	2.539
-1108.9	-3.378	1128.6	3.576
-649.6	-1.971	1430.4	4.490
-295.3	-0.852	1727.9	5.400
0.0	0.084	2021.0	6.229

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

PDI Gage: 97A

Calibration Date: _____

SEP 06 2024

Signature:

Paul Hartman





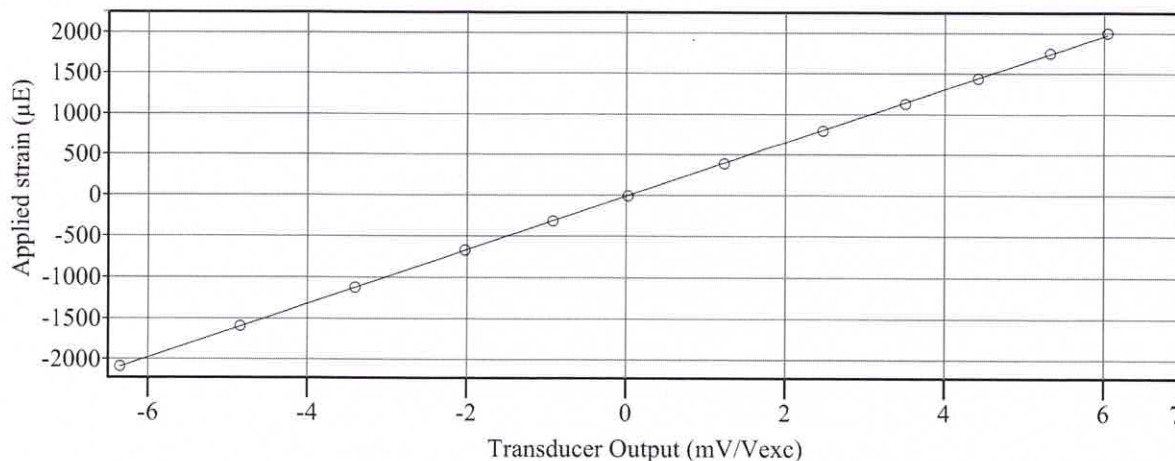
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: 98A
 PDI Gage Factor: 95.0
 Mean Linear Correlation Coefficient: 0.999934

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2091.0	-6.350	385.0	1.229
-1594.5	-4.839	794.0	2.470
-1124.2	-3.401	1128.6	3.507
-669.3	-2.022	1437.0	4.417
-312.8	-0.918	1752.0	5.325
-6.6	0.024	2001.3	6.043

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 98A

SEP 06 2021

Calibration Date: _____





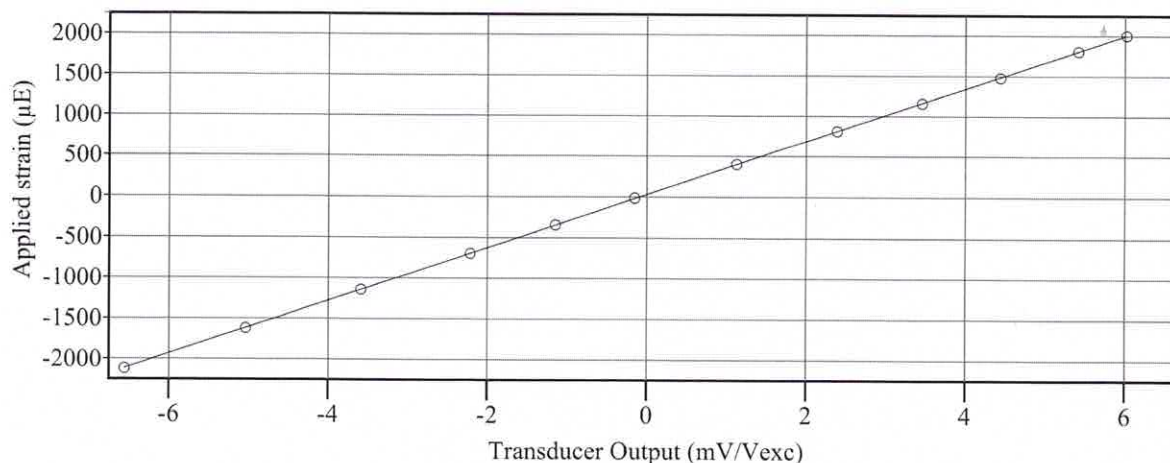
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 99A
PDI Gage Factor: 94.6
Mean Linear Correlation Coefficient: 0.999991

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-2119.4	-6.557	400.3	1.123
-1620.7	-5.033	813.6	2.387
-1141.7	-3.585	1154.9	3.456
-695.5	-2.216	1476.4	4.438
-341.2	-1.148	1804.5	5.417
-13.1	-0.154	2001.3	6.023

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

PDI Gage: 99A

Calibration Date: _____

SEP 06 2024

Signature: _____

Paul Hartman



Certificate of Calibration Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: LW503304 Temperature: 23.5 °C

Model: PE Humidity: 40%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

10.0 g's/volt

R²: 0.999943 [Chip programmed]

Ref Acc 1: LW503313! Cal on: 31Jan2024
10 g's/volt

Ref Acc 2: LW503311! Cal on: 31Jan2024
10 g's/volt

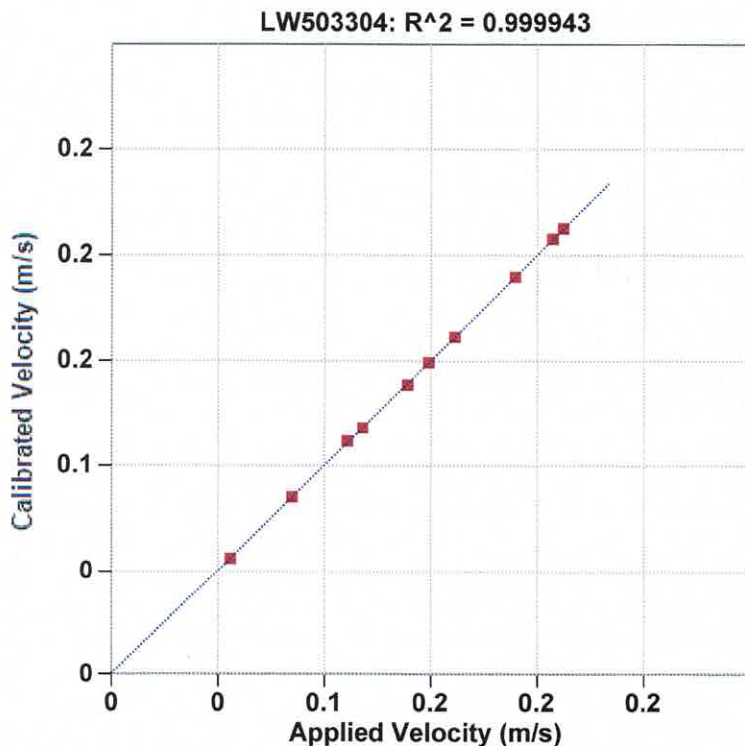
Operator: William Johnson

Signed

Reference accelerometer calibrations are traceable to
the United States National Institute of Standards and
Technology (NIST).

Calibration valid 2 years

From: SEP 09 2024



Reference Velocity	S/N LW503304 Velocity
m/s	m/s
0.056	0.056
0.085	0.085
0.111	0.112
0.118	0.118
0.139	0.138
0.149	0.149
0.161	0.161
0.190	0.190
0.207	0.208
0.212	0.212
Maximum Acceleration: 23 g's	

Certificate of Calibration

Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: LW503305 Temperature: 23.2 °C

Model: PE Humidity: 42%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.9 g's/volt

R²: 0.999952 [Chip programmed]

Ref Acc 1: LW503313! Cal on: 31Jan2024
10 g's/volt

Ref Acc 2: LW503311! Cal on: 31Jan2024
10 g's/volt

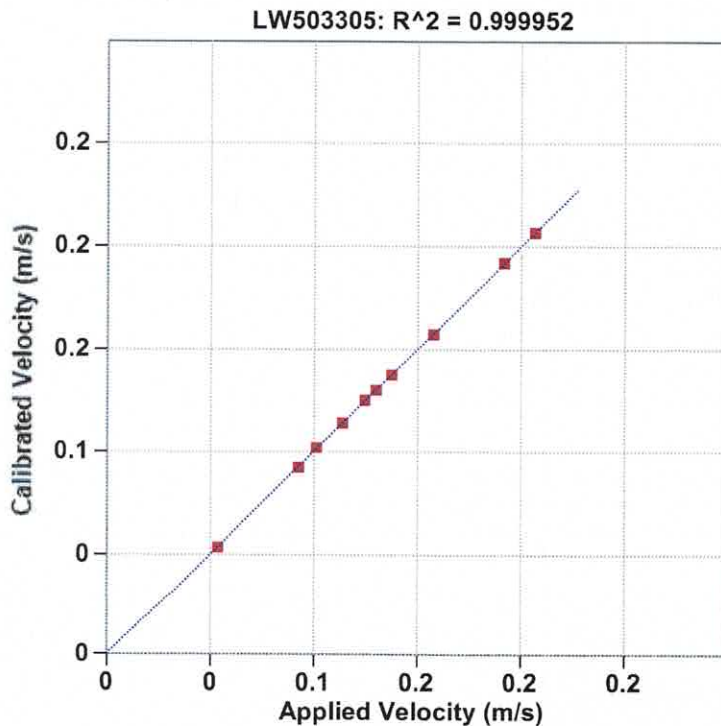
Operator: William Johnson


Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

Calibration valid 2 years

From: SEP 09 2024



Reference Velocity	S/N LW503305 Velocity
m/s	m/s
0.054	0.053
0.093	0.092
0.101	0.102
0.114	0.114
0.125	0.125
0.130	0.130
0.138	0.138
0.158	0.158
0.192	0.192
0.207	0.207

Maximum Acceleration: 22 g's

Certificate of Calibration Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: LW503306 Temperature: 23.2 °C

Model: PE Humidity: 42%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.9 g's/volt

R²: 0.999908 [Chip programmed]

Ref Acc 1: LW503313! Cal on: 31Jan2024
10 g's/volt

Ref Acc 2: LW503311! Cal on: 31Jan2024
10 g's/volt

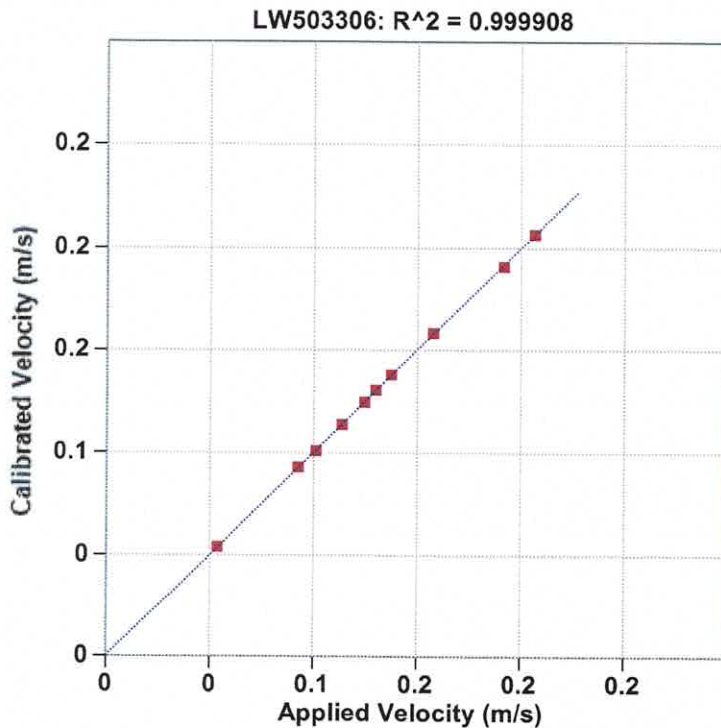
Operator: William Johnson


Signed

Reference accelerometer calibrations are traceable to
the United States National Institute of Standards and
Technology (NIST).

Calibration valid 2 years

From: SEP 09 2024



Reference Velocity	S/N LW503306 Velocity
m/s	m/s
0.054	0.054
0.093	0.093
0.101	0.101
0.114	0.114
0.125	0.124
0.130	0.131
0.138	0.138
0.158	0.158
0.192	0.191
0.207	0.207
Maximum Acceleration: 22 g's	

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on

SEP 09 2024

Serial No: 80148 Temperature: 24.7 °C

Model: PE Humidity: 49%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

931.6 g's/volt

R²: 0.999910 [Chip programmed]

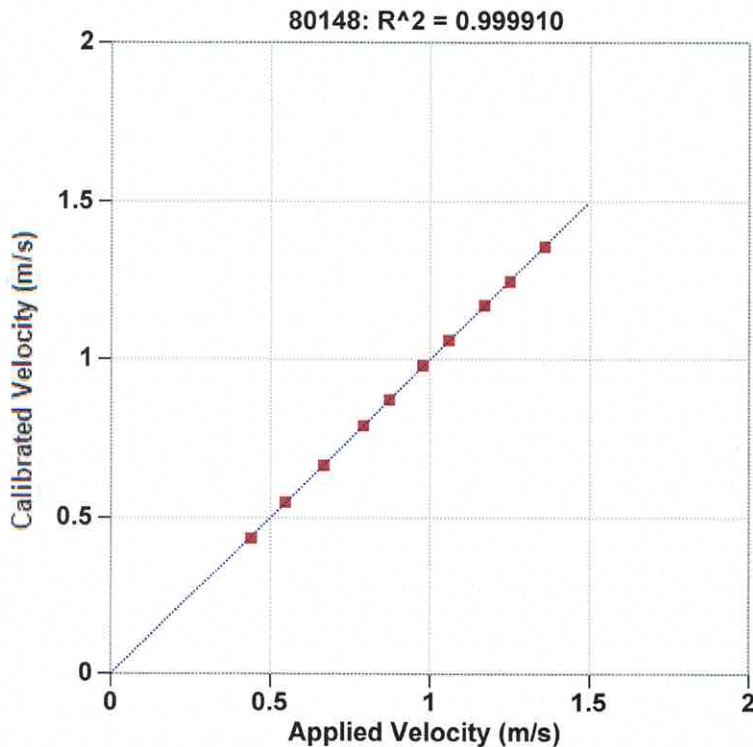
Operator: William Johnson

Ref Acc 1: 78270! Cal on: 11Jan2024
971 g's/volt

Ref Acc 2: 78268! Cal on: 11Jan2024
986 g's/volt

Reference accelerometer calibrations are traceable to
the United States National Institute of Standards and
Technology (NIST).

Signed



Reference Velocity	S/N 80148 Velocity
m/s	m/s
0.441	0.435
0.547	0.550
0.667	0.666
0.791	0.791
0.873	0.874
0.978	0.982
1.059	1.061
1.170	1.171
1.251	1.247
1.360	1.358
Maximum Acceleration: 179 g's	

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on SEP 09 2024

Serial No: LW500762 Temperature: 25.1 °C

Model: PE Humidity: 48%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.9 g's/volt

R²: 0.999965 [Chip programmed]

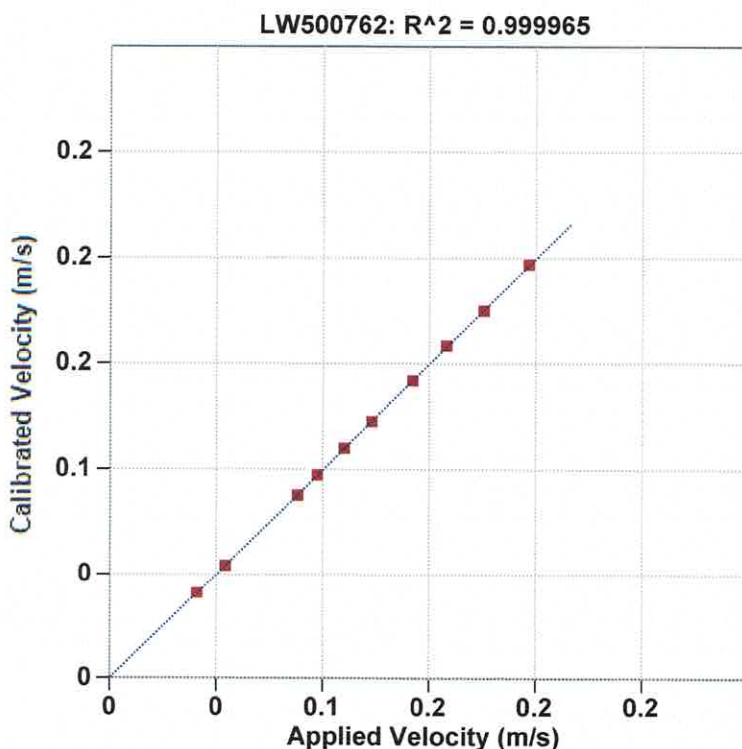
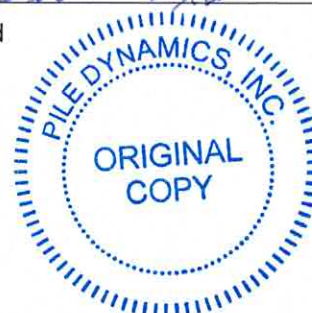
Operator: William Johnson

Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt

Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

Signed



Reference Velocity	S/N LW500762 Velocity
m/s	m/s
0.041	0.041
0.054	0.054
0.088	0.088
0.097	0.097
0.110	0.110
0.123	0.122
0.142	0.142
0.158	0.158
0.175	0.175
0.197	0.197
Maximum Acceleration: 23 g's	

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on

SEP 09 2024

Serial No: K14090 Temperature: 25.1 °C

Model: PR Humidity: 55%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

346.9 mv/5000g

(69.4 μ v/g)

R²: 0.999954 [Chip programmed]

Operator: William Johnson

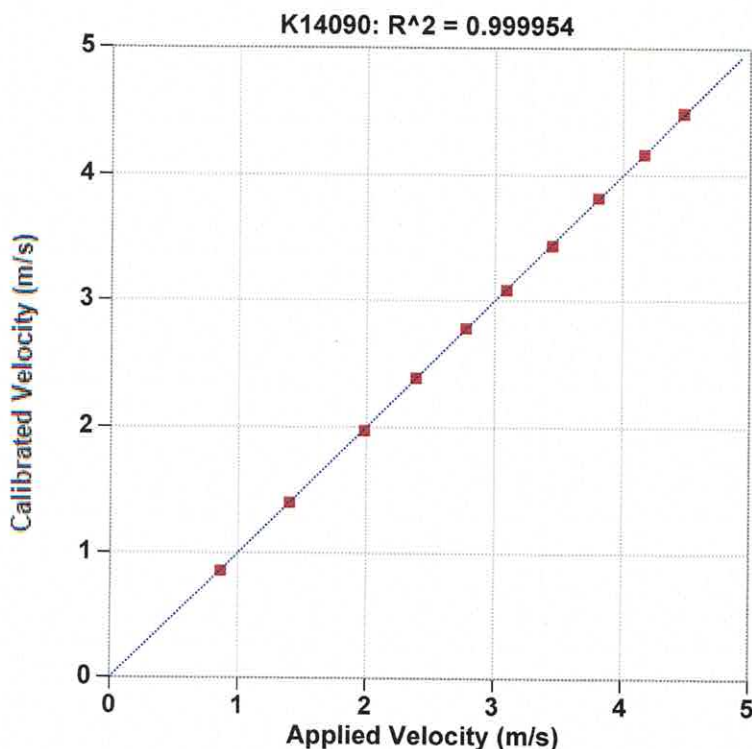
Ref Acc 1: 78270! Cal on: 11Jan2024
971 g's/volt

Ref Acc 2: 78268! Cal on: 11Jan2024
986 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



Reference Velocity	S/N K14090 Velocity
m/s	m/s
0.864	0.859
1.404	1.404
1.987	1.975
2.391	2.396
2.779	2.784
3.095	3.088
3.453	3.439
3.813	3.819
4.169	4.169
4.479	4.489

Maximum Acceleration: 970 g's



Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 120A

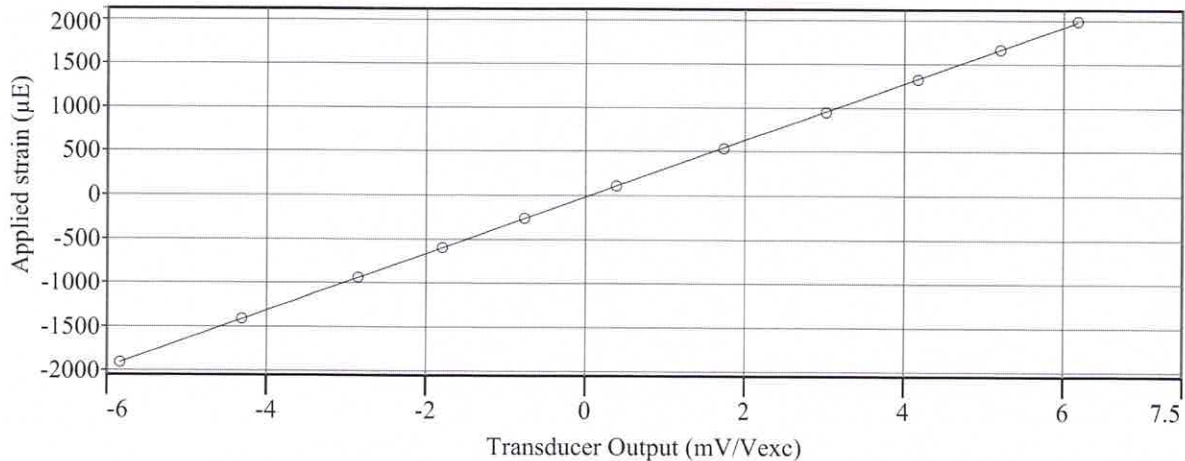
PDI Gage Factor: 93.5

Mean Linear Correlation Coefficient: 0.999973

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1909.4	-5.839	531.5	1.731
-1410.8	-4.310	951.4	3.019
-938.3	-2.850	1325.5	4.171
-597.1	-1.795	1666.7	5.204
-262.5	-0.764	1994.8	6.176
107.2	0.389		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 120A

Calibration Date: SEP 09 2024





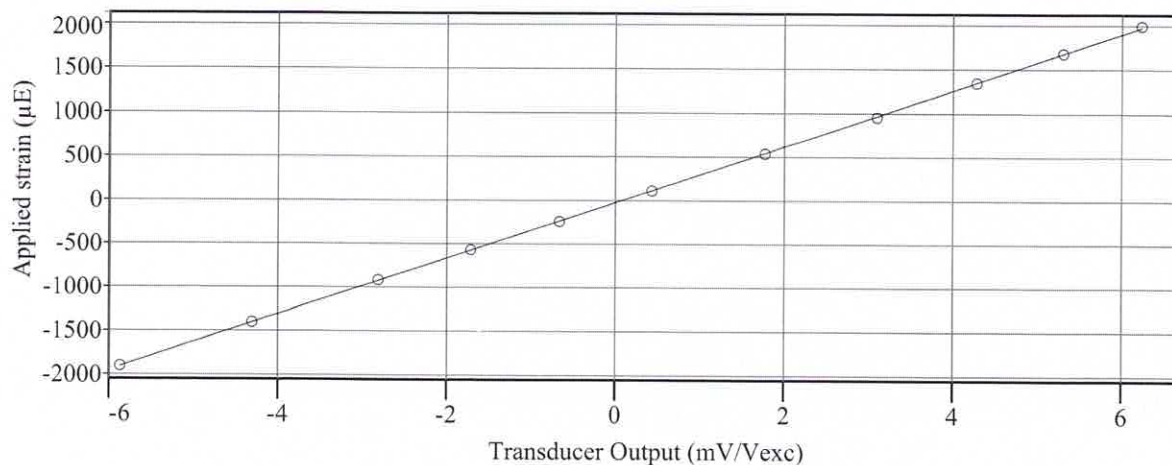
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 121A
PDI Gage Factor: 92.7
Mean Linear Correlation Coefficient: 0.999956

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1902.9	-5.869	538.1	1.772
-1404.2	-4.306	955.8	3.098
-918.6	-2.810	1345.1	4.280
-570.9	-1.713	1679.8	5.309
-242.8	-0.666	1994.8	6.234
111.5	0.432		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 121A

Calibration Date: _____

SEP 09 2024



Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.

Calibration performed on SEP 09 2024

Serial No: LW500743 Temperature: 24.9 °C

Model: PE Humidity: 51%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.7 g's/volt

R²: 0.999988 [Chip programmed]

Operator: William Johnson

Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt

Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

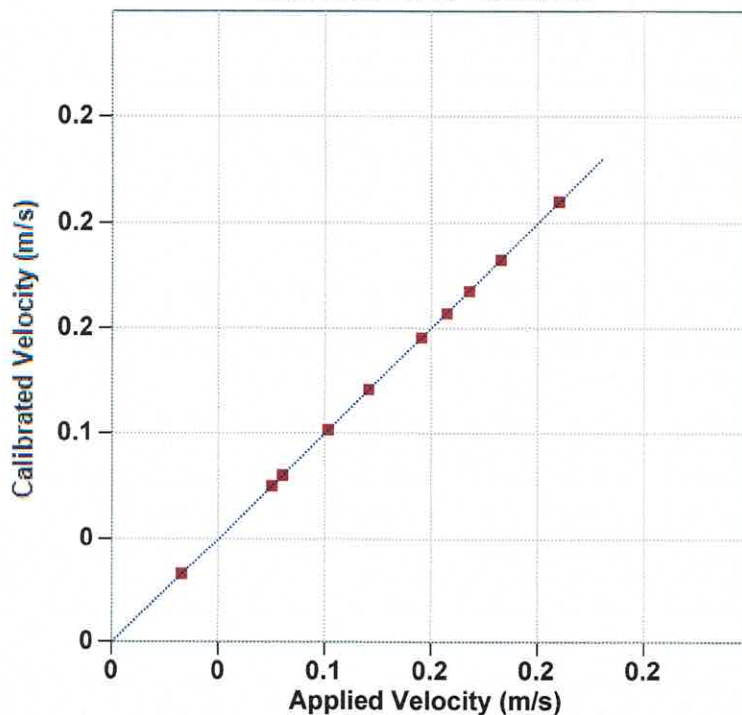
Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



LW500743: R² = 0.999988



Reference Velocity	S/N LW500743 Velocity
m/s	m/s
0.033	0.033
0.075	0.075
0.080	0.080
0.101	0.102
0.121	0.121
0.145	0.145
0.157	0.157
0.168	0.168
0.183	0.182
0.210	0.210
Maximum Acceleration: 24 g's	



Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 122A

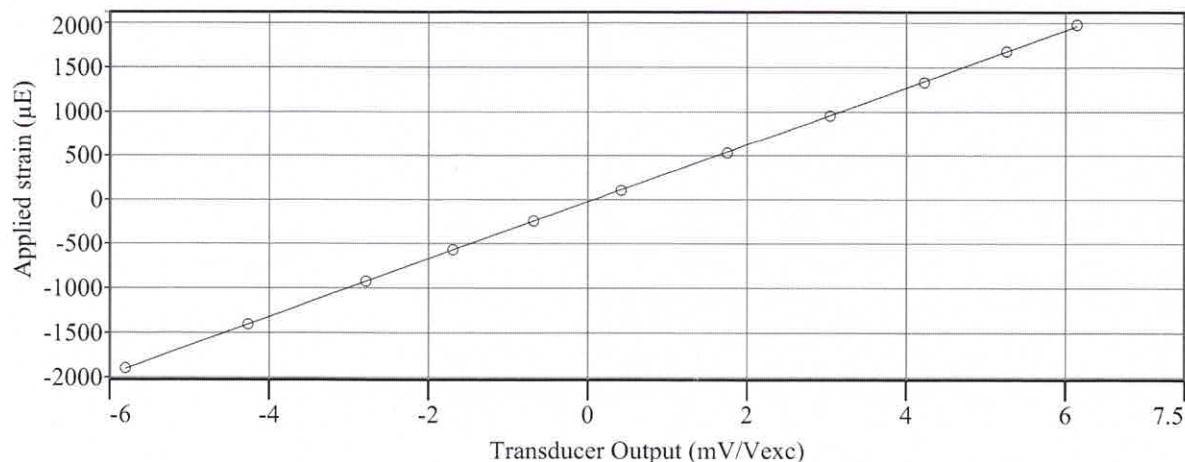
PDI Gage Factor: 93.5

Mean Linear Correlation Coefficient: 0.999957

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1898.5	-5.805	529.3	1.750
-1404.2	-4.266	958.0	3.040
-925.2	-2.784	1332.0	4.228
-570.9	-1.695	1679.8	5.259
-242.8	-0.679	1981.6	6.146
105.0	0.422		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 122A

Calibration Date: **SEP 10 2024**





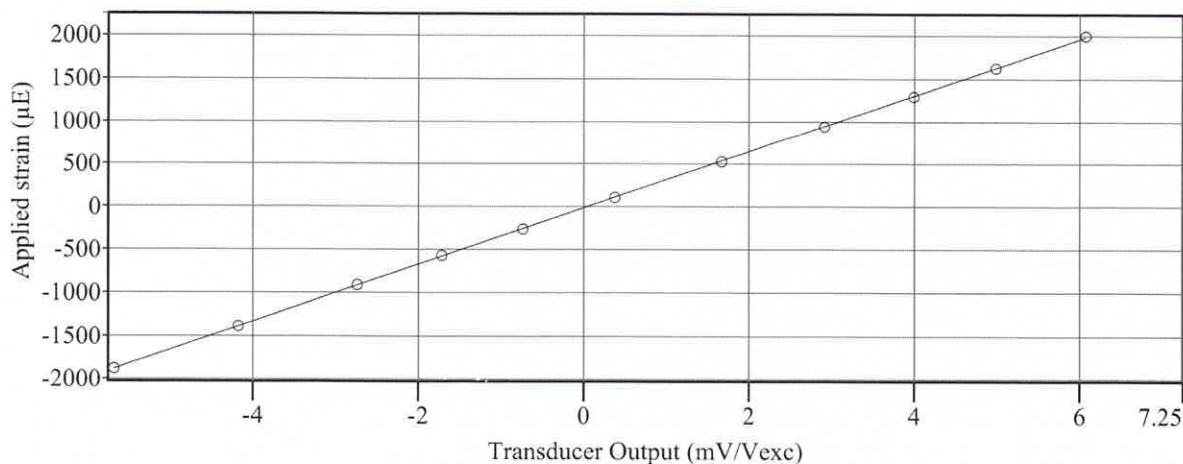
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 123A
PDI Gage Factor: 95.1
Mean Linear Correlation Coefficient: 0.999960

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1881.0	-5.681	524.9	1.665
-1384.5	-4.174	938.3	2.912
-912.1	-2.738	1292.7	3.994
-570.9	-1.717	1627.3	4.984
-260.3	-0.735	2001.3	6.071
105.0	0.378		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 123A

Calibration Date: SEP 10 2024



Certificate of Calibration
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: K14158 Temperature: 24.7 °C
Model: KICHER PR Humidity: 45%
Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

357.5 mv/5000g
(71.5 μv/g)
R^2: 0.999957 [Chip programmed]

Ref Acc 1: 78270! Cal on: 11Jan2024
971 g's/volt
Ref Acc 2: 78268! Cal on: 11Jan2024
986 g's/volt

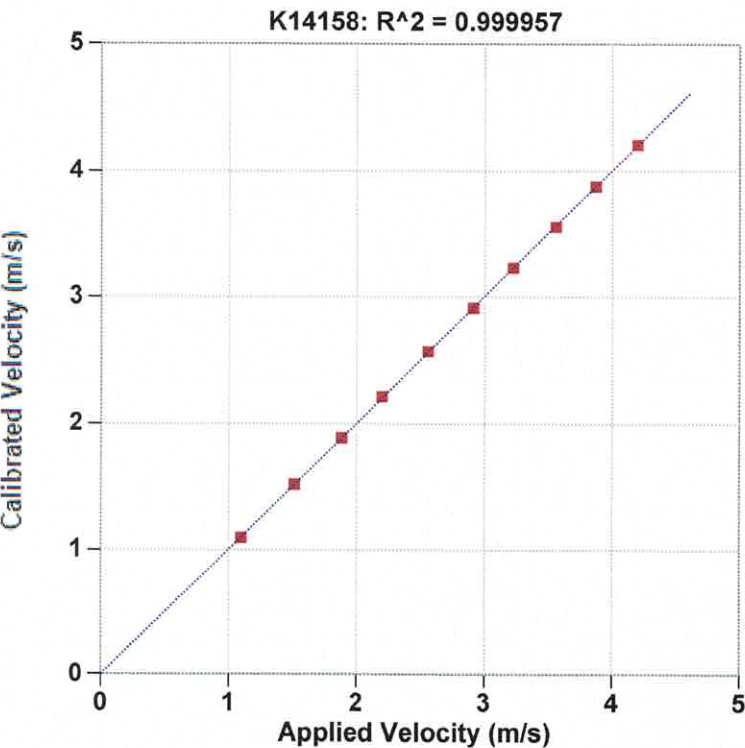
Operator: William Johnson


Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

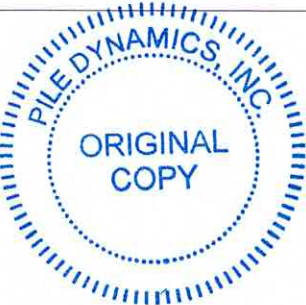
Calibration valid 2 years

From: SEP 1 0 2024



Reference Velocity	S/N K14158 Velocity
m/s	m/s
1.101	1.099
1.518	1.519
1.887	1.889
2.205	2.218
2.564	2.568
2.916	2.914
3.230	3.228
3.565	3.552
3.877	3.875
4.203	4.208

Maximum Acceleration: 911 g's



Certificate of Calibration

Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.



Serial No: K14166 Temperature: 23.6 °C

Model: KICHER PR Humidity: 52%

Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

415.2 mv/5000g

(83.0 $\mu\text{v/g}$)

R²: 0.999971 [Chip programmed]

Operator: William Johnson

Ref Acc 1: 78268! Cal on: 11Jan2024
986 g's/volt

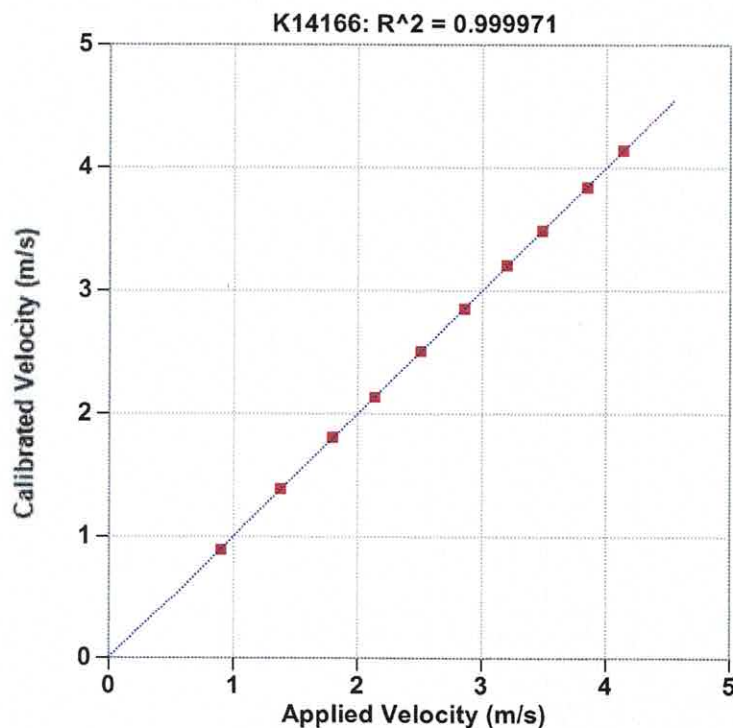
Ref Acc 2: 78270! Cal on: 11Jan2024
971 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

Signed

Calibration valid 2 years

From: **SEP 1 0 2024**



Reference Velocity	S/N K14166 Velocity
m/s	m/s
0.903	0.895
1.383	1.387
1.803	1.809
2.142	2.138
2.512	2.515
2.862	2.857
3.203	3.209
3.491	3.489
3.851	3.844
4.137	4.143

Maximum Acceleration: 899 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on **SEP 10 2024**

Serial No: LW500986 Temperature: 24.7 °C
Model: PE Humidity: 46%
Calibrated on: Channel 3 on 8G 5161 LE

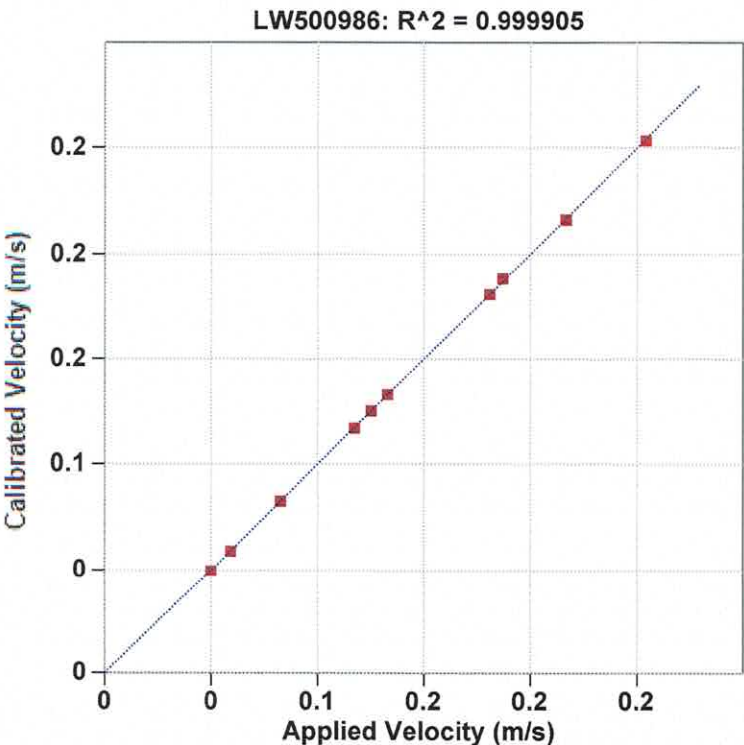
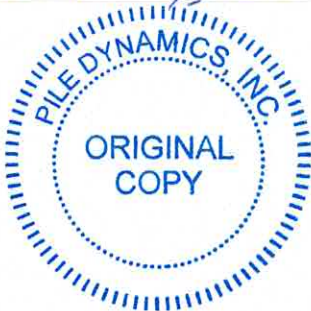
PDA CALIBRATION FACTOR
10.0 g's/volt
R^2: 0.999905 [Chip programmed]
Operator: William Johnson

Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt
Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



Reference Velocity	S/N LW500986 Velocity
m/s	m/s
0.050	0.050
0.059	0.059
0.083	0.083
0.117	0.117
0.125	0.125
0.133	0.133
0.181	0.181
0.187	0.189
0.217	0.216
0.254	0.253
Maximum Acceleration: 31 g's	

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on

SEP 12 2024

Serial No: LW384555 Temperature: 68.9 °C

Model: PE Humidity: 30%

Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

10.2 g's/volt

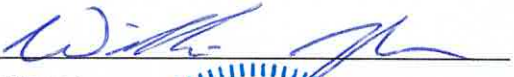
R²: 0.999986 [Chip programmed]

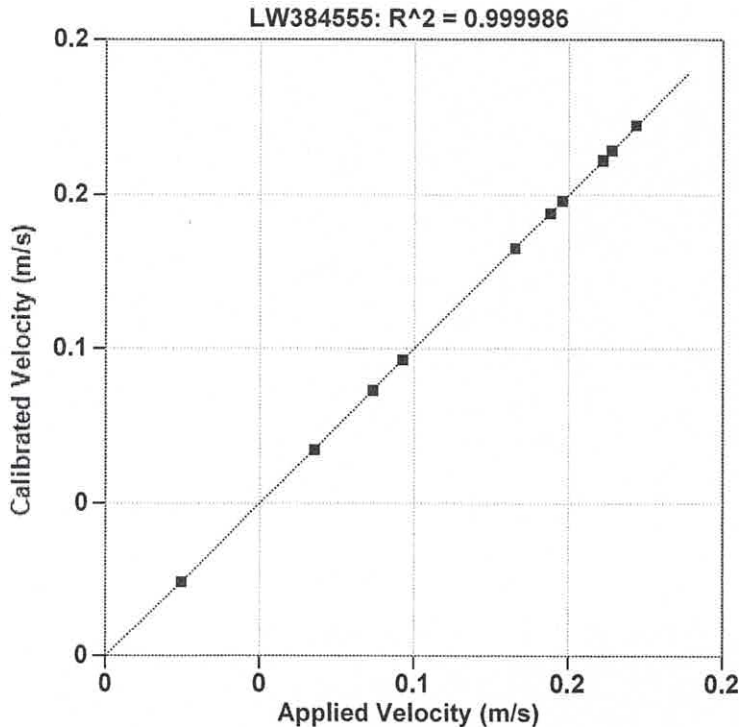
Operator: William Johnson

Ref Acc 1: LW423794! Cal on: 28Jul2022
10 g's/volt

Ref Acc 2: LW423806! Cal on: 02Aug2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).


Signed



Reference Velocity	S/N LW384555 Velocity
m/s	m/s
0.024	0.024
0.067	0.067
0.086	0.086
0.096	0.096
0.133	0.133
0.144	0.144
0.148	0.148
0.161	0.161
0.164	0.164
0.172	0.172
Maximum Acceleration: 19 g's	

Accelerometer Calibration Certificate
Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on

SEP 13 2024

Serial No: LW502556 Temperature: 24.7 °C
Model: PE Humidity: 46%
Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

9.9 g's/volt

R^2: 0.999949 [Chip programmed]

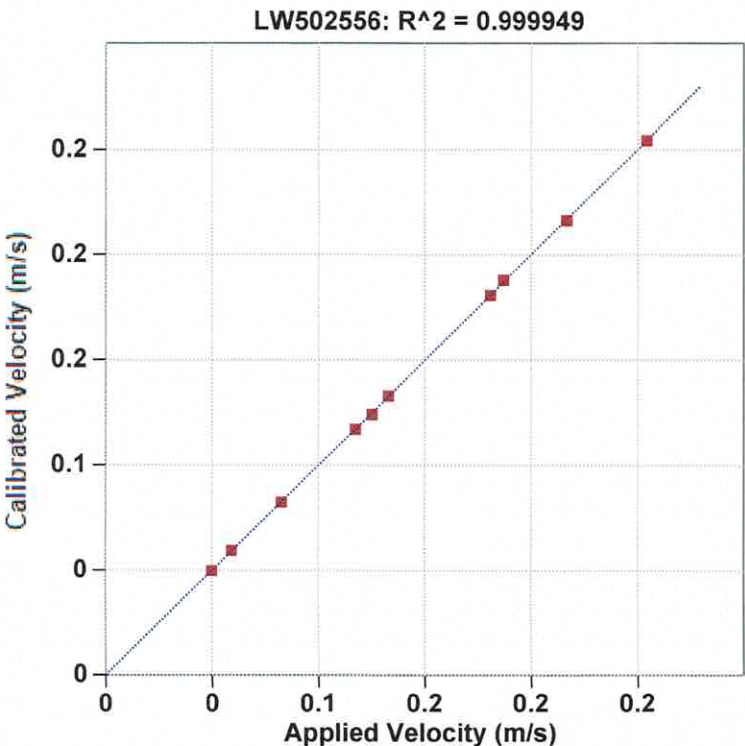
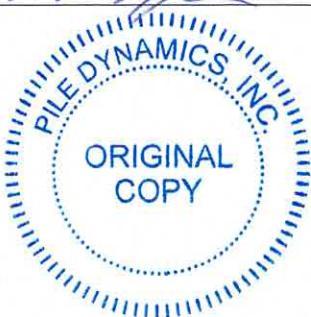
Operator: William Johnson

Ref Acc 1: LW423806! Cal on: 02Aug2022
10 g's/volt
Ref Acc 2: LW423794! Cal on: 28Jul2022
10 g's/volt

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

William Johnson

Signed



Reference Velocity	S/N LW502556 Velocity
m/s	m/s
0.050	0.050
0.059	0.060
0.083	0.083
0.117	0.117
0.125	0.125
0.133	0.133
0.181	0.181
0.187	0.188
0.217	0.216
0.254	0.254
Maximum Acceleration: 31 g's	



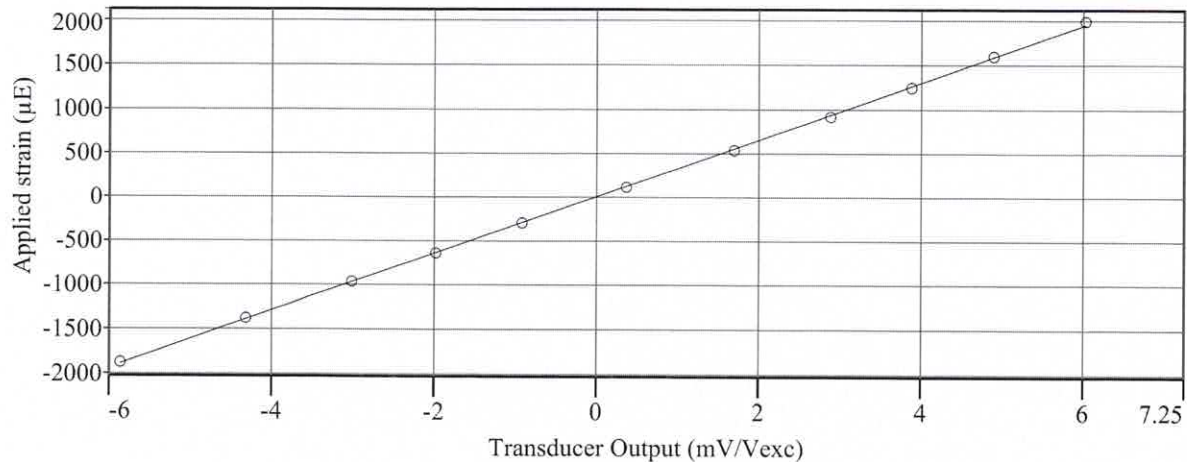
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 150A
PDI Gage Factor: 93.4
Mean Linear Correlation Coefficient: 0.999812

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1876.6	-5.864	538.1	1.693
-1378.0	-4.318	918.6	2.884
-964.6	-3.013	1246.7	3.883
-636.5	-1.979	1594.5	4.891
-295.3	-0.917	1994.8	6.028
113.7	0.369		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 150A

Calibration Date: SEP 13 2024





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 151A

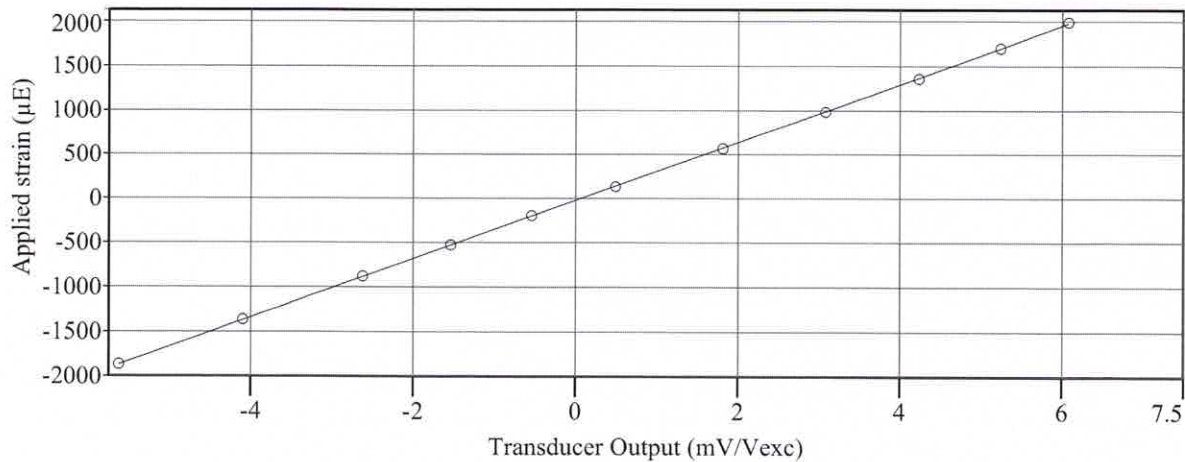
PDI Gage Factor: 94.9

Mean Linear Correlation Coefficient: 0.999967

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1870.1	-5.628	564.3	1.814
-1364.8	-4.098	984.3	3.080
-879.3	-2.619	1358.3	4.233
-527.1	-1.536	1699.5	5.236
-196.9	-0.538	1988.2	6.077
131.2	0.494		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 151A

Calibration Date: SEP 13 2024





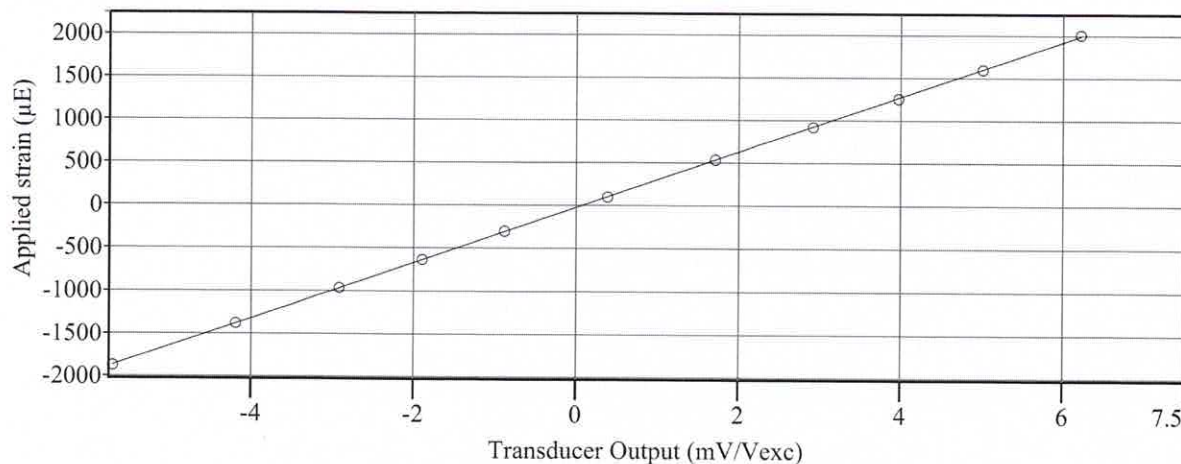
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: 152A
 PDI Gage Factor: 93.7
 Mean Linear Correlation Coefficient: 0.999969

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1876.6	-5.702	531.5	1.713
-1378.0	-4.189	918.6	2.919
-964.6	-2.915	1253.3	3.972
-636.5	-1.894	1594.5	5.008
-304.0	-0.879	2007.9	6.219
98.4	0.387		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature:

Paul Hartman

PDI Gage: 152A

Calibration Date: SEP 13 2024





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 154A

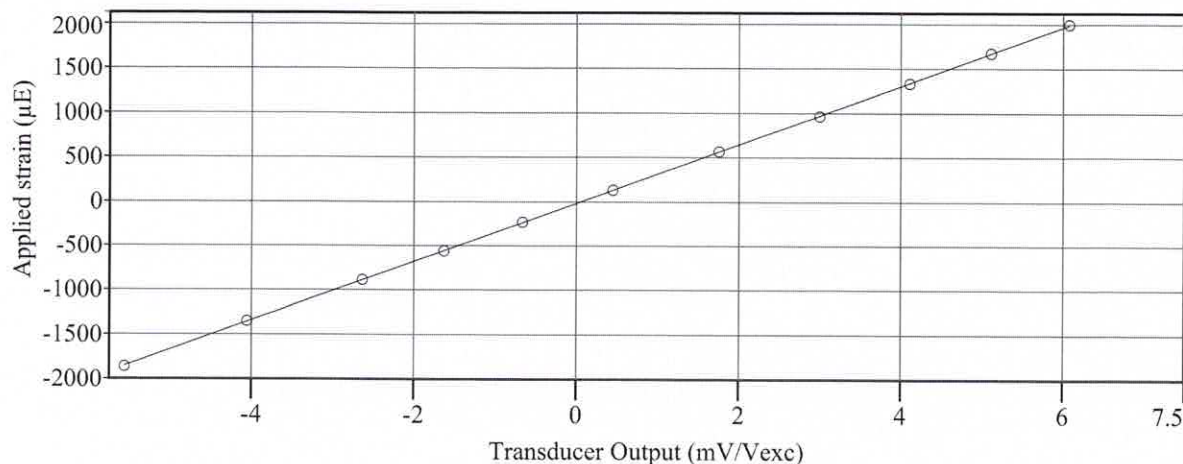
PDI Gage Factor: 95.4

Mean Linear Correlation Coefficient: 0.999980

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1863.5	-5.563	564.3	1.755
-1351.7	-4.054	964.6	2.998
-885.8	-2.631	1332.0	4.110
-557.7	-1.632	1671.0	5.109
-229.7	-0.663	1994.8	6.075
131.2	0.448		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature:

Paul Hartman

PDI Gage: 154A

Calibration Date: SEP 13 2024





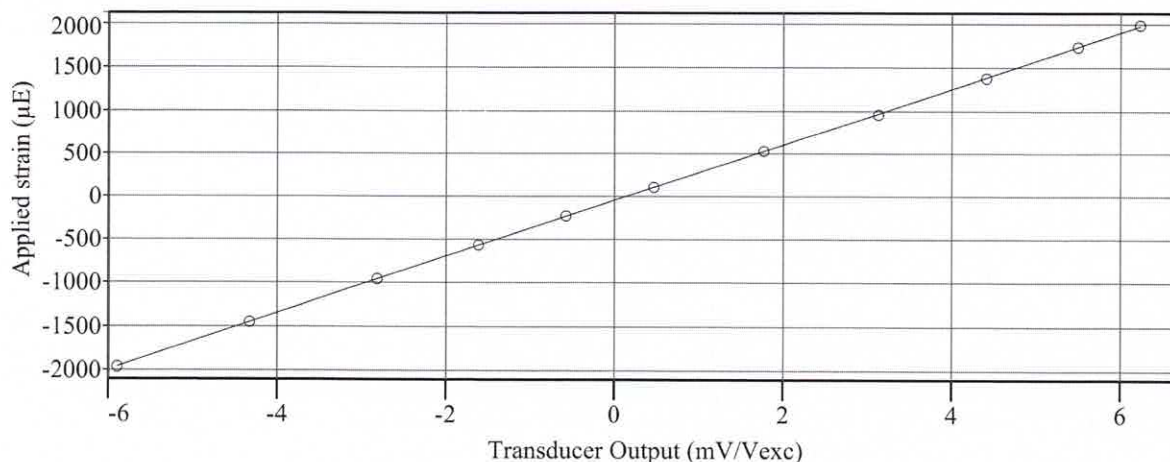
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 162A
PDI Gage Factor: 93.8
Mean Linear Correlation Coefficient: 0.999978

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1961.9	-5.897	531.5	1.771
-1450.1	-4.327	958.0	3.126
-958.0	-2.814	1378.0	4.411
-564.3	-1.611	1736.7	5.498
-229.7	-0.579	1988.2	6.231
105.0	0.466		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 162A

SEP 13 2024

Calibration Date: _____





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 163A

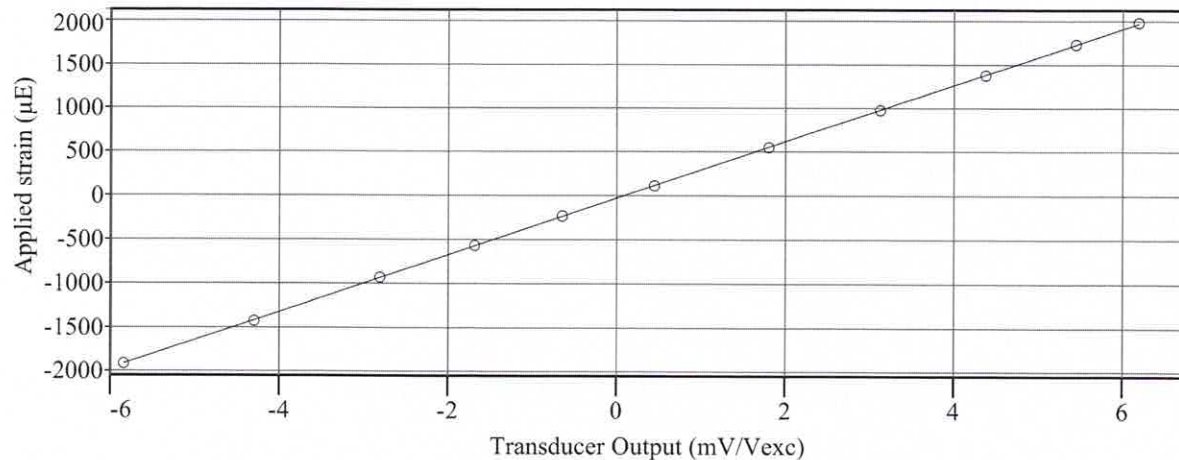
PDI Gage Factor: 93.4

Mean Linear Correlation Coefficient: 0.999981

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1916.0	-5.845	549.0	1.806
-1423.9	-4.298	977.7	3.124
-931.8	-2.808	1378.0	4.375
-570.9	-1.686	1732.3	5.447
-234.0	-0.645	1981.6	6.190
111.5	0.448		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 163A

Calibration Date: _____

SEP 13 2024





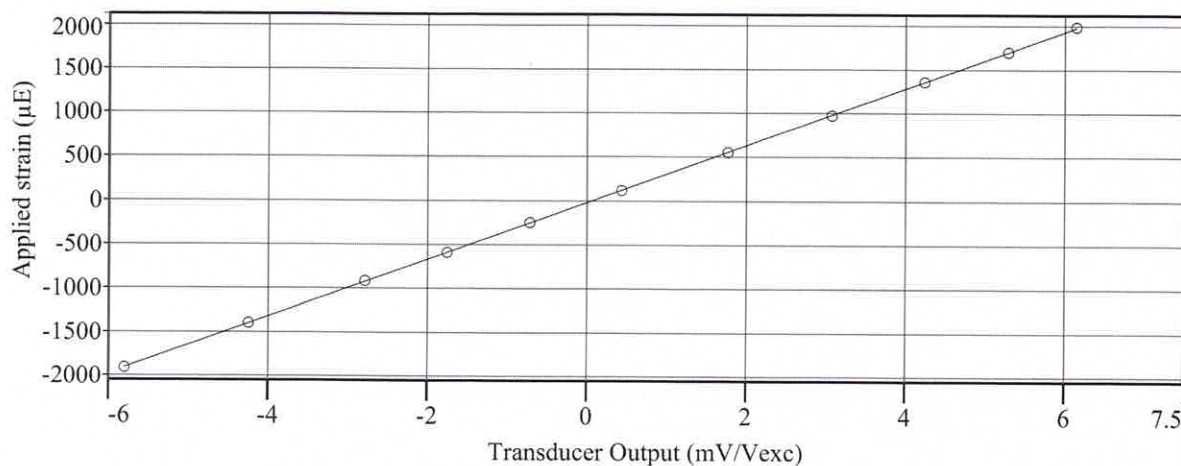
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: 164A
PDI Gage Factor: 94.0
Mean Linear Correlation Coefficient: 0.999984

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1909.4	-5.804	551.2	1.767
-1397.6	-4.243	971.1	3.074
-918.6	-2.784	1358.3	4.237
-590.6	-1.754	1699.5	5.285
-249.3	-0.715	1988.2	6.144
118.1	0.435		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 164A

Calibration Date: SEP 13 2024





Certificate of Calibration

Pile Dynamics, Inc.

Transducer Model: PDI Strain Transducer

Serial Number: 165A

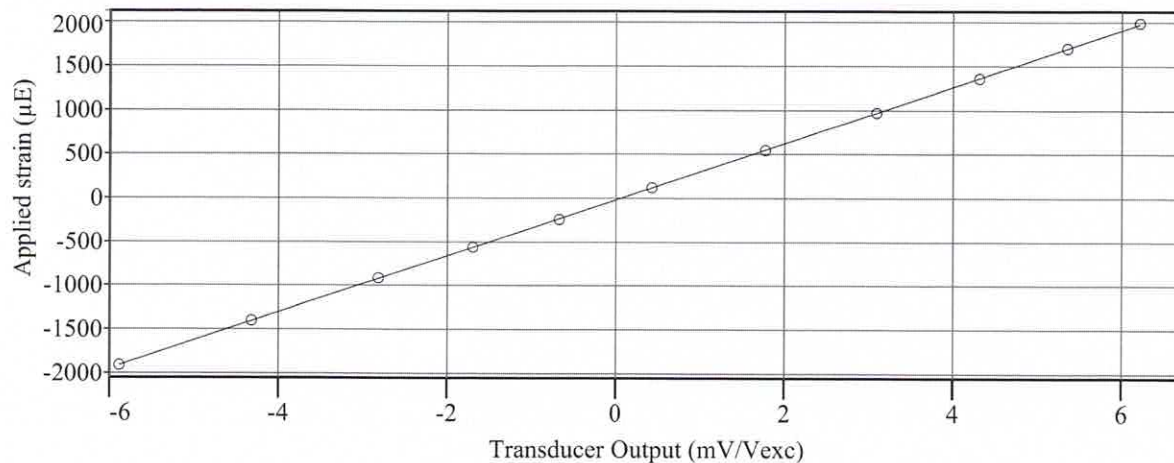
PDI Gage Factor: 92.8

Mean Linear Correlation Coefficient: 0.999982

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1909.4	-5.887	544.6	1.774
-1404.2	-4.317	971.1	3.088
-918.6	-2.813	1358.3	4.309
-564.3	-1.696	1699.5	5.356
-242.8	-0.671	1988.2	6.213
118.1	0.427		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 165A

Calibration Date: _____

SEP 13 2024





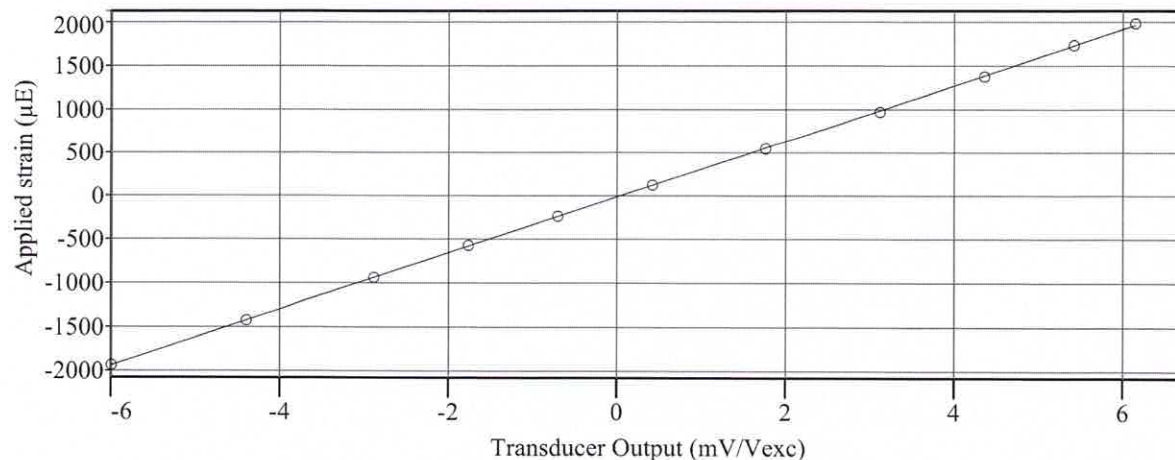
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: 166A
 PDI Gage Factor: 92.8
 Mean Linear Correlation Coefficient: 0.999951

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1935.7	-5.994	544.6	1.762
-1423.9	-4.394	973.3	3.116
-938.3	-2.882	1378.0	4.357
-573.1	-1.764	1732.3	5.420
-236.2	-0.704	1981.6	6.150
122.5	0.419		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS 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.

Calibrated By: Paul Hartman

Signature: _____

Paul Hartman

PDI Gage: 166A

Calibration Date: _____

SEP 13 2024

