

Certificate of Calibration

Pile Dynamics, Inc

Serial Number: 1498

PDI Gage Factor: 94.7 $\mu\epsilon/V$

General Gage Factor: 328.9 $\mu\epsilon/mV/V_{exc}$

Initial Offset Voltage: -0.042 mV/V_{exc}

Transducer Model: PDI Transducer

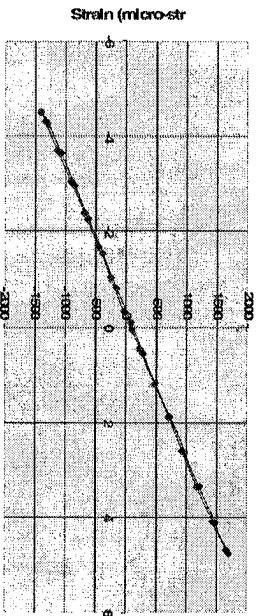
Specifications

PDI Automated Strain Transducer Calibration System (PDI-ASTCS)

Table 1 - Representative Calibration Data

Applied Strain ($\mu\epsilon$)	Transducer Output (mV/V _{exc})	Applied Strain (m ϵ)	Transducer Output (mV/V _{exc})
0	0.030	245	15.40
1	0.335	1378	12.86
2	0.635	2706	12.86
3	0.935	4034	12.86
4	1.235	5362	12.86
5	1.535	6690	12.86
6	1.835	8018	12.86
7	2.135	9346	12.86
8	2.435	10674	12.86
9	2.735	12002	12.86
10	3.035	13330	12.86
11	3.335	14658	12.86
12	3.635	15986	12.86
13	3.935	17314	12.86
14	4.235	18642	12.86
15	4.535	19970	12.86
16	4.835	21298	12.86
17	5.135	22626	12.86
18	5.435	23954	12.86
19	5.735	25282	12.86
20	6.035	26610	12.86
21	6.335	27938	12.86
22	6.635	29266	12.86
23	6.935	30594	12.86
24	7.235	31922	12.86
25	7.535	33250	12.86
26	7.835	34578	12.86
27	8.135	35906	12.86
28	8.435	37234	12.86
29	8.735	38562	12.86
30	9.035	39890	12.86
31	9.335	41218	12.86
32	9.635	42546	12.86
33	9.935	43874	12.86
34	10.235	45202	12.86
35	10.535	46530	12.86
36	10.835	47858	12.86
37	11.135	49186	12.86
38	11.435	50514	12.86
39	11.735	51842	12.86
40	12.035	53170	12.86
41	12.335	54498	12.86
42	12.635	55826	12.86
43	12.935	57154	12.86
44	13.235	58482	12.86
45	13.535	59810	12.86
46	13.835	61138	12.86
47	14.135	62466	12.86
48	14.435	63794	12.86
49	14.735	65122	12.86
50	15.035	66450	12.86
51	15.335	67778	12.86
52	15.635	69106	12.86
53	15.935	70434	12.86
54	16.235	71762	12.86
55	16.535	73090	12.86
56	16.835	74418	12.86
57	17.135	75746	12.86
58	17.435	77074	12.86
59	17.735	78402	12.86
60	18.035	79730	12.86
61	18.335	81058	12.86
62	18.635	82386	12.86
63	18.935	83714	12.86
64	19.235	85042	12.86
65	19.535	86370	12.86
66	19.835	87698	12.86
67	20.135	89026	12.86
68	20.435	90354	12.86
69	20.735	91682	12.86
70	21.035	93010	12.86
71	21.335	94338	12.86
72	21.635	95666	12.86
73	21.935	96994	12.86
74	22.235	98322	12.86
75	22.535	99650	12.86

Calibration Curve



Transducer Output (mV/V)

Mean Linear Correlation Coefficient (LCC): 9.998361E-1

LCC Standard Deviation: 6.992980E-6

Calibrated By: VT

Signature: *VT*

Date/Time: 11/4/2014 12:55 PM

Temperature: 26.4

ASTCS Calibration Information	
ASTCS Serial Number:	ASTCS-0005
ASTCS Software Version:	2.310
ASTCS Independent Verification Date:	5/15/2014 9:00 AM
Strain Transducer Gauge Length:	3.0 inches (76.2 mm)
Applied Full Scale Displacement Range:	$\pm 6.0000000E-3$ inches
Method for Applying Displacement:	Precision Step Motor Coupled to Linear Stage
Excitation Voltage for Calibration:	2.5 VDC
Displacement Measurements:	Dual Precision AC LVDT's, Output Averaged
Displacement Certification:	NIST Certificate #729970 & #821774437-07
Linearity Verification Technique:	Linear Correlation Coefficient > 0.9999
Repeatability Verification Technique:	Standard Deviation < 0.5 % (of mean)
ASTCS System Check	
Reference Strain Transducer:	4367T
Reference General Gage Factor:	293.000 $\mu\epsilon/mV/V$
LVDT #1 Sensitivity (inches/volt):	8.045400E-3
LVDT #2 Sensitivity (inches/volt):	7.986200E-3
Date/Time of Last System Check:	11/4/2014 12:50 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.

Smart Sensor? Yes No Smart Chip

Programmed by: *VT*

Date:

CRC value

30BC