



Certificate of Calibration

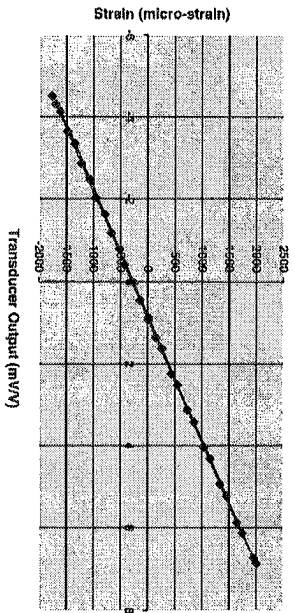
Transducer Model: PDI Transducer

PDI Dynamics, Inc.
Serial Number: L484
PDI Gage Factor: 94.7 $\mu\text{S/V}$
 General Gage Factor: 329.0 $\mu\text{E/mV/V}_{in}$
 Initial Offset Voltage: 0.395 mV/V_{ref}

Table 1 - Representative Calibration Data

Applied Strain (μE)	Transducer Output (mV/V)	Applied Strain (μE)	Transducer Output (mV/V)
4.49	0.40	260	6.62
4.49	0.40	557	7.92
4.26	0.397	851	7.95
4.26	0.397	1171	8.25
4.26	0.397	1255	8.35
4.26	0.397	1355	8.45
4.26	0.397	2065	8.57
4.26	0.397	2965	8.70
4.26	0.397	3044	8.74
4.26	0.397	3341	8.84
4.26	0.397	3411	8.87
4.26	0.397	457	7.54
4.26	0.397	148	7.99
4.26	0.397	1632	8.25
4.26	0.397	7	6.25

Calibration Curve



Mean Linear Correlation Coefficient (LCC): 9.998768E-1 LCC Standard Deviation: 4.586401E-6
 Calibrated By: KT Signature: Kay Tai
 Date/Time: 11/13/2014 1:23 PM Temperature: 26.1

Specifications

PDI Automated Strain Transducer Calibration System (PDI-ASTCS)

ASTCS Calibration Information	
ASTCS Serial Number:	ASTCS-0005
ASTCS Software Version:	2.310
ASTCS Independent Verification Date:	11/5/2014 11:54 AM
Strain Transducer Gage Length:	3.0 inches (76.2 mm)
Applied Full Scale Displacement Range:	$\pm 7.500000\text{E}-3$ 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 & #821274437-07
Linearity Verification Technique:	Linear Correlation Coefficient > 0.9999
Repeatability Verification Technique:	Standard Deviation < 0.5 % (of mean)
ASTCS System Checks	
Reference Strain Transducer:	4367T
Reference General Gage Factor:	293.000 $\mu\text{E/mV/V}$
LVDT #1 Sensitivity (inches/volt):	7.916500E-3
LVDT #2 Sensitivity (inches/volt):	8.042000E-3
Date/Time of Last System Check:	11/13/2014 1:06 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: KT Date: 11-13-14 CRC value CDC1