

Certificate of Calibration



Certificate Number: **0000000000**

Sensor Info:

S/N: 000000

Model: LSB200

Item #: FSH00096

Capacity: 25 lb

Description: LSB200, 25 lb, JR S-Beam Load Cell, Standard, Material - 17-4 PH S.S., #4-40-Thread, Overload Protection, 29 Awg 4 Conductor Spiral Shielded Silicone Cable, 5 ft Long, "No Risk Life Time Warranty"

Customer Name ABC INDUSTRIES, CORP.

Customer Address 1234 CORPORATE DRIVE

City/State/Zip ANYTOWN, PT 01234

Calibration Procedure OP1000

CALIBRATION EQUIPMENT USED

Digital Multimeter:

HP Model: Agilent 34401A, S/N: US36134723

Dead Weight(s):

1-10 lb, Traceability No: 000000

This certifies that the following sensor has been calibrated using equipment traceable to NIST in accordance with ISO/IEC 17025:2005 & ANSI/NCSL Z540-1-1994.
Supporting documentation relative to traceability is on file and is available for examination upon request.
This certificate shall not be reproduced except in full, without the written approval of FUTEK

Calibration Technician: ***Fernando Aguilar***

Issue Date: 10/13/2014

Re-Calibration Date: One Year After Issue Date

Calibration Date: 10/10/2014

Certificate Number: **0000000000**

Single Channel Item

CALIBRATION DATA

Test Temp: 74 °F (23 °C)	Relative Humidity: 42 %	Excitation: 4.99 Vdc
Input Resistance: 351 Ω	Output Resistance: 352 Ω	Zero Balance: 0.0103 mV/V

Tension

Load (lb)	Output (mV/V)	Non-Linear Error (% R.O.)
0	0.0000	0.000
5	0.4488	-0.019
10	0.8977	-0.033
15	1.3469	-0.034
20	1.7961	-0.035
25	2.2461	0.000
0	0.0002	

Standard Deviation: 0.00015354 mV/V

ASTM Uncertainty: 0.00030708 mV/V

* Error and Uncertainty were calculated using Straight Line Method in accordance with ASTM E 74, K = 2.0 or minimum equipment system uncertainty, whichever larger.

Best-Fitted, 3rd Degree Polynomial Equations (Load – x, Output – y):

$$y = A_0 + A_1 \cdot x^1 + A_2 \cdot x^2 + A_3 \cdot x^3$$

$$x = B_0 + B_1 \cdot y^1 + B_2 \cdot y^2 + B_3 \cdot y^3$$

$$A_0 = -0.000009787$$

$$B_0 = 0.00010856$$

$$A_1 = 0.08976751$$

$$B_1 = 11.1399$$

$$A_2 = -0.000001377$$

$$B_2 = 0.001867013$$

$$A_3 = 1.75919E-07$$

$$B_3 = -0.002691193$$

Best fitted equation was calculated using the Method of Least Squares.

SHUNT CALIBRATION

Direction	Shunt Value (KΩ)	Shunt Connection	Output Value (mV/V)	Equivalent Load (lb)
Tension	60.4	(-Exc) & (-S)	1.4530	16