

# FUTEK Enhances Tension & Compression Load Cell

Submitted by: FUTEK Advanced Sensor Technology

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FUTEK's LCF400 Load Cell redesigned structure improves accuracy and performance

FUTEK Advanced Sensor Technology, Inc.

Irvine, CA — Monday, November 10

Press Release — For Immediate Release

FUTEK Advanced Sensor Technology Inc. is pleased to present the redesigned LCF400 Tension & Compression Load Cell (<http://www.futek.com> ). The new design features structural changes and complete welding which drastically improves this models output symmetry and accuracy. In addition to this, the LCF400 is now available with USB output and metric threads. The model is offered in 500 to 5,000 lbs, various outputs (3 mV/V, +/-5VDC, +/-10VDC, 4-20 mA), and uses heat-treated 17-4 Stainless Steel construction for optimal performance. The modified LCF400 has advantages of zero-joint failure, low impact due to extraneous loads, and has the capability of handling off center loading more efficiently and effectively.

In order to better serve FUTEK customers, a consistent process is used to provide the best Sensor Solutions. Because FUTEK's Quality Culture is continuously implemented into every process to further improve and innovate products the Engineering Team saw an opportunity for enhancements on the LCF400 Tension & Compression Load Cell. FUTEK Engineering Manager, Richard Walker, began the redesign process of the LCF400 Tension & Compression Load Cell in August of 2006. Using Finite Element Analysis (FEA) software, FUTEK engineers successfully achieved a design that would improve the models accuracy by 20%. The combination of FEA and FUTEK's engineering expertise has enabled FUTEK to develop a highly advanced, exceptional design built specifically for extraneous loads. The first prototype model was first tested in 2007 where minor design modifications, such as USB output, were implemented. Following the successful testing procedures, the LCF400 Tension & Compression Load Cell is now ready for release.

This Tension & Compression Load Cell utilizes metal foil strain gauge technology that offers the highest accuracy. It has Nonlinearity of  $\pm 0.10\%$ , Bridge Resistance of 700 Ohms, and Deflection of 0.002 to 0.005" nominal. The standard LCF400 Tension & Compression Load Cell can be modified or customized to meet your requirements and most models are in our inventory making them available for quick delivery. Similar to our entire Load Cell product line, this model is manufactured in US.

Product Highlights:

- Resistance to High Extraneous Loads
- One-Piece Construction
- Available in 3 mV/V, +/-5 VDC, +/-10 VDC, 4-20 mA output
- 17-4 Stainless Steel Construction
- In both Tension & Compression
- Utilizes Metal Foil Strain Gauge Technology
- Low Deflection

- Compact Height
- Designed and Manufactured in US

For those who are a looking for a complete system solution, FUTEK can provide both signal conditioned displays or our VCal Portable System. FUTEK's VCal Portable System brings an easy-to-use system verification directly to the customer making it ideal for on-site verification and calibration of your products. FUTEK LCF Series is also available with TEDS / IEEE1451.4 option.

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