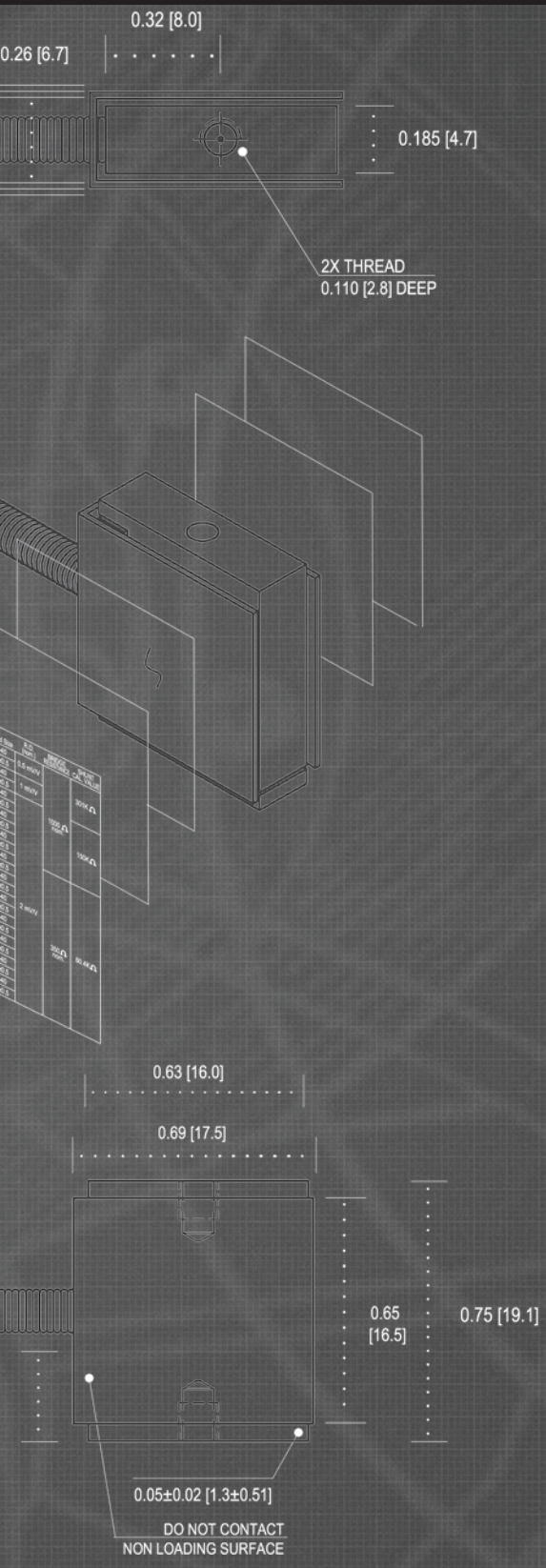
FUTEK
ADVANCED SENSOR TECHNOLOGY, INC.

Product Guide
Sixth Edition



FROM SUBSEA TO MARS

LOAD CELLS
TORQUE SENSORS
PRESSURE SENSORS
FORCE SENSORS
MULTI-AXIS SENSORS
INSTRUMENTS
SOFTWARE
CALIBRATION SERVICES

Sensor Solutions Source

www.futek.com

ANSI Z540-1-1994 · ISO 9001:2008 · ISO 17025:2005 · ISO 13485:2012 · RoHS · U.S. Manufacturer

Highlighted markets we serve:

Automotive
▶ page 6

Aviation & Aerospace
▶ page 8

Medical & Pharmaceutical
▶ page 10

Additional markets we serve:

Agriculture

Automation

Industrial Construction

Materials & Endurance Testing

Robotics

Waterway Engineering

FUTEK Advanced Sensor Technology, Inc. is a U.S. Manufacturer of load cells, torque sensors, pressure sensors, multi-axis sensors and related instruments and software. Located in Southern California, FUTEK has built a reputation as a quality provider of test and measurement tools.

Specializing in the research and development of these advanced sensing devices, FUTEK's products are used in many industry applications, such as medical, aerospace, automotive and automation robotics. Vowing to produce the highest quality in performance and reliability, FUTEK's product line stands unmatched within the test and measurement industry.

This product guide outlines all our standard offerings from miniature load cells to fatigue-rated rotary torque sensors. Additionally, you will find detailed descriptions of FUTEK's USB Solutions, digital displays and SENSIT™ Test and Measurement Software.

Charles Vatcher
U.S. Air Force

"FUTEK load cell designs have been used in many USAF test applications and have performed with very precise data accuracy and excellent reliability providing very accurate test data for our flight test customers.

Your excellent products are equally matched by your extremely helpful customer service, which goes above and beyond to help provide customers with excellent tech support and expedient delivery!"

Design Highlights

LOAD CELLS ▶ page 12
- 10g to 1 million lb. capacity range
- Miniaturization capability
- Amplified and digital output

TORQUE SENSORS ▶ page 24
- From 0.04 N-m to 500,000 N-m
- Reaction-torque measurement
- Rotary-torque, speed (RPM), angle and power measurement

PRESSURE SENSORS ▶ page 28
- Male port, female port and flush mount
- –14.5 PSI to 15,000 PSI capacity range
- Internal amplifier options

OEM SENSORS ▶ page 4
- High quality, excellent delivery and cost effective
- Cryogenics or non-magnetic type
- Submersible, dual bridge or fatigue rated

INSTRUMENTS ▶ page 32
- Panel meter and hand held instruments
- USB digital connection or signal conditioner (amplifier)
- Seamless integration with sensors

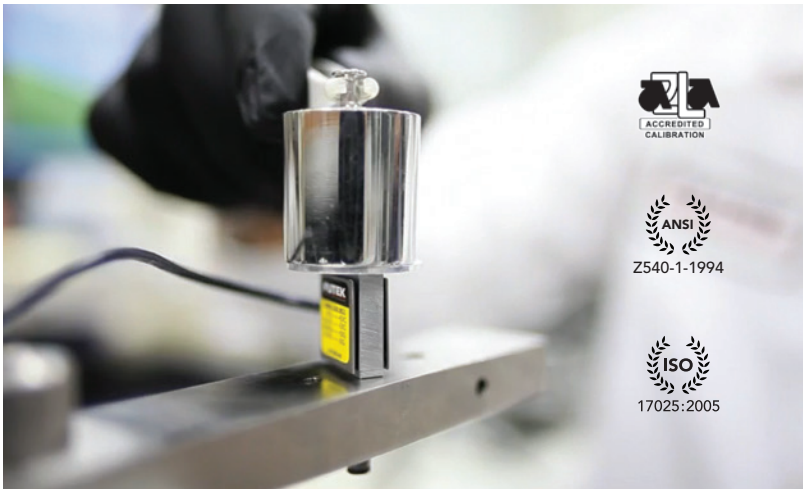
SOFTWARE ▶ page 35
- Measure up to 16 channels
- Live graphing
- Data logging

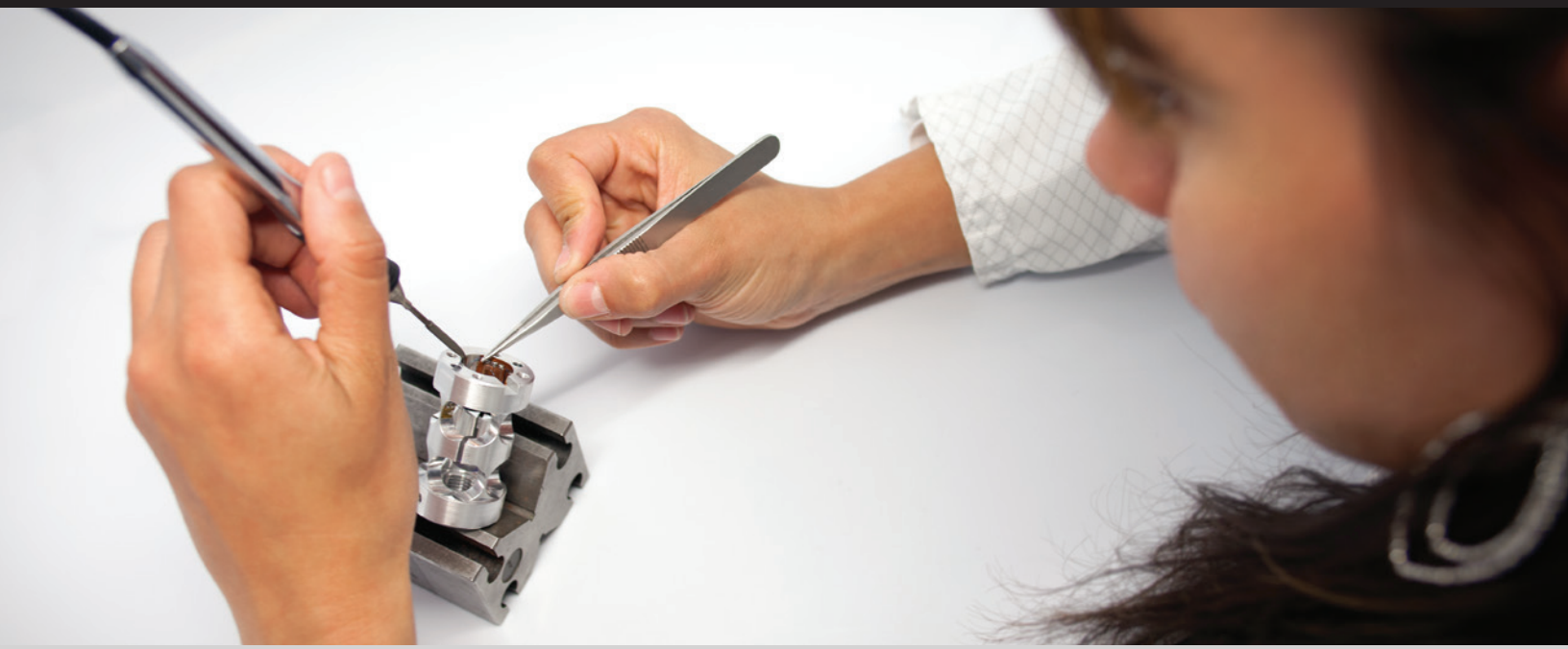
Sensor Calibration Services

We offer a broad range of calibration services in compliance with ISO/IEC - 17025 standards. Full system calibrations can be performed on our sensors paired with any of our digital displays, USB Solutions and/or amplifiers. These calibration services are fully accredited by The American Association for Laboratory Accreditation (A2LA). This certification also includes accreditations to ANSI/NCSL Z540-1-1994.

- Load calibrations up to 400,000 lb.
- Torque calibrations up to 300,000 in-lb.
- Pressure calibrations up to 10,000 PSI

Find out more about our calibration services at:
www.futek.com/calibration-services.aspx





Most manufacturers may not share our stance on transparency, but we want you to get to know FUTEK before signing on the dotted line. After all, OEM means YOU + US. Our philosophy in developing an OEM partnership is openness and reliability. We want you to understand our core competencies, our standards in quality, and our commitment to delivery. In our eyes, an OEM partnership is only successful when you, our valued customer, are successful.

For many industries, OEM sensor solutions are an integral element in productive business. You rely on your OEM manufacturer to maintain your business practices. At FUTEK, we understand the vitality in needing sensor solutions that are high quantity and reasonably affordable. Taking the OEM route with FUTEK means that we will work with you to find a solution that is efficient, high performance, and cost effective.

We'd like to affirm that our quality standards do not change when producing your OEM sensors solutions. All of our OEM products are handmade at our headquarters in Irvine, California, U.S.A. Producing them here allows our quality assurance team to perform several inspections during the manufacturing process to ensure that your OEM finished product meets your requirements and specifications.

FUTEK's OEM Commitment

- Reliable Certifications and Accreditations
- Made In the U.S.A.
- Direct-to-Stock Programs
- Designed for System Integration
- Timely Delivery
- Cost Effective Solutions

OEM Model Top-Rated Capabilities

- Miniaturization
- Overload Protection
- Expansive Capacity Range
- Fatigue Rated
- Material Composition
- Modifications and Customization Options Available

Watch the movie at www.futek.com/videos.aspx

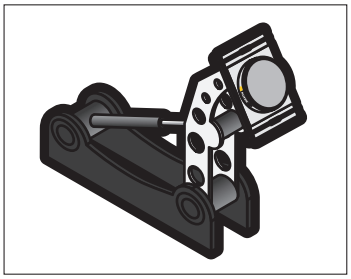
OEM Sensor Solution Presentation

As stated, your OEM sensor solution manufacturer plays an integral role in the success of your business. That's why we place such heavy importance on that qualification period. In fact, John Schnell, our Senior Applications Engineer, created a 45-minute presentation outlining guidelines and questions needed to approve an OEM manufacturer, the expectations in developing OEM solutions, and programs that will help create a seamless business plan between you and your sensor solution source. We encourage you to watch this presentation On-Demand and contact us if you have any questions!

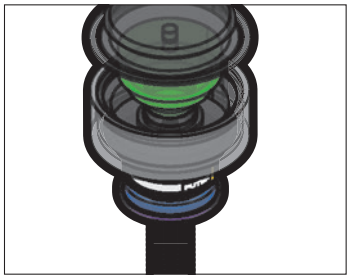
Explore what's possible

Over the past 25 years, FUTEK established a firm reputation as a premiere provider of test and measurement products. As each year of business pours into the next, our team grows stronger in our expertise as a "Sensor Solution Source." Our product lines increase, our technologies become more advanced, and our knowledge of the test and measurement world becomes invaluable. But rather than claiming this knowledge as proprietary, we created an online portal for engineers, students, researchers, and other curious minds to explore the many applications our test and measurement products can operate in. We invite you to explore what's possible within our online conceptual applications.

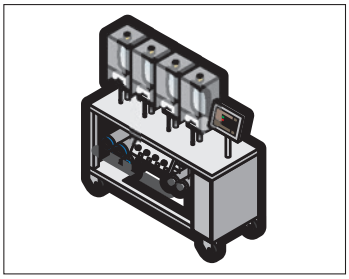
▸ **http://www.futek.com/apps**



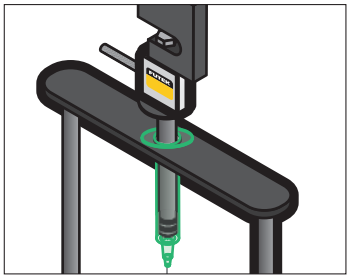
PEDAL FORCE TESTING
▸ page 7



'CURIOSITY' ROVER DRILL
▸ page 8

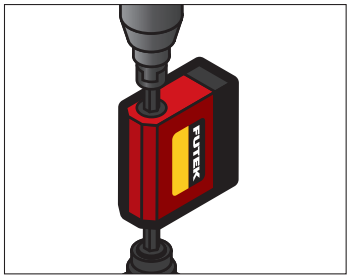


MEDICAL BAG WEIGHING
▸ page 11

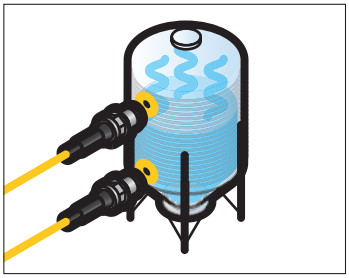


SYRINGE STAND
▸ page 12

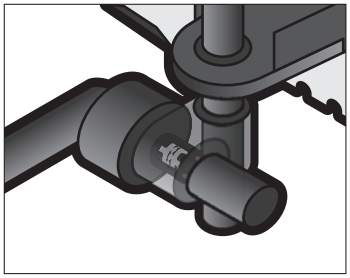
DUAL TANK LEVEL CONTROLLER
▸ page 23



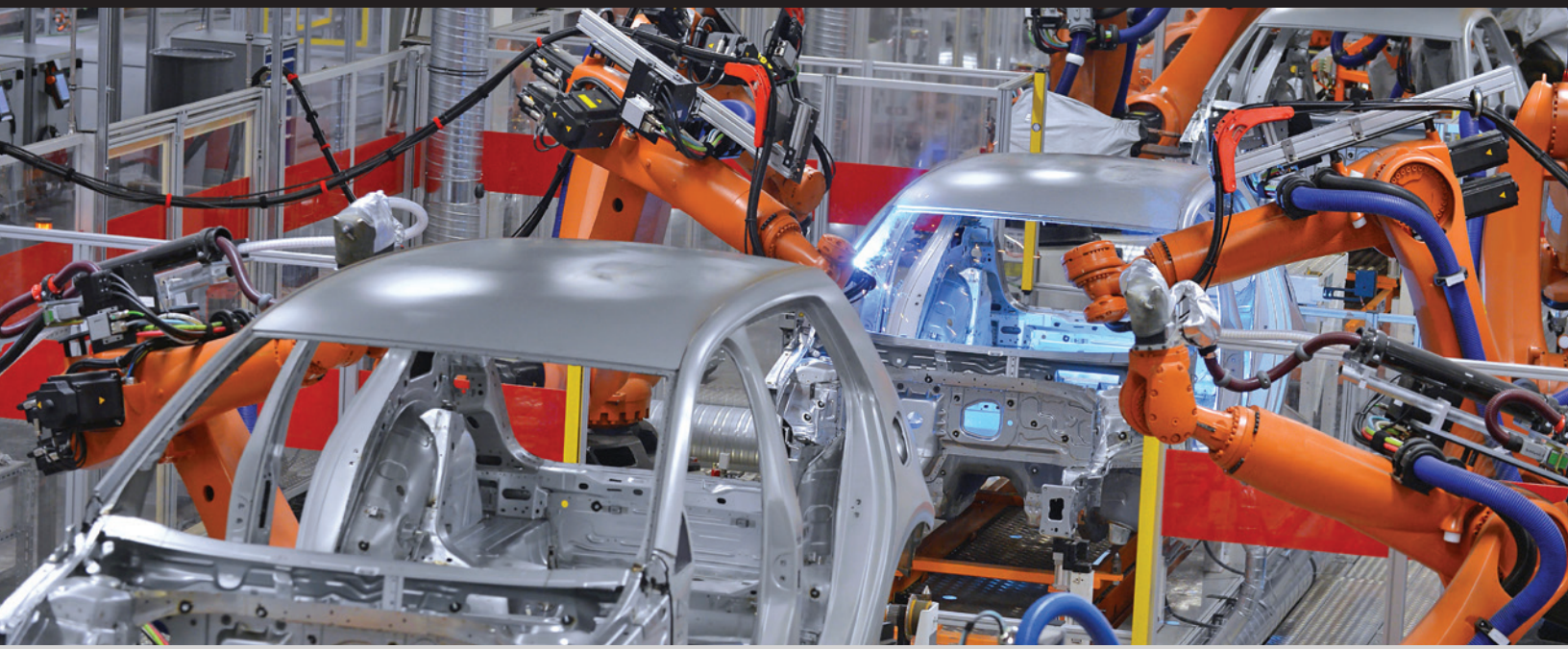
ELECTRIC NUT RUNNER
▸ page 24



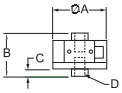
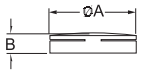
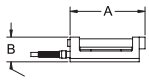
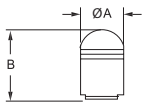
TANK PRESSURE
▸ page 28



'CURIOSITY' ROVER ARM
▸ page 30

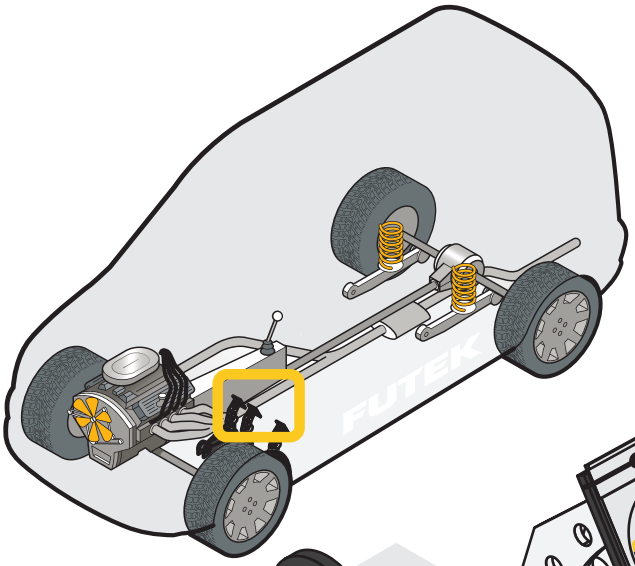


Qualification and verification are essential procedural steps within automotive testing. Whether testing a vehicle's brake force or the torsion of a gear shift, load cells and multi-axis sensors become a necessity. Therefore, FUTEK designed a series of sensors specifically for automotive applications. The following test and measurement products are primarily used in such testing projects, but are not limited to the automotive environment.

LCF400 	250, 500, 1K, 2.5, 5K lb. (1112, 2224, 4K, 11K, 22K N)	**Load Column Tension/Compression** • Resist high extraneous loads • One-piece construction • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR	 A = 3.48 in. (88.4 mm) B = 2.00 in. (50.8 mm) C = 0.25 in. (6.4 mm) D = 1/2-20 (M12x1.75 thread also available)	Rated Output:..... 3 mV/V nom., 250 lb 1.5 mV/V Nonlinearity:.....± 0.1% of RO Hysteresis: .....± 0.1% of RO Operating Temperature:..... -65 to 200° F Excitation (max): .....18 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code: CC1
LAU220 	300, 500 lb. (1334, 2224 N)	**Spike Resistant Pedal Force Sensor** • 17-4ph S.S. one-piece construction • Low profile, off-center loading error <1% • 24 AWG, 4 conductor shielded PVC cable, 15 ft. • Detachable mounting plate with hose clamp mounting provision included	 A = 2.58 in. (65.5 mm) B = 0.65 in. (16.5 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.25% of RO Hysteresis: .....± 0.25% of RO Operating Temperature:..... -60 to 200° F Excitation (max): .....20 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.006" nom. Wiring Code: WC1
LAU300 	3K lb. (13K N)	**Seat Belt Sensor** • Tests tension forces on seat belts • Accepts belts up to 0.1" Thick • Titanium sensing element • 4-pin Microtech Style Receptacle DR-4S	 A= 2.81 in. (71.4 mm) B= 0.80 in. (20.3 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity:.....Contact Factory Hysteresis: .....Contact Factory Operating Temperature: .....0 to 200° F Excitation (max): .....18 VDC Deflection:.....Contact Factory Bridge Resistance: ..... 350 Ω nom. Wiring Code: CC6
MAU300 	10, 25, 50, 100, 200 lb. (44, 111, 222, 445, 890 N)	**Shift Knob Force Sensor** • Measure Fx and Fy loads • Anodized aluminum • Ergonomic cover w/ antislip notches • 28 AWG, 4 conductor shielded PVC cable, 10 ft. long	 A = 1.50 in. (38.1 mm) B = 3.00 in. (76.2 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.25% of RO* Hysteresis: .....± 0.25% of RO* Operating Temperature: ..... -40 to 160° F Excitation (max): .....20 VDC Bridge Resistance: ..... 350 Ω nom. Deflection:.....0.002 to 0.009" nom. Wiring Code: WC1

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

Automotive Pedal Force Testing

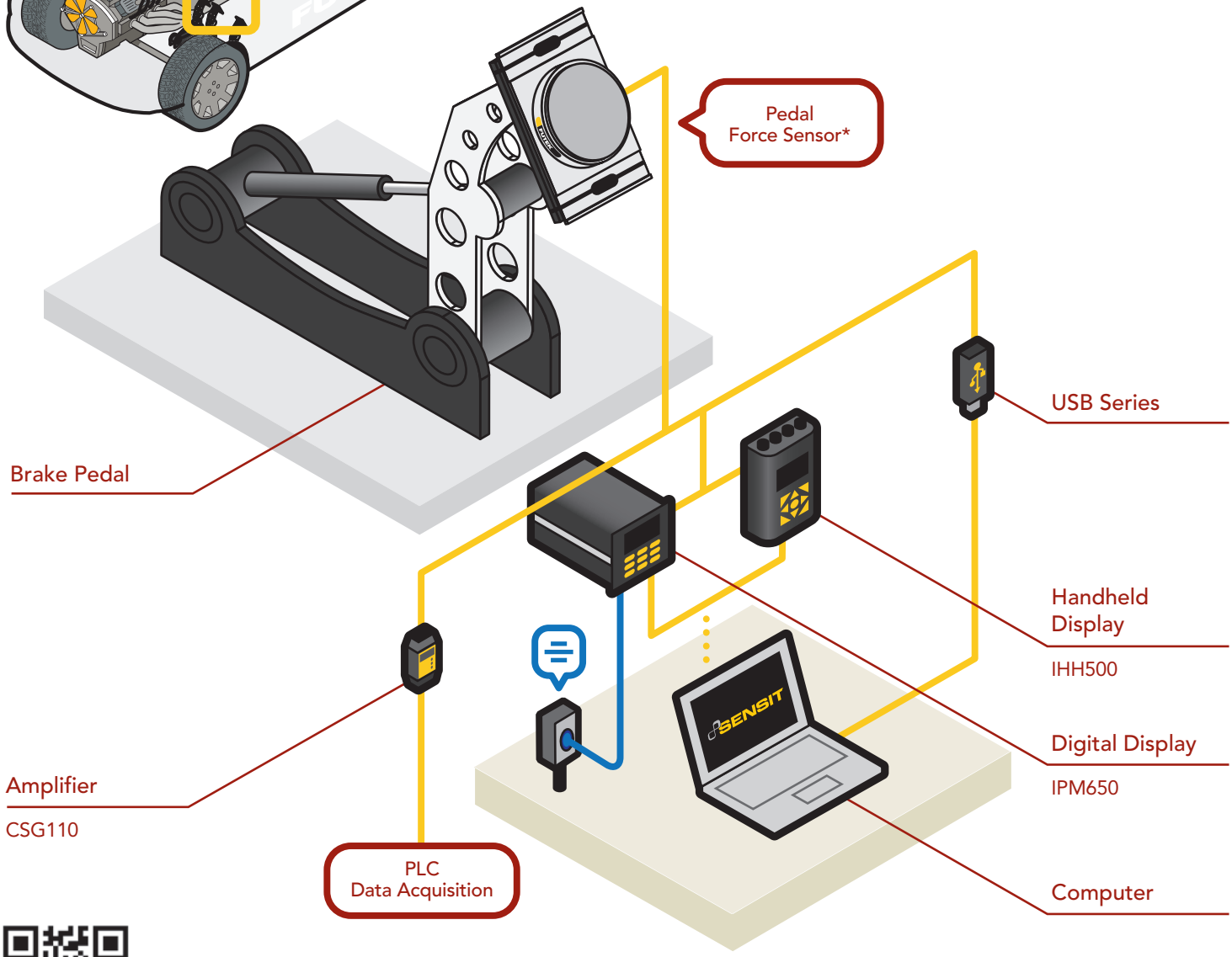


PRODUCTS IN USE

Pedal Force Sensor (LAU Series) paired with Instrumentation (IPM650, IHH500, USB Solutions, or CSG110 Amplifier).

APPLICATION SUMMARY

Utilizing FUTEK's Pedal Force Sensors, automotive manufacturers are able to verify the safety and reliability of their vehicle's braking mechanics.

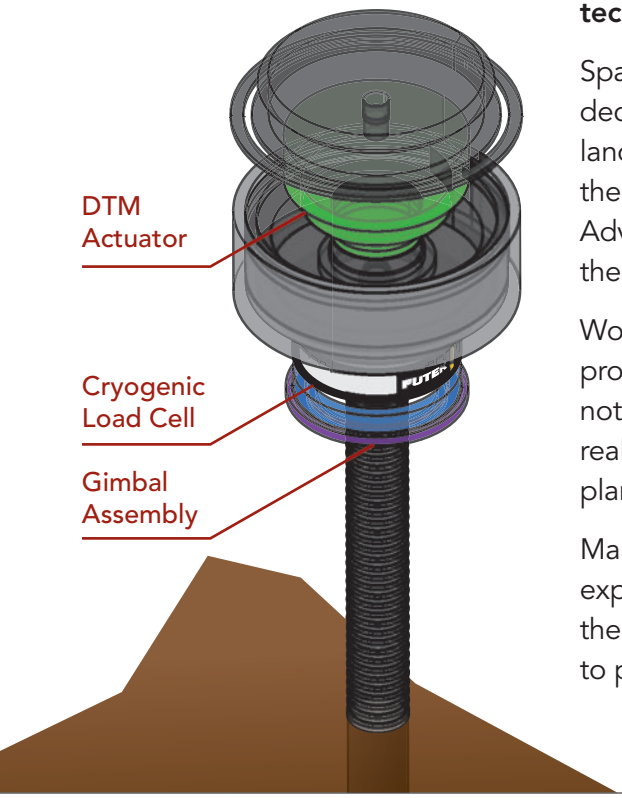


◄ Read more about this and other automotive applications

LAU Automotive Load Cells
USB USB Series
IHH Hand Held
CSG Amplifier

* LAU220 version – Spike Resistant ► page 12
LAU220 available with round mounting plate

As an ISO9001-2008 accredited, AS9100 compliant, ANSI-Z540 certified and ISO 17025 A2LA approved design and manufacturing house, FUTEK possesses the capabilities needed to develop load cells, torque sensors and multi-axial sensors for cryogenic and vacuum environments. Over the past few years, NASA, Raytheon, MIT, Lockheed Martin and JPL have brought FUTEK onboard for several ventures that are truly out-of-this-world.



From the International Space Station to Mars, FUTEK has developed new technologies to withstand the unexpected environments space presents.

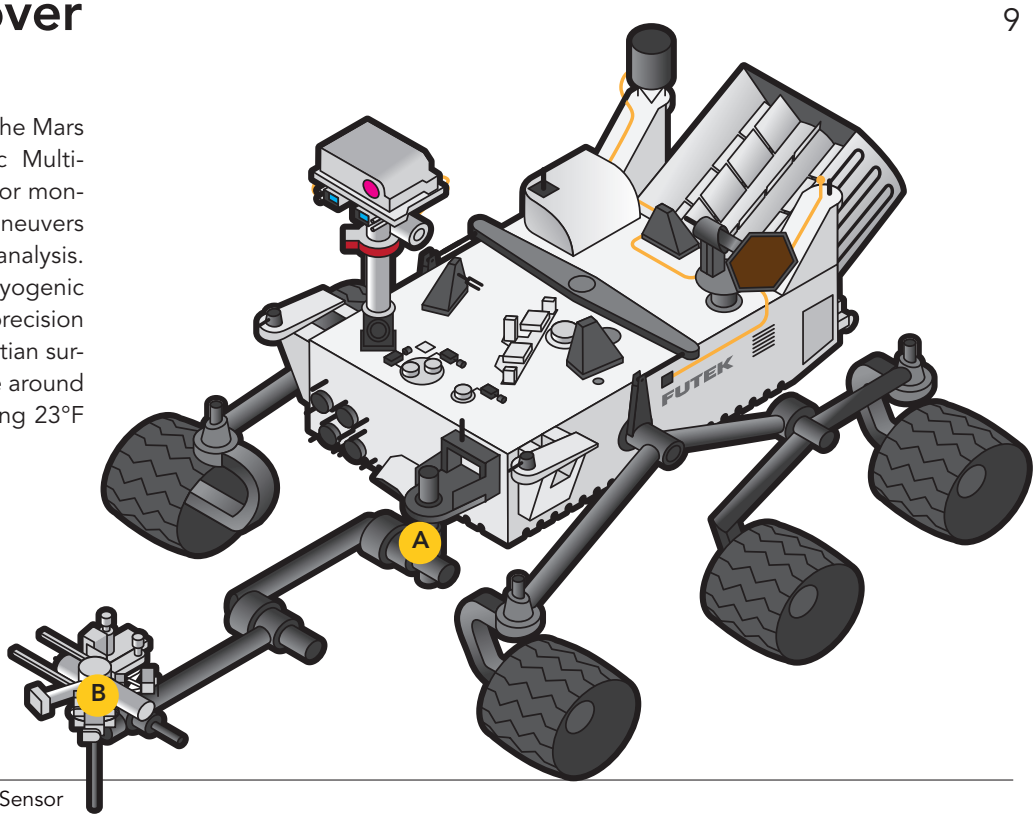
Space exploration has been a part of international culture for the past six decades. From orbits, to satellites, to walking on the Moon, to now successfully landing on Mars, audiences around the world have waited in awe to see what the next accomplishment will be beyond Earth's atmosphere. And FUTEK Advanced Sensor Technology, Inc. has had the privilege to work on many of these acclaimed missions.

Working with NASA on numerous occasions, FUTEK has participated in programs such as Orion and the International Space Station iLIDS. However, nothing quite compared to working on the Mars "Curiosity" Rover. The reality that FUTEK would have two operating sensors on a neighboring planet seemed surreal.

Many of FUTEK's team members have admired NASA for their efforts in exploring the unknown. Developing a custom cryogenic load cell (as seen on the left) and multi-axis sensor for this mission was a monumental opportunity to partake in.

Mars 'Curiosity' Rover

FUTEK developed two unique sensors for the Mars Rover. Aboard Curiosity sits a cryogenic Multi-Axial load and torsion sensor responsible for monitoring the rover's drilling arm's robotic maneuvers as it retrieves sedimentary samples for analysis. Additionally, FUTEK developed a cryogenic Thru-Hole load cell, which monitors the precision and force used to drill directly into the Martian surface. Both sensors are designed to operate around the clock within temperature cycles reaching 23°F to as low as –124°F.



A	Cryogenic Multi-Axis Load and Torque Sensor
B	Cryogenic Thru-Hole Load Cell

A success the whole team can celebrate.

FUTEK partners, Javad Mokhbery (left) and Mohammad Mokhberi (right), proudly presenting one of the sensors used on the Mars "Curiosity" Rover.

FUTEK Advanced Sensor Technology, Inc. is beyond ecstatic with the latest news regarding the Mars Rover Curiosity. The success of this first-ever inter-planetary sample collection not only made history for NASA and the U.S. space program, but also for FUTEK as two of their test and measurement products were integral during this drilling mission.

Six years ago, FUTEK partnered with NASA JPL to aid in the development of the advanced drilling mechanism aboard the rover. Designing and manufacturing two custom sensors for the rover's drilling arm, FUTEK's products are responsible for monitoring the force applied to the drill bit, as well as monitoring the torsion and load applied to the drilling arm. These custom load and multi-axial sensors sync directly to a continual feedback system, which notifies the rover when maximum force is being applied during these drilling expeditions.

Read more about our sensors on Mars ▸

FUTEK has successfully integrated test and measurement sensors in the most critical surgical robotic equipment. Our ability to provide custom engineering solutions enables us to tailor unique products per our customers exact requirements.

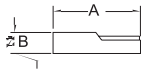
The above image features the *da Vinci System* by Intuitive Surgical®

As an ISO 13485 accredited company, FUTEK's sensors are fit to operate in a vast number of medical related applications, such as saline bag weighing, dialysis feedback control, and behavioral research. Our experience includes working with requirements including vacuum rated, non-magnetic, miniature sensors, as well as compliance to ROHS standards.

LMD300

50 lb.
(222 N)

Pinch Sensor
- Used to measure pinch force in medical rehab., lab testing and window pinch force measurement
- Anodized aluminum
- 29 AWG, 4 conductor shielded PVC cable, 10 ft



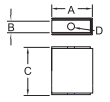
A = 1.54 in. (39.1 mm)
B = 0.55 in. (14.0 mm)

Rated Output: ..... 2 mV/V nom.
Nonlinearity: ..... ± 0.5% of RO
Hysteresis: ..... N/A
Operating Temperature: ..... 0 to 160° F
Excitation (max): ..... 18 VDC
Bridge Resistance: ..... 1000 Ω nom.
Deflection: ..... 0.005" nom.
Wiring Code: WC1

LSB200

0.35 oz., 0.71 oz., 1.76 oz., 3.5 oz., 8.8 oz.; 1, 2, 5, 10, 25, 50, 100 lb.
(10g, 20g, 50g, 100g, 250g; 4, 9, 22, 44, 111, 222, 445 N)

S-Beam Jr. Load Cell
- In-line loading in compression/tension
- Built-in Overload protection
- 2024 aluminum, 17-4ph S.S. (25–100 lb.)
- 29 AWG, 4 conductor shielded silicone cable, 5 ft
- Metric threads available (M3x0.5)



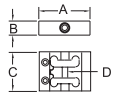
A = 0.68 in. (17 mm)
B = 0.25 in. (6.4 mm)
C = 0.75 in. (19 mm)
D = #4-40 (M3x0.5)
Metric Thread: D = M3x0.5

Rated Output: ..... 0.5 - 2 mV/V nom.
Nonlinearity: ..... ± 0.1% of RO*
Hysteresis: ..... ± 0.1% of RO*
Operating Temperature: ..... -60 to 200° F
Excitation (max): ..... 10 VDC
Bridge Resistance: ..... 350 Ω nom.
Deflection: ..... 0.004 to 0.001" nom.
Wiring Code: WC1

LSM300

2.2, 5, 10, 25, 50, 100, 200, 500 lb.
(9.8, 22, 44, 111, 222, 445, 890, 2224 N)

Parallellogram OEM Load Cell
- Built-in overload protection.
- Side mounted
- Used in tension/compression
- 2024 aluminum, 17-4ph S.S. (200–500 lb.)
- 29 AWG, 4 color coded Teflon® lead wires, 6" standard

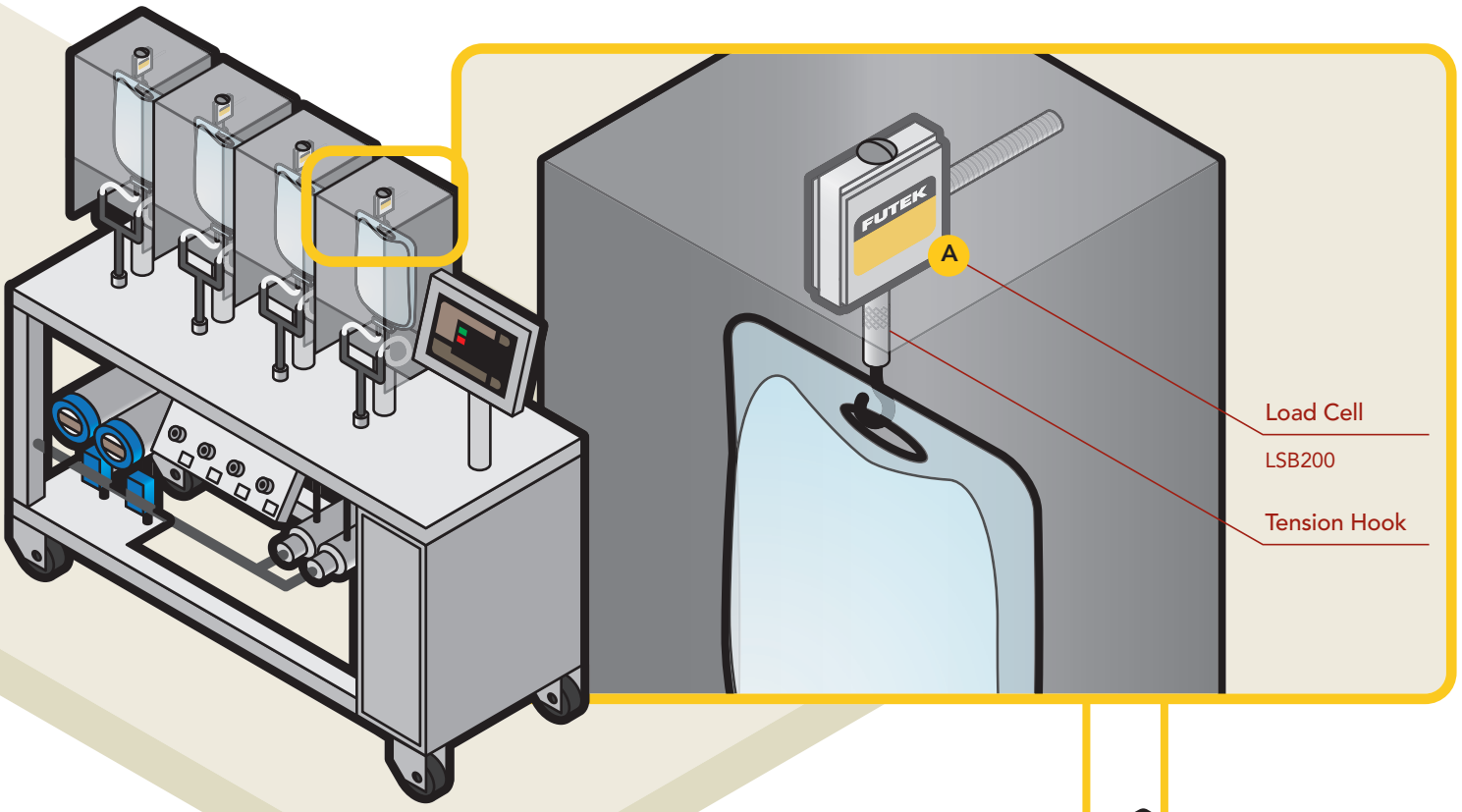


A = 1.80 in. (45.7 mm)
B = 0.50 in. (12.7 mm)
C = 1.40 in. (35.6 mm)
D= #10-32, 1/4-28

Rated Output: ..... 2 mV/V nom.
Nonlinearity: ..... ± 0.02% to ± 0.06% of RO*
Hysteresis: ..... ± 0.02% to ± 0.06% of RO*
Operating Temperature: ..... -60 to 200° F
Excitation (max): ..... 18 VDC
Bridge Resistance: ..... 1000 Ω nom.
Deflection: ..... 0.006" nom.
Wiring Code: WC2

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

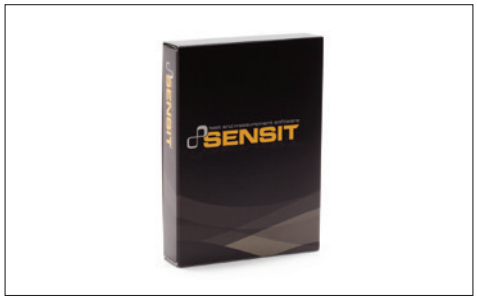
Medical Bag Weighing



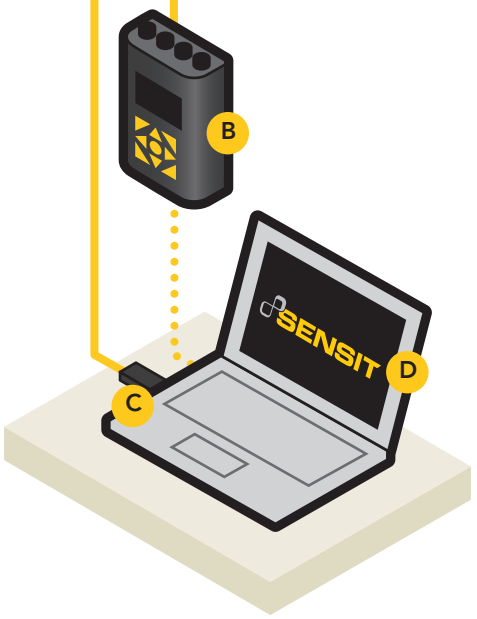
A S-BEAM JR. LOAD CELL
LSB200 ▶ page 10

B HANDHELD DISPLAY
IHH500 ▶ page 34

C USB CONNECTION KIT
USB210 ▶ page 33



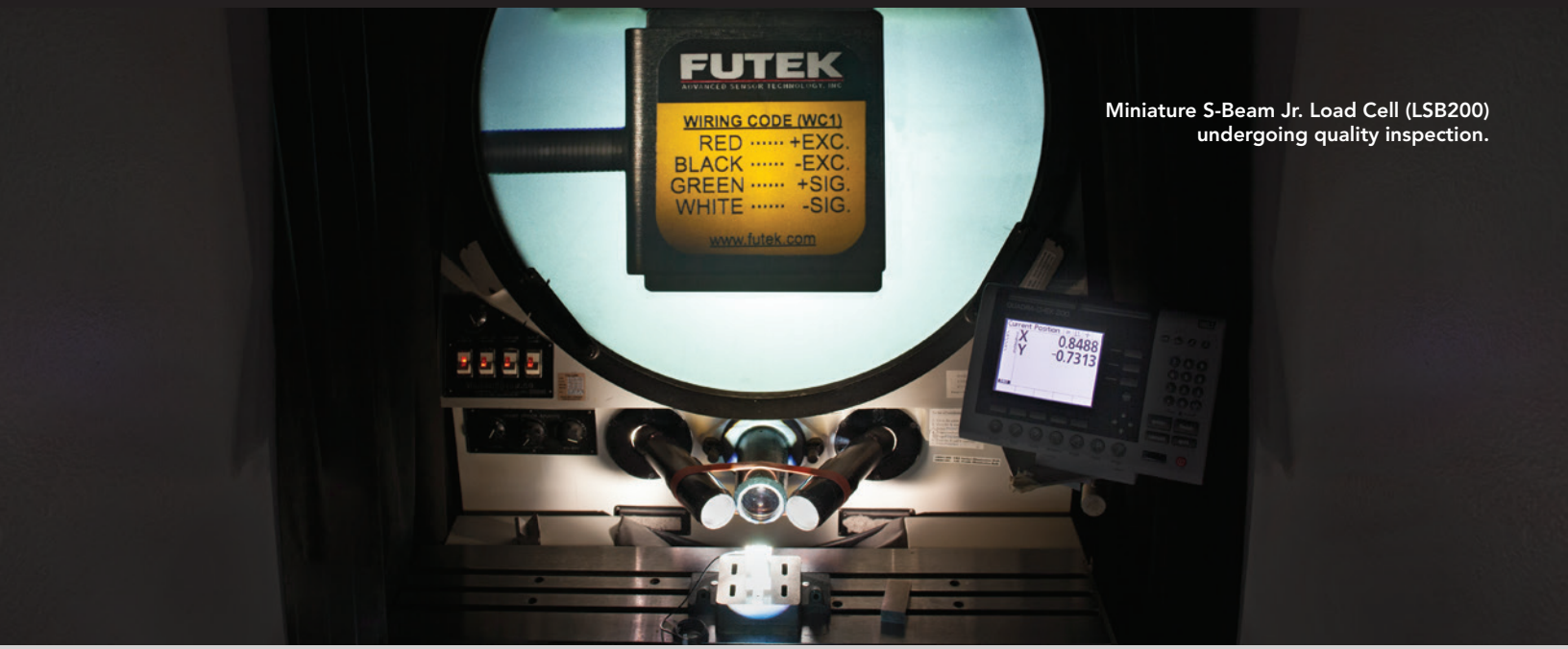
D SENSIT™ SOFTWARE
ASW200 ▶ page 35



Read more about this and other medical applications for FUTEK products ▼

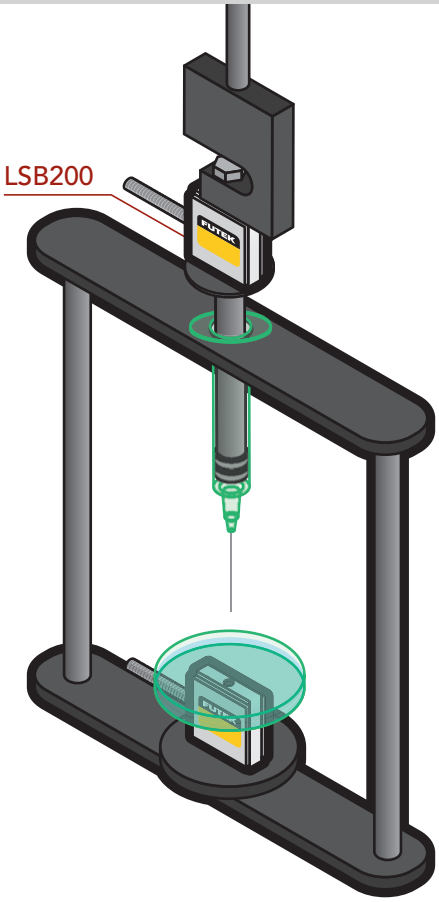
LLB Miniature Load Button
ASW Software
USB USB Series
IHH Handheld Display

TEDS option available on IHH500 and IPM650 models. Extraneous Load Factors Available (Please visit www.futek.com or contact factory for details)



Miniature S-Beam Jr. Load Cell (LSB200) undergoing quality inspection.

FUTEK has been designing and developing load cells and force sensors for 25 years. Because of our extensive history with this product line, we offer many variations of load cells, such as load buttons, thru-holes and s-beams. With a well-stocked inventory of standard models, measuring both tension and compression, finding a sensor solution for your application is that much easier.



Load Sensors for all Industries

FUTEK's standard, custom and OEM series provides diverse solutions for aerospace, medical, automotive and manufacturing industries to name a few. These load sensors offer solutions for applications requiring both tension and compression measurements and an impressive capacity range of 10 grams to 1 million pounds.

Popular Designs

- S-Beam
- Load Button
- Load Column/Canister
- Pancake
- Rod End
- In-Line
- Thru-Hole
- In-Line

FUTEK also offers a number of customized solutions:

- Cryogenic
- Fatigue rated
- Miniature design
- Space/Flight Qualified
- Submersible
- Non-Magnetic
- Dual Bridge
- High Temperature

Miniature Load Sensors

Watch the movie at www.futek.com/videos.aspx

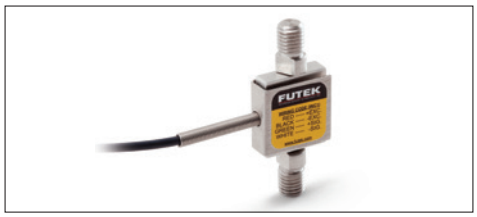
Miniature S-Beam Jr. (LSB200)

The S-Beam Jr. is a Miniature Load Cell that is able to measure both compressive and tensile forces from 10 grams to 100 lb. (444 Newtons). The LSB200's miniature size and exceptional overload protection capabilities make this model very adaptable within various industry applications. The following are additional features exemplifying the S-Beam Jr.'s versatility:

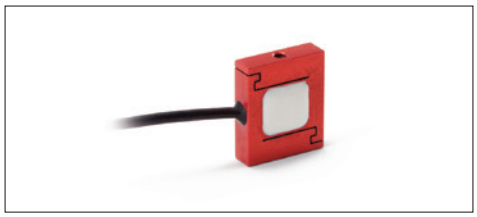
- OEM
- Submersible
- Vacuum Rated
- Non-Magnetic
- Radiation Tolerant
- High Temperature

FUTEK has an extensive array of miniature load cells for measurements in both tension and compression. With a collective capacity range from 10 grams to 20,000 pounds of force, these load cells are fit for applications requiring high precision and high endurance.

S-BEAM JR. LOAD CELL
LSB200 ▶ page 20



S-BEAM JR. WITH MALE THREAD
LRM200 ▶ page 20



SUBMERSIBLE S-BEAM JR. LOAD CELL
LSB210 ▶ page 21

SUBMINIATURE LOAD BUTTON
LLB130 ▶ page 18

SUBMINIATURE THREADED LOAD BUTTON
LLB210 ▶ page 18

SUBMINIATURE LOAD BUTTON
LLB300 ▶ page 18

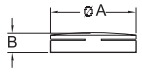
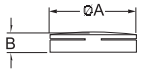
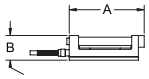
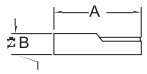
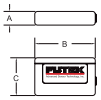
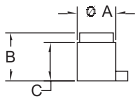
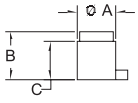
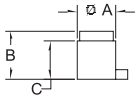
SUBMINIATURE IN-LINE LOAD CELL
LCM200 ▶ page 17

MINIATURE IN-LINE LOAD CELL
LCM300 ▶ page 17

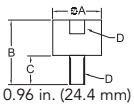
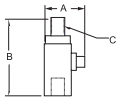
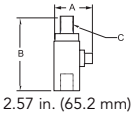
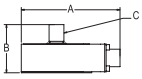
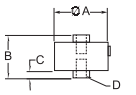
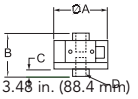
DONUT LOAD CELL
LTH300 ▶ page 19

LTH Thru-Hole/Donut
LLB Rectangular Female/Female
LRM Rectangular Male/Male
LSB S-Beam/Z-Beam

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

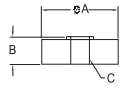
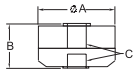
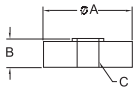
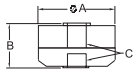
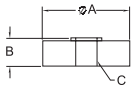
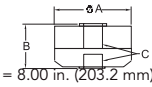
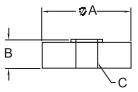
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LAU200 	100, 300 lb. (445, 1334 N)	**Accellerator Pedal Force Sensor** • 17-4ph S.S. one-piece construction • Low profile, off-center loading error <3–4% • Lemo® mating with 10 ft PVC cable assembly included • Detachable mounting plate with hose clamp mounting provision included	 A = 1.98 in. (50.3 mm) B = 0.38 in. (9.7 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.005-0.009" nom. Wiring Code: CC4, WC1
LAU220 	300, 500 lb. (1334, 2224 N)	**Spike Resistant Pedal Force Sensor** • 17-4ph S.S. one-piece construction • Low profile, off-center loading error <1% • 24 AWG, 4 conductor shielded Teflon® cable, 10 ft • Detachable mounting plate with hose clamp mounting provision included	 A = 2.58 in. (65.5 mm) B = 0.65 in. (16.5 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.006" nom. Wiring Code: WC1
LAU300 	3K lb. (13K N)	**Seat Belt Sensor** • Tests tension forces on seat belts • Accepts belts up to 0.1" Thick • Titanium sensing element • 4-pin Microtech Style Receptacle DR-4S	 A= 2.81 in. (71.4 mm) B= 0.80 in. (20.3 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... Contact Factory Hysteresis: ..... Contact Factory Operating Temperature: ..... 0 to 200° F Excitation (max): ..... 18 VDC Deflection: ..... Contact Factory Bridge Resistance: ..... 350 Ω nom. Wiring Code: CC6
LMD300 	50 lb. (222 N)	**Pinch Sensor** • Used to measure pinch force in medical rehab., lab testing and window pinch force measurement • Anodized aluminum • 28 AWG, 4 conductor shielded PVC cable, 10 ft	 A = 1.54 in. (39.1 mm) B = 0.55 in. (14.0 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... N/A Operating Temperature: ..... 0 to 160° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.005" nom. Wiring Code: WC1
LMD500 	300 lb. (1334 N)	**Hand Gripper** • One piece aluminum construction • Can be used in rehab therapy and as an auditing hand tool	 A = 0.63 in. (15.9 mm) B = 2.78 in. (70.6 mm) C= 1.73 in. (43.9 mm)	Rated Output: ..... 3 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1, CC4
LCA300 	2K, 3K, 5K lb. (9K, 13K, 22K N)	**Miniature Load Column** • 17-4ph S.S. • 29 AWG, 4 conductor shielded Teflon® cable, 10 ft • Small profile for tight spaces • Column design with spherical radiused top • Minimum Natural Frequency 35kHz	 A = 0.62 in. (15.9 mm) B = 0.65 in. (16.5 mm) C = 0.59 in. (15.0 mm)	Rated Output: ..... 1.3-2 mV/V nom. Nonlinearity: ..... ± 1% of RO Hysteresis: ..... ± 1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1
LCA305 	7.5K, 10K lb. (33K, 44K N)	**Miniature Load Column** • 17-4ph S.S. • 29 AWG, 4 conductor shielded Teflon® cable, 10 ft • Small profile for tight spaces • Column design with spherical radiused top • Minimum Natural Frequency 44kHz	 A = 0.88 in. (22.4 mm) B = 0.88 in. (22.4 mm) C = 0.77 in. (19.6 mm)	Rated Output: ..... 1.5-2 mV/V nom. Nonlinearity: ..... ± 1% of RO Hysteresis: ..... ± 1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LCA310 	15K, 20K, 30K lb. (67K, 89K, 133K N)	**Miniature Load Column** • 17-4ph S.S. • 29 AWG, 4 conductor shielded Teflon® cable, 10 ft • Small profile for tight spaces • Column design with spherical radiused top • Minimum Natural Frequency 22kHz	 A = 1.25 in. (31.8 mm) B = 1.13 in. (28.7 mm) C = 1.06 in. (26.9 mm)	Rated Output: ..... 1.3-2 mV/V nom. Nonlinearity: ..... ± 1% of RO Hysteresis: ..... ± 1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.004" nom. Wiring Code: WC1

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

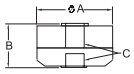
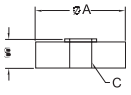
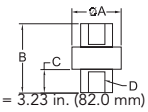
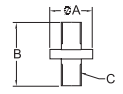
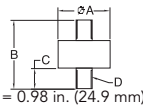
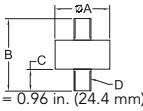
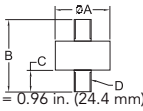
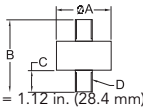
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LCA600 	100K, 200K, 300K lb. (444.8K, 889.6K, 1334K N)	**High Capacity Load Column** • Canister/Column Load Cell Design • High Capacity – Small Package Size • Strain Gauge Based • Handle for easy carrying • 6-pin Bendix Connector PT02E-10-6P with removable connector guard	 A = 4.00 in. (101.0 mm) B = 6.00 in. (152.4 mm) C = 5.70 in. (143.5 mm)	Rated Output:..... 1.3-2 mV/V nom. Nonlinearity:.....± 0.25% of RO Hysteresis:.....± 0.25% of RO Operating Temperature:.....0 to 160° F Excitation (max):.....20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.01" nom. Wiring code:..... CC1
LCA700 	500K, 750K, 1000K lb. (2224K, 3336K, 4448K N)	**High Capacity Load Column** • 17-4ph S.S. • Canister/Column Load Cell Design • High Capacity – Small Package Size • Strain Gauge Based • Handle for easy carrying • 6-pin Bendix Connector PT02E-10-6P with removable connector guard	 A = 5.98 in. (151.9 mm) B = 8.00 in. (203.2 mm) C = 7.25 in. (184.2 mm)	Rated Output:..... 2-3 mV/V nom. Nonlinearity:.....± 0.25% of RO Hysteresis:.....± 0.25% of RO Operating Temperature:..... -0 to 160° F Excitation (max):.....20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.01" nom. Wiring code:..... CC1
LCB200 	1K, 2K, 3K lb. (4K, 9K, 13K N)	**Rod End Tension/Compression** • 17-4ph S.S., male/female threads • 28 AWG, 4 conductor shielded PVC cable, 10 ft Teflon® cable optional • External matched output option available	 A = 0.96 in. (24.4 mm) B = 2.00 in. (50.8 mm) C = 1.00 in. (25.4 mm) D = 3/8-24	Rated Output: ..... 1-3 mV/V nom. Nonlinearity:.....± 0.5% of RO Hysteresis:.....± 0.5% of RO Operating Temperature:..... -45 to 200° F Excitation (max):.....18 VDC Bridge Resistance:..... 1000 Ω nom. Deflection:..... 0.001" nom. Wiring Code:..... WC1
LCB400 	1K, 2K, 3K, 5K, 10K lb. (4K, 9K, 13K, 22K, 44K N)	**Rod End Tension/Compression** • 2024 aluminum (1K, 2K lb.) • 17-4ph S.S. (3K, 5K, 10K lb.) • Male/female thread • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR	 A = 2.20 in. (56.3 mm) B = 4.30 in. (109.0 mm) C = 3/4-16	Rated Output:..... 2 mV/V nom. Nonlinearity:.....± 0.5% of RO Hysteresis:.....± 0.5% of RO Operating Temperature:..... -60 to 200° F Excitation (max):.....18 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.001" nom. Wiring Code:..... CC1
LCB450 	5K, 10K, 20K lb. (22K, 44K, 89K N)	**Rod End Tension/Compression** • 17-4ph S.S. • Male/female thread • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR • Fatigue rated	 A = 2.57 in. (65.2 mm) B = 4.50 in. (114.3 mm) C = 1-14	Rated Output:..... 2 mV/V nom. Nonlinearity:.....± 0.5% of RO Hysteresis:.....± 0.5% of RO Operating Temperature:..... -60 to 200° F Excitation (max):.....18 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCB500 	100, 200, 500, 1K, 2K, 3K, 5K lb. (445, 890, 2224, 4K, 9K, 13K, 22K N)	**Rod End Tension/Compression** • In-line loading. Ideal for endurance testing. • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR. • One piece construction.	 A = 2.84 in. (72.1 mm) B = 1.63 in. (41.4 mm) C = 1/2-20	Rated Output:..... 0.75-1.5 mV/V nom. Nonlinearity:.....± 0.25% of RO Hysteresis:.....± 0.25% of RO Operating Temperature:.....0 to 200° F Excitation (max):.....18 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF300 	10, 25, 50, 100, 250, 500 lb. (44, 111, 222, 445, 1112, 2224 N)	**Load Column Tension/Compression** • In-line tension/compression with female/female threads • One-piece construction, light weight • 2024 aluminum & 17-4ph S.S. • Lemo® 4 pin receptacle (standard) • Bendix receptacle: PT02E-10-6P (optional) • Optional mating connector: PT06A-10-6S-SR	 A = 1.98 in. (50.3 mm) B = 1.75 in. (44.5 mm) C = 0.19 in. (4.8 mm) D = 1/4-28	Rated Output:..... 1-2 mV/V nom. Nonlinearity:.....± 0.25% of RO Hysteresis:.....± 0.25% of RO Operating Temperature:..... -60 to 200° F Excitation (max):.....20 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC4
LCF400 	250, 500, 1K, 2.5, 5K lb. (1112, 2224, 4K, 11K, 22K N)	**Load Column Tension/Compression** • Resist high extraneous loads • One-piece construction • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR	 A = 3.48 in. (88.4 mm) B = 2.00 in. (50.8 mm) C = 0.25 in. (6.4 mm) D = 1/2-20 (M12x1.75 thread also available)	Rated Output:..... 3 mV/V nom., 250 lb 1.5 mV/V Nonlinearity:.....± 0.1% of RO Hysteresis:.....± 0.1% of RO Operating Temperature:..... -65 to 200° F Excitation (max):.....18 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1

LAU Automotive
LMD Medical
LCA Canister
LCB Cylindrical Male/Female
LCF Cylindrical Female/Female

TEDS option available on all models shown above. Extraneous Load Factors Available (Please visit www.futek.com or contact factory for details)

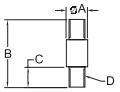
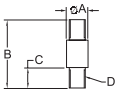
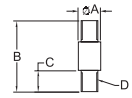
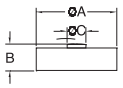
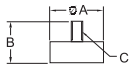
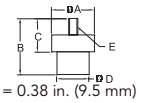
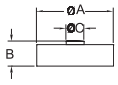
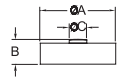
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LCF450 	300, 500, 1K, 2K, 5K, 10K lb. (1334, 2224, 4K, 9K, 22K, 44K N)	**Low-Profile Universal Pancake Load Cell** • Anodized Aluminum (500-2K lb); 17-4ph S.S. (300, 5K-10K lb) • Bendix receptacle: PT02E-10-6P • Optional mating connector: PT06A-10-6S-SR **Optional** • Fatigue rate (LCF451) • ±0.05% nonlinearity • TEDS IEEE1451.4 • High temperature	 A = 4.12 in. (104.6 mm) B = 1.37 in. (34.8 mm) *C = 5/8-18 (M16x2 Metric threads also available)	Rated Output:..... **2 mV/V nom.** Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF455 	300, 500, 1K, 2K, 5K, 10K lb. (1334, 2224, 4K, 9K, 22K, 44K N)	**Pancake Load Cell with Tension Base** • In-line loading for compression/tension • Anodized Aluminum (500-2K lb); 17-4ph S.S. (300, 5K-10K lb) • Bendix receptacle: PT02E-10-6P • Amplified version available • Fatigue rated version available (LCF456)	 A = 4.13 in. (104.6 mm) B = 2.50 in. (63.4 mm) C = 5/8-18 (M16x2)	Rated Output:..... 2 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 700 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF500 	25K, 50K lb. (111K, 222K N)	**Low-Profile Universal Pancake Load Cell** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF501) **Optional** • Dual bridge • Dual range • TEDS IEEE1451.4	 A = 5.98 in. (151.9 mm) B = 1.75 in. (44.5 mm) C = = 1 1/4-12 (M33x2)	Rated Output:..... 4 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... .0.002" nom. Wiring Code:..... CC1, CC1T
LCF505 	25K, 50K lb. (111K, 222K N)	**Pancake Load Cell with Tension Base** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF506)	 A = 5.98 in. (151.9 mm) B = 3.50 in. (88.9 mm) C = 1 1/4-12 (M33x2)	Rated Output:..... 4 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF550 	100K lb. (445 K N)	**Low-Profile Universal Pancake Load Cell** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF551) **Optional** • Dual bridge • TEDS IEEE1451.4	 A = 8.00 in. (203.2 mm) B = 2.50 in. (63.5 mm) C = 1 3/4-12 (M42x2)	Rated Output:..... 4 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF555 	100K lb. (445 K N)	**Pancake Load Cell with Tension Base** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF556)	 A = 8.00 in. (203.2 mm) B = 4.50 in (114.3 mm) C = 1 3/4-12 (M42x2)	Rated Output:..... 4 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.002" nom. Wiring Code:..... CC1
LCF650 	250K lb. (1112 K N)	**Low-Profile Universal Pancake Load Cell** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF651) **Optional** • Dual bridge • TEDS IEEE1451.4	 A = 11.00 in. (279.4 mm) B = 3.50 in. (88.9 mm) C = 2 3/4-8 (M72x2)	Rated Output:..... 4 mV/V nom. Nonlinearity:..... ± 0.1% of RO* Hysteresis:..... ± 0.2% of RO* Operating Temperature:..... -60 to 200° F Excitation (max):..... 20 VDC Bridge Resistance:..... 350 Ω nom. Deflection:..... 0.005" nom. Wiring Code:..... CC1

*Higher-accuracy version available
TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

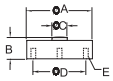
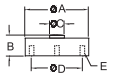
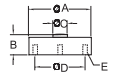
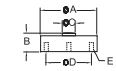
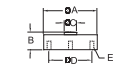
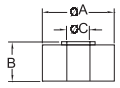
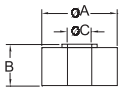
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LCF655 	250K lb. (1112 K N)	**Pancake Load Cell with Tension Base** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF656)	 A = 11.00 in. (279.4 mm) B = 7.00 in. (177.8 mm) C = 2 3/4-8 (M72x2)	Rated Output: 4 mV/V nom. Nonlinearity: ± 0.1% of RO* Hysteresis: ± 0.2% of RO* Operating Temperature: -60 to 200° F Excitation (max): 20 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.005" nom. Wiring Code: CC1
LCF700 	400K lb. (1779 K N)	**Low-Profile Universal Pancake Load Cell** • In-line loading for compression/tension • 17-4ph S.S. • Bendix receptacle: PT02E-10-6P with removable connector guard • Amplified version available • Fatigue rated version available (LCF701, LCF706) **Optional** • Dual bridge • TEDS IEEE1451.4	 A = 12 in. (305.0 mm) B = 4.50 in. (114.3 mm) C = 3 1/2-8 (M90x3)	Rated Output: 4 mV/V nom. Nonlinearity: ± 0.2% of RO* Hysteresis: ± 0.2% of RO* Operating Temperature: -60 to 200° F Excitation (max): 20 VDC Bridge Resistance: 350 Ω nom. Deflection: Contact factory Wiring Code: CC1
LCF800 	50K, 100K, 150K lb. (222K, 445K, 667K N)	**Rod End Load Cell (female threads)** • In-line loading for compression/tension • 17-4ph S.S. • 28 AWG, 6 conductor shielded polyurethane cable, 10 ft	 A = 3.23 in. (82.0 mm) B = 7.50 in. (191.0 mm) C = 3.0 in. (76.2 mm) D = 1 1/2-12	Rated Output: 2 mV/V nom. Nonlinearity: ± 0.25% of RO Hysteresis: ± 0.25% of RO Operating Temperature: -45 to 200° F Excitation (max): 20 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.01" nom. Wiring Code: WC4, CC1
LCM200 	250, 500, 1K lb. (1112, 2224, 4K N)	**SubMiniature In-Line Load Cell** • Used in compression/tension • 17-4ph S.S. • 29 AWG, 4 conductor shielded Teflon® cable, 10 ft • External matched output option available	 A = 0.80 in. (20.3 mm) B = 1.20 in. (29.8 mm) C = 3/8-24	Rated Output: 1 - 2 mV/V nom. Nonlinearity: ± 0.5% of RO Hysteresis: ± 0.5% of RO Operating Temperature: -60 to 285° F Excitation (max): 15 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.001" nom. Wiring Code: WC1
LCM300 	50, 100, 250, 500, 1K lb. (222, 445, 1112, 2224, 4K N)	**Miniature In-Line Load Cell** • Used in compression/tension • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft	 A = 0.98 in. (24.9 mm) B = 1.21 in. (30.7 mm) C = 0.33 in. (8.4 mm) D = 1/4-28 (M6x1)	Rated Output: 2 mV/V nom. Nonlinearity: ± 0.5% of RO Hysteresis: ± 0.5% of RO Operating Temperature: -45 to 200° F Excitation (max): 15 VDC Bridge Resistance: 700 Ω nom. Deflection: 0.001" nom. Wiring Code: WC1
LCM325 	2K, 3K lb. (9K, 13K N)	**Miniature In-Line Load Cell** • Used in compression/tension • Male/male threads • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft	 A = 0.96 in. (24.4 mm) B = 1.50 in. (38.1 mm) C = 0.42 in. (10.7 mm) D = 3/8-24 (M10x1.5)	Rated Output: 1.3 to 2 mV/V nom. Nonlinearity: ± 0.5% of RO Hysteresis: ± 0.5% of RO Operating Temperature: -45 to 200° F Excitation (max): 18 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.001" nom. Wiring Code: WC1
LCM350 	4K, 5K lb. (18K, 22K N)	**Miniature In-Line Load Cell** • Used in compression/tension • Male/male threads • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft • External matched output option available	 A = 0.96 in. (24.4 mm) B = 2.77 in. (70.4 mm) C = 0.90 in. (22.9 mm) D = 1/2-20 (M12x1.75)	Rated Output: 1.6 - 2 mV/V nom. Nonlinearity: ± 0.5% of RO Hysteresis: ± 0.5% of RO Operating Temperature: -45 to 200° F Excitation (max): 18 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.002" nom. Wiring Code: WC1
LCM375 	7.5K, 10K lb. (33K, 44K N)	**In-Line Load Cell** • Used in compression/tension • Male/male threads • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft	 A = 1.12 in. (28.4 mm) B = 2.77 in. (70.4 mm) C = 0.87 in. (22.1 mm) D = 3/4-16 (M16x2)	Rated Output: 1.5 - 2 mV/V nom. Nonlinearity: ± 0.5% of RO Hysteresis: ± 0.5% of RO Operating Temperature: -45 to 200° F Excitation (max): 18 VDC Bridge Resistance: 350 Ω nom. Deflection: 0.002" nom. Wiring Code: WC1

LCM Cylindrical Male/Male
LCF Cylindrical Female/Female

*Higher-accuracy version available
TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

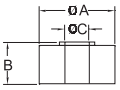
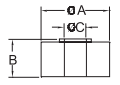
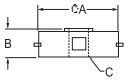
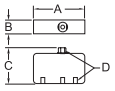
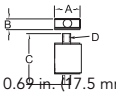
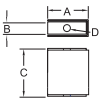
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LCM500 	2K, 5K lb. (9K, 22K N)	**In-Line Load Cell** • Used in compression/tension • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft	 A = 0.90 in. (22.9 mm) B = 3.0 in. (76.2 mm) C = 1.10 in. (27.3 mm) D = 1/2-20 (M12x1.75)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -45 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.003" nom. Wiring Code: WC1
LCM525 	20K lb. (89K N)	**In-Line Load Cell** • Used in compression/tension • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft • External matched output option available	 A = 1.25 in. (31.8 mm) B = 5.0 in. (127.0 mm) C = 2.10 in. (53.3 mm) D = 1-14 (M24x3)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -45 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.004" nom. Wiring Code: WC1
LCM550 	50K lb. (222K N)	**In-Line Load Cell** • Used in compression/tension • 17-4ph S.S. • 28 AWG, 4 conductor shielded PVC cable, 10 ft • External matched output option available	 A = 1.98 in. (50.3 mm) B = 6.0 in. (152.0 mm) C = 2.63 in. (66.7 mm) D = 1-1/2 (M36x4)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -45 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.005" nom. Wiring Code: WC1
LLB130 	5, 10, 25, 50 lb. (22.2, 44.5, 111, 222 N)	**Subminiature Load Button** • Used in compression • Internal zero balance compensation • Internal temperature shift zero compensation • 17-4ph S.S. • #34 AWG, 4 conductor Teflon® cable, S.S. Braided Shielded Cable 5 ft (1.5m) long	 A = 0.38 in. (9.5 mm) B = 0.13 in. (3.3 mm) C = 0.09 in. (2.3 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 7 VDC Deflection: ..... 0.001" nom. Bridge Resistance: ..... 350 Ω nom. Wiring Code: WC1
LLB210 	10, 25, 50 lb. (44, 111, 222 N)	**Subminiature Load Button** • Used in compression • Threaded button #2-56 • 17-4ph S.S. • #29 AWG, 4 conductor shielded silicone cable, 10 ft	 A = 0.38 in. (9.5 mm) B = 0.32 in. (8.1 mm) C = #2-56	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 7 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LLB215 	10, 25, 50 lb. (44, 111, 222 N)	**Subminiature Load Button** • Used in compression • Vertical cable exit • Threaded button #2-56 • 17-4ph S.S. • #29 AWG, 4 conductor shielded silicone cable, 10 ft	 A = 0.38 in. (9.5 mm) B = 0.50 in. (12.7 mm) C = 0.32 in. (8.1 mm) D = 0.20 in. (5.1 mm) E = #2-56	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 7 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LLB250 	100, 150, 250 lb. (445, 667, 1112 N)	**Subminiature Load Button** • Used in compression • 17-4ph S.S. • #29 AWG, 4 conductor shielded Teflon® cable, 5 ft	 A = 0.50 in. (12.7 mm) B = 0.15 in. (3.9 mm) C = 0.12 in. (3.0 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 7 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LLB300 	25, 50, 100, 250, 500, 1K lb. (111, 222, 445,1112, 2224, 4K N)	**Subminiature Load Button** • Used in compression • 17-4ph S.S. • #29 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 0.74 in. (18.8 mm) B = 0.25 in. (6.4 mm) C = 0.20 in. (5.1 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 250° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

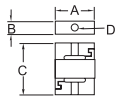
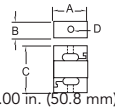
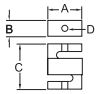
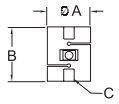
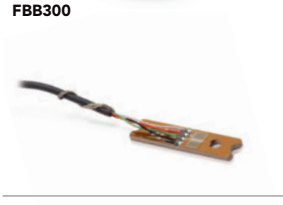
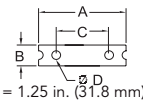
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LLB350 	25, 50, 100 lb. (111, 222, 445 N)	**Subminiature Load Button** • Used in compression • Threaded mounting holes #4-40 • 17-4ph S.S. • #29 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 0.98 in. (24.9 mm) B = 0.32 in. (8.1 mm) C = 0.21 in. (5.3 mm) D = 0.75 in. (19.1 mm) E = #4-40	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LLB400 	100, 250, 500, 1K, 2K, 2.5K lb. (445, 1112, 2224, 4K, 9K, 11K N)	**Miniature Load Button** • Used in compression • Threaded mounting holes #6-32 • 17-4ph S.S. • #26 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 1.23 in. (31.2 mm) B = 0.39 in. (9.9 mm) C = 0.32 in. (8.1 mm) D = 1.00 in. (25.4 mm) E = #6-32	Rated Output: ..... 2 or 2.5 mV/V nom. Nonlinearity: .....± 0.15% 100-250 lb.; .....0.25% 500-2K lb.; 0.5% 2.5K lb. of RO* Hysteresis: .....± 0.15% 100-250 lb.; .....0.25% 500-2K lb.; 0.5% 2.5K lb. of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LLB450 	5K, 10K lb. (22K, 44K N)	**Miniature Load Button** •Used in compression •Threaded mounting holes #6-32 •17-4ph S.S. • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 1.48 in. (37.6 mm) B = 0.63 in. (16.0 mm) C = 0.43 in. (10.9 mm) D = 1.25 in. (31.8 mm) E = #6-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1
LLB500 	15K, 20K, 30K lb. (67K, 89K, 133K N)	**Miniature Load Button** • Used in compression • Threaded mounting holes #6-32 • 17-4ph S.S. • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 1.98 in. (50.3 mm) B = 1.00 in. (25.4 mm) C = 0.60 in. (15.2 mm) D = 1.625 in. (41.28 mm) E = #6-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.003" nom. Wiring Code: WC1
LLB550 	50K lb. (222K N)	**Miniature Load Button** • Used in compression • Threaded mounting holes #6-32 • 17-4ph S.S. • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 2.98 in. (75.7 mm) B = 1.50 in. (38.1 mm) C = 0.78 in. (19.8 mm) D = 2.375 in. (60.33 mm) E = #6-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.004" nom. Wiring Code: WC1
LTH300 	50, 100, 250, 500, 1K lb. (222, 445, 1112, 2224, 4K N)	**Thru Hole Load Cell** • Used in compression • 17-4ph S.S. • Inside diameter: 1/8 to 3/8" • #29 AWG, 4 conductor shielded Teflon® cable, 10 ft • High accuracy available	 A = 0.98 in. (24.9 mm) B = 0.28 in. (7.1 mm) C = 0.13-0.38 in. (3.3-9.7 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
LTH350 	100, 250, 500, 1K, 2K, 3K, 5K lb. (445, 1112, 2224, 4K, 9K, 13K, 22K N)	**Thru Hole Load Cell** • Used in compression • 17-4ph S.S. • Inside diameter: 1/8 to 5/8" • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft • High accuracy available	 A = 1.48 in. (37.6 mm) B = 0.50 in. (12.7 mm) C = 0.13-0.63 in. (3.3-16mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1

LCM Cylindrical Male/Male
LLB Load Button
LTH Thru-Hole/Donut

*Higher-accuracy version available
TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LTH400 	250, 500, 1K, 2K, 3K, 5K, 10K lb. (1K, 2K, 4K, 9K, 22K, 33K, 44K N)	**Thru Hole Load Cell** • Used in compression • 17-4ph S.S. • Inside diameter: 1/8 to 5/8" • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 1.98 in. (50.3 mm) B = 0.65 in. (16.5 mm) C = 0.13-0.63 in. (3.3-16mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1
LTH500 	2K, 3K, 5K, 7.5K, 10K, 15K, 20K, 30K, 50K lb. (9K, 13K, 22K, 33K, 44K, 67K, 89K, 133K, 222K N)	**Thru Hole Load Cell** • Used in compression • 17-4ph S.S. • Inside diameter: 1/8 to 1 1/4" • #24 AWG, 4 conductor shielded Teflon® cable, 10 ft	 A = 2.98 in. (75.7 mm) B = 1.00 in. (25.4 mm) C = 0.13-1.25 (3.3-31.8mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO* Hysteresis: ..... ± 0.5% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Deflection: ..... 0.002" nom. Wiring Code: WC1
LTH900 	600K lb. (2669K N)	**Thru Hole Load Cell** • High capacity in-line used in compression • Dual bridge • Bendix receptacle: PT02E-10-6P with removable connector guard • Removable handles for transportation	 A = 12.95 in. (328.9 mm) B = 3.75 in. (95.3 mm) C = 4.80 in. (121.92 mm)	Rated Output: ..... 3 mV/V nom. Nonlinearity: ..... ± 0.2% of RO* Hysteresis: ..... ± 0.2% of RO* Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Deflection: ..... 0.01" nom. Bridge Resistance: ..... 350 Ω nom. Wiring Code: WC1
LRF350 	200, 300, 500, 1K lb. (890, 1334, 2K, 4K N)	**Low Profile Load Cell** • In-line loading in compression/tension • Female threads (both ends) • 2024 aluminum (150 to 300 lb.) • 17-4ph S.S. (500, 1k lb.) • 28 AWG, 4 conductor shielded Teflon® Shielded PVC, 10 ft. • Lemo® version standard. Cable version optional.	 A = 1.70 to 1.74 in. (43.2 to 44.2 mm) B = 1.01 in. (25.7 mm) C = 1.00 in. (25.4 mm) D = 3/8-24	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.002" nom. (0.006" nom. , 1K) Wiring Code: WC1, CC4
LRF400 	0.25 oz., 0.35 oz., 0.5 oz., 0.88 oz.; 1, 2.2, 5, 10, 25, 50, 100 lb. (10g, 25g, 1.1, 2.2, 4, 9.8, 22, 44, 111, 222, 445 N)	**Low Profile Load Cell** • In-line loading in compression/tension • Built-in Overload protection • Lemo® receptacle • 2024 aluminum	 A = 2.58 in. (65.4 mm) B = 0.96 in. (24.4 mm) C = 2.27 in. (57.7 mm) D = #10-32	Rated Output: ..... 1- 2 mV/V nom. Nonlinearity: ..... ± 0.05% of RO, 10g ± 0.1% Hysteresis: ..... ± 0.05% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC, 10g 5 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.003 to 0.011" nom. Wiring Code: CC4
LRM200 	3.5 oz., 8.8 oz.; 1, 2, 5, 10, 25, 50, 100 lb. (100g, 250g, 4, 9, 22, 44, 111, 222, 445 N)	**S Beam Jr. with Male Threads** • In-line loading in compression/tension • Built-in Overload protection • 2024 aluminum, 17-4ph S.S. 25–100 lb. • 29 AWG, 4 conductor shielded silicone cable, 5 ft	 A = 0.69 in. (17.5 mm) B = 0.26 in. (6.7 mm) C = 1.67 in. (42.4 mm) D = 1/4-28	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 10 VDC Bridge Resistance: ..... 350 - 1000 Ω nom. Deflection: ..... 0.005" nom. Wiring Code: WC1
LSB200 	0.35 oz., 0.71 oz., 1.76 oz., 3.5 oz., 8.8 oz.; 1, 2, 5, 10, 25, 50, 100 lb. (10g, 20g, 50g, 100g, 250g; 4, 9, 22, 44, 111, 222, 445 N)	**S-Beam Jr. Load Cell** • In-line loading in compression/tension • Built-in Overload protection • 2024 aluminum, 17-4ph S.S. 25–100 lb. • 29 AWG, 4 conductor shielded silicone cable, 5 ft • Metric threads available (M3x0.5)	 A = 0.69 in. (17.5 mm) B = 0.26 in. (6.7 mm) C = 0.75 in. (19.1 mm) D = #4-40 (M3x0.5)	Rated Output: ..... 0.5 - 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 10 VDC Bridge Resistance: ..... 1000 Ω nom. 10 to 250 g. ..... 350 Ω nom. 1 to 100 lb. Deflection: ..... 0.004-0.01" nom. Wiring Code: WC1

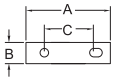
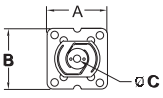
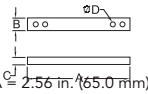
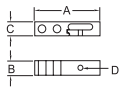
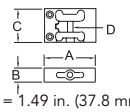
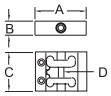
*Higher-accuracy version available
TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
LSB210 	100g, 250g, 1, 2, 5, 10, 25, 50, 100 lb. (1, 2.5, 4.5, 8.9, 22.2, 44.5, 111, 222, 445 N)	**S-Beam Jr. Load Cell Submersible** • In-line loading in compression/tension • Built-in Overload protection • 2024 aluminum, 17-4ph S.S. • 29 AWG, 4 conductor shielded silicone cable, 5 ft	 A = 0.63 in. (16.0 mm) B = 0.25 in. (6.4 mm) C = 0.75 in. (19.0 mm) D = 2 x #4-40 (M3x0.5)	Rated Output: ..... 0.5 - 2 mV/V nom. Nonlinearity: ..... ± 1 - 3% of RO Hysteresis: ..... ± 1.5 - 5% of RO Operating Temperature: .....0 to 160° F Excitation (max): ..... 10 VDC Max Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.005" nom. Wiring Code: WC1
LSB302 	25, 50, 100, 200, 300 lb. (111, 222, 445, 890, 1334 N)	**S-Beam Load Cell** • In-line loading in compression/tension • Built-in Overload protection • Anodized aluminum • 4 Pin Lemo® receptacle (standard) • Metric thread available • Submersible available	 A = 2.0 in. (50.8 mm) B = 0.5 in. (12.7 mm) C = 2.5 in. (63.5 mm) D = 1/4-28 (M6x1, M10x1.5)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.05% of RO Hysteresis: .....± 0.05% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): .....20 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.01" nom. Wiring Code: CC4, WC4
LSB350 	500, 1K, 2K lb. (2K, 4K, 9K N)	**S-Beam Load Cell** • In-line loading in compression/tension • 2 mV/V nom. rated output • Anodized aluminum, 17-4ph S.S. 2K lb. • 4 Pin Lemo® receptacle (standard) • Metric thread available	 A = 2.0 in. (50.8 mm) B = 1.12 in. (28.4 mm) C = 3.0 in. (76.2 mm) D = 1/2-20 (M12x1.75)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.1% of RO Hysteresis: .....± 0.05% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): .....20 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.015" nom. Wiring Code: WC4, CC4
LSB352 	500, 1K lb. (2K, 4K N)	**S-Beam Load Cell** • In-line loading in compression/tension • 3 mV/V nom. rated output • Built-in Overload protection • 17-4ph S.S.	 A = 2.00 in. (50.8 mm) B = 1.00 in. (25.4 mm) C = 3.00 in. (76.2 mm) D = 1/2-20	Rated Output: ..... 3 mV/V nom. Nonlinearity: .....± 0.05% of RO Hysteresis: .....± 0.05% of RO Operating Temperature: ..... -40 to 200° F Excitation (max): .....18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.01" nom. Wiring Code: WC4
LSB400 	5K, 10K lb. (22K, 44K N)	**S-Beam Load Cell** • In-line loading in compression/tension • 17-4ph S.S. • 4 Pin lemo receptacle, standard • 28 AWG, 6 conductor shielded polyurethane cable 5 ft (optional) • Metric thread available	 A = 2.45 in. (62.2 mm) B = 1.57 in. (39.9 mm) C = 3.5 in. (88.9 mm) D = 3/4-16 (M16x2)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.05% of RO Hysteresis: .....± 0.05% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): .....20 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: .....0.01 to 0.02" nom. Wiring Code: WC4, CC4
LSB600 	10K, 25K lb. (44K, 111K N)	**Cylindrical S-Beam Load Cell** • In-line loading in compression/tension • Canister (cylindrical) design • 17-4ph S.S. • PT02E-10-6P with removable connector guard • Metric thread available • Dual-Bridge available	 A = 2.74 in. (69.6 mm) B = 4.75 in. (121.0 mm) C = 1 1/4-12 (M36x3)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.1% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): .....18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.005" nom. Wiring Code: CC1
FBB300 	1, 2, 5, 10, 20, 40 lb. (4, 9, 22, 44, 89, 178 N)	**Force Sensor (OEM)** • Bending Beam (planar beam) design • Full active bridge (300 series stainless steel) • Can be utilized to measure force, pressure, and displacement • Mounting kit required • 29 AWG, 4 conductor shielded silicone cable 12" long standard	 A = 1.25 in. (31.8 mm) B = 0.31 (7.8 mm) C = 0.75 (19.0 mm) D = 0.125 (3.18 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....Contact Factory Hysteresis: .....Contact Factory Operating Temperature: ..... -60 to 200° F Excitation (max): .....18 VDC Bridge Resistance: ..... 1200 Ω nom. Deflection: .....0.004 to 0.010" nom. Wiring Code: WC1

LTH Thru-Hole/Donut
LRF Rectangular Female/Female
LRM Rectangular Male/Male
FBB Bending Beam

FFP Flat Plate
LBB Bending Beam
LSB S-Beam/Z-Beam

TEDS option available on all models shown above. Extraneous Load Factors Available (Please visit www.futek.com or contact factory for details)

MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
FBB350 	1 oz., 0.25, 0.5, 1, 2, 20 lb. (0.278, 1.1, 2, 4, 9, 89 N)	**Force Sensor (OEM)** • Bending Beam (planar beam) design, • Full active bridge (300 series stainless steel, BeCU) • Can be utilized to measure force, pressure, and displacement • Mounting kit available • 29 AWG, 4 conductor shielded silicone cable 12" long standard	 A = 1.20 in. (30.5 mm) B = 0.25 in. (6.4 mm) C = 0.81 in. (21 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... Contact Factory Hysteresis: ..... Contact Factory Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1200 Ω nom. Deflection: ..... 0.005" to 0.015" nom.. Wiring Code: WC1
FFP350 	1 lb. (4 N)	**Flat Plate (OEM)** • Full active bridge (300 series stainless steel) • As thin as 0.08" (2mm) • Can be utilized to measure force, pressure, and displacement • 29 AWG Teflon® wire, 6" long	 A= 0.95 in. (24 mm) B= 0.95 in. (24 mm) C= 0.05 in. (1.28 mm)	Rated Output: ..... 1.5 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 10 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... Contact Factory Wiring Code: WC1
LBB200 	0.25, 0.5, 1, 2, 5, 10, 25 lb. (1, 2, 4, 9, 22, 44, 111 N)	**Cantilever Bending Beam (OEM)** • Can be utilized to measure force, pressure, and displacement • 28 AWG, 4 conductor shielded PVC cable, 1 ft • 17-ph S.S. • Exposed element	 A = 2.56 in. (65.0 mm) B = 0.28 in. (7.1 mm) C= 0.12-0.18 in. (3-4.6mm) D = 0.125 (3.18 mm)	Rated Output: ..... 1 mV/V nom. Nonlinearity: ..... ± 0.05% of RO Hysteresis: ..... ± 0.05% of RO Operating Temperature: ..... -45 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.007 to 0.02" nom. Wiring Code: WC3
LSM200 	10 lb. (44 N)	**Fold Back Bending Beam (OEM)** • Built-in overload protection • Side mounted • Exposed elements • 2024 aluminum • 2" Molex® flexible 4 conductor type A (1mm pitch) cable	 A = 1.75 in. (44.5 mm) B = 0.38 in. (9.7 mm) C = 0.36 in. (9.1 mm) D = #6-32	Rated Output: ..... 2.3 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.004" nom.
LSM250 	0.25, 0.5, 1 lb. (1, 2, 4 N)	**Parallelogram OEM Load Cell** • Built-in overload protection up to 50 lb. • Side mounted • Exposed elements • 2024 aluminum • 29 AWG, 4 color coded Teflon® lead wires, 6" standard	 A = 1.49 in. (37.8 mm) B = 0.38 in. (9.7 mm) C = 0.93 in. (23.6 mm) D = #10-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.05% of RO Hysteresis: ..... ± 0.05% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.004" nom. Wiring Code: WC2
LSM300 	2.2, 5, 10, 25, 50, 100, 200, 500 lb. (9.8, 22, 44, 111, 222, 445, 890, 2224 N)	**Parallelogram OEM Load Cell** • Built-in overload protection. • Side mounted • Used in tension/compression • 2024 aluminum, 17-ph S.S. (200–500 lb.) • 29 AWG, 4 color coded Teflon® lead wires, 6" standard	 A = 1.80 in. (45.7 mm) B = 0.50 in. (12.7 mm) C = 1.40 in. (35.6 mm) D= #10-32, 1/4-28	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.02% to ± 0.06% of RO Hysteresis: ..... ± 0.02% to ± 0.06% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Deflection: ..... 0.006" nom. Wiring Code: WC2

Better for the Environment.

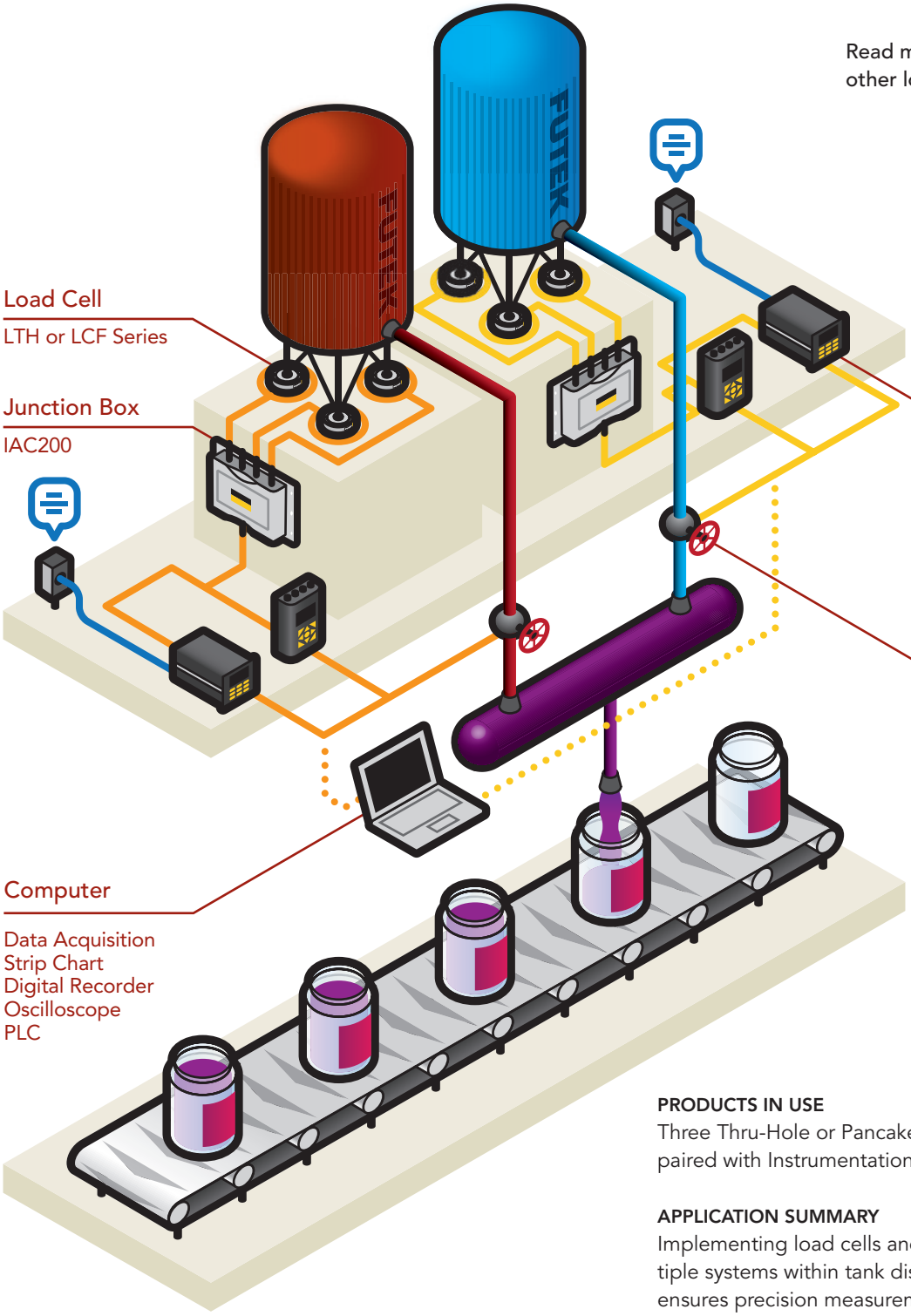
FUTEK has examined the directives in detail and have determined that all products offered at this time are in compliance with the Restriction of the use of Hazardous Substances Directive (RoHS) and can continue to be sold within the EU without violating the RoHS Directive.

RoHS

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

Dual Tank Level Controller

Read more about this and other load cell applications ▸



Load Cell
LTH or LCF Series

Junction Box
IAC200

Digital Display
IPM650
IHH500

Control Valve

Computer
Data Acquisition
Strip Chart
Digital Recorder
Oscilloscope
PLC

PRODUCTS IN USE

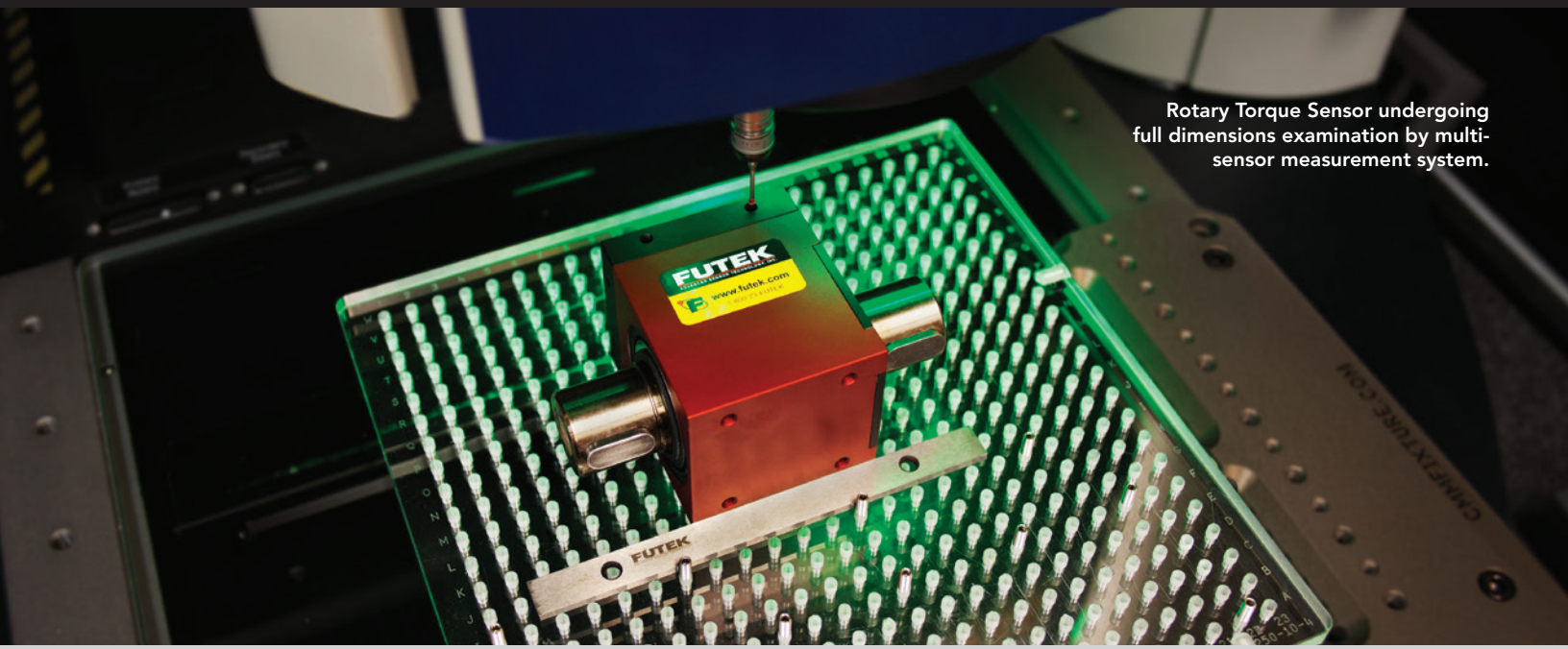
Three Thru-Hole or Pancake Load Cells (LTH Series/LCF Series) paired with Instrumentation (IPM650 or IHH500).

APPLICATION SUMMARY

Implementing load cells and instrumentation can automate multiple systems within tank dispensing applications. This process ensures precision measurements in liquid ratios and feedback triggers for valve opening and closing.

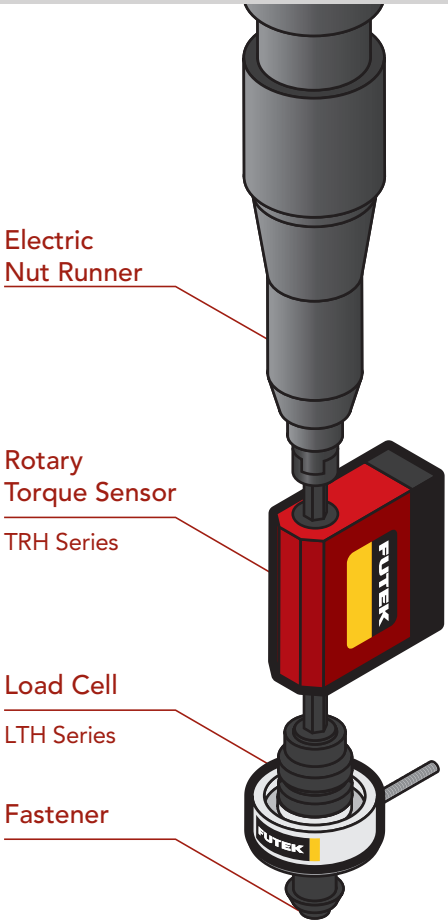
FBB Bending Beam
FFP Flat Plate
LBB Bending Beam
LSB S-Beam/Z-Beam

All FUTEK application illustrations are strictly conceptual.
Please contact us with questions.



Rotary Torque Sensor undergoing full dimensions examination by multi-sensor measurement system.

Among FUTEK's extensive list of products is an impressive array of strain gauge Reaction and Rotary Torque Sensors. FUTEK's Reaction Torque Sensors are designed for static torsional measurements, while our Rotary Torque Sensors generate dynamic measurements. Both sensors families produce an electrical output signal that can be read on any of our digital displays, amplifiers or streamed through USB Solutions.



Reaction Torque Sensors

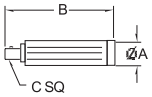
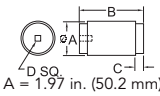
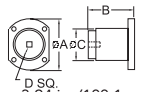
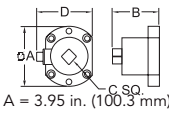
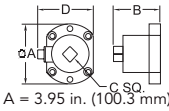
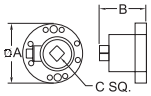
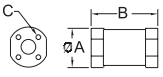
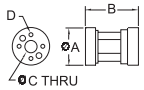
Typically, reaction torque sensors are used for non-moving, in-line and auditing measurement applications. Knowing this, we designed this torque series for versatility with multiple mounting options, different capacities, and various shaft dimensions.

- Static Measurements
- Proprietary Strain Gauge Technology
- OEM Capabilities
- Easy Integration with Instrumentation

Rotary Torque Sensors

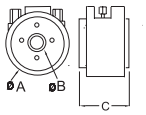
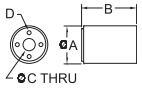
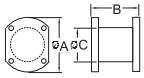
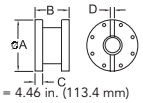
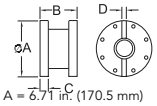
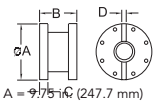
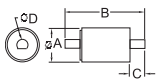
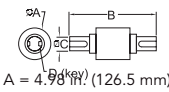
With model options including Drive, Hex, and Shaft-to-Shaft, engineers and operators will find an appropriate sensor to meet their specifications. These rotary torque sensors are well-suited for aerospace, automotive, and robotic applications.

- Multiple outputs - mV/V, VDC, or USB
- Capacity Range up to 5,000 Nm
- Up to 50,000 RPM
- Encoder Options

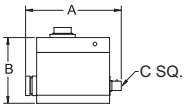
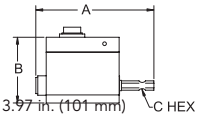
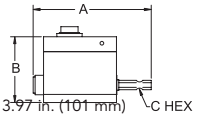
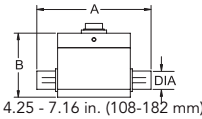
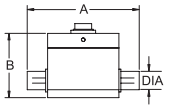
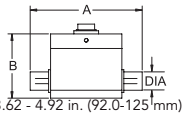
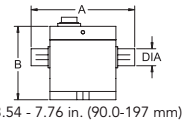
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
TAT200 	50, 100 in-oz. (353, 706 Nmm)	**Mini Screw Driver Reaction Torque Sensor** • Reaction torque measurement in CW/CCW • Designed for torque auditing • Accepts moody's tool bits • 0.61" outside diameter • 28 AWG, 4 conductor braided shielded PVC cable, 10 ft long.	 A = 0.61 in. (15.4 mm) B = 2.75 in. (69.9 mm) C = 1/4 SQ Drive	Rated Output: ..... 1 - 2 mV/V nom Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temp: ..... 0 to 160° F Excitation (max): ..... 18 VDC Bridge Res: ..... 1000 Ω nom. Wiring Code: WC1
TDD400 	5, 10, 20, 50, 160, 400, 1K in-oz.; 100, 200, 500 in-lb. (0.04, 0.08, 0.15, 0.37, 1.2, 3.0, 7.5, 12, 24, 60, Nm)	**Reaction Torque Sensor** • Square drive to square drive in CW/CCW • Built-in overload protection up to 400 in-oz • Aluminum construction • Quick disconnect Lemo® receptacle	 A = 1.97 in. (50.2 mm) B = 3.00 in. (76.2 mm) C = 0.50 in. (12.7 mm) D = 1/4 (5-1K in-oz), 3/8 (100-500 in-lb)	Rated Output: ..... 1.5 - 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω - 700 Ω nom. Connector Code: CC4
TDF400 	5, 10, 20, 50, 160, 400, 1K in-oz.; 100, 200, 500 in-lb. (0.04, 0.08, 0.15, 0.37, 1.2, 3.0, 7.5, 12, 24, 60, Nm)	**Reaction Torque Sensor with Flange** • Flange to square drive in CW/CCW • Built-in overload protection up to 400 in-oz • Aluminum construction • Quick disconnect Lemo® receptacle	 A = 3.94 in. (100.1 mm) B = 3.00 in. (76.2 mm) C = 1.98 in. (50.2 mm) D = 1/4 (5-1K in-oz), 3/8 (100-500 in-lb)	Rated Output: ..... 1.5 - 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω - 700 Ω nom. Connector Code: CC4
TDF600 	1.2K, 2.4K, 6K in-lb. (150, 300, 700 Nm)	**Reaction Torque Sensor with Flange to Square** • Square drive to flange in CW/CCW • 1/2" square drive (1.2K, 2.4 K in-lb), 3/4" square drive (6K in-lb) • 17-4 stainless steel, aluminum cover • Designed for auditing, calibrating mechanical torque wrenches, and used in automated assembly. • Amplified version available	 A = 3.95 in. (100.3 mm) B = 3.12-3.43 in. (79.4-87.1 mm) C = 0.50-0.75 in. (12.7-19.05 mm) D = 3.70 in. (94.0 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 700 Ω nom. Connector Code: CC1T, CC1
TDF650 	12K in-lb. (1.4K Nm)	**Reaction Torque Sensor with Flange to Square** • Square drive to flange in CW/CCW • 1" square drive • 17-4 stainless steel, aluminum cover • Designed for auditing, calibrating mechanical torque wrenches, and used in automated assembly. • Amplified version available	 A = 3.95 in. (100.3 mm) B = 3.62 in. (92.0 mm) C = 1.00 in. (25.4 mm) D = 3.70 in. (94.0 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 700 Ω nom. Connector Code: CC1T, CC1
TDF675 	24K in-lb. (2.7K Nm)	**Reaction Torque Sensor with Flange to Square** • Square drive to flange in CW/CCW • 1" square drive • 17-4 stainless steel, aluminum cover • Designed for auditing, calibrating mechanical torque wrenches, and used in automated assembly. • Amplified version available	 A = 4.47 in. (113.5 mm) B = 3.63 in. (92.0 mm) C = 1.00 in. (25.4 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Hysteresis: ..... ± 0.1% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 700 Ω nom. Connector Code: CC1T, CC1
TFF325 	20, 50 in-oz.; 12, 50, 100 in-lb. (141, 353 Nmm; 1.5, 6, 12 Nm)	**Flange to Flange Reaction Torque Sensor** • Aluminum construction • OEM version with exposed elements • Not recommended for end users • 29 AWG, 4 color coded Teflon® lead wires, 6" std. • Weight: 2.3 oz (65 g)	 A = 1.20 in. (30.5 mm) B = 2.00 in. (50.8 mm) C = #6-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 1000 Ω nom. Wiring Code: WC1
TFF350 	100, 150, 500, 1.3K, 3K in-lb. (11, 15, 60, 150, 339 Nm)	**OEM Reaction Torque Sensor** • Flange to flange in CW/CCW • 0.58" center thru-hole • Aluminum construction (up to 1300 in-lb) • 17-4 stainless steel construction (3000 in-lb) • 29 AWG, 4 color coded Teflon® lead wires, 6" std.	 A = 1.48 in. (37.59 mm) B = 2.00 in. (50.80 mm) C = 0.58 in. (14.73 mm) D = #10-32	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Wiring Code: WC1

TAT Auditing Tool
TDD Drive/Drive
TDF Drive/Flange
TFF Flange/Flange

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

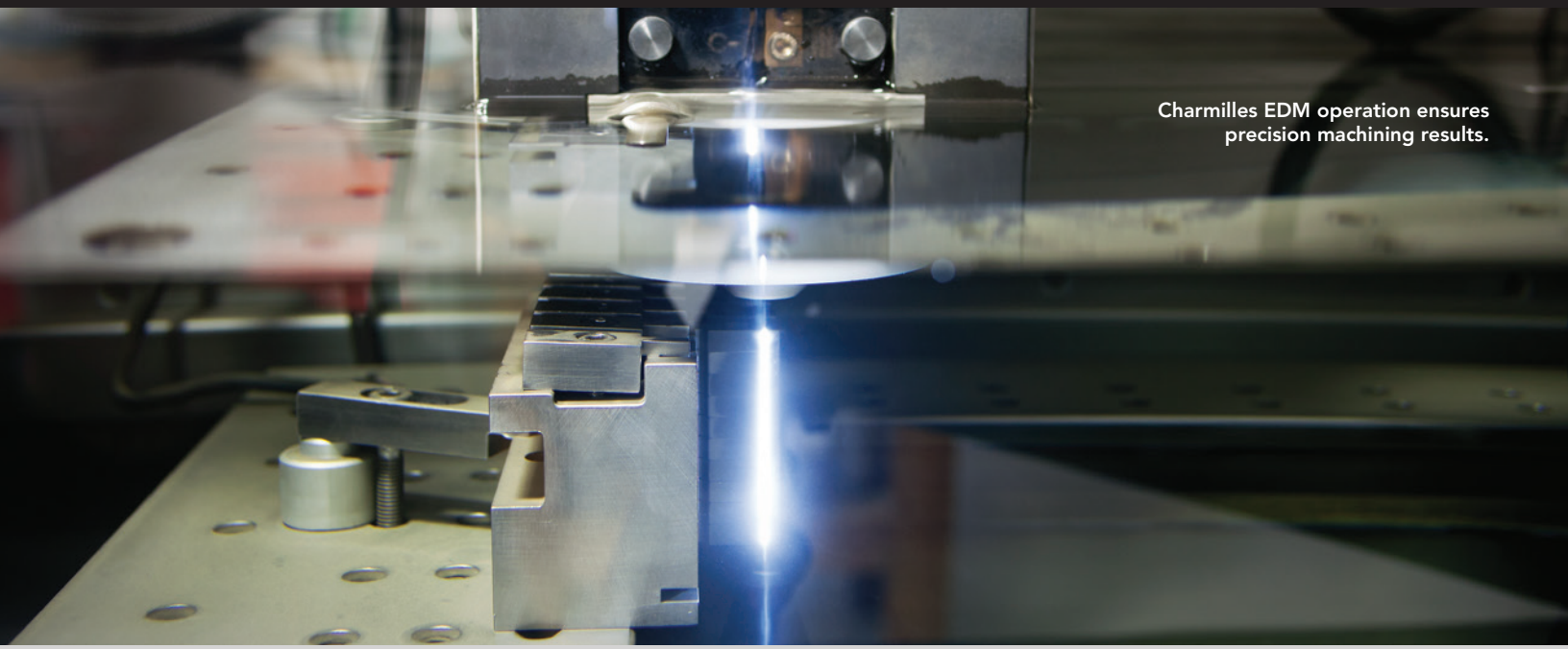
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
TFF500 	100 in-lb. (11.3 Nm)	**Thru-Hole Reaction Torque Sensor** • Flange to flange in CW/CCW • Anodized Aluminum • Thru-hole • TEDS • NEMA17 • Fits prime 017PLX Servo Motor	 A = 2.23 in. (56.64 mm) B = 0.75 in. (19.1 mm) C = 1.25 in. (31.8 mm)	Rated Output: ..... ±1 mV/V nom., ±10 VDC Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: .....0 to 160° F Excitation (max): ..... 12-24 VDC1 to 18 Bridge Resistance: .....Contact Factory Wiring Code: .....Contact Factory
TFF400 	5, 10, 20, 50, 160, 400, 1K in-oz., 100, 200, 500 in-lb. (0.04, 0.08, 0.15, 0.37, 1.2, 3.0, 7.5, 12, 24, 60 Nm)	**Reaction Torque Sensor** • Flange to flange reaction in CW/CCW • Built-in overload protection up to 400 in-oz • Aluminum construction • Quick disconnect Lemo® receptacle • Optional mounting plates available	 A = 1.98 in. (50.2 mm) B = 2.00 in. (50.8 mm) C = 0.50-0.66 in. (12.8-16.8 mm) D = #8-32	Rated Output: ..... 1 -2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω - 700 Ω nom. Connector Code: CC4
TFF425 	5, 10, 20, 50, 160, 400, 1K in-oz., 100, 200, 500 in-lb. (0.04, 0.08, 0.15, 0.37, 1.2, 3.0, 7.5, 12, 24, 60 Nm)	**Reaction Torque Sensor with Flanges** • Flange to flange reaction in CW/CCW • Built-in overload protection up to 400 in-oz • Aluminum construction • Quick disconnect Lemo® receptacle	 A = 3.94 in. (100.1 mm) B = 3.00 in. (76.2 mm) C = 1.98 in. (50.2 mm)	Rated Output: .....2 mV/V nom. (1 mV/V 5 in-oz) Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω - 700 Ω nom. Connector Code: CC4
TFF600 	1K, 2K, 5K, 10K in-lb. (113, 225, 565, 1130 Nm)	**Reaction Torque Sensor** • Flange to flange reaction in CW/CCW • Aluminum construction (1K, 2K) • Steel construction (5K - 10K), aluminum cover • Quick disconnect Bendix® receptacle	 A = 4.46 in. (113.4 mm) B = 3.00 in. (76.2 mm) C = 0.56 in. (14.2 mm) D = 0.375 in. (9.53 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Connector Code: CC1
TFF650 	20K, 50K, 100K in-lb. (2260, 5650, 11.3K Nm)	**Reaction Torque Sensor** • Flange to flange reaction in CW/CCW • Steel construction, aluminum cover • Quick disconnect Bendix® receptacle • Amplified version available	 A = 6.71 in. (170.5 mm) B = 4.50 in. (114.3 mm) C = 1.00 in. (25.4 mm) D = 0.500-0.625 in. (12.70-15.88 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Connector Code: CC1
TFF750 	240K, 300K in-lb. (27.1, 33.9 Nm)	**Reaction Torque Sensor** • Flange to flange reaction in CW/CCW • Steel construction, aluminum cover • Quick disconnect Bendix® receptacle • Amplified version available	 A = 9.75 in. (247.7 mm) B = 8.50 in. (215.9 mm) C = 1.50 in. (38.1 mm) D = 0.625 in. (15.88 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Connector Code: CC1
TSS400 	5, 10, 20, 50, 160, 400, 1K in-oz., 100, 200, 500 in-lb. (0.04, 0.08, 0.15, 0.37, 1.2, 3.0, 7.5, 12, 24, 60 Nm)	**Reaction Torque Sensor with Shafts** • Shaft to shaft reaction in CW/CCW • Aluminum construction • Quick disconnect Lemo® receptacle • Amplified version available • Note: Not a rotary sensor	 A = 1.97 in. (50.2 mm) B = 4.38 in. (111.1 mm) C = 0.94 in. (23.8 mm) D = 0.38 in. (9.7 mm)	Rated Output: ..... 1.5 -2 mV/V nom. Nonlinearity: ..... ± 0.2% of RO Hysteresis: ..... ± 0.2% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω - 700 Ω nom. Connector Code: CC4
TSS800 	120K in-lb. (13.6K Nm)	**Reaction Torque Sensor Shaft-to-Shaft** • Male shaft with keyways measuring reaction in CW/CCW • 17-4 stainless steel construction • Amplified version available	 A = 4.98 in. (126.5 mm) B = 19.0 in. (482.0 mm) C = 3.0 in. (76.2 mm) D = 0.75 in. (19.1 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: .....0 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Connector Code: CC1

TEDS option available on all models shown above. Extraneous Load Factors Available
(Please visit www.futek.com or contact factory for details)

MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
TRD605 	106, 159, 443, 558, 885, 1328, 1416, 2213, 2655, 4425, 9K in-lb. (12, 18, 50, 63, 100, 150, 160, 250, 300, 500, 1K Nm)	**Non-Contact Square Drive Rotary Torque Sensor with Encoder** • Square Drive in CW/CCW • 12 nm, 18 nm: 1/4" drive, 2.95" overall length • 50 nm, 63 nm: 3/8" drive, 3.97" overall length • 100 nm, 150 nm, 160 nm: 1/2" drive, 4.17" overall length • 250 nm, 300 nm, 500 nm: 3/4" drive, 5.31" overall length • 1K nm: 1" drive, 6.97" overall length	 A = 2.95 - 6.97 in. (75.0-177 mm) B = 2.04 - 3.54 in. (52.0-90.0 mm) C = 1/4"-1"	Rated Output: .....±5 VDC Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: ..... -13 to 176° F Excitation (VDC or VAC): .....11 to 26 Bridge Resistance: .....Contact Factory Rotational Speed (max): .....7K RPM
TRH300 	18, 53, 106, 177 in-lb. (2, 6, 12, 20 Nm)	**Slip Ring Hex Drive Rotary Torque Sensor** • 1/4" Hex Drive in CW/CCW • Binder receptacle 09-0323-99-06	 A = 3.97 in. (101 mm) B = 2.04 in. (52 mm) C = 1/4"	Rated Output: .....2 mV/V nom. (1 mV/V 2Nm) Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: .....14 to 194° F Excitation (VDC or VAC): .....5 to 11 Bridge Resistance: ..... 350 Ω nom. Rotational Speed (max): .....3K RPM
TRH605 	4.5, 9, 18, 53, 106, 159 in-lb. (0.5, 1, 2, 6, 12, 18 Nm)	**Non-Contact Hex Drive Rotary Torque Sensor with Encoder** • 1/4" Hex Drive in CW/CCW • Binder receptacle 09-0331-90-12	 A = 3.97 in. (101 mm) B = 2.04 in. (52.0 mm) C = 1/4"	Rated Output: .....±5 VDC Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: ..... -13 to 176° F Excitation (VDC or VAC): .....11 to 26 Rotational Speed (max): .....7K RPM Connector Code: ..... **Contact Factory**
TRS300 	89, 177, 443, 885, 1770, 4425, 9K in-lb. (10, 20, 50, 100, 200, 500, 1K Nm)	**Slip Ring Shaft-to-Shaft Rotary Torque Sensor** • Shaft to Shaft Drive in CW/CCW • 10 Nm, 20 Nm, 50 Nm, 100 Nm: 0.748 DIA, 4.25" overall length • 200 Nm, 500 Nm, 1K Nm, 1.496 DIA, 7.16" overall length • Binder receptacle 09-0323-99-06	 A = 4.25 - 7.16 in. (108-182 mm) B = 2.28 - 3.54 in.(58-90 mm) DIA = 0.748-1.496% (19-38 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: .....14 to 194° F Excitation (VDC or VAC): .....5 to 11 Bridge Resistance: ..... 350 Ω nom. Rotational Speed (max): .....3K RPM
TRS600 	9, 18, 44, 89, 177, 443, 885 in-lb. (1, 2, 5, 10, 20, 50, 100 Nm)	**Non-Contact Shaft-to-Shaft Rotary Torque Sensor** • Shaft to Shaft Drive in CW/CCW • 1, 2, 5, 10 Nm - 0.394 Dia, 3.62" overall length • 20, 50 Nm - 0.748 Dia., 4.25" overall length • 100Nm - 1.102 Dia., 4.92" overall length • Binder receptacle 09-0331-90-12	 A = 3.62 - 4.25 in. (92.0-108 mm) B = 2.04 - 2.28 in. (52.0-58.0 mm) DIA =0.394-0.748 (10.0-19.0 mm)	Rated Output: .....±5 VDC Hysteresis: .....± 0.1% of RO Operating Temperature: ..... -13 to 176° F Excitation (VDC or VAC): .....11 to 26 Rotational Speed (max): ..... 9K - 12K RPM Bridge Resistance: ..... **Contact Factory** Connector Code: ..... **Contact Factory**
TRS605 	9, 18, 44, 89, 177, 443, 885, 1770, 4425, 9K in-lb. (1, 2, 5, 10, 20, 50, 100, 200, 500, 1K Nm)	**Non-Contact Shaft-to-Shaft Rotary Torque Sensor with Encoder** • Shaft to Shaft Drive in CW/CCW • 1, 2, 5, 10 Nm - 0.394 Dia, 3.62 overall length • 20, 50 Nm - 0.630 Dia., 4.09 overall length • 100, 200 Nm - 1.102 Dia., 4.92 overall length • 500, 1K Nm - 1.654 Dia., 7.76 overall length	 A = 3.62 - 4.92 in. (92.0-125 mm) B = 2.04 - 2.99 in. (52.0-76.0 mm) DIA = 0.394-1.102 in. (10.0-28.0 mm)	Rated Output: .....±5 VDC Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: .....-13 to 176° F Excitation (VDC or VAC): .....11 to 26 Rotational Speed (max): .....7K RPM Connector Code: ..... **Contact Factory**
TRS705 	9, 18, 44, 89, 177, 443, 885, 1770, 4425, 9K in-lb. (1, 2, 5, 10, 20, 50, 100, 200, 500, 1K Nm)	**Non-Contact Shaft-to-Shaft Rotary Torque Sensor with Encoder** • 1, 2, 5, 10 Nm - 0.394 Dia, 3.54 overall length • 20, 50 Nm - 0.669 Dia., 4.17 overall length • 100, 200 Nm - 1.102 Dia., 4.92 overall length • 500, 1K Nm - 1.654 Dia., 7.76 overall length • 100 - 1000 Nm mounting frame is detachable	 A = 3.54 - 7.76 in. (90.0-197 mm) B = 3.27 - 6.52 in. (83.0-165.5 mm) DIA = 0.394-1.654 in. (10.0-42.0 mm)	Rated Output: .....±5 VDC Nonlinearity: .....± 0.2% of RO Hysteresis: .....± 0.1% of RO Operating Temperature: ..... -13 to 176° F Excitation (VDC or VAC): .....11 to 26 Rotational Speed (max): .....7K RPM Connector Code: ..... **Contact Factory**

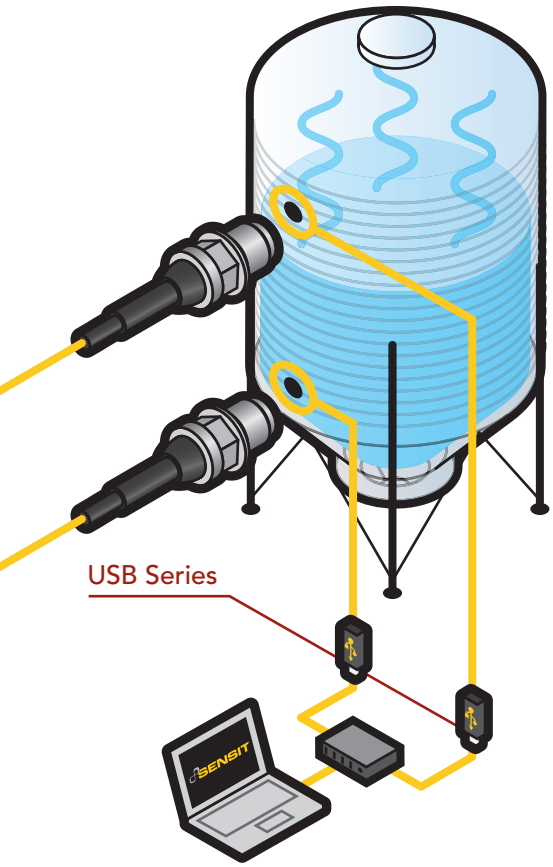
TFF Flange/Flange
TSS Shaft/Shaft
TRD Rotary Drive
TRH Rotary Hex Drive
TRS Rotary Shaft/Shaft

TEDS option available on all models shown above. Extraneous Load Factors Available (Please visit www.futek.com or contact factory for details)



Charmilles EDM operation ensures precision machining results.

FUTEK offers high quality pressure sensors for various industries, such as aerospace, automotive and general manufacturing. Utilizing strain gauge technology, these pressure sensors measure either gauge pressure or absolute pressure. With over 350 unique products from five model families, engineers and operators are bound to find a suitable solution for their application.

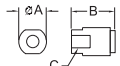
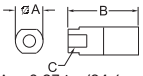
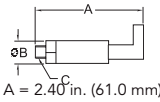
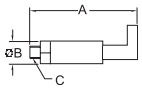


The Complete Pressure Sensor Suite

Typically, FUTEK's pressure sensors have been used in many automotive and aerospace component testing environments, including engine testing, coolant system testing and brake system testing. These sensors are also used to measure differential pressure within tanks, as seen on your left. FUTEK's pressure sensors are compatible with our entire instrument suite of digital displays, amplifiers and USB Solutions. When pairing any of these sensors and instruments with SENSIT™ Test and Measurement Software, users are able to collect, log and graph their data.

Highlighted Capabilities

- Stainless Steel Wetted Parts
- Flush Diaphragm Options Available
- Multiple Output Options, including mV/V, 0-10 VDC, and 4-20 mA
- Miniature Models Available
- OEM Designs Available
- High Frequency Response

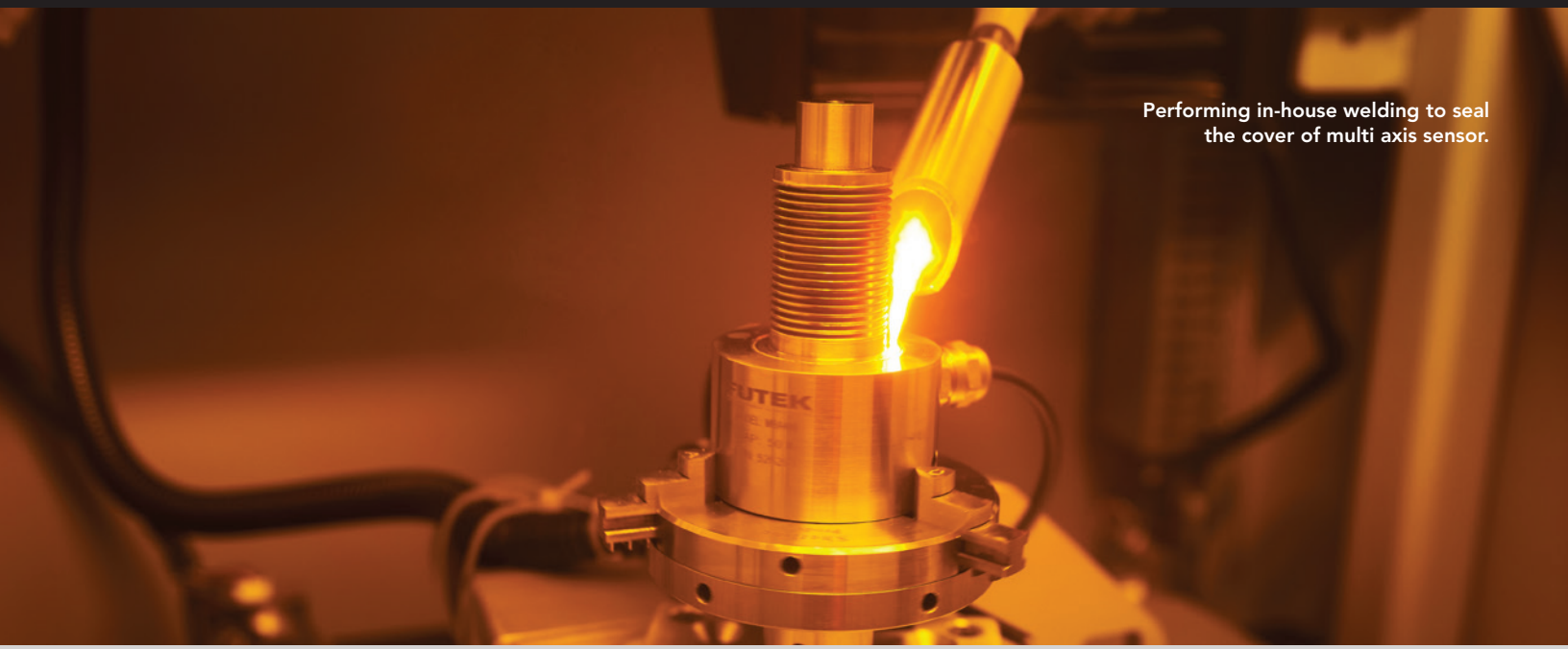
MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
PFP300 	300, 500, 1K, 3K, 5K, 7.5K, 10K psi (21, 34, 69, 207, 345, 517, 690 bar) OEM	**Pressure Plug Sensor** • 17-4 stainless steel • Unamplified output mV range • Pressure port: 1/4 NPT std. (optional 1/2-20) • 29 AWG, 4 color coded Teflon® lead wires, 6" std. • Weight: 2.5 oz (71 g)	 A = 0.97 in. (24.6 mm) B = 300-1K lb.: 0.90 in. (22.9 mm) 3-10K lb.: 1.19 in. (30.2 mm) *C = 1/4-18NPT *7/16-20 available	Combined Nonlin. & Hyst.: ..... ± 1% RO Safe Overload: ..... 150% RO Operating Temperature: ..... -60 to 250° F Rated Output: ..... 2 mV/V nom. Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Wiring Code: WC1
PFP350 Series 	300, 500, 1K, 3K, 5K, 7.5K, 10K psi (21, 34, 69, 207, 345, 517, 690 bar) OEM	**Pressure Sensor with Cable** • 17-4 stainless steel • Unamplified output mV range • Pressure port: 1/4 NPT std. (optional 7/16-20) • 28 AWG, 4 conductor shielded Polyurethane cable, 3 ft standard. Quick disconnect Lemo® receptacle optional • Weight: 5.5 oz (156 g)	 A = 0.97 in. (24.6 mm) B = 2.00 in. (50.8 mm) *C = 1/4-18NPT *7/16-20 available * Amplified version available	Combined Nonlin. & Hyst.: ..... ± 1% RO Safe Overload: ..... 150% RO Operating Temperature: ..... -60 to 250° F Rated Output: ..... 2 mV/V nom. Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Wiring Code: CC1, WC4, CC4
PFT510 	225, 750, 3K, 7.5K, 10K psi (15, 50, 200, 500, 700 bar)	**Miniature Flush Mount Pressure Sensor** • Stainless steel construction/Nema 4 (IP65) • Unamplified output mV range • Pressure port: M10x1 (optional 3/8-24) • 29 AWG, 4 conductor spiral sheilded silicon cable, 5 ft • Weight is less than 10g without cable	 A = 0.55 in. (14.0 mm) B = 0.73 in. (19.0 mm) *C = M10 x 1 *3/8-24 available	Nonlinearity: ..... ± 0.5% B.F.S.L. Hysteresis: ..... ± 0.5% B.F.S.L. Safe Overload: ..... 150% of RO Operating Temperature: ..... -40 to 194° F Rated Output: ..... 1 to 2 mV/V nom. Bridge Resistance: ..... 350 Ω nom. Excitation Voltage: ..... 7 MAX VDC Wiring Code: WC1
PMP300 	15, 25, 50, 100, 300, 500, 1K, 2K, 3K, 5K & 10K psi (1, 2, 3, 7, 21, 34, 69, 138, 207, 345, 690 bar)	**OEM Pressure Sensor** • Stainless steel/CE Conformity 89/337/EWG-Interference Emissions and Immunity (EN 61 326) 9723/EG Pressure Equipment Directive • Pressure port: 1/4 NPT Male (optional 1/2 NPT, 7/16-20 Male available) • Available in 0-10 VDC • Absolute version available	 A = 2.40 in. (61.0 mm) B = 1.12 in. (28.5 mm) *C = ¼ NPT Male *1/2 NPT, 7/16-20 Male available	Combined Nonlin. & Hyst.: ..... Contact Factory Safe Overload: ..... Contact Factory Rated Output RO: . 0-10 VDC (4-20 mA available) Bridge Resistance: ..... Contact Factory Operating Temperature: ..... -40 to 176° F Excitation Voltage: ..... 14-30 VDC (8-30 VDC for Voltage output) Wiring Code: ..... Contact Factory
PMP450 	50 in. H2O, 5, 10, 25, 60, 100, 300, 500, 1K, 2K, 3K, 5K, 10K, 15K psi (0.125, 0.345, 0.690, 1.724, 4.138, 6.897, 20, 34, 68, 137, 206, 344, 689, 1034 bar)	**Industrial Pressure Sensor** • Stainless steel/CE Conformity 2004/108/EG EMC Directive EN 61 326 Emission Group 1, Class B Immunity Industrial Locations 97/23/EC Pressure Equipment Directive • Pressure port: 1/4 NPT Male (optional 1/2 NPT, 7/16-20 Male available) • Available in 0-10 VDC • Absolute version available	 A = 3.78 in. (96.0 mm) B = 1.06 in. (26.9 mm) *C = ¼ NPT Male *1/2 NPT, 7/16-20 Male available	Combined Nonlin. & Hyst.: ..... Contact Factory Safe Overload: ..... Contact Factory Rated Output RO: . 4-20 mA (0-10 VDC available) Bridge Resistance: ..... Contact Factory Operating Temperature: ..... -22 to 212° F Excitation Voltage: ..... 10-30 VDC (14-30 VDC for Voltage output) Wiring Code: ..... Contact Factory

FUTEK Innovation Lab

As you know, technology never stops expanding. New designs and solutions are developed and introduced daily. That's the beauty of this industry — to continue producing innovative technologies. These are a few projects that FUTEK is working on introducing to the test and measurement market within the coming year:

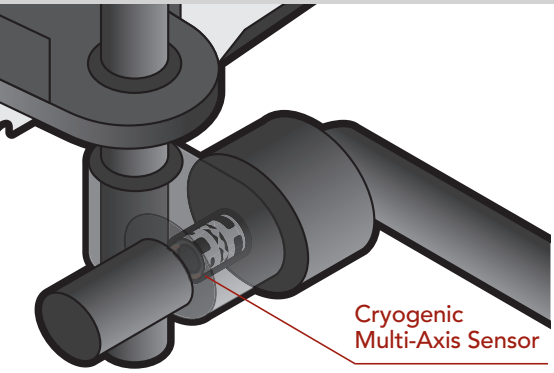
- Ethernet Capabilities
- LSB200 Capacity Range Increase
- Micro-Torque Sensors
- Miniature Multi-Axis Sensors

PFP Female Port
PFT Flush Mount Threaded
PMP Male Port



Performing in-house welding to seal the cover of multi axis sensor.

Multi-axis sensors can accurately measure up to six components (three forces and three moments) of load/torque. For example, independent strain gauge bridges are used to measure three directions of force: longitude, latitude and vertical, as well as the moments of each force direction.

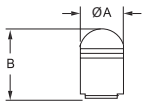
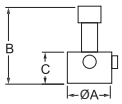
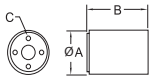
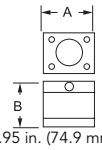
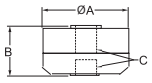
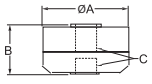
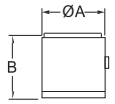
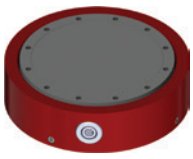
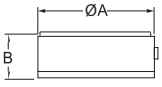


A careful structural analysis of the monolithic flexure has been done to isolate the forces and moments, which results in a reduction of cross-talk sensitivities.

FUTEK's multi-axis sensor series measures different configurations of load, bi-axial torque and tension, tri-axial load, multi-axis low profile thrust and moment, and six-axial load and torque. Commonly used in robotic and automotive applications, multi-axis sensors offer simultaneous feedback from a single sensor component. These sensors are not limited to ambient operating environments, but are able to be modified for more extreme conditions, such as submersion, non-magnetic and cryogenic temperatures. FUTEK is also proficient at integrating electronics (amplifiers or USB Solutions) within several multi-axis sensors.

Capabilities

- Encapsulated Strain Gauges
- Low Cross-Talk
- mV/V Output
- High-Strength Metals
- Made in the USA
- Capacity Range 10 - 25,000 lb.

MODEL #	CAPACITIES	DESCRIPTION	DIMENSIONS	SPECIFICATIONS
MAU300 	10,25,50,100, 200 lb. (44, 111, 222, 445, 890 N)	**Stick Shift/Gear Shift Knob Load Cell** • Measure Fx and Fy loads • Anodized aluminum • Ergonomic cover w/ antislip notches • 28 AWG, 4 conductor shielded PVC cable, 10 ft. long	 A = 1.50 in. (38.1 mm) B = 3.00 in. (75.7 mm)	Rated Output: ..... 2 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -40 to 160° F Excitation (max): ..... 20 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.002 to 0.009" nom. Wiring Code: WC1
MBA400 	50, 200 lb. (222, 890 N)	**Bi-Axial Load Arm** • Measure Fx and Fy loads • Lemo® receptacle • Mating connector and cable assembly available • Stainline Steel Construction	 A = 1.98 in. (50.3 mm) B = 3.32 in. (84.3 mm) C = 1.25 in. (31.8 mm)	Rated Output: ..... 2 - 3 mV/V nom. Nonlinearity: ..... ± 0.1% of RO Operating Temperature: ..... - 60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.01" nom. Wiring Code: CC4
MBA500 	Fz: 50-150, 200lb. Mz: 50-150, 200 lb. (222-667, 890 N; 5.6, 17, 23 Nm)	**Torque and Thrust Bi-Axial Sensor** • Aluminum construction • CW/CCW and tension/compression • 28 AWG, 4 conductor shielded PVC cable, 10 ft (one for each axis)	 A = 1.98 in. (50.3 mm) B = 2.50 in. (63.5 mm) C = #8-32	Rated Output: ..... 2 - 3 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -45 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Deflection: ..... 0.001" nom. Wiring Code: WC1
MTA400 	Fx, Fy: 250 lb.; Fz: 500 lb. (Fx, Fy: 1K N; Fz: 2K N)	**Tri-Axial Sensor** • Measures Fx, Fy, and Fz • Anodized aluminum • 10 pin Lemo® receptacle, mating connector available	 A = 2.95 in. (74.9 mm) B = 3.00 in. (76.2 mm)	Rated Output (Fx, Fy): ..... 1.5 mV/V nom. Rated Output (Fz): ..... 0.75 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 700 Ω nom. Wiring Code: CC8
MTA500 	Mx, My: 400, 800, 1K, 2K in-lb. Fz: 1K, 2K, 5K, 10K, 250K lb. (Mx, My: 45.2, 90.4, 113, 226 N-m) Fz: 4K, 9K, 22K, 44K, 1112K N-m)	**Low-Profile Thrust and Moment Load Cell** • Pancake sensor measuring thrust and moment. • Measures Mx, My, Fz • Tension base included. • Anodized aluminum, 17-4ph S.S. • Bendix Connector PT02E-10-6P	 A = 4.13 in. (105 mm) B = 2.5 in. (63.4 mm) C = 5/8-18	Rated Output (Mx, My): ..... 0.5 to 1.5 mV/V nom. Nonlinearity (Mx, My): ..... ± 0.5% of RO Nonlinearity (Fz): ..... ± 0.2% of RO Crosstalk: ..... 2.0% Operating Temperature: ..... -60 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350/700 Ω nom. Wiring Code: CC1
MTA505 	Mx, My: 2K, 10K in-lb. Fz: 10K, 25K lb. (Mx, My: 226, 1130 N-M Fz: 44K, 111K N)	**Low Profile Thrust and Moment Load Cell** • Pancake sensor measuring thrust and moment. • Measures Mx, My, Fz • Tension base included. • 17-4ph S.S. • Bendix Connector PT02E-10-6P with removable connector guards	 A = 5.98 in. (151.9 mm) B =3.50 in. (88.9 mm) C = 1 1/4-12	Rated Output (Mx, My): ..... 0.5 to 4 mV/V nom. Nonlinearity (Mx, My): ..... ± 0.5% of RO Nonlinearity (Fz): ..... ± 0.2% of RO Crosstalk: ..... 2.0% Operating Temperature: ..... -65 to 200° F Excitation (max): ..... 18 VDC Bridge Resistance: ..... 350 Ω nom. Wiring Code: CC1
MTA600 	Fx, Fy: 2.5K lb. Fz: 5K lb. (Fx, Fy: 11K N) (Fz: 22K N)	**Tri-Axial Load Cell** • Measures Fx, Fy, and Fz • 17-4ph S.S. • D-Sub 15-pin connector • 5/16-24 Flange Mounting Configuration	 A = 4.98 in. (126.5 mm) B = 3.50 in. (88.9 mm)	Rated Output (Fx, Fy): ..... 1.5 mV/V nom. Rated Output (Fz): ..... 0.75 mV/V nom. Nonlinearity: ..... ± 0.5% of RO Hysteresis: ..... ± 0.5% of RO Operating Temperature: ..... 0 to 160° F Excitation (max): ..... 18 VDC Bridge Resistance (Fx, Fy): ..... 350 Ω nom. Bridge Resistance (Fz): ..... 700 Ω nom. Wiring Code: CC9
MHA400 – COMING SOON				
	Fx, Fy, Fz: 100 lb. Mx, My: 100 in-lb. Mz: 250 in-lb.	**Low-Profile Six-Axis Sensor** • Measures Fx, Fy, Fz, Mx, My, Mz • Aluminum construction • Robust and rigid design to reduce crosstalk errors • Flange mount design with #8-32 screws	 A = 4.5 in. (114 mm) B = 1.25 in. (31.8 mm)	Rated Output (Fx, Fy, Fz, Mz): ..... 1.5 mV/V nom. Rated Output (Mx, My): ..... 2.0 mV/V nom. Nonlinearity: ..... ± 0.25% of RO Hysteresis: ..... ± 0.25% of RO Operating Temperature: ..... -40 to 200° F Excitation (max): ..... 18 VDC

MAU Multi Axis Automotive
MBA Multi Dual Axis
MTA Multi 3 Axis
MHA Multi 6 Axis

FUTEK not only produces load, torque, pressure, and multi-axis sensors, but also an entire suite of instruments and software. From digital displays and universal amplifiers to USB Solutions, our engineering team designed and developed this line of instrumentation for versatility and efficiency. Many of FUTEK's instruments integrate with SENSIT™ Test and Measurement Software, which was designed in-house at our headquarters.

HANDHELD DISPLAY
Model IHH500 ▶ page 34

Designed with multiple input and output options (including USB), high accuracy, data logging, 24 bit internal resolution, the IHH500 is suitable to receive up to 4,800 samples per second making it a perfect fit for portable applications.

PANEL METER
Model IPM650 ▶ page 34

This Intelligent Panel Meter accepts both mV/V and amplified output sensors in a range up to ±12 VDC or up to 30 mA. With a user friendly navigation menu, this electronic instrument is easy to implement into your sensor platform.

FUTEK USB Series

FUTEK's USB Solutions are external modules serving as digital interfaces between a sensor and a computer. Traditionally, testing platforms consisted of a sensor, amplifier, filter, data acquisition system and software to transmit data onto a computer. FUTEK's USB Solutions eliminate the need for all additional instrumentation, condensing your platform into just your sensor, the USB device and your computer.

COMING SOON **New USB Solutions to Come**

FUTEK's engineering team is set on building solutions for all application circumstances. Whether your platform utilizes a load cell or a multi-axis sensor, we want you to have the most efficient feedback instrument possible. Therefore, our engineering team is constantly producing new USB Solutions:

- USB240: multiple channel measurements (up to three sensors, or a three-axis sensor)
- USB520: for mV/V, amplified, and encoder input

Contact our sales team for more information about our upcoming USB releases.

FEATURES

PARAMETER	USB210	USB220	USB320	USB410
USB 2.0 Communication Link	✓	✓	✓	✓
USB Bus-Powered (5V)	✓	✓	✓	✓
Integrated Shunt Cal	✓	✓		✓
Input /Output Short Circuit Protection	✓	✓	✓	✓
Quadrature Encoder Input				✓
ASCII	✓	✓	✓	✓
CE Approval	✓	✓	✓	✓
RoHS Compliant	✓	✓	✓	✓

SPECIFICATIONS

PARAMETER	USB210	USB220	USB320	USB410
Sampling Rate (Samples Per Second)	Up to 1,000	Up to 4,800	Up to 4,800	Up to 200
Resolution	Up to 18 bits (ENOB)	Up to 19 bits (ENOB)	Up to 19 bits (ENOB)	Up to 18 bits (ENOB)
Internal Resolution	24 Bits	24 Bits	24 Bits	24 Bits
Nonlinearity	0.001% of FSR	0.001% of FSR	0.001% of FSR	0.001% of FSR
Accuracy	0.001% of FSR	0.001% of FSR	0.001% of FSR	0.001% of FSR
Temperature Coefficient Factor	10 ppm	10 ppm	10 ppm	10 ppm
Standard Input Range	±4 mV/V***	±4 mV/V***	±10 VDC (FSH03631)	±4 mV/V***
Amplified Input	N/A	N/A	±10 VDC (FSH03631) 0-20 mA* (FSH03634)	N/A
Bridge Excitation	4.5 VDC	4.6 VDC	12 VDC ±0.5 / 1 W	4.5 VDC
Excitation Output	4.5 VDC	4.6 VDC	12 VDC**	4.5 VDC
Max. Bridge Resistance	5,000 Ω	5,000 Ω	N/A	5,000 Ω
Min. Bridge Resistance	50 Ω	50 Ω	N/A	50 Ω

*USB320 Does not support all of our amplified sensors due to power requirement.
**1W power output.
*** Up to 500 mV/V is available

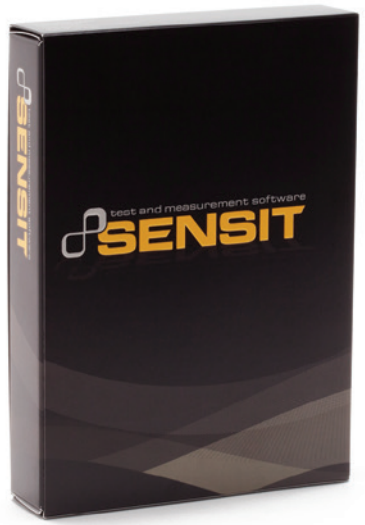
MODEL #	DESCRIPTION	INPUT	OUTPUT	SPECIFICATIONS
CSG110 	• Signal Conditioner • Multi Purpose Amplifier • Compatiible with any full bridge strain gauge sensor • Power input: 14-26 VDC • Selectable Excitation: 5 VDC and 10 VDC • Interchangeable socket mounted shunt calibration with external shunt cal activation button • Din rail standard	• ±0.3 to ±10 mV/V	• ±5 VDC, ±10 VDC • 0-20 mA, 0-16 mA, 4-20 mA, 0-25 mA	• CE Approval • RoHS Compliant • Internal span and offset potentiometers • Bandwidth: 1 kHz (standard), 10 kHz and 25 kHz (available) • Nonlinearity: ±0.001% of FSR • Selectable reverse polarity • Bipolar output, differential input
IHH500 	• IHH500 Intelligent Handheld Display • Multi purpose display • Compatible with any full bridge/strain gauge and most amplified output sensors (VDC, mA) • Resolution: up to 22 Bits (ENOB) • 21K Point Data Logging • Excitation Output 5 VDC for Strain Gauge Only • 16 x 4 Character LCD/6 Digit Display • Bridge Resistance Measurement • Shunt Calibration • Universal Unit Conversion • 14 Sensor Profile Storage	• Up to ±500 mV/V (Strain Gauge) • Up to ±12 VDC (Amplified output) • Up to 30 mA (Amplified output) • Leading and Lagging TLL input for encoders for Speed/ Angle/Power Measurement (Elite Version only)	• USB • ASCII Stream Output • 0-5 VDC or ±5 VDC • 0-20 mA, 4-20 mA, 0-25 mA, 5-25 mA • Power Output 24 VDC / 1 W; 5 VDC / 0.25 W • 5.000 Precision Excitation	• Selectable Voltage & Current Configuration Output • Two Individual Relay Outputs • CE Approval • RoHS Compliant
IPM650 	• IPM650 Intelligent Panel Meter • Multi purpose display • Compatible with any full bridge/strain gauge and most amplified output sensors (VDC, mA) • Resolution: up to 22 Bits (ENOB) • 21K Point Data Logging • Excitation Output 5 VDC for Strain Gauge Only • 16 x 4 Character LCD/6 Digit Display • Bridge Resistance Measurement • Shunt Calibration • Universal Unit Conversion • 14 Sensor Profile Storage	• Up to ±500 mV/V (Strain Gauge) • Up to ±12 VDC (Amplified output) • Up to 30 mA (Amplified output)	• USB • ASCII Stream Output • 0-5 VDC or ±5 VDC • 0-20 mA, 4-20 mA, 0-25 mA, 5-25 mA • Power Output 24 VDC / 1 W; 5 VDC / 0.25 W • 5.000 Precision Excitation	• Selectable Voltage & Current Configuration Output • Two Individual Relay Outputs • CE Approval • RoHS Compliant

Made in the U.S.A.

FUTEK designs and manufactures its sensors at its 20,000 sq. ft. facility located in Irvine, California. FUTEK has created a complete in-house capability, giving FUTEK team members full control of product design, production and delivery, ensuring complete customer satisfaction.

U.S. Manufacturer

SENSIT™ Test & Measurement Software



FUTEK believes that your test and measurement platform is more than merely a sensor plus an instrument. A platform should also include the software that collects, graphs, and interprets your data. Therefore, we developed software to do just that. Allow us to introduce SENSIT™ Test and Measurement — a software suite that expands the capabilities of a traditional sensor platform into an ultimate test-measurement solution.

SENSIT Software is designed and developed by FUTEK's engineering team. Knowing the struggles of a traditional testing platform, our software was created to eliminate the headache involved in data collection and interpretation.

INTEGRATION WITH INSTRUMENTS

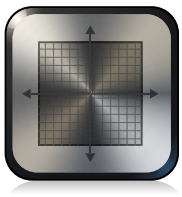
SENSIT Software is designed to run seamlessly alongside FUTEK's USB Solutions, Panel Mount Displays, and Handheld Digital Displays. With this software, users have access to full data logging and graphing capabilities.

DATA LOGGING

You can easily utilize the SENSIT software to measure and track your tests with the data-logging feature. Users can set up their tests and record all of the data taking place with the USB Software. A convenient export to excel option is also available making this feature very powerful.

MATH f(x)

Need to run a few calculations? Take advantage of the built in calculator tool for involved computations. This tool is very valuable in avoiding miscalculations.



LIVE GRAPHING MODE

One of the great features of SENSIT is its ability to perform live graphing. Operating simultaneously with the data logging feature, the graph feature serves as a great data visualization tool giving you an image of your measurements as data is being recorded.

16 CHANNELS

With FUTEK's SENSIT software, you are able to measure the activity of 16 different sensors in the same platform, record the data for each, or activate the display for the sensors you want to monitor. Regardless of the operation, you're in control.

RIGHT CLICK, EASY MENU

SENSIT's display environment offers an easy "right click" shortcut allowing users the option to immediately access and change settings. Adjust your sampling rates, change your conversion units, or access the core functions with a simple click.

REMOTE CONTROL

FUTEK designed SENSIT Software with the unique ability to control the functions of the IHH500 and IPM650 remotely from your desktop computer. So if your application calls for modifications, you can easily program/change your settings of the IHH500 and IPM650 from your desk.

COMPATIBLE WITH LabVIEW™

Test & Measurement engineers rely on a number of great software sources to perform their daily operations. Knowing the popularity of the National Instruments LabVIEW software, you can take comfort that SENSIT is offered with a dynamic link library (DLL) file that is used to communicate with LabVIEW.

Download a free 14-day trial and updates to SENSIT Software ▶

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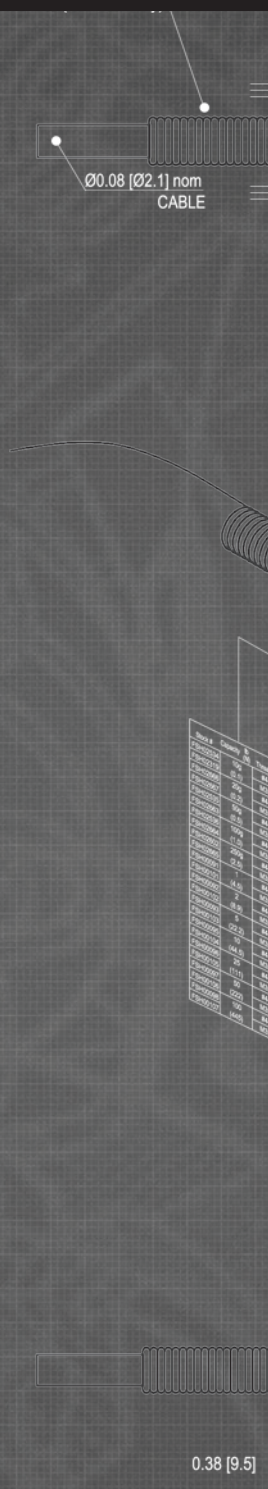

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