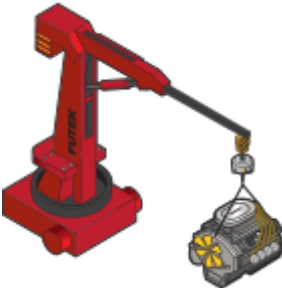
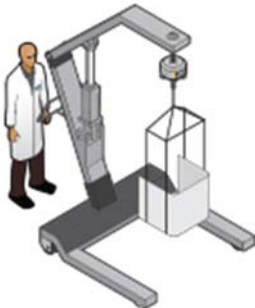
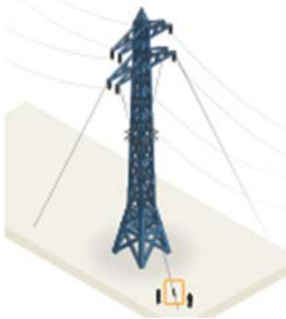






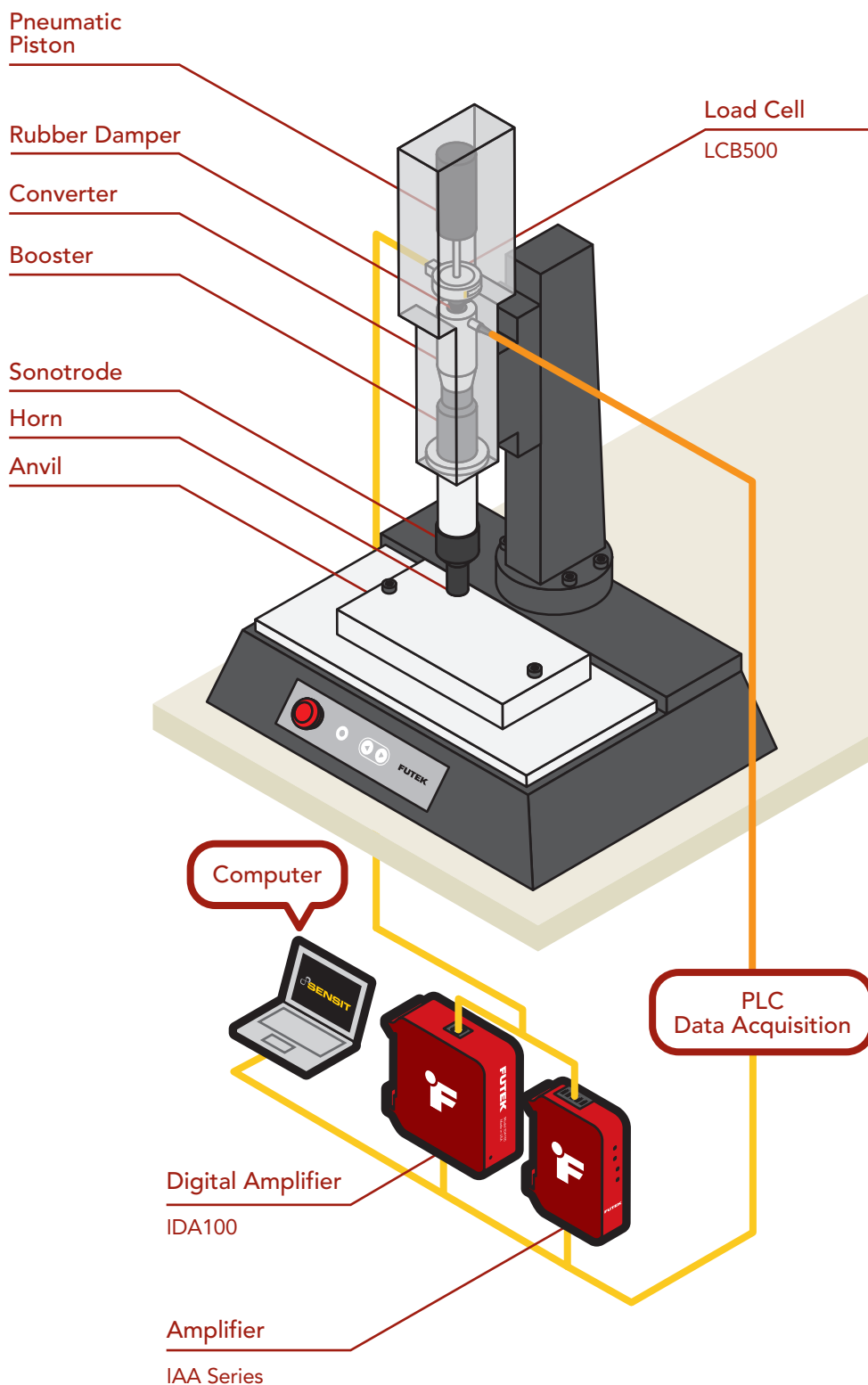


Giunti di forza estensimetrici

I giunti di forza estensimetrici di dimensioni contenute offrono soluzioni ad applicazioni dove è richiesta l'alta resistenza anche con carichi disassati. Dalle applicazioni in medicina ai controlli sulle sospensioni automobilistiche per le misure di trazione e compressione.

Portable Crane Weighing (Application 122)	Medical Patient Lift (Application 123)	Wire Tension Measurement (Application 124)
		
Biomedical Research (Application 133)	Jet Parachute Deployment (Application 135)	Orion Deployment Mechanism (Application 136)
		
NASA Satellite Load Cells (Application 137)	USN Insertion/Extraction Test (Application 155)	Suspension Validation (Application 160)
		

Prosthetic Hip Fatigue Testing (Application 164)	Ultrasonic Welding Clamp Force (Application 169)	UAV Launcher Force (Application 172)
		



SOMMARIO APPLICAZIONE

Saldatura a ultrasuoni per la giunzione di due materiali utilizzando le vibrazioni in alta frequenza. Questo processo consente una saldatura pulita, uniforme e fluida. E' il processo di saldatura pulita ideale per apparecchiature mediche, giocattoli, semiconduttori ed elettronica di consumo.

Un requisito fondamentale per una saldatura pulita è la corretta applicazione della forza di compressione. Pochissima forza equivale a una saldatura incompleta mentre troppa forza provocherebbe parti deformate. Incorporando una cella di carico in linea consente alla testa saldante ad ultrasuoni di fornire la giusta quantità di forza di contatto su ogni parte.

PRODOTTI IN USO

Cella di carico modello LCB/LCF accoppiata al modulo modello IAA o IDA100

Tutte le illustrazioni applicative FUTEK sono strettamente concettuali.

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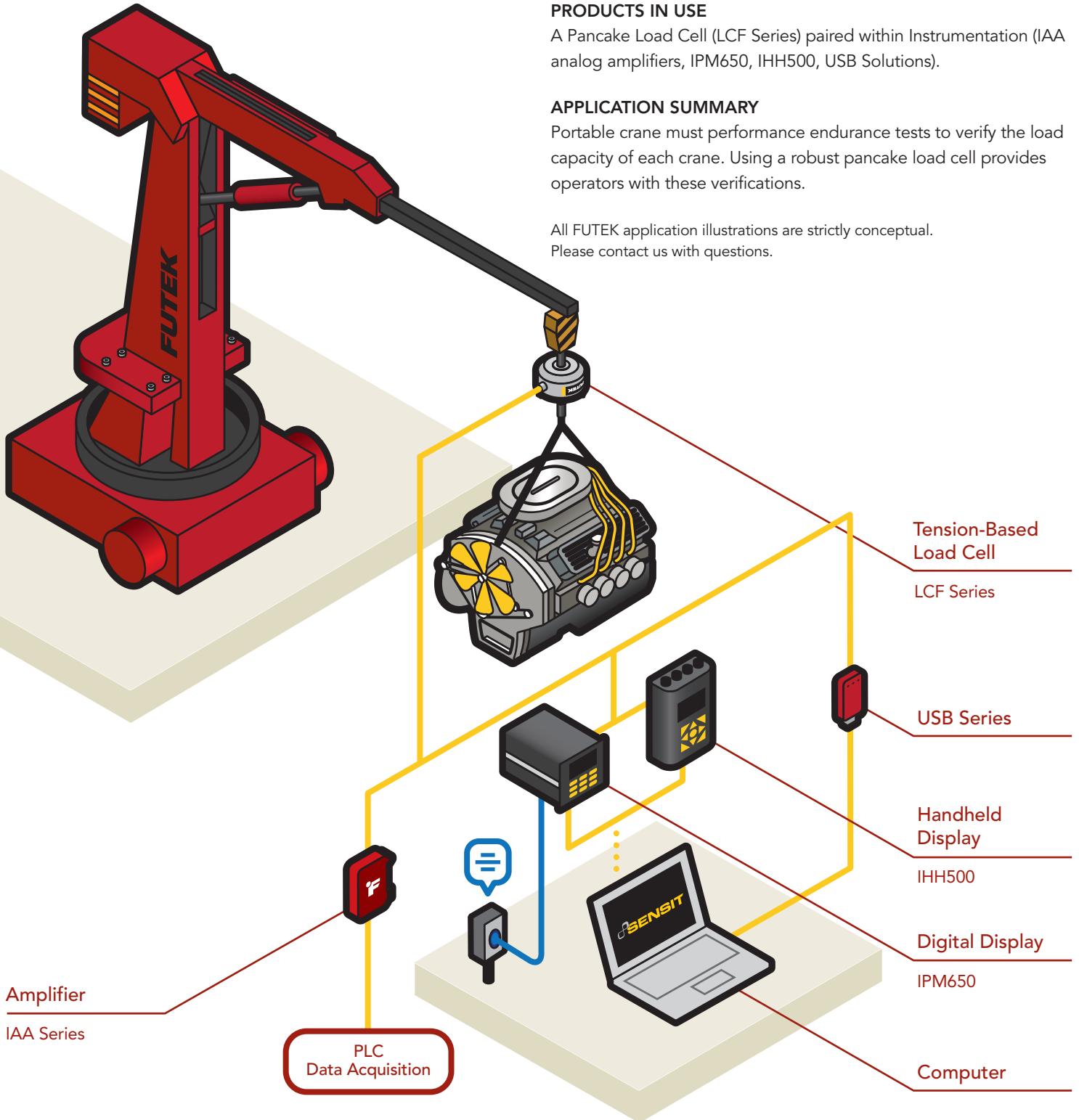
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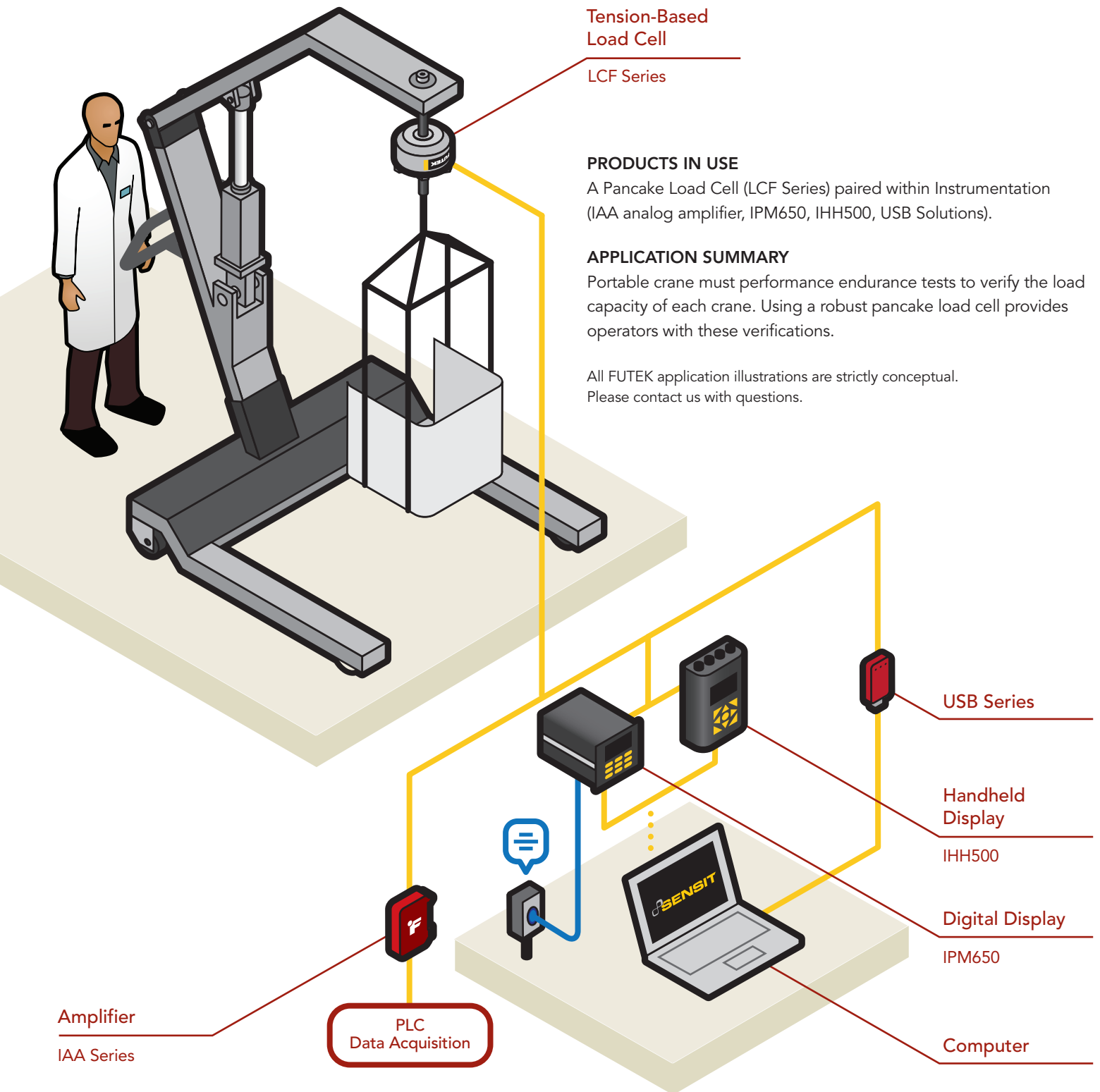
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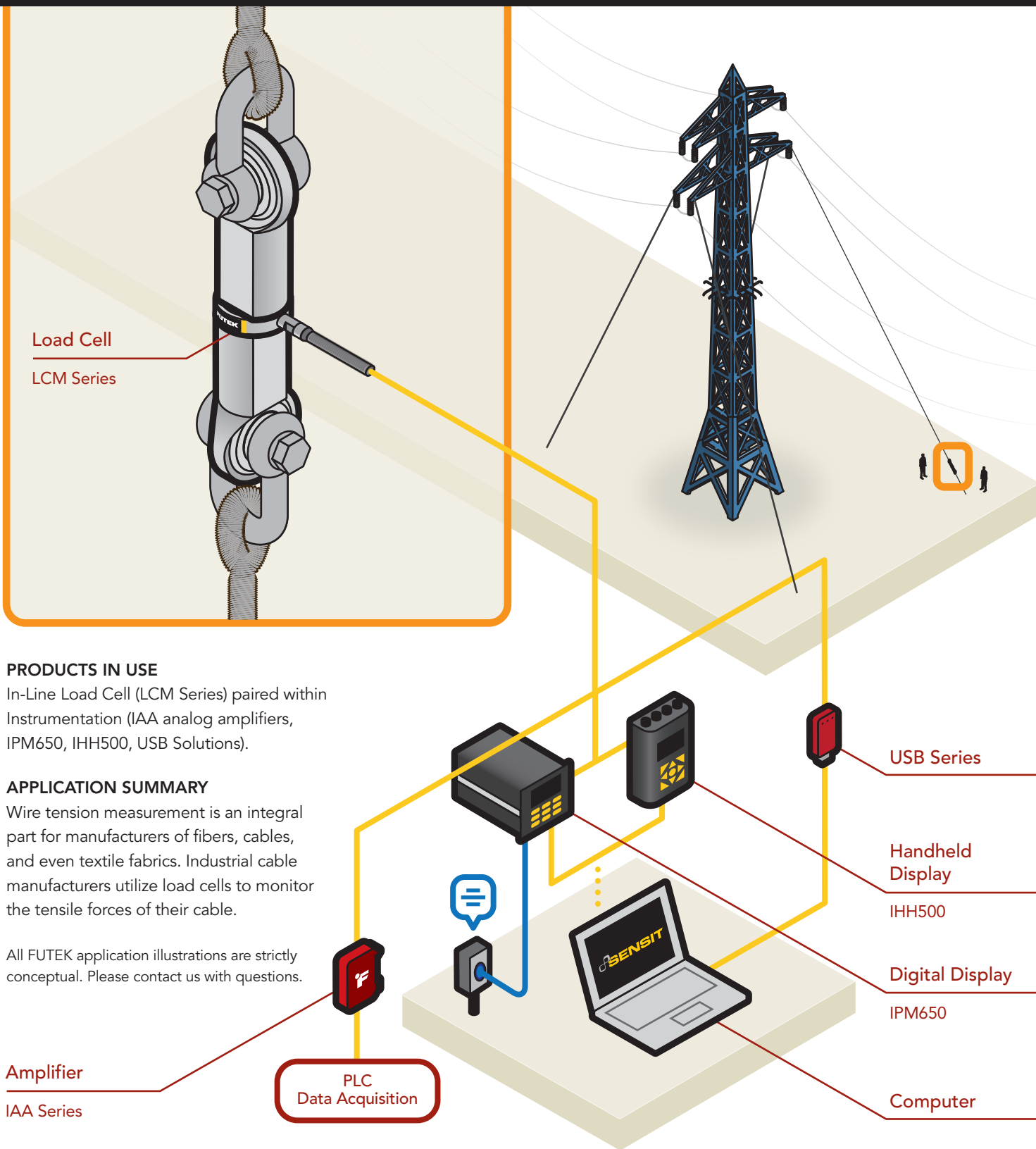
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PRODUCTS IN USE

In-Line Load Cell (LCM Series) paired within Instrumentation (IAA analog amplifiers, IPM650, IHH500, USB Solutions).

APPLICATION SUMMARY

Wire tension measurement is an integral part for manufacturers of fibers, cables, and even textile fabrics. Industrial cable manufacturers utilize load cells to monitor the tensile forces of their cable.

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



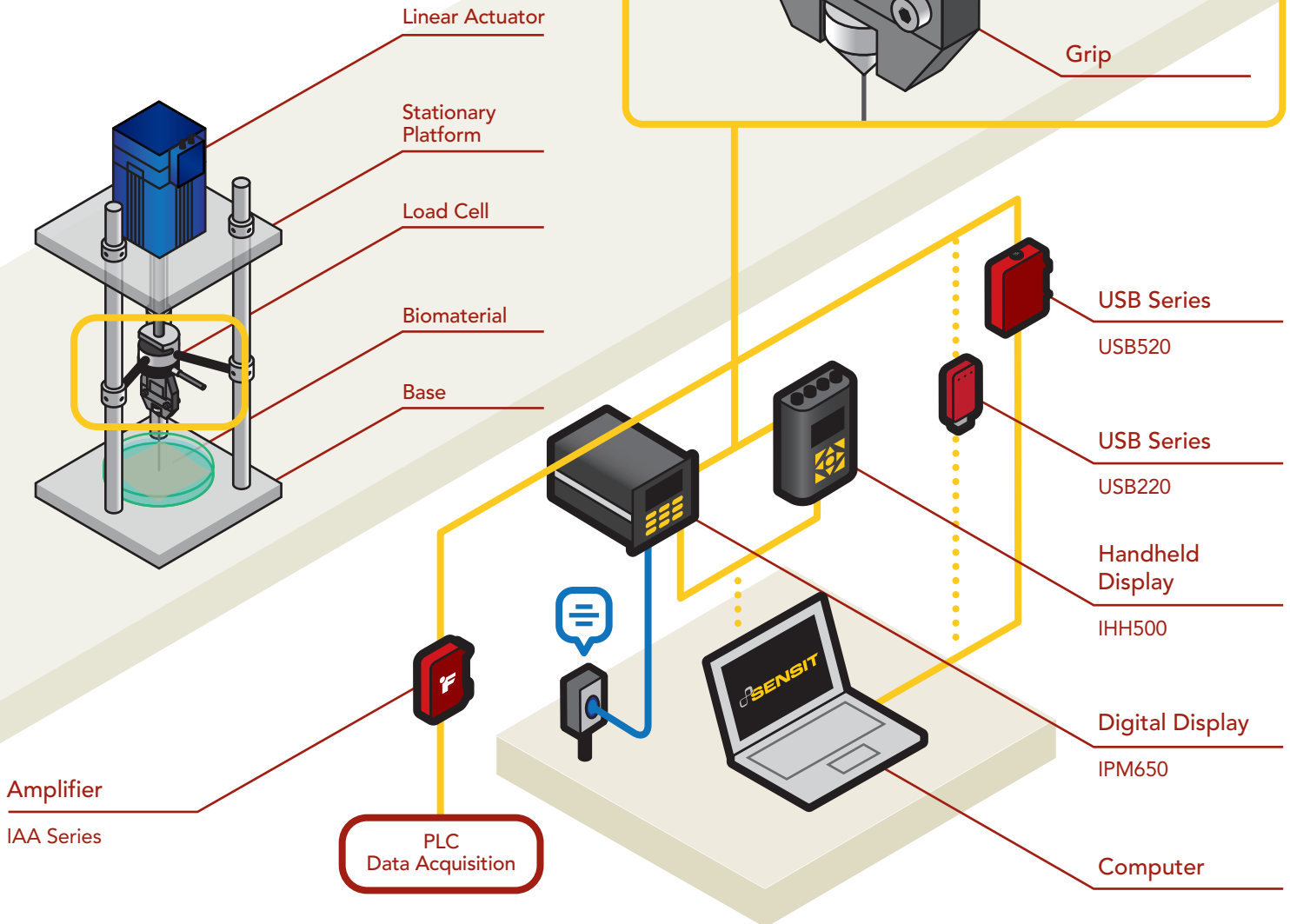
PRODUCTS IN USE

One In-Line Load Cell (LCM Series) paired with Instrumentation and Software (IHH500, IPM650, USB Solutions, and SENSIT™ Test and Measurement Software).

APPLICATION SUMMARY

Many medical facilities utilize load cells during delicate research studies, such as biomaterial testing, for accurate and precise measurement feedback.

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



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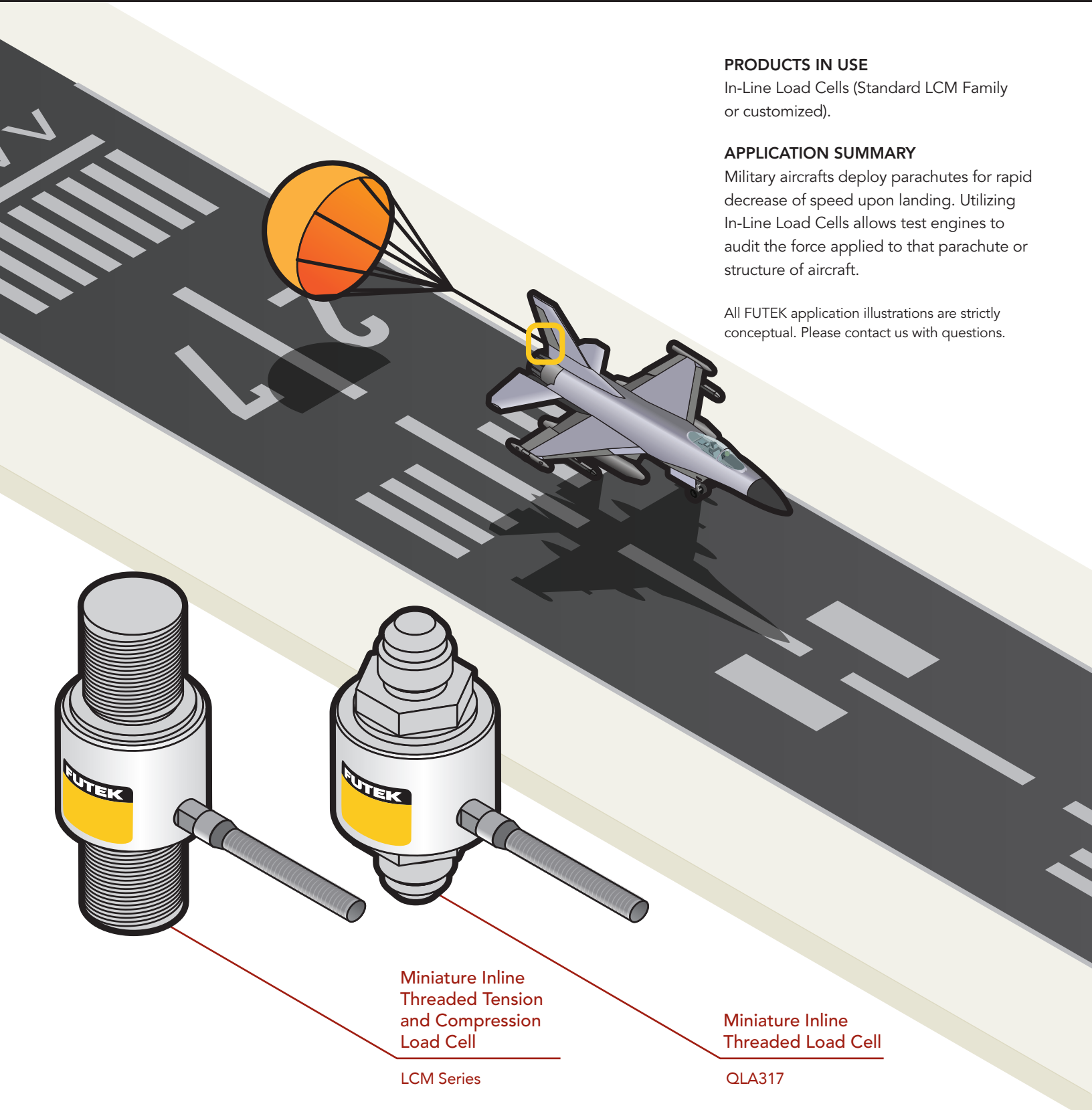
PRODUCTS IN USE

In-Line Load Cells (Standard LCM Family or customized).

APPLICATION SUMMARY

Military aircrafts deploy parachutes for rapid decrease of speed upon landing. Utilizing In-Line Load Cells allows test engines to audit the force applied to that parachute or structure of aircraft.

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



Miniature Inline
Threaded Tension
and Compression
Load Cell

LCM Series

Miniature Inline
Threaded Load Cell

QLA317

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AP1057





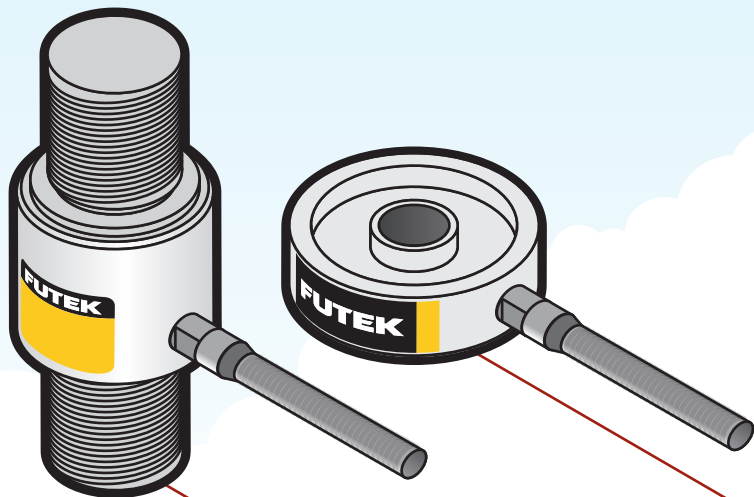
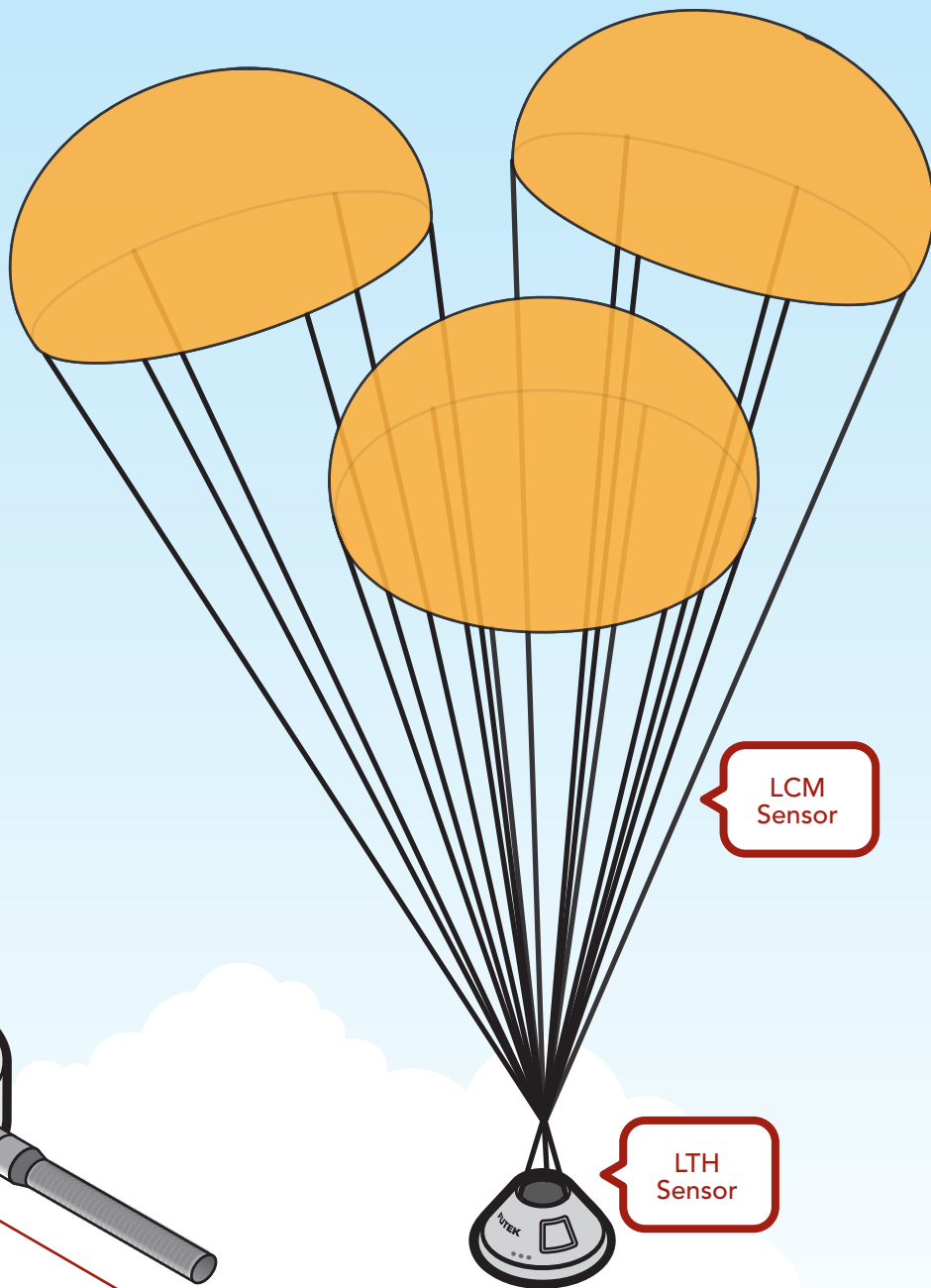
PRODUCTS IN USE

In-Line Load Cells (LCM Family) or
Thru-Hole/Donut Load Cells (LTH Family).

APPLICATION SUMMARY

Aerospace parachute deployment mechanisms require high precision load cells throughout the testing phase. NASA's Orion capsule utilized FUTEK load cells to measure the force of the payload applied against the parachute system.

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



Miniature Inline
Threaded Tension
and Compression
Load Cell

LCM Series

Donut Load Cell

LTH Series

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AP1052



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U.S. Manufacturer





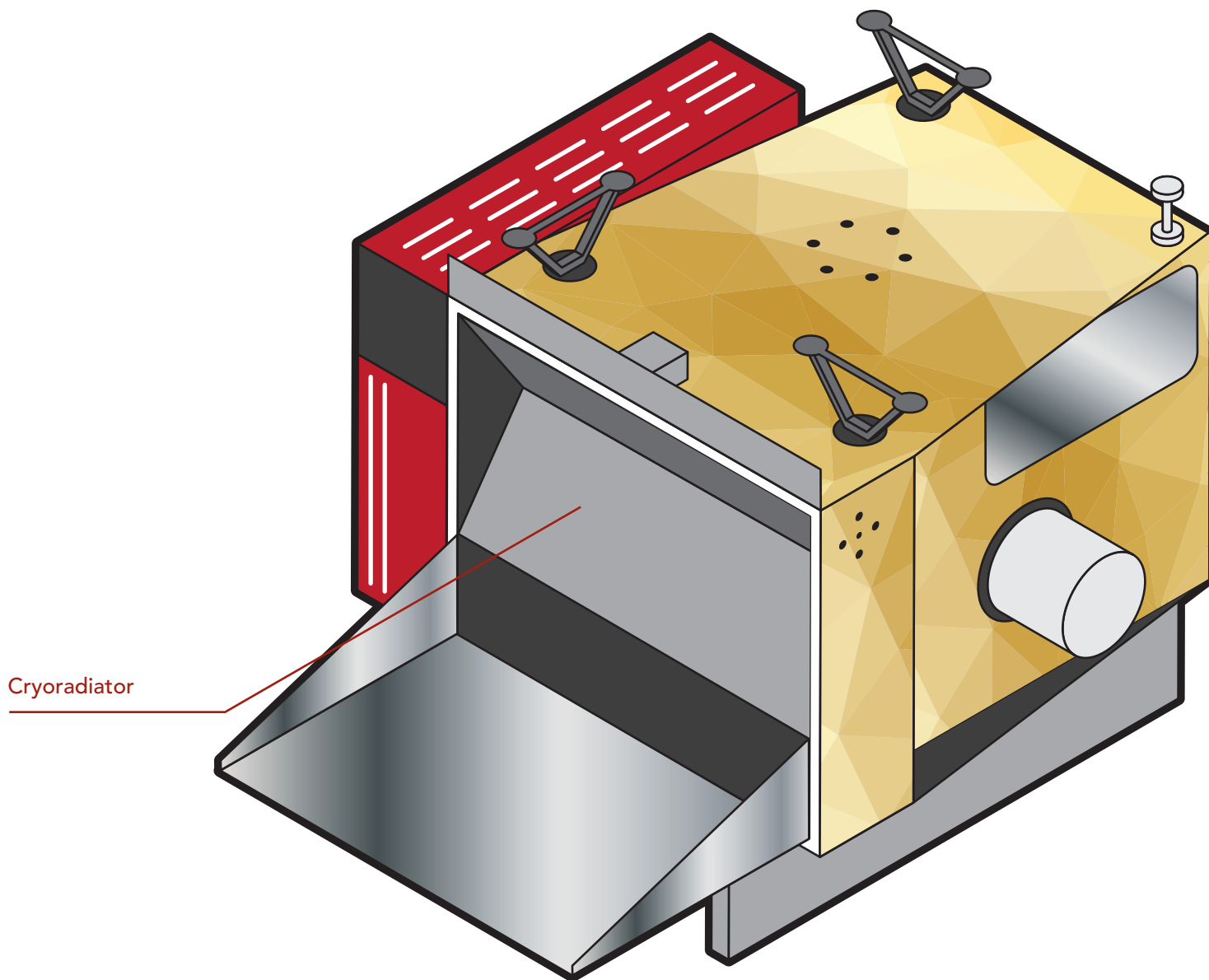
PRODUCTS IN USE

FUTEK designed two cryogenic load cells able to operate within the cryoradiator of the VIIRS component at the extreme temperature of -300°F (-184°C).

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

APPLICATION SUMMARY

Within NASA's Suomi NPP Satellite are five weather instruments. Commissioned by Raytheon, FUTEK designed two cryogenic load cells for the Visible Infrared Imager Radiometer Suite (VIIRS) aboard the satellite.



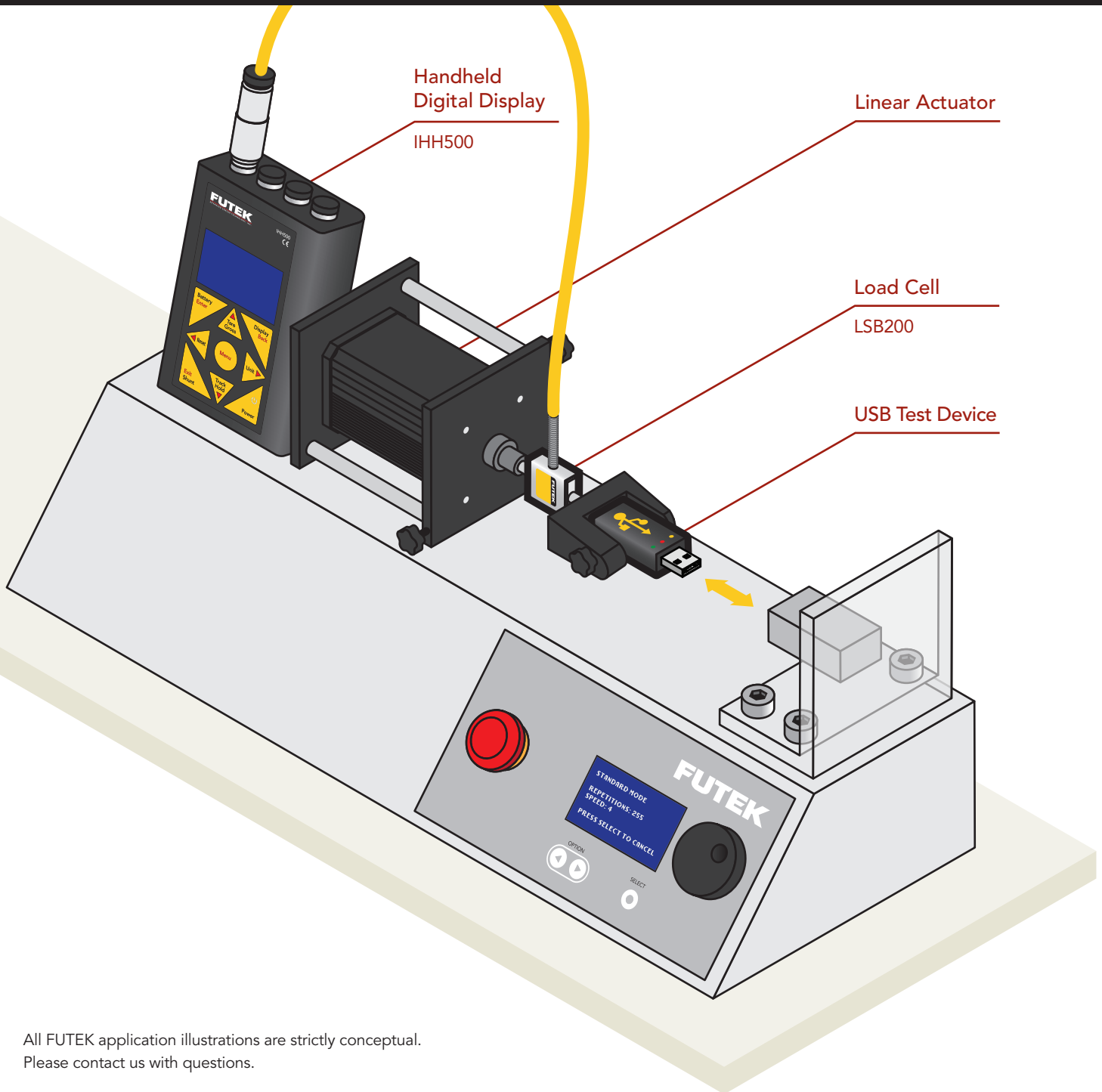
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AP1053





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APPLICATION SUMMARY

Motorized insertion and extraction test are performed to determine the durability of a USB thumb-drive. Configuring the test stand with a FUTEK load cell (the LSB200 or LRM200) enables test engineers to quantify the exact force needed to insert or extract a USB connector over time.

PRODUCTS IN USE

Miniature S-Beam Load Cell (LSB200) or Miniature S Beam Load Cell with Male Thread (LRM200) paired with Instrumentation (IHH500).

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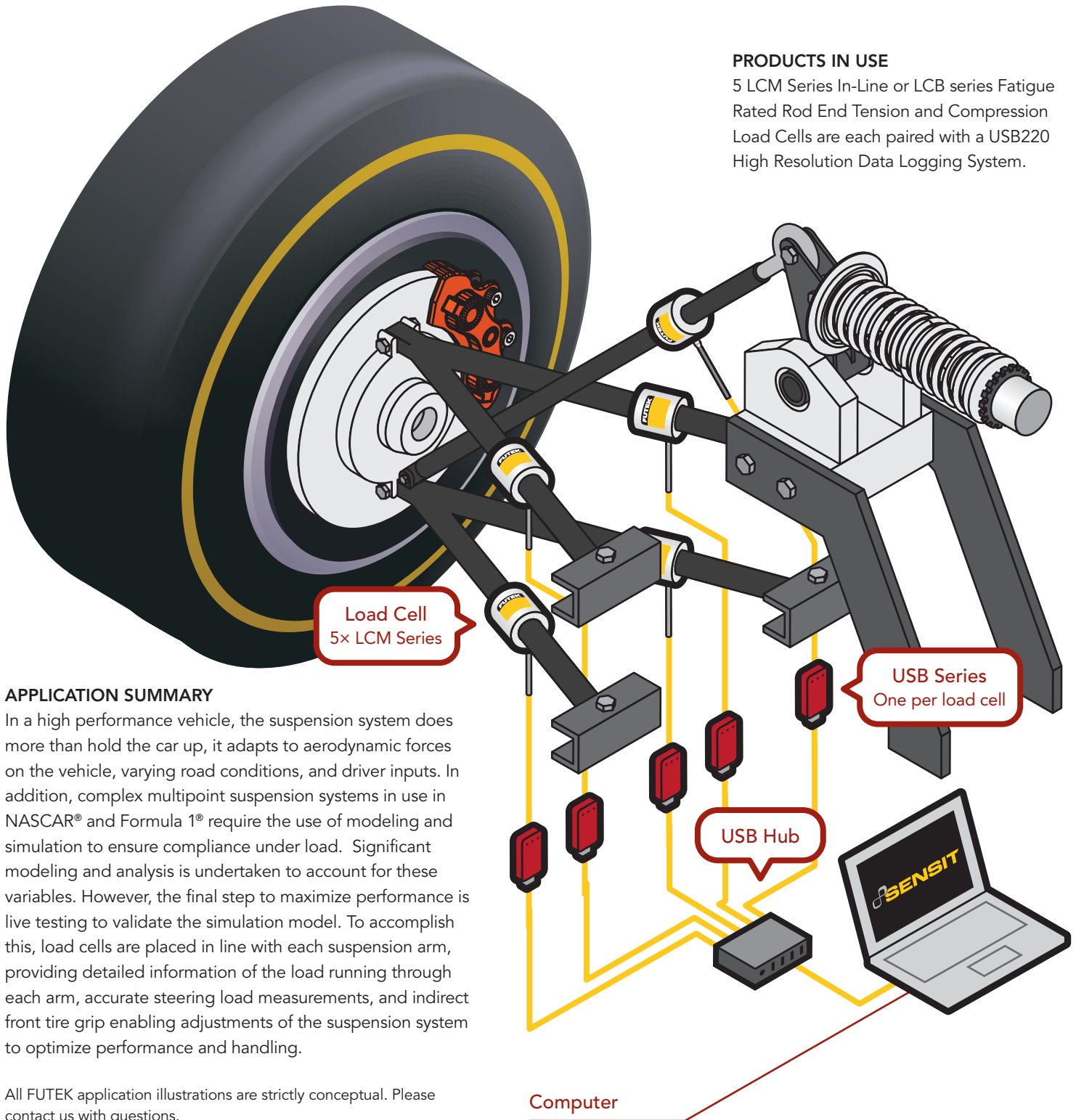
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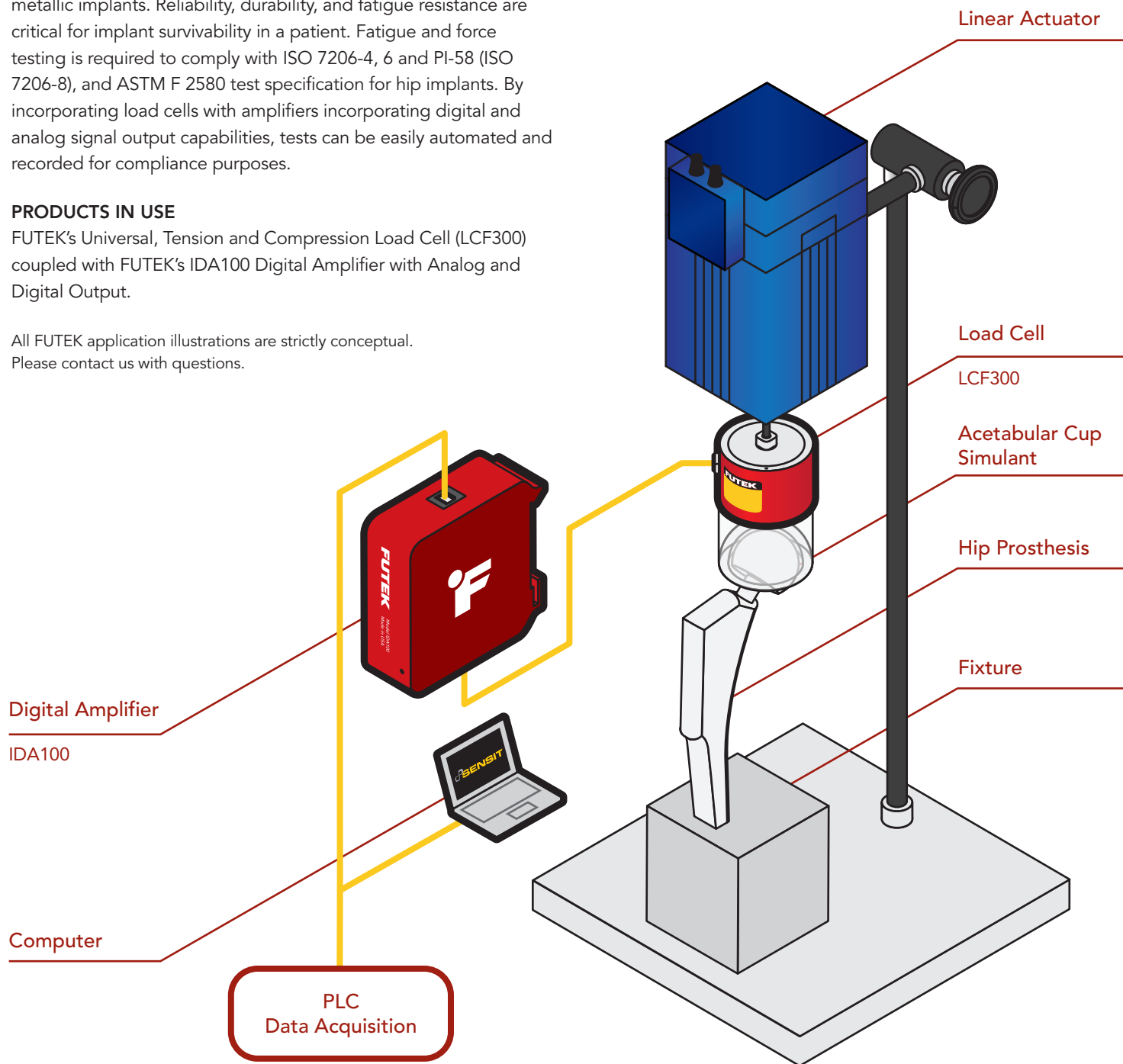
APPLICATION SUMMARY

Hip joint prosthetics, like most prosthetics are not one size fit all. Advancements in 3D printing technologies such as Direct Laser Metal Sintering (DLMS) have allowed for lower cost, custom, metallic implants. Reliability, durability, and fatigue resistance are critical for implant survivability in a patient. Fatigue and force testing is required to comply with ISO 7206-4, 6 and PI-58 (ISO 7206-8), and ASTM F 2580 test specification for hip implants. By incorporating load cells with amplifiers incorporating digital and analog signal output capabilities, tests can be easily automated and recorded for compliance purposes.

PRODUCTS IN USE

FUTEK's Universal, Tension and Compression Load Cell (LCF300) coupled with FUTEK's IDA100 Digital Amplifier with Analog and Digital Output.

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



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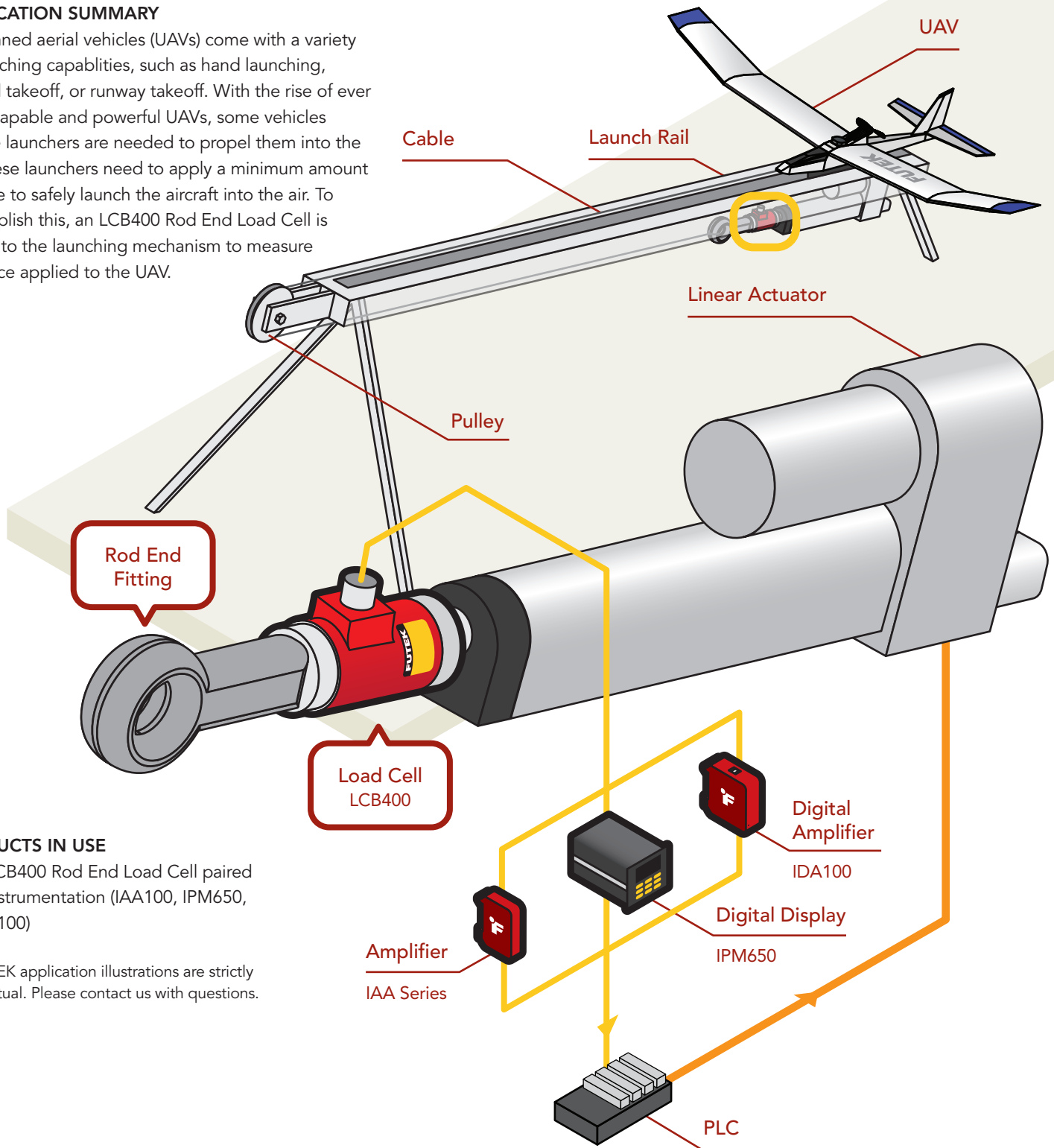
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APPLICATION SUMMARY

Unmanned aerial vehicles (UAVs) come with a variety of launching capabilities, such as hand launching, vertical takeoff, or runway takeoff. With the rise of ever more capable and powerful UAVs, some vehicles require launchers are needed to propel them into the air. These launchers need to apply a minimum amount of force to safely launch the aircraft into the air. To accomplish this, an LCB400 Rod End Load Cell is mated to the launching mechanism to measure the force applied to the UAV.



PRODUCTS IN USE

One LCB400 Rod End Load Cell paired with Instrumentation (IAA100, IPM650, or IDA100)

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