

# OEM Load Cells & Custom Sensor Solutions

## Measurement is the Crucible of Our Times

How much, How Fast, How Accurate? Weight, Pressure, Force, Torque, Displacement... Integrated to your Systems.

Solutions. We have a vast array of standard and configurable products. Moreover, 42% of our in-field products are customized for OEMs

Group Four provides and customizes complete measurement chain solutions. This means that we not only provide the load cells or sensors, but also the cabling, connections, HMI system and software integration that is customizable to your in-house needs. Total Measurement Chain Solutions.

Resolution range from 100 grams to 1,000,000 pounds. Group Four recognizes you should not have to sacrifice accuracy for a specific design package which is why many of our designs are 1% accuracy or better. Our team of engineers are ready and available for your specific requirements. Do not compromise call us.

## We provide measurement solutions for:













#### **Markets Served**

Aerospace Medical Agriculture







Lifting / Handling Manufacturing process Packaging







Automotive Marine Oil/gas







Chemical Laboratory Industrial weighing







#### **OEM Load Cells & Application Specific Sensor Design Process**

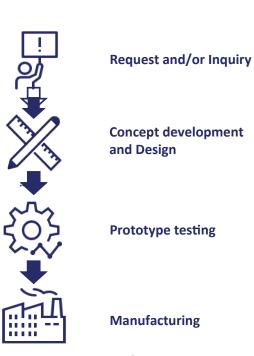
Group Four negotiates OEM load cell and sensor solutions.

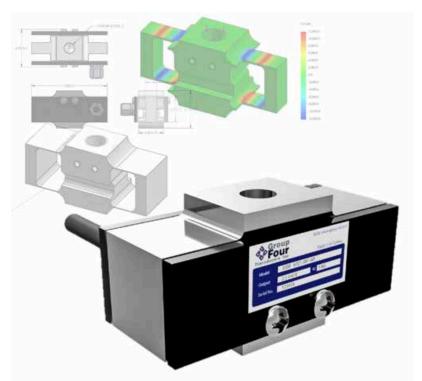
What does negotiate OEM measurement mean? It means we work to build your custom solution to be no more or less than what it needs to be.

There are tradeoffs between accuracy, speed, levels of integration... and so on. Group Four has the most granular and finite capacity for system designation and production. Our quality control is iterative, production regulated, and delivery immaculately defined and communicated to address supply chain requirements.

We have the capacity, knowledge, experience and industry record to deliver quality product for Original Equipment Manufacturers to meet their product requirements.

#### **Design and Production Process:**





#### **Design and Manufacturing Capabilities**

Mechanical Design	Electrical, Electronic & Communication Interface Design	Manufacturing
Innovative Concept Development	Analogue to Digital Conversion	Machining
3D Design & Modeling	Serial Communication RS232/RS485	Heat Treatment
FEA	EtherNet/IP	Surface Finishing
DFMEA	Wireless	Temperature Compensation
Product Prototyping	Digital I/O	Calibration
Industry Experience	Analogue Outputs	Quality Control
Design Expert Knowledge	Data Logging and Analyzing Software	SPC Analysis
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# Force Measurement Product Applications





## 8005/8006 OEM Beam Load Cell

8005/8006 OEM Load cell offers an impressive lightweight design with an easy side mounting feature making it ideal for OEM applications.



Application: Force Test Machine



- Capacities from 2lb to 500lb
- Tension & Compression
- Single Point Construction
- Built-in Overload Protection
- Available in both Aluminum and Stainless steel



# **ASM 8031 OEM Tension Compression Load Cell**

ASM(8031) Low Profile Tension & Compression Load Cell is a great selection where tight environments or space is a challenge.



Application: Robotic Rehabilitation (Medical)

- Capacities from 5kg to 500kg
- Tension & Compression
- Space saving low profile design
- Aluminum Construction



# Force Measurement Product Applications





## **MBL(5036)**

The type MBL is a stainless steel compression button load cell for force and weight measurement. The low profile, small diameter design enables it to be easily embedded into machinery or test equipment.



Application: Press force monitoring system



- Capacities from 100lb to 10000lb.
- Stainless steel construction.



#### **GB**

GB miniature thin-beam load cell is designed for applications which require a compact design as well as the ability to handle repetitive loading without failing. The GB series meet this criteria as well as providing an economical solution for force measurement applications.



Application: Medical Instrument

- Range 50 -150 lb
- Compact design.
- Stainless Steel construction





# Force Measurement Product Applications





## **GVSD** 4001D

The GVSD Digital Single Point Load Cell is a special low capacity, low form factor useful in force measurement for medical and industrial applications. OEM options include bracket and spacers for ease of installation and accuracy.





- Capacity: 200, 500 & 1000 grams
- Anodized aluminum construction
- Environmental protection IP67
- Low profile design
- Special bracket & spacers



#### T-Rex Customizable Test Stand

The T-Rex is a rugged, yet flexible designs, test stand which was created to provide economical testing solutions where more traditional high priced test solutions are not required. The T-Rex is available to test 4 tons in tension and 10 tons in compression. Available in either a manual or motorized pump, multiple load cell configurations as well as digital readout and data collection options. Applications include: Mechanical connection test, adhesive bond strength verification, extraction or insertion force testing, crushing strength review.

Application: Motorized Test Stand





## **Weight Measurement Product Applications**





## DTC(5043D)

The Digital or Analog column type load cell designed for tank weighing and force testing applications. The stainless steel load cell is hermetically sealed and is ideal for use in heavy wash down applications.



Application: Aircraft weighing



• Capacities from 1klb to 50klb

- Digital Output
- Environmental protection IP69.
- Stainless steel construction.



## SP2(4002)

This aluminum single point load is ideal for use in small bench scales, medical scales, light capacity filling machines and packaging machines.



Application: Weigh Filling machine

- Capacities from 3 kg to 60 kg.
- Aluminum construction.
- Low profile design.



# **Torque Measurement Product Applications**





### M<sub>10</sub>TS

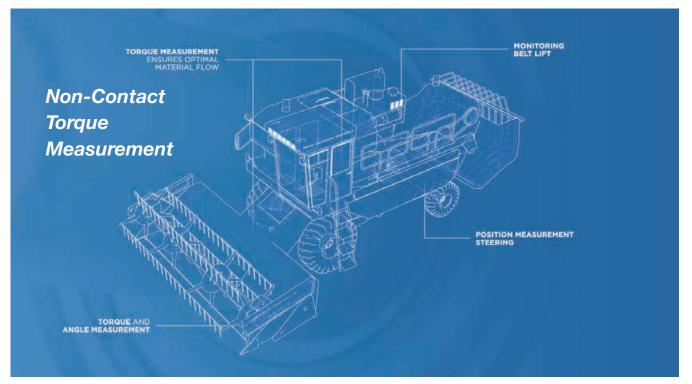
M10TS Torque Sensor is available in Aluminum construction in a wide capacity range. Torque Sensor can be modified or customized to meet your requirements.



Application: Torque Auditing



- Range 20 -1600 in-oz
- Easily integrates into OEM applications
- Aluminum construction



# Wireless Load Cells Product Applications



Group Four wireless load cell products are perfect for applications where it is not feasible or inconvenient to have a hardwired system. Error free data transmission, long battery life, and industry leading wireless range, are design improvements we have made to keep Group Four wireless innovations ahead of the competition. These are perfect for overhead lifting applications, mining, and virtually any tension or compression measurement application where wires are a nuisance.



#### **GWLS Wireless IP67 Loadshackle**



# **GWNI Stainless Steel IP67 Wireless Compression Load Cell**



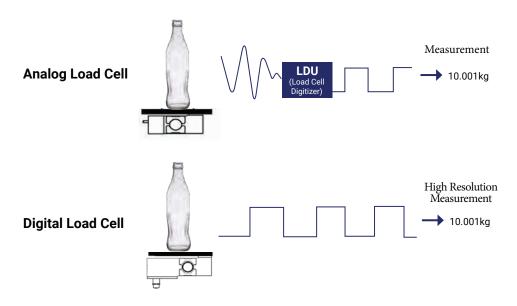
**WDLU Wireless Digitizer** 

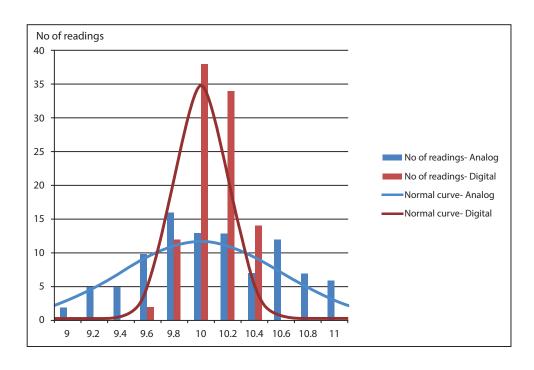
# **Digital Load Cells Product Applications**



Group Four's digital load cell technology is truly unique within the industry. Our manufacturing process allows our digital load cells to achieve higher accuracy, superior resolution and greater stability. With this innovative technology it eliminates the need for initial calibration. High resolution at high speed means that the our digital load cells are ideal for high-speed filling and check weighing applications along with force measurement, tank bin and hopper weighing.

#### Higher Accuracy with a Lower Standard Deviation, Digital vs Analog.



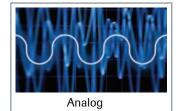


Group Four provides end to end measurement chain solutions. What exactly is a measurement chain? For Group Four, it is everything in the measurement system, connected to your network! The Group Four measurement chain description is so broad because it is evolving! Connections and information sharing is becoming accessible at more points than ever before. In its most basic form, the measurement chain includes a sensor, a method of transmission of signal, and a 'transmitter' to transform the electrical signal into a readable form. These measurements taken together, and integrated with end user PLC, HMI, or total network provide the vital measurements necessary for process control.

#### **Signal**



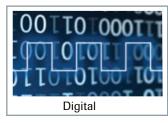
Measurement



Measurement



Pressure Measurement





#### **Connection**



JB4 Junction Box



Wireless



Daisy Chained RS485/422 Cabling System



PLC /HMI



Gateway EGM187.1

#### **Indicators**



**GR400 Indicator** 



GDAD141



GDAD143



RS 232



G4 Digital HMI

#### Data



Computer + DOP4 software

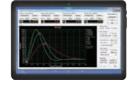


PLC /HMI









## **Quality Control & Certifications**

Group Four has ISO 9001: 20015 certification for design development, manufacturing and testing of load cells, force transducers, torque transducers and weighing systems. Group Four has monthly, weekly and daily process audits across operational and engineering groups to ensure continuous improvement and rapid implementation of corrective action cumulating in a complete Corrective Action/CAPA process which drives through our ERP system.

## **Regulatory Standards:**

















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