

# TEST & MEASUREMENT



[stellartech.com](http://stellartech.com)

# LORD SENSING

**Stellar Technology**

Pressure, Load/Force/Torque, Displacement, and Temperature Sensors

# Test & Measurement Solutions



## Pressure Sensors

- Pressure Ranges From 1 to 100,000 psi
- Absolute, Gage, True Gage, Differential, Vacuum, Barometric
- Accuracies to 0.05%
- High Frequency Response
- All Welded Stainless Steel (17-4, 15-5, Inconel, Monel, Hastelloy)
- mV/V, Analog or Digital Outputs (Including RS232, RS485, CANbus)
- Internal Data Logger Versions
- ATEX, CSA Intrinsically Safe and Explosion Proof Certifications
- Designs Submersible to 12,000 ft. of Seawater
- Space Rated Electronics

## Load Cells, Force Sensors, Reaction Torque Sensors

- Load Ranges From Grams to 2 Million lbf
- Tension, Compression, Tension & Compression
- Complete Selection of Standard and Special Configurations
- Constructed of Stainless Steel, Carbon Steel, or Aluminum
- Miniature and Subminiature Versions
- mV/V, Analog, or Digital Outputs (Including RS232, RS485, CANbus)
- Multiple Bridge Configurations
- Internal Data Logger Versions
- ATEX, CSA Intrinsically Safe Certifications
- Designs Submersible to 12,000 ft. of Seawater



Our Specialty...  
**CUSTOM  
ENGINEERING**



## Sensors for Test and Measurement Applications

Stellar Technology's complete selection of pressure, load, force, torque, temperature, and displacement sensors provide test, measurement, and control solutions across a broad range of market sectors; from aerospace, oil and gas, automotive, industrial automation, medical, materials testing, power generation, defense, and many more. Stellar Technology's engineering expertise, proven sensor technology, field experience, and manufacturing capabilities provide customers with high reliability sensors for a myriad of applications. Our engineering and manufacturing center in Amherst, New York, is uniquely designed to deliver both standard products and custom-engineered specials. Rely on Stellar Technology to add value to your test and measurement solution.



# Test & Measurement Solutions



## LVDT Displacement Sensors

- Stroke Ranges From  $\pm 0.01$  in. to  $\pm 18.5$  in.
- Linearities from 1% to 0.1%
- Spring Guided, Captive Guided, Free Unguided Armatures
- AC and DC Versions
- All welded Stainless Steel
- Designs Submersible to 7,500 ft. of Seawater

## Temperature Transducers and Transmitters

- Temperature Ranges From:  $-320^{\circ}\text{F}$  to  $+750^{\circ}\text{F}$
- No Thermo Well Required
- Customer Specified Probe Lengths and/or Pressure Ports
- All Welded Stainless Steel Construction
- Hermetically Sealed
- Dual Temperature and Pressure Configurations
- Analog or Digital Outputs (Including RS232, RS485, CANbus)
- ATEX, CSA Intrinsically Safe Certifications

## Markets & Applications

### Aerospace

- NASA's Reusable Solid Rocket Motor
- Commercial Space Flight Propulsion Systems
- Rocket Engine Testing
- Jet Engine Testing and Diagnostics
- Qualified for Ares1 and Ares 5
- Satellite Systems
- Orion Space Capsule
- Aircraft Qualification Testing
- Aircraft Assembly Testing
- Cargo Deployment Systems

### Oil and Gas

- Well Intervention and Stimulation
- Circulating Mud Systems
- Coiled Tubing Systems
- Marine Loading Systems
- Kill and Choke Manifold Systems
- Pump-Off-Control
- Mast Weight and Hook Loads
- Underbalanced Drilling
- Hazardous Environment Measurements
- Gas Production/Process Systems
- MWD and LWD Measurements

### Subsea

- Manifolds and Tie-Ins
- Separation and Re-injection Systems
- HP/HT Tree and Wellhead Monitoring and Control
- Marine Loading Systems
- Kill and Choke Manifold Systems
- Oceanographic Mapping and Towing Arrays
- AUV/ROV Controls
- Fluid Control Systems
- Tension Link Monitoring

### Automotive/Transportation

- Dynamometer Systems
- Engine Test Stands
- Component's Cycle Testing
- Drive Train Testing
- Component Testing
- Proving Ground Testing
- Valve Guide and Insertion
- Fluid Level Monitoring

### Factory Automation

- Industrial Robotics
- Synchronous and Non-synchronous Assembly
- Component Assembly and Test
- Metering and Dispensing Systems
- Quality R and R Assessments
- Metrology Labs
- Conveyor Systems
- Material Handling

### Medical/Pharmaceutical

- Robotic Surgery
- Non-invasive Fluid Control Systems
- MRI System
- Liquid Handling Systems
- Force-Over-Area Non-Invasive Fluid Processing
- Physical Therapy
- Orthopedics
- Fluid Dispensing Systems

### Alternative Energy

- Fuel Cell Efficiency
- Wind Turbine Drive Trains
- Geothermal Exploration
- Wave Energy Modeling
- Hybrid Battery Testing

### Power Generation

- Gas Turbine Dynamometers
- Turbine Engine Monitoring
- Diesel and Gas Engine Monitoring

### Power Generation

- Compressor Controls
- Conveyor Systems
- Crane Load Monitoring

### Defense

- Ballistics Testing
- Marine Towing Arrays
- Jet Engine Diagnostic Testers
- Jet Fuel Testing and Analysis
- Propulsion Systems
- Cargo Deployment Systems
- Recovery Systems

### Process

- Tank Weighing
- Waste Water/Sanitary Control
- Ground Water Monitoring
- Valve Positioning
- Food & Dairy Measurement Systems
- Liquid Level Measurement

### Test and Measurement

- Materials Testing
- Research and Development
- Structural Stress and Fatigue Analysis
- Prototype Evaluation
- Quality R and R
- Metrology Labs
- Environmental Test Labs
- Meteorological Stations

### Customer Required Specials

- Direct Contact With Experienced STI Design Engineers
- Customizable Designs
- Customer Proprietary Products
- Manufacturing Systems Designed to Support
- Sensor Technology Supports Design Flexibility
- Computerized Design Tools
- STI's Strategic Initiative

Call: **716.250.1900**

# Capabilities

*Stellar Technology designs and manufactures a comprehensive offering of pressure transducers/transmitters, load cells, force sensors, torque transducers, temperature transmitters, and displacement sensors used in test and measurement applications across a wide range of industry sectors including aerospace, oil and gas, marine/oceanographic, automotive, medical, industrial automation, geophysical, power generation and many more.*



**Why Stellar Technology?** Whether it's an engine test, component reliability test, production line test, or quality assurance evaluation, what causes automotive and transportation specialists to choose Stellar Technology sensors for their application solutions?

**One word: Capabilities.**

*Stellar Technology combines sales capabilities, engineering capabilities, manufacturing capabilities, and service/support capabilities into one focused business objective:*

**Provide the customer with the optimum sensor solution.**

### **Sales Capabilities:**

- Experienced technical sales professional located in your area
- Direct link to Stellar Technology's design engineers
- Knowledgeable inside sales engineers
- Complete pre-sales application review process
- Facilitate technical Lunch & Learns at customer's site

### **Engineering Capabilities:**

- Design engineers with years of practical sensor application experience
- Specialists in mechanical, electronic, and software design
- Innovative design and simulation tools
- ISO9001 registered documentation and control
- Work directly with customer's engineers
- Creative solution providers

### **Manufacturing Capabilities:**

- Complete vertical integration (raw material through final calibration)
- 18 CNC machines (up to 8-axis)
- Wire and probe EDM machining
- Laser and TIG welding
- Ultrasonic cleaning
- Micro assembly
- Automated pressure compensation and calibration
- 5 load cell calibration systems (to 600,000 lbf)
- 1,000,000 inch-lbf reaction torque calibrator
- High-reliability/traceability assembly and test area
- Comprehensive inventory of raw materials
- Finished goods inventory programs (standard and customer-specific)

### **Service/Support Capabilities:**

- Complete repair and recalibration (including other manufacturers)
- Rapid-response on-site technical field support
- Ready access to regional sales offices
- Order status and expediting
- Direct access to Stellar Technology's design engineers
- 24 hour web access to technical manuals

**Your Application-Solution Source<sup>SM</sup>**

