

Applications Specialists for Sensors, Data Acquisition, Instrumentation, Test Equipment & Contract Manufacturing

Acceleration



**Angle & Tilt** 



Displacement



Flow



**Force** 



Sensors

## Custom Transducers

## Strain Gages & Installation

# Data Acquisition & Signal Conditioning

Wireless/ Telemetry

Vibration & Environmental Test

OEM & Contract
Manufacturing





Sound



Strain



**Temperature** 



**Torque** 





Kurt Newman
Field Applications Engineer
Kurt@stresshq.com
(248) 719-2132

#### **Customer Service**

Jessica King (330) 734-8508

<u>Jessica@stresshq.com</u>

Diane Haak (330) 403-4100

<u>Diane@stresshq.com</u>

Amanda Schlagheck (330) 777-3315

amanda@stresshq.com



- Strain gages, bondable resistors, installation, accessories & training
- StrainSmart Systems, Signal conditioners, portable strain indicators
- PhotoStress Photoelastic stress analysis systems





Custom force, torque & strain measurement:

- Custom strain gage installation on components
- Field & lab services for strain measurement & data acquisition
- Custom transducer design & calibration





- Load Cells & Force sensors
- Torque sensors: reaction, rotating & wireless
- ADVANCED FORCE MEASUREMENT Instruments: Digital displays & hand-held meters
  - Calibration systems & services





Force sensing bolts, clevis pins, load pins, & tension links.





Hydraulic Testing Cylinders for Every Frequency and Range

- Compact hydraulic actuator construction
- High stability and rigidity
- High speeds and frequencies
- Efficient for varying test series





State-of-the-art, non-intrusive Digital Image Correlation (DIC) optical tool for shape, strain and deformation analysis of solid, granular and liquid subjects.





Pressure & level solutions for municipal, industrial, & process markets:

- Sensors for hostile service including slurries
- Submersible pressure & level sensors





Self-Aware™ Programmable inches-of-water sensors, for Industrial, Medical and HVAC applications. A new generation of differential pressure sensors, based on NimbleSense<sup>™</sup> ASIC technology, which provides an alert mechanism of potential performance issues, before system-alarm incidents occur. Higher accuracy and turn-down ratios, lower total-error-band, with the industry's lowest noise floor.



- Dynamic/Piezoelectric sensors: acceleration, force & pressure
- Impulse hammers, sensor signal conditioners, & sensor cables
- Calibration Services for dynamic sensors from all manufacturers



GRAS

Specialists in high performance measurement Sound microphones & related acoustic accessories for & Vibration automotive, aviation & aerospace.





- Advanced vibration test equipment: Electro-dynamic shakers, slip tables, head expanders and multi-axis shakers.
- Environmental test chambers including: temperature, humidity, thermal shock, & altitude chambers.





Vibration test controls for electrodynamic & servo-hydraulic shakers:

- Test modes: Sine, Random, Shock, SoR, RoR, SRS, & more
- Features: Fatigue Damage Spectrum, Kurtosion, Field Data Replication, Transient Capture, & more





Ethernet/EtherCAT-based data acquisition and control solutions (24-bit, 100kHz A/D per channel) for test cells, test labs, portable/in-vehicle, & stand alone/data-logger applications.





High performance data acquisition including:

- Synergy multi-mode systems: recorder, scope, spectral, modal, & combustion analyzer
- Echelon in-vehicle DAQ: I/O, CAN, GPS, & video. IP-68



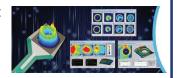


- StrainSmart® high performance data acquisition instrument utilizing strain gages and related sensors for stress analysis testing.
- High-speed, high-channel count signal conditioning & data acquisition solutions for aerospace, military, research testing applications.





Thin-film tactile pressure & force measurement for gaskets, seals, grip/ergonomics, seating/bedding, brakes, tires, roller-nip & many other applications.



## OEM/Custom Sensors & Contract Manufacturing



Custom manufacturer of wire harnesses. ADVANTAGE COMPONENTS INC interconnects, cable & wire assemblies including over-molding.



Fiber Bragg Gratings (FBGs) and optical sensor products including temperature, strain, pressure, vibration, tilt and displacement in addition to other custom sensors.





Custom OEM force, pressure & torque

- Sensor design & manufacturing
- Amplifiers & integrated electronics
- OEM transducer manufacturing







**Capacitec**

• LVDT displacement transducers for all applications

software.

Sensor

Source

Lasers

Signal conditioning, amplifiers & digital

Displacement

• High-accuracy position, thickness,

& surface measurements

Non-contact capacitive displacement sensors, gap

sensors, bore gauges, parallelism and density

sensors with matching capacitance amplifiers,

data acquisition systems, linearization & display





Global Contract Manufacturers and Product Design

- Designers and manufacturers of electrical and mechanical assemblies
- Supply chain, Quality, and Project Management

### Wireless/Telemetry



The smallest, lightest, most power efficient, wireless measurement systems for torque, acceleration and other sensing application.





Flow meters: Turbine, Coriolis, magnetic, positive Badger Meter displacement, oval gear, & more.

Flow

- COX precision turbine flow meters for gases &
- FLOW DYNAMICS NVLAP flow calibration services



- · Wireless telemetry
- **□ E Mantracourt** Strain gage amplifiers & signal conditioners
  - Indicators & digital display electronics

Servo-Control/ Special Test



### Temperature



Thermocouples: general purpose, hand-held, RTD. and industrial probes. In addition to our standard products, we can also custom design and build probes to your specifications.



- Motorized Material Testing for physical strength properties testing
- Motorized Product Testing Stands for static/monotonic force or torque testing





- Temperature transmitters: 4-20mA, HART, &
- signal conditioners, digital indicators, & closed-loop controllers for temperature applications



Sequential Logic Controller providing flexible, programmatic control of motors, solenoids, relays, heaters



Non-contact vibration measurement instrumentation & engineering services. Single point & scanning laser vibrometer



