

Our comprehensive range of sensors and instrumentation for automotive development covers all applications from component test to system performance monitoring and control. Whether you need to equip your R&D lab and test rigs or instrument your vehicle, we have the right solution for you. At StrainSense we understand the demands within the industry for high accuracy, low size and weight, combined with competitive costs. We also understand the unique nature of many applications so custom designs are available in many sensor ranges, these allowing for revised packaging, performance and outputs to meet customer requirements. In addition our data acquisition systems are customisable and reconfigurable to allow you to make the most use of your investment.



Sensor types

Linear Position

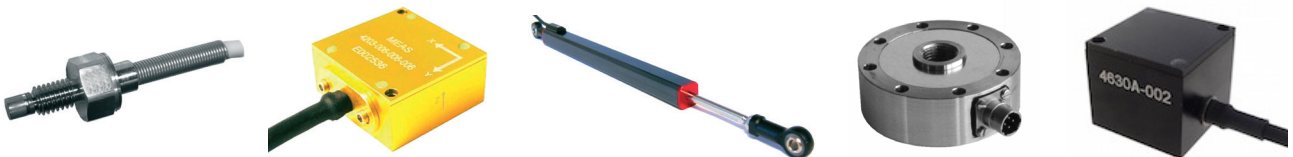
The MS94 range of sensors are ideally suited for automotive applications being engineered from the best materials for the purpose. They have been proven extensively in F1 and MotoGP as well as with a number of automotive OEM's. Sealing to IP67 makes them ideal for harsh environments such as off-road with the larger MS19 sensors having seen heavy duty service on WRC cars, in the Dakar Rally and with premium off-road OEM's. Stroke lengths from 10-450mm are currently available. Rod-end or pop-joint mountings are standard with custom mounting options possible. Titanium shafts can now be provided where weight saving is at a premium.

Rotary Position

The new MS-22R range of rotary potentiometers are available with measurement angles of 0-30 to 0-350 degrees and can operate in environments up to 175C. Dual independent outputs can also be supplied. Non-contact rotary position sensors that offer up to 0-360 degree measurements can be supplied with single or dual outputs with either analogue or PWM output. Housings down to 13mm diameter and can operate at up to 150C.

Pressure

Our range of pressure sensors are supplied in a wide variety of forms to suit measurements of pressure in air, water, fuels, lubricating oils and hydraulics fluids. In addition we also supply specialist sensors for use in aerodynamic and hydrodynamic performance testing. A variety of port types are available including flush diaphragm along with materials selection to suit the application. Typical pressure ranges from 50 mbar to 2,200 bar.



Sensor types

Force/Torque/Strain

StrainSense offer a range of transducers for measuring force. These can be for linear measurement or rotational in the case of torque. Strainsense are also experts in the application of discrete strain gauges to measure forces in components. Applications range from suspension and steering components to bodywork and aerodynamic aids. If you need to measure forces on a component then we have a solution for you.

Acceleration and Vibration

StrainSense provide a range of high precision accelerometers for measuring acceleration and vibration. We provide multi-axis accelerometers as well as sensors for tilt, angular rate and a range of specialist sensors for crash testing. Our Engineers have extensive experience in finding solutions for all of your accelerometer and vibration testing needs. Our range typically covers accelerations from 1g to 10,000g and from DC to 20,000Hz.

Data Acquisition Systems

We offer a comprehensive range of test and development hardware and software to suit all requirements and budgets. Our Team have worked in the highest echelons of automotive and professional motorsport and can offer you expert guidance when selecting a system to meet your requirements.



Interfacing to suit all sensor types:

- Voltage/Current/Potentiometer/RTD/Thermocouple/Bridge/IEPE
- Digital/Counters
- CAN/Flexray
- Audio/Hi-speed and Hi-resolution video
- High-precision GPS
- Custom interfacing available

Key attributes:

- Up-to 2000 channels
- Sampling rates up-to 2MS/s
- Resolution up-to 24bit
- Angle domain systems for Engine dynos
- Comprehensive systems for vehicle dynamics
- Power monitoring and analysis for EV's and hybrids
- Variety of hardware configurations to suit your application
- Data acquisition, analysis and processing software
- Comprehensive technical support
- Maintenance and calibration services
- Project Engineering support and customisation services available