

# Sensors and Solutions for Motorsport 候







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### **Pressure Sensors**

Our pressure sensor range is provided by an extensive product portfolio. Each is designed to accurately and repeatedly provide stable measurement of liquid, air or gas. Sensing ranges are from 1psi though 30Kpsi All sensors can operate with either 5V or 8 - 16V supply voltages, providing an output of 0.5 – 4.5V as standard. A range of sizes and process connections allow for use in areas where weight, space, vibration, temperature and endurance are critical. We also offer combined pressure and temperature sensors.



### **Temperature Sensors**

The temperature sensors available off the shelf are either contact or non-contact (infra-red). They can measure temperatures in the range -20°F to 2000°F across a range of product families. Suitable for fluid, gas, air, tyres, brakes and much more. Our innovative PEEK ISOTIP air temperature sensors allow fast and accurate air intake measurements without heat soak interference from the surrounding structure.



## Force & Torque Sensors

Whether you require a load cell for a gearshift strategy or simply to measure the load placed on push rods, our sensors can measure tension, compression, twisting and bending forces in the range of  $\pm 25$  lbs-ft to  $\pm 6.5$ K lbs-ft. Torque on drive shafts or torsion bars can be measured from +/-1 lbs-ft to +/-7500 lbs-ft. A microprocessor based amplifier ensures high accuracy is maintained within a wide temperature range up to 275°F. Our in-house strain gauging facilities are available for fast service of standard or custom force and torque measurement sensors.

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### **Position & Laser Sensors**



Our position measurement sensors are chosen from 4 complimentary product groups, we can accurately and repeatedly measure linear ranges from 0.04" to 40" or angular up to 350°. All sensors are designed for the harsh motorsport environment, such as high temperatures and vibrations along with ingress protection. Ride height lasers with a response time of 750Hz, provide ground clearance sensing, linear and rotary potentiometers for suspension displacement, pedal, steering angles or aero surface deflection, we are well positioned to support you.



### **Speed Sensors**

Feel the need for speed? At KA Sensors we can quantify a wide range of speed applications. We employ high precision Hall Effect technology for our wheel and crank shaft speed sensors. For air speed we have a pitot tube and associated differential pressure sensor. Our turbo speed sensor detects aluminum or titanium turbo blades up to 400,000 rpm and with a combined temperature signal you can sense the core air temperature of the turbine. Custom designs are available; contact us to discuss your requirements.



## **Accelerometer & Gyro**

With our in- house, custom design, manufacture and calibration we offer a wide range of accelerometers and gyros in 1, 2 or 3 axes. Accelerometers have a measurement range of ±1G to ±500G with a frequency response of DC to 5 kHz. Our gyros can measure the rate of angular rotation from ±80 to ±200°/second. To ensure the correct sensor is selected for a specific installation please contact us to discuss your application.

#### (203) 792-8686



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KA Sensors are totally dedicated to motorsport. We deliver the specialised design and manufacture of high performance sensors for use in this demanding industry. Our products are also suitable for other precision test and measurement applications in demanding environments.

We have more than 30 years of sensor design and application experience. Our team of knowledgeable and experienced engineers are waiting to help you. We will listen to your requirements and quickly propose suitable solutions that best fits your needs and budget.

We offer a large range of high quality products available *off the shelf*. Also to compliment our standard product range we offer a modification service or a full ground-up *custom design*. We will work with you to supply a single component or complete system, designed to match your exact requirements.

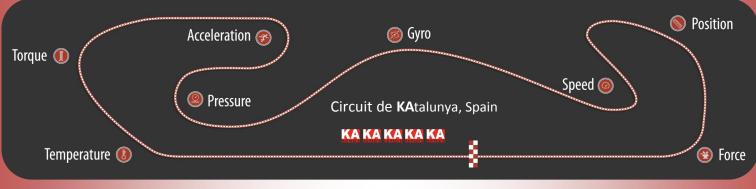
Our excellent standards of quality and reliability are demonstrated by a 1 year warranty which applies to all of our products. We test and calibrate all items prior to shipment from our facility using fully traceable test equipment. For products that may be damaged we offer a repair, refurbishment and return to factory re-calibration service.

We have *technical partners and distributors* situated in the key motorsport countries around the world, which not only supply the full range of products from KA Sensors but also offer complimentary products and services.



Our customers include race teams and component manufacturers involved in:

F1 – F2 – F3 – GP2– GP3 – DTM – WSR – Formula E – Formula Renault – INDY – WRC – WTCC – BTCC – GT – LeMans – ALMS – WEC – NASCAR – MotoGP – Superbike – Drag Racing – Supercars – Dakar – Land speed – Powerboats – Americas Cup – and more...





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