



The Motorsport Sensor Manufacturer and Specialist

** Spotlight on Gear Lever & Shift Load Cells **

The KA Sensors range of Gear Lever and Gear Shift Load Cell Sensors are designed for the detection and measurement of tension and compression forces used in gear shift selection.

Load cells designed for use in clutchless / clutch -free full throttle gearshift installations also referred to as flat shifting. A step above some gear knobs with switches inside, the KA Sensors GSS & GST products are highly reliable, rugged and can be specified in a wide range of sensitivities.

The GSS (Gear Shift Load Cell), is a device that is fitted in-line with a gear linkage. It produces an output dependant on whether it's under compression or tension, thus allowing an ECU to know if on a sequential gearbox a higher or lower gear is being selected and allowing a torque reduction strategy to be instigated.

The GST (Gear Lever Load Cell) is a replacement for a traditional gear knob and like the GSS provides a similar output whether the knob is being pulled or pushed.

The GST Series Gear Lever Load Cells are designed to be installed directly on top of the gear lever, the load cell is fitted with an aluminium or nylon knob. Detection of the direct driver input force is made when selecting gears. The load cell has a pre amplified signal which is compatible with most ECUs, therefore ensuring a simple and reliable clutchless gear change

- Miniature Size
- 150, 250 or 500N Range
- 4 Different Covers Are Offered
- 5V or 8-16V Supply
- M10 Threads Standard (others available)
- $\pm 0.5\%$ Accuracy



[Click here for more information](#)

The GSS series of miniature load cells are fitted into the gearbox control rod and designed for use in clutchless gearshift applications. During the gearchange sequence the driver moves the gear lever as normal, the GSS series load cell detects the force applied to the gear shift lever, this force is measured by the ECU, then a series of control events take place that allows the gears to mesh with full throttle still applied.

- For Sequential Gearbox
- $\pm 250\text{N}$, $\pm 500\text{N}$ or $\pm 1000\text{N}$ Range
- M6 or M8 Male / Female Threads
- 5V or 8-16V Supply
- Built-in Amplifier
- $\pm 1.0\%$ Accuracy



[Click here for more information](#)

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