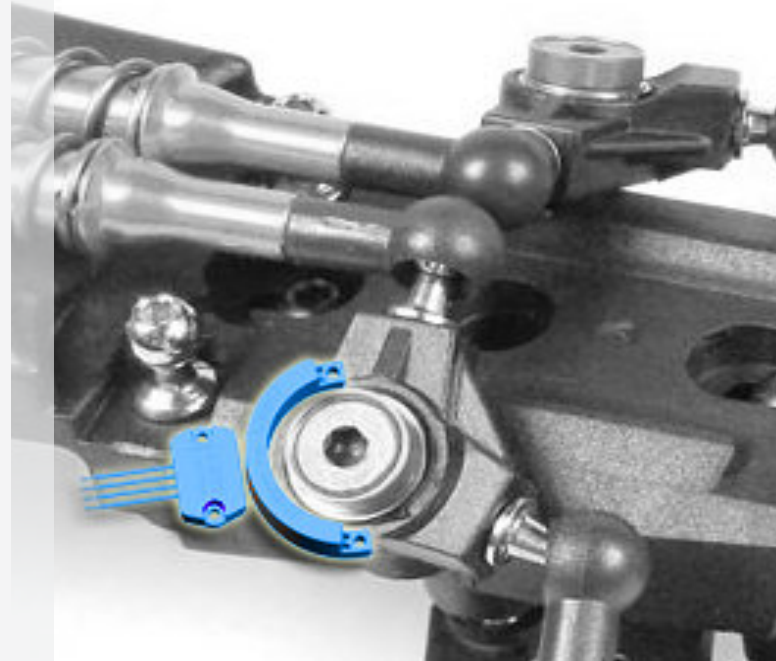


PULL-ROD SUSPENSION SENSOR

These suspensions use pull rods to transfer forces from the wheels to the dampers and springs, often positioned within the bodywork to improve aerodynamics and lower the vehicle's center of gravity. Pull-rod position sensors detect the linear movement of the pull rod and convert it into a rotational or linear signal, which is relayed to the vehicle's ECU for real-time suspension adjustments.

Arc position sensors are an ideal match for this application, as they are designed to measure angular displacement accurately, even when space is limited. Positioned along the arc of the pull rod's movement, they can effectively capture position data without physical contact, minimizing wear and ensuring longevity in high-vibration, high-impact conditions. This durability, combined with their high resolution and compact form factor, makes arc position sensors well-suited for the demands of pull-rod suspension systems in competitive and performance-driven environments.



SUSPENSION ROCKER POSITION SENSOR

Suspension rocker position sensors are used to monitor the precise movement of the suspension system, especially in high-performance vehicles where accurate feedback is essential. These sensors track the rocker arm's position and provide real-time data on the suspension's vertical and angular displacement. The data helps adjust the suspension dynamically to improve handling, stability, and comfort.

Arc position sensors are a great fit for this application because they can measure angular displacement directly, often in a compact and robust form factor that fits well into tight suspension assemblies. Their non-contact design reduces wear, ensuring durability even in rough conditions, while providing accurate readings. This accuracy and durability make arc position sensors particularly suitable for demanding automotive applications like suspension systems.



LINEAR DISPLACEMENT SUSPENSION SENSORS

Linear suspension position sensors are used to measure the precise vertical movement of a vehicle's suspension, providing critical data to systems like adaptive suspension, ride height control, and traction control for optimized vehicle handling and comfort.

Inductive linear displacement sensors are particularly effective in this role, as they operate based on the principle of electromagnetic induction, detecting changes in position without requiring direct contact. This non-contact measurement makes them exceptionally durable in high-vibration, high-impact environments typical of automotive suspensions, where wear resistance is crucial. Inductive sensors use a coil and a moving metal target to detect displacement; as the target moves within the sensor's field, it induces a current that varies proportionally to the target's position. This provides highly accurate and linear measurements over the sensor's range, which aligns well with the suspension's motion path.

Additionally, inductive linear sensors are resilient against contaminants like dust, mud, and water, making them ideal for demanding applications in both on-road and off-road vehicles. Their robustness, combined with high precision and reliability, makes inductive linear displacement sensors a fitting choice for monitoring suspension position.

