SMARTER SENSORS FOR SMARTER VEHICLES
Sensors from TE Connectivity Transportation Solutions for passenger cars, industrial and commercial vehicles provide the data for control, adaptation, and response of vehicle functions that increase safety, comfort, and efficiency.

Our brake sensors are used in vehicle applications such as travel sensor for brake master cylinder position detection (optional redundant); travel sensor for rear axle steering to support advanced ESP; rotary sensor for brake pedal position detection (optional redundant); hall brake light switch and wheel speed sensor.
Our clutch sensors are used in vehicle applications such as PLCD sensors for concentric slave cylinder and clutch slave cylinder; rotary sensors for clutch pedal position detection; hall switch for clutch master cylinder; and travel sensor for clutch master cylinder and dual clutch transmission.

As a leading international specialist for electromechanical components and interconnection technology in particular, TE Connectivity is constantly developing innovative solutions for the world of modern electronics and electric power. Most of the TE Connectivity components either provide electrical interconnections or advanced switching functions along the signal or power transmission path. However, in the area of automotive and commercial/industrial vehicles, the technology expertise also includes the origin of the signal path:

The Transportation Solutions division of TE Connectivity is a global provider of customized non-contact sensor technology. For more than a decade TE’s sensor experts have been paving the way for new sensor applications that utilize the advantages of magnetic sensing principles for motion and speed detection. Automotive sensor customers benefit from this background of profound application expertise during every new challenge.

By integrating its innovative sensors in demanding new application areas such as automated transmissions, engines, clutch, brake and other mission critical areas, TE Connectivity has contributed to making cars safer, more fun to drive, and greener. Thus TE sensor technology has become an integral part of many modern car’s nervous system.

For instance, TE sensors are part of getting the car ready to drive safely and to protect the driver. During driving, sensors provide data for safe handling, while other applications help to improve vehicle efficiency and driving comfort.
Whether the drivetrain of a car has an internal combustion engine or not – TE sensors also help to make mobility greener: Recent sensor innovations provide the data basis for efficient electric traction motor control functions in hybrid and electric vehicles.

TE Connectivity’s engine / e-motor sensors are used in vehicle applications such as travel sensor for turbo charger actuator (truck), pneumatic EGR Cylinder (truck), and pneumatic turbo charger actuator; rotary sensor for EGR actuator, and resolver for e-motor commutation and electric power steering.
The current technology portfolio of non-contacting magnetic sensors includes PLCD sensors, (3D) Hall sensors, and reluctance resolvers, to name the most relevant. While the underlying sensor technology is at least to a certain extent common knowledge in the world of sensors, the TE sensor experts bring deep and profound application know-how to the market, which is sought after and appreciated by leading vehicle manufacturers as an added value.

95 percent of all TE sensors are tailored to the individual application, using released base technologies developed by global competence centers to enable robust products and quick time to market. Despite this high level of adaptation, platform products are available which enable fast sample availability (typically 4-6 weeks) at mass production quality level to help reduce customer time to market.

With hundreds of millions of non-contacting sensors sold, TE Connectivity is a proven technology provider to the passenger car, commercial vehicle and industrial vehicle industries. Magnetic TE sensor technology and application knowhow, combined with 1st in class connector systems and special cable assembly capabilities, help to overcome today’s and tomorrow’s challenges of sensor integration.

Our transmission sensors are used in vehicle applications such as neutral detection sensor for manual transmission (MT) to support the start and stop function; gear, shift and clutch detection for automated manual transmission (AMT); drive mode sensor (travel or rotary measurement) for automatic transmission (AT), continuously variable transmission (CVT), or dual clutch transmission (DCT).
TE Connectivity’s economic strength and global footprint make TE Transportation Solutions a strong partner and capable one-stop-shop for sensor applications.

Our chassis sensors are used in vehicle applications such as travel sensors for rear axle steering to support advanced Electronic Stability Program (ESP); steering angle position sensors; seat track position sensors; hall switches for on/off position detection and cylinder position detection.

In the automotive industry, development time is a key factor for successful market positioning. TE’s answer is a platform strategy for non-contact travel, angle and speed sensors. Standardized designs and production processes offer short-term availability of fully functional sensors for system testing and low-volume production. Depending on the field of application, different technologies will be used.
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