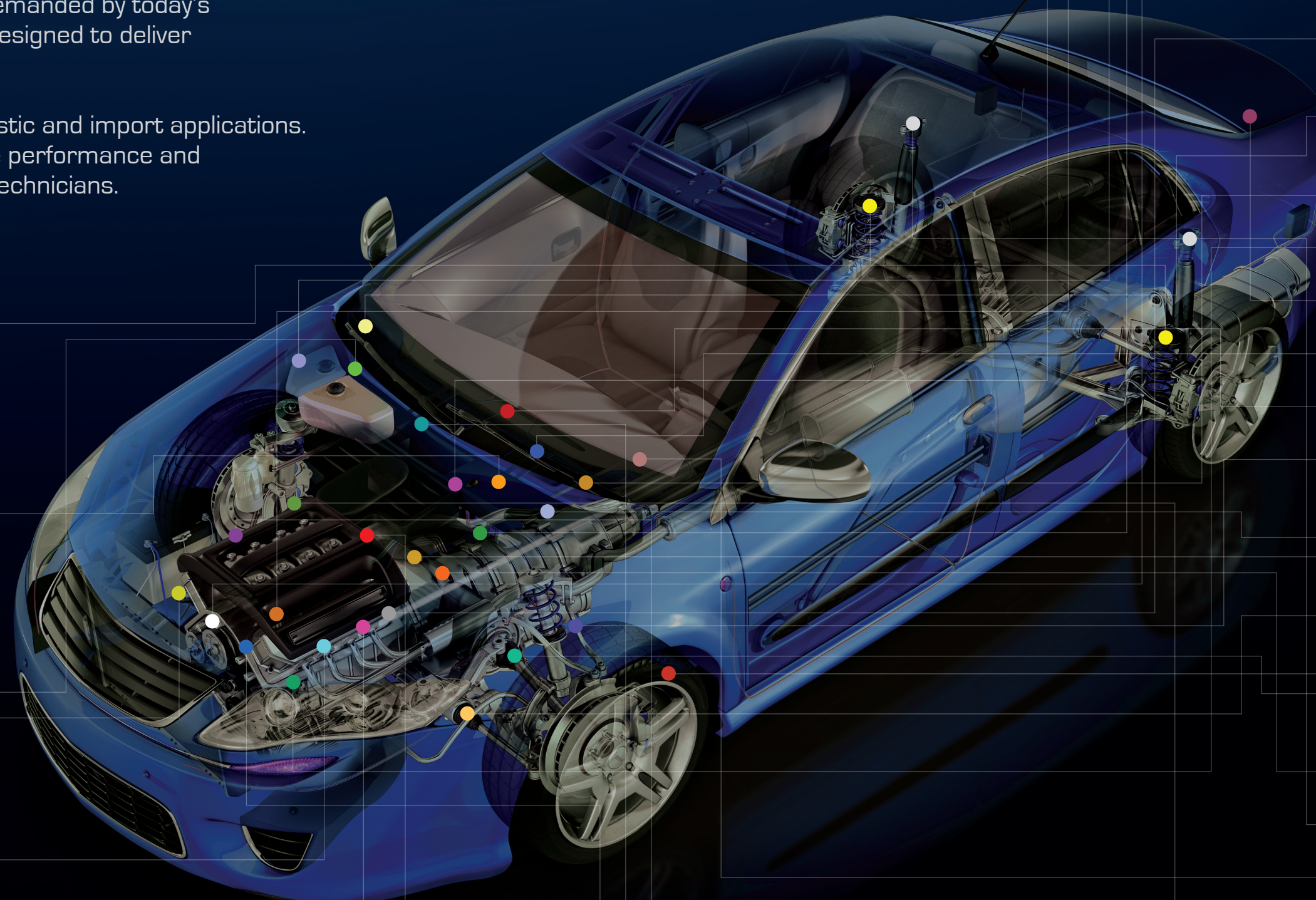


# SENSORS: HIGH TECHNOLOGY FOR TODAY'S CARS AND LIGHT TRUCKS

The computers on modern vehicles receive and process information from many different sensors. When these sensors fail or function incorrectly, it can lead to drivability and safety issues. NAPA® Echlin's expansive line of sensors is your go-to source for the form, fit, and function demanded by today's technicians. All of our state-of-the-art sensors are designed to deliver exceptional performance and extended service life.

NAPA® Echlin® offers a full line of sensors for domestic and import applications. Each one is manufactured and tested to ensure the performance and durability that's demanded by today's professional technicians.



- Acceleration Sensor
- Air Cleaner Temperature Sensor
- Barometric Pressure Sensor
- Brake Fluid Level Sensor
- Coolant Level Sensor
- EGR Pressure Feedback Sensor
- Heater Core Temperature Sensor
- Methanol Fuel Sensor
- Oil Temperature Sensor
- Rear Washer Level Sensor
- Steering Rate Sensor
- Tail Light Outage Sensor
- Transmission Input Speed Sensor
- Transmission Output Speed Sensor
- Transmission Shift Position Sensor
- Transmission Temperature Sensor
- Turbo Boost Sensor
- Vehicle Height Sensor
- Washer Fluid Level Sensor



**ABS Speed Sensor** ●  
Monitors wheel speed and communicates with the ABS computer, which uses the information to prevent brakes from locking during an emergency stop.



**Accelerator Pedal Position Sensor** ●  
Indicates accelerator position on vehicle models with electronic throttle control.



**Ambient Air Temp Sensor** ●  
Changes resistance with temperature, which the computer uses to trim air/fuel ratio according to air density.



**Camshaft Position Sensor** ●  
Determines which cylinder is firing to establish injector synchronization and coil firing sequence in DIS systems.



**Coolant Temperature Sensor** ●  
Changes resistance with temperature, which the computer uses to trim fuel delivery and timing based on engine coolant temperature.



**Crankshaft Position Sensor** ●  
Provides computer with crankshaft position and RPM information for calculating injector repetition, timing advance, and distributorless ignition synchronization.



**EGR Valve Position Sensor** ●  
Detects movement and position of EGR valve pintle and sends it to the computer, which uses the information to control EGR flow to engine and trim air/fuel ratio.



**Knock (Detonation) Sensor** ●  
Creates voltage signal based on vibrations caused by detonation, which the computer uses to retard timing when spark knock occurs.



**Manifold Absolute Pressure Sensor** ●  
Converts engine vacuum/manifold pressure to electrical signal, which the computer uses to determine how much load the engine is under. This data is the basis for fuel delivery and timing control.



**Mass Air Flow (MAF) Sensor** ●  
Measures amount of airflow entering intake manifold and communicates with Engine Control Module (ECM) for fuel and timing control.



**Throttle Position Sensor** ●  
Moves with throttle and creates voltage signal indicating throttle angle and speed of movement data, which the computer uses to measure engine load, clear flood mode, and adjust timing, fuel delivery, EGR, and converter clutch operation.



**Tire Pressure Monitoring (TPMS) Sensors** ●  
Measures, identifies, and warns driver when one or more tire is significantly under-inflated. Each sensor transmits temperature, air pressure, battery state, and sensor location to the vehicle's computer.



**Vehicle Speed Sensor** ●  
Measures transmission/transaxle output or wheel speed, which the ECM uses to modify engine functions such as ignition timing, AF ratio, transmission shift points, and initiating diagnostic routines.



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