



## Exhaust Gas Temperature Sensors



In a global attempt to reduce our carbon footprint by decreasing our greenhouse gasses, air pollution and fossil fuel usage, we are constantly pushing our vehicles to new heights with increased fuel economy standards and lower tailpipe emissions. These global emissions standards are continually changing and becoming more stringent each year. This in turn has created the need for smarter and more sophisticated exhaust after-treatment systems. At the center of these after-treatment systems are an array of sensors designed to monitor and control the different aspects of the vehicle's performance and operating condition.

Included in this range of new sensors, one of the most commonly over-looked and ignored is the importance of the Exhaust Gas Temperature Sensor (EGTS). These sensors play a very important and crucial role in the overall health and performance of the vehicle and its exhaust system.

Generally, when someone thinks of an EGTS, we tend to think this part is only used on diesel powered vehicles. For the most part, this is true. High-temperature EGTS's were introduced on diesel vehicles in 2007 and it is estimated that there are currently more than 260,000,000 Sensors in Operation (SIO) around the globe today. On most vehicles, there are between 3 and 6 EGTS's per vehicle. On newer vehicles using Gasoline Direct Injection (GDI), we will begin to see EGTS's being used on these more advanced exhaust after-treatment systems.

The primary role of the EGTS is reading the temperature of the exhaust in multiple locations throughout the exhaust stream and sending that temperature information to the engine control module (ECM). The ECM will then take this information and use it to control the exhaust after-treatment system to reduce harmful emissions and maximize vehicle performance and efficiency.

With multiple vehicle processes affected by the EGTS, it is crucial that they are performing within their limits. The systems affected include the Diesel Particulate Filter (DPF), Diesel Oxidation Catalyst (DOC) and Selective Catalyst Reduction (SCR) Systems. The potential consequences for failing to replace an EGTS in a timely manner may include:

- A clogged DPF
- Improper regeneration of the DPF
- Replacement of DPF
- Over fueling
- Increased exhaust temperatures
- Failure of internal engine components
- Check engine light
- Placing the vehicle into an idle only state, more commonly known as limp mode.

Not all EGTS's are created equal. There are many different types and styles of an EGTS. Some of these differences include: Closed and Open lower shields, Inconel and Stainless-Steel materials, Insertion depths and Fitment angles, Connectors, PTC and NTC Resistance types and many temperature rating differences. The correct EGTS OEM base style sensor replacement is essential.

Walker Products offers a full line of aftermarket Exhaust Gas Temperature Sensors (EGTS), with over 300 SKUs, all being Euro 6 compliant. This provides the automotive aftermarket with the competitive program needed to service this technology trend, and combats premature failure caused by excess pollutants in the exhaust system as the vehicle ages. When there are EGTS troubles, trust Walker as Your First Choice In Quality Products.

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