# **Just the Facts**

# **Coolant Temperature Sensors**



## What does a Coolant Temperature Sensor do?

The <u>Coolant Temperature sensor changes resistance</u> with the temperature. The Coolant Temperature sensor is critical to many PCM functions such as fuel injection, ignition timing, variable valve timing, and transmission shifting.

#### Where are these sensors located?

The Coolant Temperature sensor is located in a coolant passage in the engine usually near the thermostat.

Will a malfunctioning Coolant Temp Sensor illuminate the check engine light or affect vehicle operation? Yes, a failing sensor can illuminate the MIL, and cause the engine to run rich or lean. The transmission may shift incorrectly or not lock-up the torque converter.

#### What are the common causes of failure?

Typically these sensors fail due to corrosion within the coolant system. They may also leak coolant through the wiring connector.

### How to determine if these sensors are malfunctioning.

A DTC will be set if an abnormal reading occurs, P0116 for sensor performance, P0117 low input or P0118 for a high input. The coolant temperature sensor temperature reading should closely match the air charge/manifold temperature reading on a scan tool if the engine has not been run for over an hour. The sensor circuit can be checked for proper voltage using a voltmeter.

# What makes Standard Coolant Temp Sensors the best.

- As a basic manufacturer, Standard has complete control of the manufacturing process from componentry to finished product
- Temperature sensor design specifies tight tolerance thermistor response values to assure accuracy of the temperature measurement and proper part operation
- All Coolant Temperature sensors are 100% factory tested to ensure trouble-free performance





