



Optical/Fuel Temperature Sensor Tests

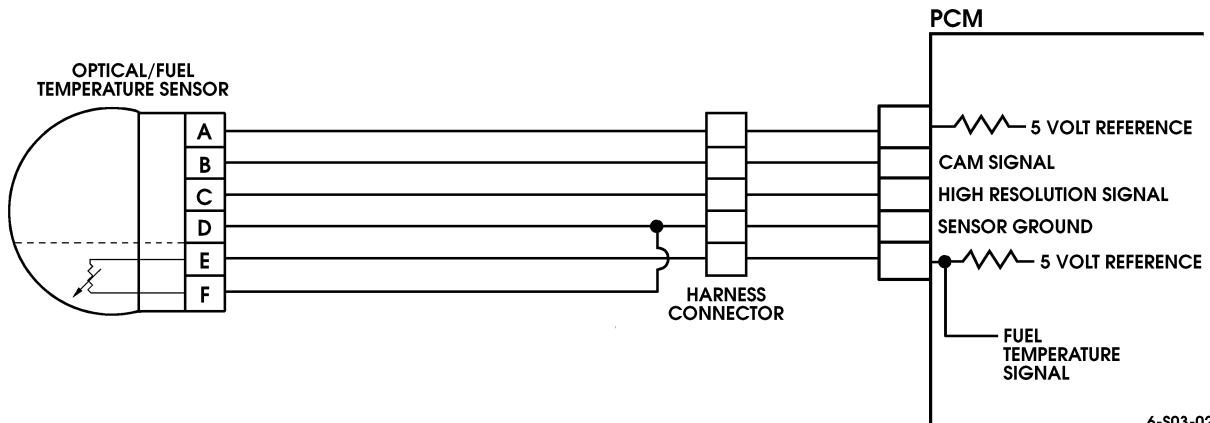
The optical/fuel temperature sensor supplies three signals to the PCM for fuel control and timing. A high resolution signal helps determine injection timing and fuel control. A pump cam signal provides reference pulses that monitor and help determine injection timing. The fuel temperature signal helps the PCM determine pump advance or retard requirements and fuel flow. The sensor is located at the top of the injection pump adjacent to the fuel shut-off solenoid.

A fault in the optical sensor or related wiring will produce fast idle and performance problems. A problem will cause a high resolution circuit fault, or a cam reference pulse error fault.

The sensor can be checked with a scan tool and a voltmeter as follows:

High Resolution Fault Test

1. Turn ignition off.
2. Disconnect sensor harness connector.
3. Turn ignition on.
4. Connect voltmeter to sensor terminal A, of the harness, and to ground (Figure).
 - If meter indicates 5 volts, continue with test.
 - If meter indicates zero voltage, look for open/short in wire to PCM 5 volt reference terminal, connector, or PCM.
5. Connect volt/ohmmeter to a good engine ground and to sensor ground terminal D:
 - If resistance is 0.2Ω or less, proceed to next test step.
 - If resistance is greater than 0.2Ω , problem is with ground wire, connector, or sensor.



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Figure 3-12: Optical/Fuel Temperature Sensor Circuit