

VOLKSWAGEN · POWERTRAIN

P1163

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1163 · Volkswagen

Fuel Temperature Sensor Circuit Open/Short To B+

P1163 on Volkswagen vehicles means the engine control module (ECM) has detected an open circuit or a short to battery voltage in the fuel temperature sensor circuit. The ECM monitors the sensor's signal voltage and flags this code when the reading falls outside the expected range for the current operating conditions, indicating a wiring or sensor fault rather than a plausible temperature.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

**Fuel and air
metering**

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Rough idle or hesitation when the engine is cold, because the ECM lacks accurate fuel temperature data for cold-start enrichment.
- Slightly reduced fuel economy or poor driveability during warm-up if the ECM substitutes a default temperature value.
- In rare cases, a no-start condition or extended cranking when the sensor signal is completely lost and the ECM cannot calculate the correct injection quantity.
- Intermittent warning light that comes and goes with vibration or temperature changes, pointing to a loose connection or chafed wire.

Common causes, most likely first

- 1 Failed fuel temperature sensor, where the internal thermistor has gone open circuit or shorted.
- 2 Damaged or corroded wiring harness between the fuel temperature sensor and the ECM, including chafed insulation or broken strands.
- 3 Loose, backed-out, or corroded terminals at the sensor connector or at the ECM connector.
- 4 Short to battery voltage in the signal wire, often caused by a pinched harness near the engine or fuel rail.
- 5 Contamination or poor contact inside the sensor connector from fuel residue or moisture ingress.
- 6 Less commonly, an internal fault in the ECM driver circuit for the fuel temperature sensor input.



How to diagnose and fix it

- 1 Connect a scan tool and read live data for fuel temperature to see whether the value is stuck, implausible, or missing entirely.
- 2 Visually inspect the fuel temperature sensor connector and the harness routing for damage, corrosion, or loose pins, and repair as needed.
- 3 Disconnect the sensor and measure its resistance with a multimeter, comparing the reading to the expected value for the current ambient temperature.
- 4 Check the signal wire for a short to battery voltage by measuring voltage at the sensor connector with the key on and the sensor disconnected.
- 5 Perform a continuity and resistance test on the signal and ground wires between the sensor and the ECM to rule out an open circuit.
- 6 If the wiring and connector pass all tests, replace the fuel temperature sensor and clear the code.
- 7 After repair, clear the adaptive values and road-test the vehicle to confirm the code does not return and live data reads plausibly.

What the fuel temperature sensor really affects

- A failed fuel temperature sensor often causes no driveability complaint at all, so the warning light may be the only clue and the fault can be missed during a routine service.
- The ECM may substitute a fixed default fuel temperature when the signal is lost, which can mask the fault and make the engine run acceptably while the code keeps returning.
- On many Volkswagen engines the fuel temperature sensor is integrated into the fuel rail or fuel pressure sensor assembly, so technicians sometimes replace the wrong part after misreading the component location.
- A short to battery voltage in the signal wire can be caused by a harness rubbing against a metal bracket near the fuel rail, and this damage is easy to overlook if only the sensor is checked.
- This code is sometimes stored alongside fuel pressure or fuel quantity codes, and diagnosing only the temperature sensor without checking the shared harness can lead to a repeat repair.

Can I keep driving with P1163?

The vehicle is generally safe to drive with this code because the ECM substitutes a default fuel temperature value and the engine remains controllable. Avoid extended driving if you notice rough running or a no-start condition, and have the circuit inspected soon to prevent a more serious fuel control fault.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific Volkswagen model
- Terminal removal tools and electrical contact cleaner
- Basic hand tools for connector and harness access



Reading P1163

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 1** Fuel and air metering.
- 63** The exact fault within that area.

Often seen with

P1162 Fuel Temperature Sensor Circuit Short To Ground · **P1164** Fuel Temperature Sensor Range Performance · **P1162** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1164** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1162** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1164** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1164** HO2S Bank 2 Sensor 3 Rich Or High Voltage · **P1164** HO2S Bank 2 Sensor 3 Rich Or High Voltage · **P1162** Fuel Trim Adaptation Additive Per Ignition Bank 1 Low · **P1164** Fuel Trim Adaptation Additive Per Ignition Bank 2 Low · **P0087** Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P0192** Fuel Rail Pressure Sensor Circuit Low Input

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1163/>

