

BMW · POWERTRAIN

P1332

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1332 · BMW

Knock Sensor 4 Low Input

P1332 on a BMW means the engine control module (DME) has detected an abnormally low voltage signal from knock sensor number 4, which is mounted on the engine block to listen for detonation. The DME compares this signal against expected values and flags the circuit as faulty when the input stays below the minimum threshold.

SYSTEM

Powertrain

CODE TYPE

BMW specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system
and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine performance or power due to the DME retarding ignition timing as a protective measure
- Rough running or hesitation under acceleration if the knock sensor signal is intermittent
- Poor fuel economy as the engine runs with less optimal ignition timing
- In rare cases, a slight knocking or pinging noise if the DME cannot properly detect detonation

Common causes, most likely first

- 1 Damaged or corroded electrical connector at knock sensor 4
- 2 Faulty knock sensor 4 (internal failure or cracked housing)
- 3 Open or shorted wiring in the knock sensor 4 circuit (signal or ground)
- 4 Loose or improperly torqued knock sensor 4 mounting bolt
- 5 Engine mechanical noise (e.g., from a failing lifter or piston slap) mimicking a knock signal
- 6 Corrosion or water intrusion in the sensor connector or wiring harness
- 7 Faulty DME (rare, but possible if all other components test good)

How to diagnose and fix it

- 1 Perform a visual inspection of knock sensor 4, its connector, and wiring for damage, corrosion, or loose mounting
- 2 Check the sensor mounting bolt torque to ensure it is within specification
- 3 Measure the resistance of knock sensor 4 and compare to BMW specifications; replace if out of range
- 4 Inspect the wiring harness for continuity and shorts between the sensor and DME; repair as needed
- 5 Clear the fault code and test-drive the vehicle to see if P1332 returns
- 6 If the code persists, swap knock sensor 4 with a known-good sensor from another cylinder to see if the fault moves
- 7 As a last resort, diagnose the DME for internal faults or software issues



Knock sensor 4 low input pitfalls

- A loose knock sensor bolt is a common cause that is often overlooked because the sensor itself tests fine on the bench.
- Engine mechanical noises such as a failing timing chain tensioner can create vibrations that the DME interprets as a low knock signal, leading to misdiagnosis.
- The knock sensor circuit is sensitive to resistance changes; even a slightly corroded connector can cause P1332 without visible damage.
- On some BMW engines, the knock sensors are located under the intake manifold, making access difficult and increasing the chance of harness damage during other repairs.
- P1332 specifically refers to sensor 4; always verify the sensor numbering and location for the particular engine before ordering parts.

Can I keep driving with P1332?

You can generally drive the vehicle with P1332, but avoid heavy acceleration or towing until the fault is repaired, as the engine may be running with reduced ignition timing and performance. Prolonged driving with a faulty knock sensor can lead to engine damage if detonation goes undetected.

Tools that help

- OBD-II scan tool with BMW-specific software
- Digital multimeter
- Torque wrench
- Socket set and extensions
- Wiring diagram for the specific BMW model

Reading P1332

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (BMW): its meaning depends on the make.
3	Ignition system and misfire.
32	The exact fault within that area.

Often seen with

P1330 Cylinder 6 Knock Control Limit Attained · **P1331** Cylinder 7 Knock Control Limit Attained · **P1330** Igniter Circuit Malfunction No 7 · **P1333** Knock Sensor 4 High Input · **P0325** Knock Sensor 1 Circuit Malfunction (Bank 1) · **P0327** Knock Sensor 1 Circuit Low Input (Bank 1)



See it working

Watch the animated explainer [How a MAF Sensor Works: Hot-Wire Airflow Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1332/>

