EXHAUST GAS TEMPERATURE SENSOR



ITS FUNCTION



The exhaust temperature sensor is a device used in vehicles **to measure the temperature of exhaust gases**. It plays an essential role in regulating the operation of exhaust gas after-treatment systems. It minimises emissions, protects engine components and optimises performance.

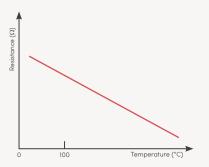
GOOD TO KNOW

The exhaust temperature sensor can be **located in various places** depending on its role:

- Before the turbo: protects against overheating by monitoring incoming gases.
- After the turbo: optimises cooling and prevents overheating.
- **Before/after the catalytic converter or DPF:** assesses the efficiency of the gas post-treatment.
- In the SCR system: ensures optimum conditions for NOx reduction.



ILLUSTRATION



How NTC (Negative Temperature Coefficient) technology works: as the temperature rises, the value of the resistor decreases. The higher the temperature, the lower the resistance.

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TECHNOLOGIES

Temperature sensors use **two main technologies**: thermistors (NTC or PTC) and thermocouples.

In most modern vehicles, NTC thermistors are the most commonly used because of their affordability, accuracy over the relevant temperature range and fast response.