

# NOx SENSOR



## ITS FUNCTION



The NOx sensor **measures the concentration of nitrogen oxides (NO and NOx) in exhaust gases in real time**. These gases are major pollutants produced by internal combustion engines, especially at high temperatures. The **data collected by the sensor is transmitted to the ECU**, which then adjusts the pollution control system (by injecting AdBlue®) to reduce NOx emissions.

**A vehicle may have one or more NOx sensors** installed in the exhaust system: **upstream or downstream of the SCR catalyst**, dedicated to treating NOx.

## GOOD TO KNOW

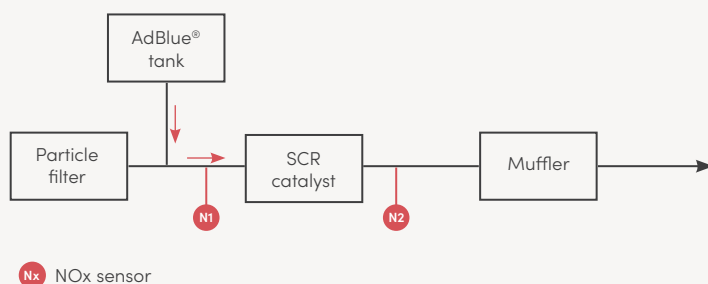
The NOx sensor interacts with various systems, such as the SCR (Selective Catalytic Reductive) catalyst. The NOx sensor is **mainly used in vehicles fitted with SCR systems**, into which a reducing agent (AdBlue®) is injected to **convert NOx into harmless nitrogen (N<sub>2</sub>) and water (H<sub>2</sub>O)**.

In some vehicles, it works **in conjunction with the particulate filter (DPF)**, but also the SCR catalyst, to ensure optimum reduction in emissions.

The NOx sensor **optimises exhaust gas treatment** in real time, guaranteeing compliance with Euro 6+ standards.



## ILLUSTRATION



## TECHNOLOGIES

The NOx sensor uses the electrochemical operating principle.

Gases enter the diffusion chamber **where an electrode reduces the nitrogen oxides**. They then pass into the measurement chamber where **an electrode evaluates the current generated by the electrochemical reaction**. This current is proportional to the quantity of NOx present in the gases.

### TECHNICAL HOTLINE

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