

DPF SENSOR



ITS FUNCTION



The differential pressure sensor **measures the difference in pressure between two points in a circuit**, mainly to monitor clogging of the particulate filter (DPF). It **compares the pressure upstream and downstream of the filter**: if the difference exceeds a threshold, it sends a signal to the engine control unit (ECU) to **trigger regeneration of the DPF and prevent it from clogging**. In this way, it helps to reduce pollutant emissions and maintain engine performance.

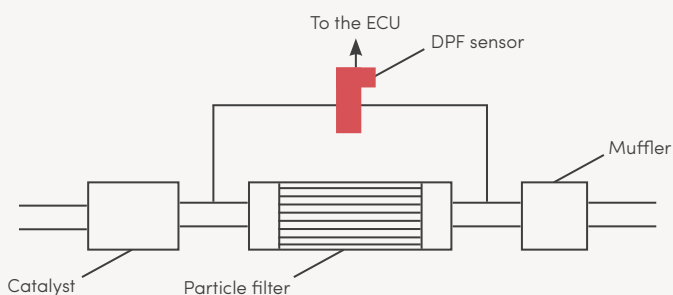
GOOD TO KNOW

The differential pressure sensor is generally located :

- **On the exhaust circuit:** it is fitted near the particulate filter (DPF), with two pressure taps, one before and one after the filter.
- **In the intake circuit:** it monitors the pressure before and after the air cooling exchanger, optimising turbocharger operation and intake air management.
- **On some EGR systems:** it is placed between the exhaust manifold and the EGR valve or its cooler to measure the flow of recycled exhaust gases.



ILLUSTRATION



TECHNOLOGIES

The differential pressure sensor is based on **several technologies**: the piezoresistive sensor, the capacitive diaphragm sensor and the strain gauge sensor.

The most widely used on the market today is **piezoresistive technology**, because of its accuracy, responsiveness and durability, as well as its low production cost.

TECHNICAL HOTLINE

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