Exhaust gas treatment
Particulate matter sensor EGS-PM

Product benefits
- Compliance with current and future emissions limits and on-board diagnostics regulations
- Monitoring of the diesel particulate filter (DPF) function
- Systems expertise covering diagnostics function and sensor
- Communication with the engine control unit via CAN interface

Vehicle segments

1. Sensor control unit SCU
2. Wiring harness
3. Sensor probe
4. Retaining screw
Task Precise and up-to-date data from the exhaust system forms the basis for all functions – from mixture formation to exhaust gas treatment. Specialized sensors are being developed for these functions. Tighter emissions legislation in particular means that additional sensors are required, including the particulate matter sensor. This is used to monitor the performance of the diesel particulate filter (DPF), which helps to reduce particulate emissions by approximately 99 percent. The particulate matter sensor is installed downstream of the DPF and can be mounted easily and quickly by means of a retaining screw.

Function The operating principle of the particulate matter sensor is based on the measurement of resistance. Soot particulates are deposited on an electrode structure and form conductive soot paths between the electrodes. Before each measurement phase, the sensor element is regenerated by heating in order to ensure it is in a predefined state at the start of the measurement process. The DPF diagnostic software then analyzes the DPF performance on the basis of the measured current.

dependable technology

of the particulate matter sensor ensures reliable monitoring of the diesel particulate filter, which helps to reduce particulate emissions by approximately 99%.

reliable compliance

with emissions limits due to Bosch’s extensive know-how, the pioneer of the particulate matter sensor.

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Bosch components

- Dosing control unit DCU/electronic engine control unit MDG1
- Optional with MDG1: heater control unit HCU-PC
- Optional with MDG1: glow control unit GCU
- Supply module SM 5.1 (PC)/SM 5.2 (LD)
- Dosing module DM 3.2/DM 3.4
- Lambda sensor
- Differential pressure sensor
- NOx sensor
- Particulate matter sensor

Other components

- Temperature sensor
- Oxidation catalytic converter (optional: NOx storage catalyst)
- Diesel particulate filter
- Mixer
- SCR catalytic converter

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- Electrical connection
- heat/cold