Exhaust-gas treatment

Differential pressure sensor PS-4-DPF

PRODUCT BENEFITS
- Provides on-demand regeneration for the particulate filter to improve fuel economy

1. Delivery connection for hose connection
2. Mounting hole with sleeve
3. Connector interface to the wiring harness
**precise**

Due to high sensor accuracy, damage to the particulate filter is identified immediately.

**economical**

Precise sensor measurement ensures on-demand particulate filter regeneration to improve fuel economy.

**TASK**

Efficient exhaust-gas treatment is provided on the basis of precise, up-to-date data from the exhaust system. This information is provided by sensors. The differential pressure sensor reports the load state of the diesel particulate filter (DPF) and monitors its performance. By doing so, the sensor ensures the targeted combustion of the embedded particulates in order to regenerate the DPF.

**FUNCTION**

Using its piezoresistive sensor element, the differential pressure sensor monitors the exhaust pressure difference across the particulate filter and precisely calculates its load state. Thus the differential pressure sensor provides the basis for an on-demand, fuel-saving concept for particulate filter regeneration. Software analyzes the sensor data to control the necessary burn-off. A second differential pressure sensor, which is used to control the returned exhaust mass, is located in the low-pressure exhaust-gas recirculation system.

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**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Pressure range</td>
<td>0 – 100 kPa (differential)</td>
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<tr>
<td></td>
<td>0 – 125 kPa (relative)</td>
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<tr>
<td>Response time</td>
<td>&lt; 1 ms</td>
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</table>

**Exhaust-gas treatment**

Denoxtronic (PC/LD) and exhaust-gas sensors

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**Bosch components**

1. Dosing control unit/electronic engine control unit
2. Optional with engine control unit: heater control unit
3. Optional with engine control unit: glow control unit
4. Supply module
5. Dosing module
6. Lambda sensor
7. Differential pressure sensor
8. NOx sensor
9. Particulate matter sensor

**Other components**

10. Temperature sensor
11. Oxidation catalytic converter (optional: NOx storage catalyst)
12. Diesel particulate filter
13. Mixer
14. SCR catalytic converter
15. AdBlue®
16. Electrical connection
17. Heat/cold