Engine management
Camshaft position sensor

Product benefits

- Large temperature range
- Robust design for long lifetime
- High EMC/ESD protection
- Wide air gap range
- Flexible design
- Non-contacting measurement
- Compact design and low weight
- Twist insensitive mounting (TIM)

Vehicle segments

1. Electrical interface (connector)
2. Measuring unit
3. Mounting flange
Task The electronic engine management enables precise, central control of all functions relevant for engine operation. This control is based on ongoing, exact information from the drivetrain. This information is provided by sensors. The engine control unit uses the camshaft speed sensor to record the position of the camshaft. The sensor’s high precision enables a precise variable camshaft phasing, which increases power while reducing emissions.

Function The camshaft speed sensor is designed as a non-contacting Hall sensor. Due to the true power on function (TPO) the sensor is quick start capable: It provides a position information immediately after engine start.

Technical characteristics

<table>
<thead>
<tr>
<th>Functional principle</th>
<th>single-Hall technology</th>
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</thead>
<tbody>
<tr>
<td>Starting function</td>
<td>true power on (TPO)</td>
</tr>
<tr>
<td>Installation</td>
<td>twist insensitive mounting (TIM)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>−40 °C to +150 °C (max. 250 hours at +160 °C)</td>
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<tr>
<td>Air gap</td>
<td>0.2 – 1.8 mm</td>
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</tbody>
</table>

Construction

1. Electrical interface (connector)
2. Mounting flange
3. Measuring unit
4. Trigger wheel