Air management
Throttle position sensor

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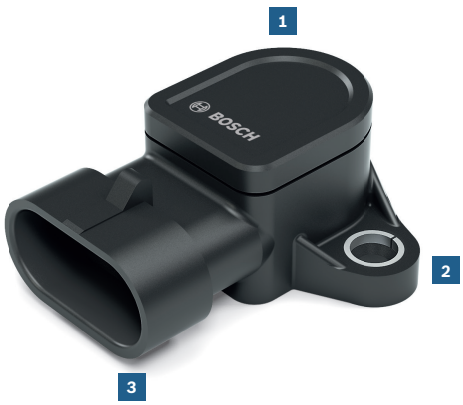

Product benefits

- Better calculation of the filling quantity
- Improves fulfillment of emission requirements
- Increased dynamics of engine response to changes in operator input
- High mounting flexibility for different applications
- Packaging advantage due to small size

1 Sensing unit
2 Mounting flange
3 Connector

Vehicle segments

improved **flexibility**

in the engine layout **due to compact design**.

strong **resistance**

to environmental influences guarantees safe operation.

Task The throttle position sensor measures the throttle valve's angle of rotation at gasoline engines. The signal is used to enhance the filling prediction.

Function The throttle position sensor is a potentiometer with a linear characteristic curve. The rotor arm, which is connected to the throttle valve shaft, runs its wipers over the corresponding resistance tracks. Then the throttle valve's angle of rotation is translated into a proportional voltage ratio.

Technical characteristics

Angle sensor	potentiometer with linear functional characteristic
Signal	ratio metric with diagnostic limits
Measureable electrical angle	0 – 96°
Rotation direction	clockwise and counterclockwise
Construction	two-hole mounting system
Throttle shaft interface	8 mm, D-shaped cross-section
Temperature range	–40 °C to +130 °C

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