

Bosch Engineering Customer Specific Smart O₂-Sensor



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Invented for life



Services for low-level applications

- ▶ System, function and software development for processing the O₂-Sensor signal with a measurement range $\lambda = 0.65$ to air
- ▶ Software integration to compute the O₂-Signal
- ▶ Development of sensor heating strategy and control
- ▶ Developing of the heater monitoring
- ▶ Developing basic monitoring of the O₂-Sensor
- ▶ Adaptation of customer specific CAN-communication

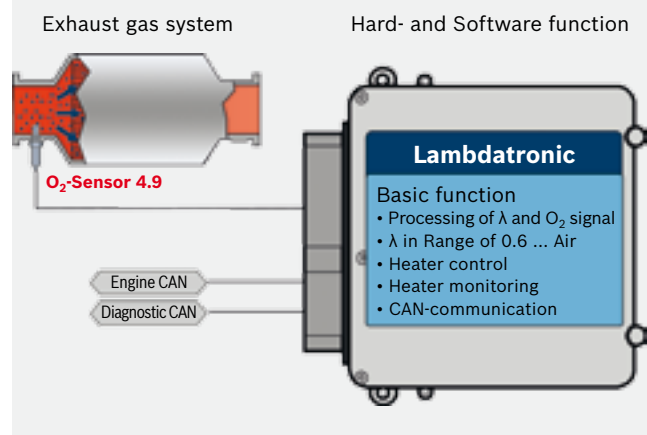
Engineering services: Exhaust-gas sensors

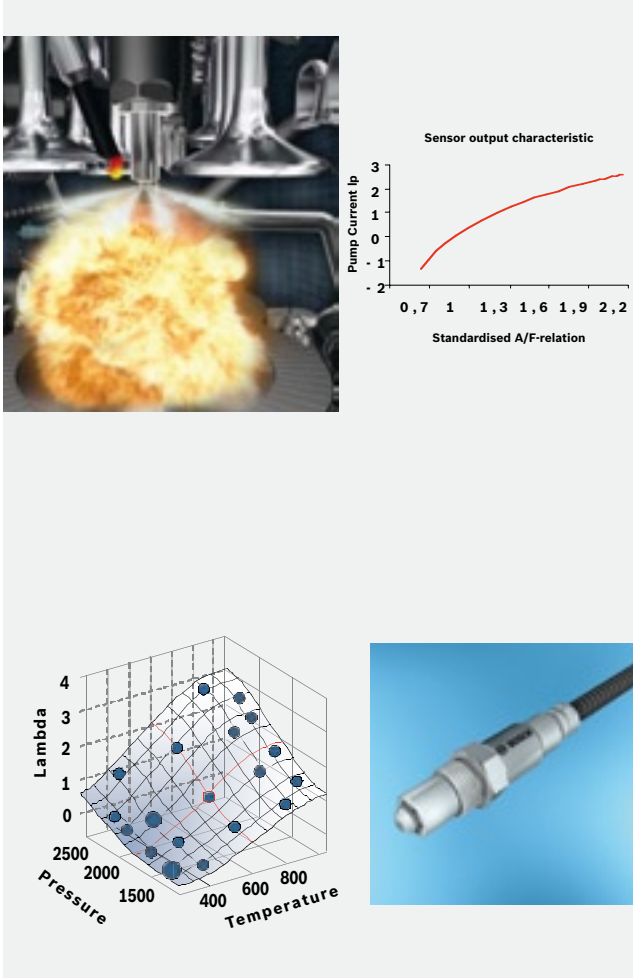
The development of special purpose and niche market engines often requires specialized engineering services. Bosch Engineering GmbH offers solutions for these engines. Individual engineering services and experiences from mass production projects are utilized to adapt the exhaust gas sensor system to the distinctive features of the engine. The adaptation of the exhaust gas system of the LSU4.9 to one or more requirements is a part of this service.

Low-level applications

This includes the application of exhaust gas sensor systems for the measurement of Lambda and oxygen in the exhaust.

Example for low-level Lambdatronic application





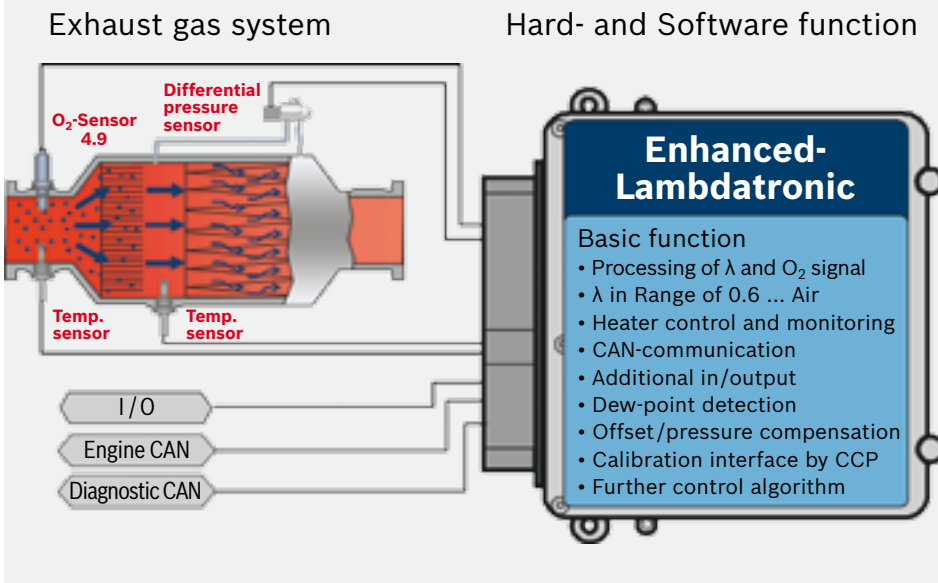
Services for high-level applications

Engines with standard fuel management can be equipped with high level exhaust gas sensor systems to perform more than just monitoring requirements. Any kind of combustion monitoring equipped with customer specific features can perform long term durability for the O₂-sensor signal and appears as partial solution of combustion control.

Services for high-level applications

- ▶ System, function and software development for processing the O₂-Sensor signal with a measurement range $\lambda = 0.65$ to air
- ▶ Software integration to compute the O₂-Signal
- ▶ Development of sensor heating strategy and control
- ▶ Developing of the heater monitoring
- ▶ Developing basic monitoring of the O₂-Sensor
- ▶ Additional in/output (analog, digital)
- ▶ Developing of dew-point detection, Offset and pressure compensation
- ▶ Calibration interface by CCP
- ▶ Adaptation of customer specific CAN-communication
- ▶ Development of customer specific control algorithm

Example for high-level Lambdatronic application



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