

氮氧化物传感器 NOx Sensor

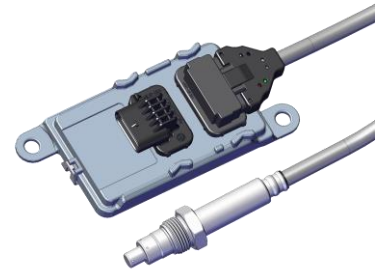
产品介绍 General Description

NOx传感器是内燃机后处理系统中的关键部件，主要用于检测带尿素喷射的选择催化还原系统（SCR）的发动机尾气中的NOx浓度,并将测量值反馈给ECU进行适当的控制以满足排放要求。

The Nitrogen Oxide (NOx) sensor is a key component in the after-treatment system of the internal combustion engine. It is used to detect the NOx concentration in the vehicle exhaust with urea-based SCR systems (Selective Catalytic Reduction) and send measurement values to the ECU to ensure compliance with emissions regulations.

产品特征及优势 Feature and benefits

- ◆ 更快的启动时间。
Faster light off time.
- ◆ 满足国四、国五、国六排放标准。
Meet the emission standards of the national IV, V and VI.
- ◆ 提供各种接插型号及线缆长度，满足不同使用要求。
Connectors and Cable lengths can be customized to meet various applications needs.
- ◆ 全密封防水设计。
Sealed waterproof design.
- ◆ 涵盖多系列车型。
Can be used for various vehicles applications.
- ◆ 良好的抗老化性能。
Good anti-aging performance.



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产品应用 Application

氮氧传感器总成安装在排气系统上用于测试排气中的氮氧化物（NOx）浓度。传感器通过CAN通讯协议发送检测数据和接收上位系统的指令，实现氮氧传感和控制器的通讯。如果SCR系统安装了前后两个NOx 传感器，那后面一个NOx传感器主要用来监控SCR催化转化器的效率。

. This sensor unit is installed in the exhaust gas system and is used to recognize nitrogen oxides in the flow of exhaust gas. The sensor communicates with upper system through CAN protocol to send data and receive instructions. The product accurately detects nitrogen oxides (NOx) in vehicle emission. If the SCR system has an upstream and a downstream NOx sensor, the downstream one has the task of monitoring the effect of the SCR catalytic converter

操作 Operation

◆ 基本原理 Basic principle:

氮氧化物传感器探头，内部封装优质平板型陶瓷芯片，采用HTCC（高温共烧陶瓷）工艺制成，芯片内集成有加热器和多层陶瓷元件。智能控制器利用陶瓷芯片电化学原理，通过测量电流大小，其能精确测试出汽车尾气中NOx和O2含量。

Inside the NOx sensor probe, there is a high-quality planar ceramic-based chip, which is made by HTCC (high temperature co-fired ceramic) process. The chip is integrated with heater and multi-layer ceramic components. The intelligent

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controller can accurately measure the content of NOx and O2 in automobile exhaust by measuring the current from ceramic chip based on the electrochemical working principle.

◆ 连接选项 Connection options:

根据客户选择定制连接系统

Customized connection system according to customer choice

◆ 包装选项 Packaging Options:

可提供定制包装以满足任何需要，请联系KESENS技术部了解详情。

Customized packaging can be provided to meet any need, please contact KESENS Engineering for details.

技术参数 Functional Characteristics

参数	参数指标
测量范围 Measuring Rang	NOx: 0~2500ppm O2: 0% ~ 21%
氮氧化物精度 Accuracy of NOx	0~100ppm: +/-10ppm 100 ppm~500ppm: +/-10% 500ppm~1500ppm: +/-15% 1500~2500ppm: +/-30 %
氧气精度 Accuracy of Oxygen	0%~5% O2 ± 0.2% 5 %~21% O2 ± 4%
响应时间 Response Time	最终值的33%到66%的时间 < 1400ms/ Time from 33% to 66% of final value: < 1400ms
供电电压 Supply Voltage	12V/24V
启动时间 Light off time	< 80s
工作温度范围/Operation Temperature	NOx: 100°C to 800°C
排气温度 Temperature @ emission gas	-40°~800°C
线束温度 Temperature @ Cable	-40~200°C
安装螺纹/Sensor Mounting Thread	M20X1.5

可根据需要定制电气和环境规范，详情请联系KESENS技术部。

Custom electrical and environmental specifications can be designed to meet any need, please contact KESENS Engineering for details.