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# Product Information

# **Customer Handling Information** for NO<sub>x</sub> Sensors

MOTORTECH provides NOx sensors under P/N 56.03.003 and its predecessor 56.03.002. These products can be used in applications like NOx monitoring, SCR catalyst exhaust treatment or Air-fuel ratio control systems on industrial gas engine applications. Our experience shows that special care must be taken when handling and operating NO<sub>x</sub> sensors.

Different engine and genset designs can make it difficult to find a suitable sensor position. The following handling notes need to be strictly considered to avoid premature sensor failure or damage. Ensure that all the additional information in the installation instructions is strictly observed.

- Let the NOx sensor remain in its original package until it reaches its place of use and unpack the NOx sensor no earlier than directly before mounting.
- Avoid condensation at the sensor probe at any time (during unpacking, installation and operation) and respect the mounting advice in detail. Condensation or fluids can damage the sensor internals, causing sensor failures, invalid values or a thermal shock even after dew point reached.
- For operating the NOx sensor, a master control is required, which signals the dew point release to the NOx sensor via the CAN bus (min. 180 °C). The MOTORTECH EasyNOx NOx monitoring is providing this feature as part of the NOx sensor handling procedure.
- Any installations needs to ensure the correct mounting position and mounting angle and sensor probe depth according to MOTORTECH installation instructions to avoid condensation spots at all times. Only use the welding boss provided by MOTORTECH P/N 07.81.074. Further please ensure that the sensor is only installed and removed once in its lifetime.
- Also avoid an overheating of the sensor wiring, grommet and electronic control unit. Make sure that exhaust insulation is not covering the sensor, grommet and wiring in a way that can cause a thermal overheat beyond the max. temperatures provided in the datasheet.









Source: MKP Service GmbH

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# Product Information

Request for Material Return



https://www.motortech.de/infocenter/download-center/request-for-material-return.html

The following documents and info need to be provided in a Return Material Authorization (RMA) case:

- Fotos of sensor mounting position in exhaust line as well as complete wiring and monitoring system
- Sensor operation data (can be exported from EasyNOx system as PDF report or CSV file
- A proof that sensor angle position and welding boss are made according to MOTORTECH specification
- A proof of a dew point detection system and its logics (included in the EasyNOx system with using a thermocouple)

# Attending documents:

NOx sensor technical datasheet

https://www.motortech.de/fileadmin/user\_upload/technicaldata/MOTORTECH-Technical-Data-Sheet-NOxSensor-56.03.003-01.43.008-EN-2021-03.pdf

NO<sub>x</sub> sensor installation guide

https://www.motortech.de/fileadmin/user\_upload/manuals/MOTORTECH-Manual-NOxSensor-56.03.003-01.40.004-EN-2021-03-WEB.PDF

## Sales Flyer Handling Guidelines MOTORTECH NOx Sensors

https://www.motortech.de/fileadmin/user\_upload/salesflyer/Handling-Guide-MOTORTECH-NOx-Sensors-EN.pdf

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