

EGR Valve

Performs the exhaust gas recirculation



Role & Operation

The exhaust gas recirculation (EGR) system is a system that reduces nitrogen oxide (NOx) emissions in combustion engines.

EGR valve operates by re-circulating a portion of the engine's exhaust gases, routing them back to the engine intake, thus introducing them to the combustion.

As a result, the oxygen content in the air-fuel charge mixture is reduced. Consequently, the combustion temperature gets lowered and the nitrogen oxide (NOx) gas concentration in the exhaust reduces significantly.



Possible Designs

- Pneumatic
- Solenoid
- Torque Motor
- DC Motor
- Water-cooled EGR system



Important to know

- EGR valves operate in the extreme temperature range of the exhaust gases. Most common issues with the EGR relate to improper quality of the exhaust gases and related systems.
- An excessive carbon/soot formation that builds up inside the valve is one of the most common causes for EGR valve failures. Excessive oil consumption and thus combustion contamination, malfunction of crankcase ventilation, turbocharger failures, improper fuel and/or improper fuel injection can lead to excessive carbon fouling, soot build up and restricting of the opening/closing function of the valve.
- Specific driving patterns (e.g. only driving short distances) over the long term can also affect the EGR valve's operation.
- A malfunctioning EGR valve will result in improper engine combustion and lead to choking/irregular idling and can typically be spotted by engine faults registered by the ECU.

EXPERIENCE THE DIFFERENCE:



Easy Handling

No fees, no charges, no return of old units.
Complete, Factory New EGR Valves!



Range & Availability

An attractive initial product range covering the most popular vehicle models within Euro 4 and Euro 5 norms. Pneumatic and solenoid-operated EGR valves.



Reliable & Safe

All Nissens EGR valves are fully tested within the most critical functions to ensure the valve's proper fit and operation.

Nissens EGR valves offer a harmonious exhaust gas recirculation process, leading to reliable engine combustion with proper exhaust emissions.

Our comprehensive examination approach for EGR valves includes the following test series:

- Dimensional validation of critical components
- Complete test of the all valve's functions
- Hysteresis measurement on electrically operated EGR valves
- Key electrical functions such as coil/sensor resistance measured and monitored
- Actuator calibration and the actuation linearity characteristic check
- Vibration test
- High-temperature performance test

Product launch in **2019**



Proven Reliability

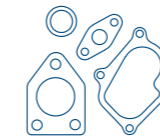
The highest-grade, industry acknowledged materials and comprehensive product testing is applied to our EGR valves to ensure the component's long, reliable operation in extreme conditions that are typical for harsh environments, such as heat of combustion and exhaust gases flows.



Easy Installation

Fits the engine layout and the relevant connections smoothly. Fully compatible with the vehicle's systems.

First Fit Product: Relevant gasket set of OE-matching quality included in the product box.



NISSENS EGR VALVE⁺



Robust Design

The overall product quality, including finish, material and testing, matches strict automotive OE standards.

Key components made of high nickel percentage alloys, offering superior heat resistance and durability in extreme temperatures.

Critical components in special design and re-engineering focus, specifically:

- Actuator Diaphragm & Housing
- Valve Housing
- Lever and Drive Arms
- Valve Spring
- Valve Poppet, Stem & Bushing
- Position Sensor
- Plastic elements
- Gaskets & Seals