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# BRIEF INFORMATION

## Ignition Coils

- Tested according to the HELLA quality standard
- A wide range of vehicle-specific applications
- Manufactured according to current EEC specifications and derived from the specifications of the engine manufacturers
- Ready for installation in the respective engine type

## PRODUCT FEATURES

The proportion of electronics in vehicles has increased continuously in recent years. A development in which HELLA has long played a special role as an innovation leader in the field of automotive original equipment. The independent parts market also benefits in particular from this long-standing original equipment expertise – because HELLA successfully transfers its extensive OE know-how to this area and in this way makes optimal use of the existing expert knowledge.

HELLA's high level of electronics expertise is also reflected in the HELLA ignition coils, an essential component of the ignition system. The high voltage generated in the secondary winding jumps over to the spark plug, which directs the ignition spark into the combustion chamber and thus ensures the optimal combustion process.

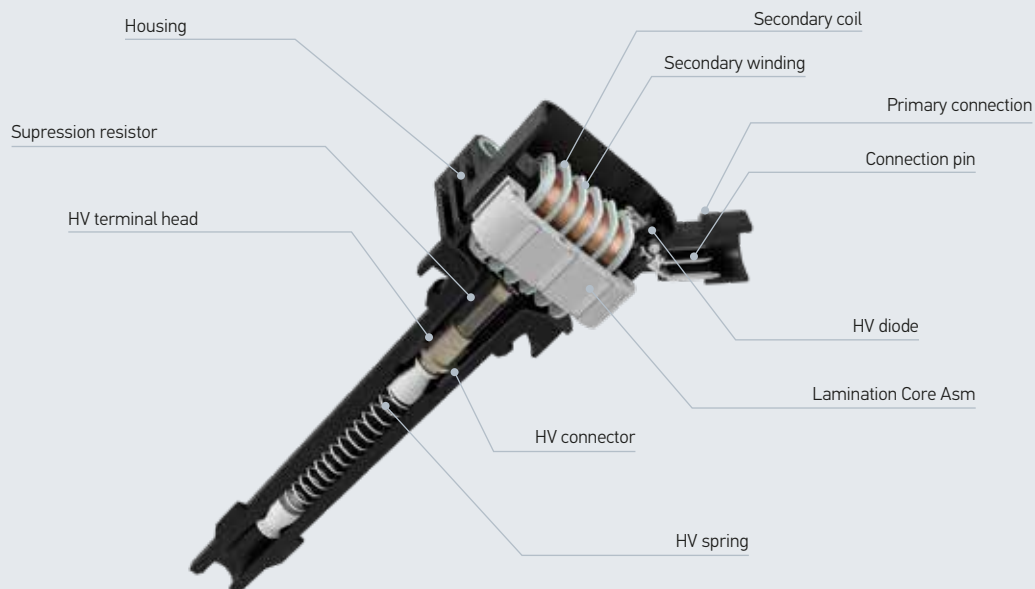
# TECHNICAL DETAILS

## How does it work?

The ignition coil's task is to induce a high voltage from a low voltage. This causes the ignition spark that is needed in order to flash over on the spark plug. The main components are the primary winding, the secondary winding, and the electrical connections.

A collapsing magnetic field in the primary coil causes a high voltage to be induced in the secondary coil.

The amount of high voltage induced depends on the speed of change in the magnetic field, the number of windings on the secondary coil, and the strength of the magnetic field. The opening induction voltage of the primary winding is between 300 and 400 V. The high voltage on the secondary coil can be up to 40 kV, depending on the ignition coil.



## Glossary

Here are examples of two different designs:

- 1** Single-spark coil /pencil coil:  
One coil per cylinder, usually installed directly above the sparking plug.
- 2** Multi spark ignition coil:  
Several coils are housed in a single casing (block) to supply all of the sparking plugs installed in the engine with the required ignition voltage. Quite often, an ignition output stage is integrated in the block ignition coil.

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