

Delphi

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PHINIA

- VEHICLE ELECTRONICS
- GASOLINE FUEL SYSTEMS
- WORKSHOP SOLUTIONS
- DIESEL FUEL SYSTEMS
- CHASSIS
- STARTERS & ALTERNATORS

THE COMPLETE AFTERMARKET SOLUTION



WE'VE GOT YOUR BACK...

We are excited to introduce our **comprehensive vehicle electronics portfolio**!

At **Delphi**, we pride ourselves on offering one of the most extensive ranges in the market, including **ignition coils**, **EGR valves**, and a **wide range of sensors**. Whatever you need, **we've got you covered**.

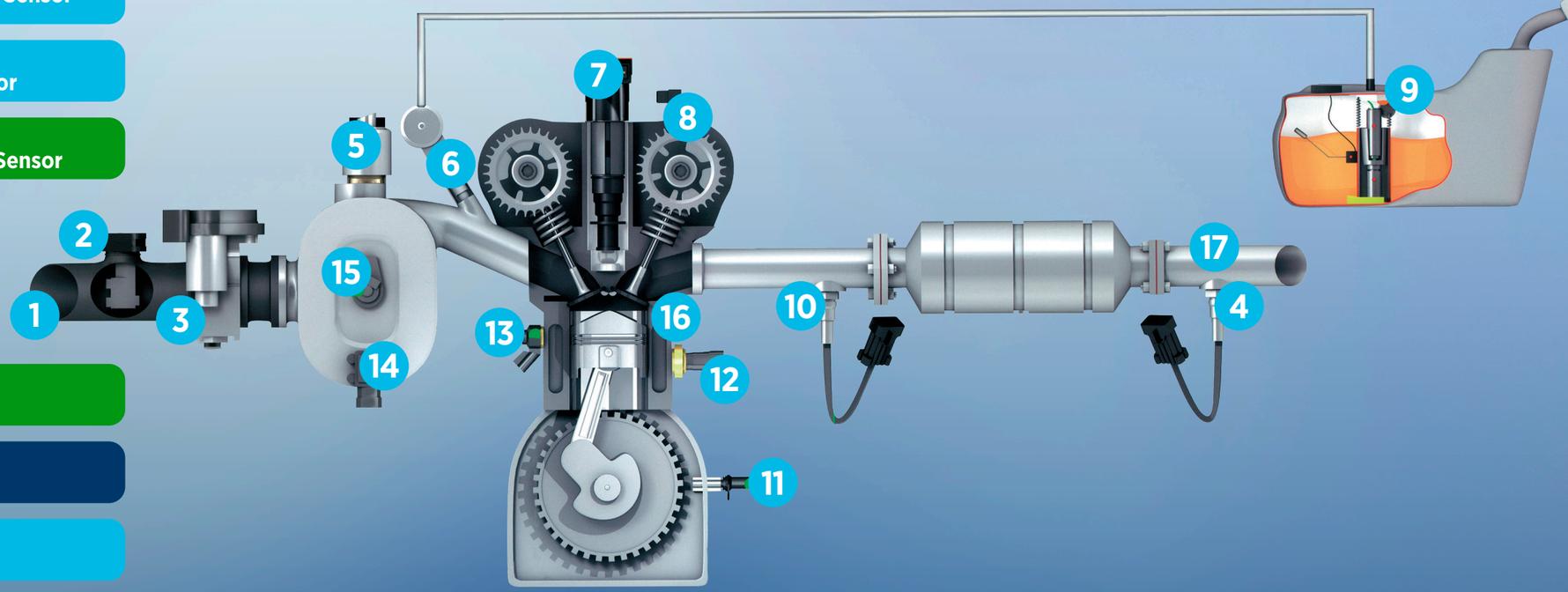
Innovation is at the heart of what we do. We are committed to **equipping technicians** with the **latest technologies**, including our newest addition to the **emissions sensors portfolio**, **NOx Sensors**. These **state-of-the-art sensors** not only expand our range but also highlight our dedication to a more **sustainable future**.

Whether it's **parts**, **tools**, **support** or **training**...
We've got your back.

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1. Air Intake Temperature Sensor
2. Mass Air Flow Sensor
3. Throttle Position Sensor
4. Exhaust Gas Temperature Sensor
5. EGR Valve
6. Fuel Injector
7. Ignition Coil
8. Camshaft Sensor



9. Fuel Module
10. Oxygen Sensor
11. Crankshaft Sensor
12. Temperature Sensor
13. Knock Sensor
14. Manifold Absolute Pressure Sensor
15. DPF Sensor
16. Oil Pressure Switch

ABS

OE EXPERTISE | Backed up by rigorous testing: **contamination, electrical & durability**

LEADING EUROPEAN COVERAGE | **#1 OEM coverage across Europe on:** Ignition | MAF | O2 | DPF | ABS | EGR Valve Crankshaft | Fuel Modules

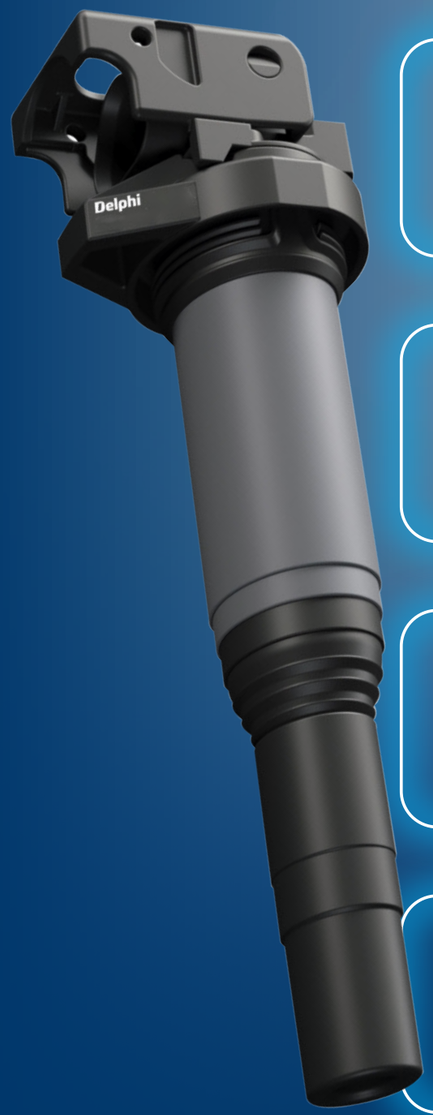
VEHICLE ELECTRONICS PORTFOLIO

ENGINE | EMISSIONS | FUEL | SAFETY

WORKSHOP SOLUTIONS | From diagnostics to tech support... **...We've got your back!**

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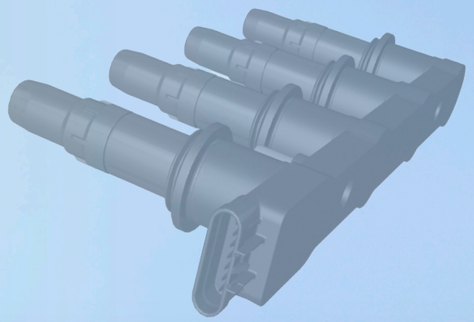
230-hour thermal cycle test, preventing wiring damage, insulation failures and short circuits

Primary and secondary coils wound smoothly and tightly for optimum magnetic power

Winding built directly onto the proprietary steel core for maximum efficiency

Special vacuum technique to remove air bubbles and imperfections from the epoxy

COMPLETE PRODUCT SOLUTION
IGNITION COILS



Although the fundamentals of an **ignition coil** have not changed, the demands placed on them have. **Tighter emissions regulations**, **less engine space** and requirements for **better fuel economy** and **higher ignition voltage** – up to **45,000 volts** in modern cars - means that **coil technology** is constantly evolving. **Delphi**, with **over 100 years** of **OE ignition system expertise**, has been at the forefront of these changes. We've developed **advanced magnetic design** and **modeling capabilities**, resulting in **efficient coil designs** that **enhance engine performance**, **reduce emissions**, and **improve fuel economy**.

ELEVATE YOUR SKILLS WITH THE **DELPHI EXPERTS HERE BY VISITING THE MASTERS OF MOTION HUB NOW!**

HOW-TO TEST
AN IGNITION COIL

#DTMASTERCLASS
IGNITION COILS

HOW-TO REPLACE
AN IGNITION COIL

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IGNITION COIL TEST

THE RESULTS

At **Delphi** we put our **OE expertise** into each of our **ignition coils**, but how to they measure against other brands? **Testing is crucial**. We conducted **rigorous testing** on **five Delphi coils** compared to other **aftermarket** and **OE coils**, and the results are in.

All five Delphi ignition coils passed 100% of the **electrical performance tests**, contrasting with other Aftermarket brands products, each facing at least one failure.

The results confirm **Delphi's lead** in producing **reliable**, **eco-friendly ignition solutions**.

DELPHI IGNITION COILS MET & EXCEEDED PERFORMANCE STANDARDS SET BY OE MANUFACTURERS.

- Primary resistance
- Secondary resistance
- Dwell time
- Primary current
- Output energy
- Secondary voltage
- Spark duration
- Secondary current
- Make on voltage

DELPHI	OE	BRAND 1	BRAND 2	BRAND 3	BRAND 4
✓	✓	✓	–	✓	✗
✓	✓	✓	✗	✗	–
✓	✓	✗	✓	✗	✓
✓	✓	✗	✓	✗	✗
✓	✓	✓	✓	✗	✓

✓ PASSED – NOT AVAILABLE ✗ FAILED

DELPHI IS THE ONLY BRAND TO PASS ALL TESTS!



MASS AIRFLOW SENSORS

Respond quickly to changing engine conditions – typically less than 15 milliseconds to respond to 90% of a flow change



CAM/CRANK SENSORS

Engineered to maximise the signal-to-noise ratio, optimising valve timing to boost power at higher engine speeds



KNOCK SENSORS

Utilise piezoelectric crystals to generate voltage when they detect engine knock



MANIFOLD ABSOLUTE PRESSURE SENSORS

Feature a silicon wafer, which flexes during pressure variations, delivering an accurate reading to the ECU



OIL PRESSURE SWITCHES

Accurately sensing changes in oil pressure ensures optimum lubrication of engine components, reducing engine wear

COMPLETE PRODUCT SOLUTION
ENGINE SENSORS

MAF | CAM | CRANK | KNOCK | MAP | OIL PRESSURE



Engine sensors track parameters like **pressure**, **airflow**, and **temperature** in real time. This data is sent to the **electric control unit (ECU)**, which adjusts functions like **ignition timing** to ensure **optimal performance**. **Delphi's range** offers **extensive coverage** and **best-in-class performance**, covering **camshaft**, **crankshaft**, **knock**, **MAF**, **MAP**, and **oil pressure sensors**.

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HOW-TO TEST
A MAF SENSOR

HOW-TO TEST
CRANKSHAFT SENSORS

HOW-TO PROTECT
MAF SENSORS

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COMPLETE PRODUCT SOLUTION
EMISSIONS SENSORS

EGTS | DPF | OXYGEN | NOx



Emissions sensors monitor and control pollutants emitted by vehicles. An accurate sensor can **reduce harmful emissions**, resulting in a **more sustainable**, **environmentally friendly driving experience**. Our range includes **diesel particulate filters** or **DPF**, **exhaust gas temperature**, **NOx**, and **oxygen sensors**.



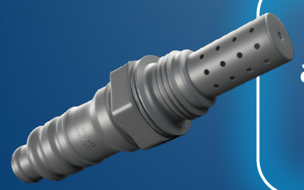
EXHAUST GAS TEMPERATURE SENSORS

Measure temperatures between -40°C and 900°C, detecting jumps of 300°C in just 11 milliseconds



DIESEL PARTICULATE FILTER SENSORS

The robust silicon carbide construction supports multiple regeneration cycles in the harshest conditions



OXYGEN SENSORS

Feature a planar sensing element, with an integrated heater and patented poison protection coating, providing enhanced reliability during operation



NOx SENSORS

Three sensing element cavities ensure the measurement of “pure” NOx, enhancing the accuracy of the reading

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HOW-TO RECALIBRATE **DPF SENSOR**

HOW-TO CHECK **A NOx SENSOR**

WHY YOU SHOULDN’T **CLEAN AN O2 SENSOR**

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Compatible with over 260 million vehicles, our ABS sensors offer one of the most comprehensive ranges in the market

70+ parts engineered specifically for hybrid and electric vehicles (EVs)

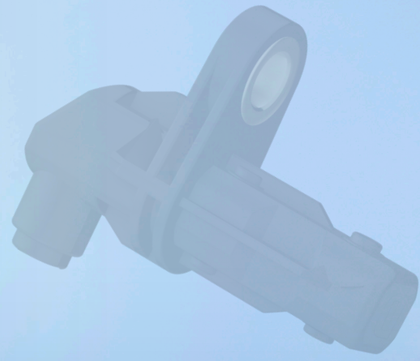
Rigorous testing: 100 hours at 150°C in SCU testing - showcasing extended lifespan and minimal maintenance needs

Operate between -40°C and 850°C, guaranteeing sensor functionality in harsh environments

Utilises weather-pack connectors to repel dirt, moisture and other contaminants, protecting against corrosion with plated pins

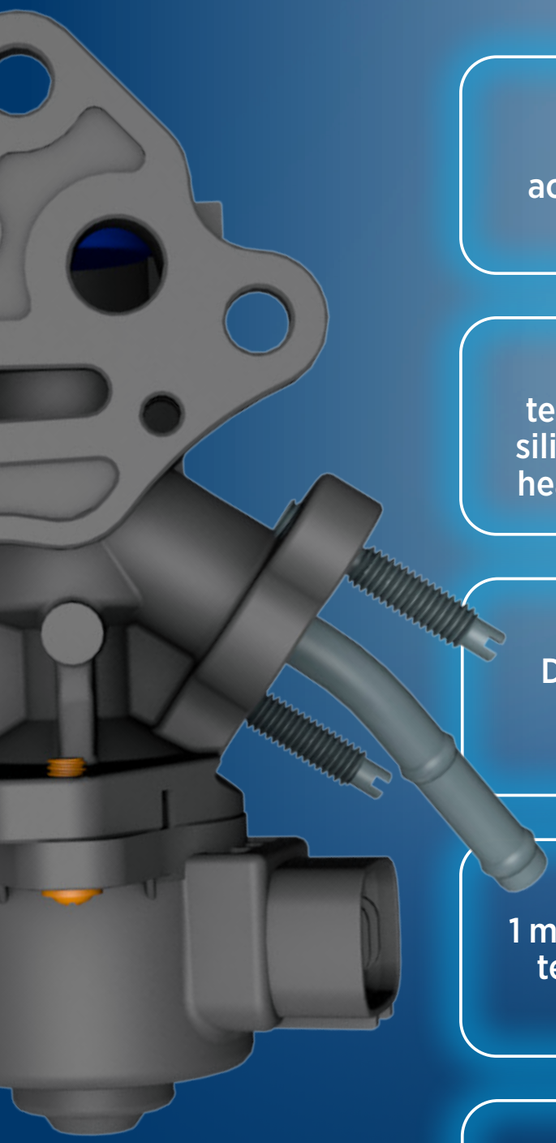
COMPLETE PRODUCT SOLUTION
SAFETY SENSORS

ABS SENSORS



ABS sensors play a crucial role in **vehicle safety** by **preventing wheel lock-up** during braking. These sensors **monitor the speed** of each wheel and send this information to the **ABS Control Unit**. When the system detects that a wheel is about to lock up, it modulates the brake pressure to maintain traction and control. **Accuracy** and **reliability** is paramount with this **safety critical** part and **Delphi** put their **OE expertise** into ensuring that their range of **ABS sensors** provide an accurate reading in the **harshest of environments**.

CHECK OUT HOW-TO REPLACE AN **ABS SENSOR** WITH THE **DELPHI EXPERTS HERE BY VISITING THE MASTERS OF MOTION HUB NOW!**



Powder alloy replacing the brass accessories to increase wear resistance

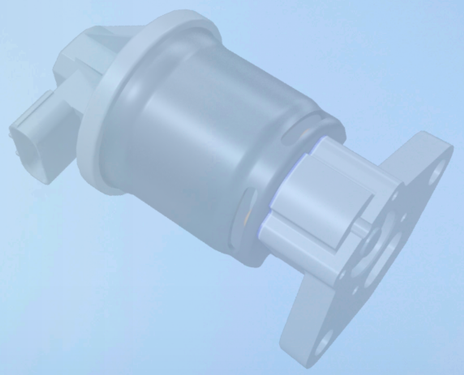
Robust stainless steel valves, high temperature internal windings and RTV silicon seals - highly resistant to extreme heat, contamination, corrosion and wear

Dynamic high-temperature durability testing from -40°C to 140°C

1 million cycles of high strength durability testing, to ensure robust performance

When required, we include additional sealing rings with our EGR Valves, to further improve product airtightness

COMPLETE PRODUCT SOLUTION
EGR VALVES



As the name suggests, the **exhaust gas recirculation valve (EGR valve)** recirculates finely metered quantities of exhaust gas to the engine intake system. By simply altering the chemical makeup of the air entering the engine and thus lowering the temperatures in the combustion chamber, it reduces the production **of NOx** for a cleaner, more **efficient exhaust**. With so much at stake, you'll want to fit a **quality brand with proven OE technology**.

ELEVATE YOUR SKILLS WITH THE **DELPHI EXPERTS HERE BY VISITING THE MASTERS OF MOTION HUB NOW!**

HOW-TO REPLACE
AN EGR VALVE

HOW-TO ADAPT A
LOW PRESSURE EGR VALVE

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PERFORMANCE & ACCURACY - GUARANTEED:

QUALITY TESTING FOR VEHICLE ELECTRONICS PARTS



You demand reliability. At Delphi, we guarantee it.

Our full **Vehicle Electronics portfolio** undergoes **rigorous testing** to ensure **performance** and **accuracy**, whatever the conditions.

We use **salt fog** and **contamination tests** with **engine oil**, **coolant** and **brake fluid**. Our parts must **maintain electrical resistance** and **output signals** within **OE tolerance**. That's not all, we use **drop tests**, **vibration** and **thermal shock tests** to ensure **durability** and meet our **Delphi standards**.

These tests are not just numbers; they represent our dedication to providing you with **exceptional products** that you can trust.

Safety and **performance** are our top priorities, we are committed to deliver **nothing but the best!**

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Anodized aluminium can reduce flow loss by up to **100%** in severe contamination

New carbon commutator reduces oxidation and **premature wear**, **extending fuel pump life** by up to **300%**

High capacity synthetic mesh inlet filter is able to filter out even the smallest particles & contaminents

Button style contacts feature **additional wear material** that can last for **over 500K cycles**

Over-moulded armature protects pump windings in corrosive environments

COMPLETE PRODUCT SOLUTION
FUEL PUMPS & MODULES



Fuel pumps play a crucial role in a vehicle's operation by maintaining the **optimum fuel pressure** required by the engine, as too little pressure can lead to poor performance, but too much pressure can damage components.
At **Delphi**, we are committed to engineering **reliable** and **durable fuel pumps** with our **OE expertise in mind.** We ensure **consistent fuel flow** and **pressure**, **minimizing** the **risk of engine damage,** and **delivering optimal performance**.

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#DTMASTERCLASS
FUEL PUMP VISUAL INSPECTION

HOW-TO CLEAN
THE FUEL TANK BEFORE PUMP REPLACEMENT

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PERFORMANCE & ACCURACY - GUARANTEED:

QUALITY TESTING FOR FUEL MANAGEMENT

When it comes to testing our **fuel pumps**, we go the extra mile to ensure **optimal performance**. We rigorously subject each component to **extreme conditions** to **guarantee reliability**.

- **Temperatures** from **-32 °C to 65 °C**
- **Tested** for up to **3,000 hours**
- **Tested** in contaminated **E22** and **E95 fuel blends**
- **Designed** to operate even with **low voltage**
- **Reduced transmitted noise**
- **Designed** for a simple **electrical installation**



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COMPLETE PRODUCT SOLUTION
WORKSHOP SOLUTIONS



TRAINING

Elevate your skills, anywhere, anytime!

- **'Face to face' VE** courses at **3 levels** (Beginner / Intermediate / Advanced)
- **14+ hours** of content via the **online academy**

DIAGNOSTICS

Advanced hardware, extensive software and integrated technical data!

- **Cam**, **crank**, **ignition**, **O2**, **DPF**, **calibrations**, and many more...
- **Petrol**, **diesel**, **hybrid**, **plug-in hybrid**, **EV**, and **hydrogen fuel cell** coverage
- Take a deeper dive into **emission related faults** which can be caused by VE component failure
- Cover a variety of **in-tank fuel pump actuations** and **calibration/adaption** reset across multiple brands.

CATALOGUING EXCELLENCE

Cataloguing excellence to guide you to the perfect part every time!

- Enhanced **x reference database**
- **360 images** for ease of identification
- **Premier Tecdoc® Data supplier**

HOW-TO VIDEOS

Master every installation with our step-by-step how-to videos!

- One new video available every **Thursday**
- Content created **by technicians**, **for technicians**

TECHNICAL ARTICLES

Equipping technicians with informative tech articles!

- One new article available **every Monday**
- Staying up-to-date on **industry trends**, **best practices**, and **troubleshooting tips**

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FOCUSED ON TODAY... THINKING ABOUT TOMORROW

As a result of the direct feedback from **4000 workshops** in the Delphi survey, we have developed an **interlinked learning** and **information roadmap** that supports workshops for **today's challenges**, and prepares them for **future vehicles** and **technologies.**

FREE-TO-VIEW
How-To video content published on free to view channels such as YouTube, and the Masters of Motion hub.

E-LEARNING
Powerful subscription-based platform covering 300+ training modules, extensive video content, a simulator, and much more.

FACE-TO-FACE
Training in a Delphi technical centre, combining theory and practical on-vehicle courses.

Created by technicians, for technicians.

MASTERS OF MOTION

10 COUNTRIES RESEARCHED

4000 WORKSHOPS SURVEYED

1000 HOURS OF RESEARCH



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ENGINE MANAGEMENT

VEHICLE ELECTRONICS

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