

OXYGEN SENSOR

+ 20 YEARS OF EXPERIENCE MANUFACTURING CERAMIC SENSORS

+850 +25k +525M

PART NUMBERS

APPLICATIONS

VIO

O₂ sensors are an essential component of any vehicle which, because of its operation, emits all sort of gases. It's currently used for internal combustion vehicles to reduce harmful particulate emissions. It's going to be incorporated in hydrogen-powered electric vehicles as it produces a chemical reaction that expels oxygen and water.

It continuously detects the residual oxygen value in the exhaust gases, allowing the Control Unit (ECU) to adjust the air-fuel mixture at injection to the optimum value. In this way, the lambda sensors regulate the air/fuel ratio to improve efficiency and reduce all the vehicle's pollution.

FAE with its Planar Multilayer Ceramic technology has achieved the goal of integrating in one solid the element of the sensor and its calefactory and reducing its size compared to conventional lambda probes. These improvements allow us to reduce the heating power and the time needed to reach the operating temperature (700° Celsius).

Technology	Titania binary		Zirconia binary				Wide Band		
Sensing material	Titanium Dioxide (TiO ₂)		Zirconium Dioxide (ZrO ₂)				Zirconium Dioxide (ZrO ₂)		
Working principle	Resistive		Electrochemical				Electrochemical		
Output signal	Voltage		Voltage				Current		
Thread	M12 / M18		M18		M12		M18		
Size	Standard		Standard		Mini		Standard		
Air reference	No		Yes	No	Yes	No	Yes	No	Yes
Number of wires	3-4		1-2	3-4	4	2	4	5	4
Heating element	Yes		No	Yes	Yes	No	Yes	Yes	Yes

Cable

Fluoropolymer cable coating with high performance for extreme temperatures.

Joint

Degree of protection water resistance IP68, capable of functioning in continuous water immersion.

Protective tube

Ceramic clamp

Own manufacturing. Connect the cables with the sensor and prevent them from disconnecting.

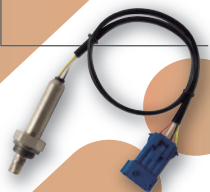
Ceramic insulators

It ensures tightness and prevents contamination that cements the sensor and isolates it from vibrations and shocks.

Sensor

Multilayer ceramic planar technology. Formulation of inks and ceramics. Individualized calibration. Integrated heater for ultra-fast ignition.

Oxygen Sensor Titania



Oxygen Sensor Zirconia Planar Technology



Mini



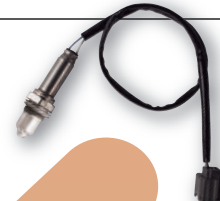
XFour

NEW
COMING SOON

Oxygen Sensor Wide Band



Air Fuel Ratio



+11 +70 +180M² +1000M² +5.000 +12.000M²

CATALOGUES

YEARS

ESD ROOM

CLEAN ROOM

PART NUMBERS

BARCELONA