



PRODUCT INFORMATION

Exhaust Gas Temperature (EGT) Sensor

- Leading supplier for the independent aftermarket
- Applications available for European, American and Japanese makes
- HELLA lambda sensors provide long service life, high reliability and optimal harmonization with each individual type of engine
- Supports lower emissions, improved engine efficiency and optimised performance

PRODUCT FEATURES

HELLA offers a wide and innovative portfolio of high temperature sensors covering virtually all makes and models.

The exhaust gas temperature sensor records the temperature ahead of the catalytic converter or the diesel particulate filter and sends this as a voltage signal to the engine control unit. In addition, high temperature sensors protect components in the area of the hot exhaust gas flow from critical overheating. Customers benefit from lower emissions, an improved engine efficiency and optimized performance and then from the resulting lower fuel consumption.

Function: An electrical resistor is installed in the measuring tip of the exhaust gas temperature sensor, the value of which changes depending on the temperature. These resistors are called thermistors and are divided into two groups. Here, a distinction is made between NTC thermistors and PTC thermistors, depending on their temperature behavior (Figure 1).

NTC - resistor with negative temperature coefficient (the resistance decreases with increasing temperature)

PTC - resistor with positive temperature coefficient (the resistance increases with increasing temperature)

The exhaust gas temperature sensor (EGTS) is usually connected directly to the engine control unit (ECU). Together with another resistor (R_{UP}) in the control unit, the sensor forms a series connection through which an electrical voltage is divided. The signal is measured at the voltage divider and converted into temperature information by an algorithm (Figure 2).

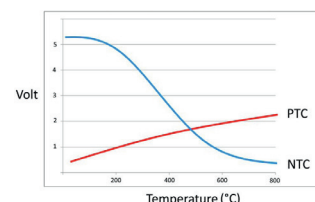


Figure 1: Example of PTC / NTC temperature behavior

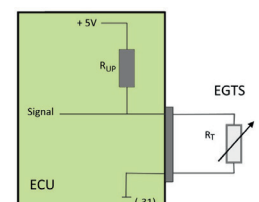


Figure 2: Circuit for exhaust gas temperature sensor

HELLA EXHAUST GAS TEMPERATURE SENSOR

Failure Symptoms

The following effects can occur in the event of an exhaust gas temperature sensor failure:

- Warning lamp for glow plug system flashes
- Warning lamp for particulate filter illuminates
- Engine control lamp is on
- Increase in exhaust emissions (CO, NOx and HC)
- Poor driving behavior because of shortened regeneration intervals of the particulate filter
- Increased fuel consumption caused by longer particulate filter regeneration
- Loss of performance caused by incorrect detection of the degree of saturation of the particulate filter

Causes of failure

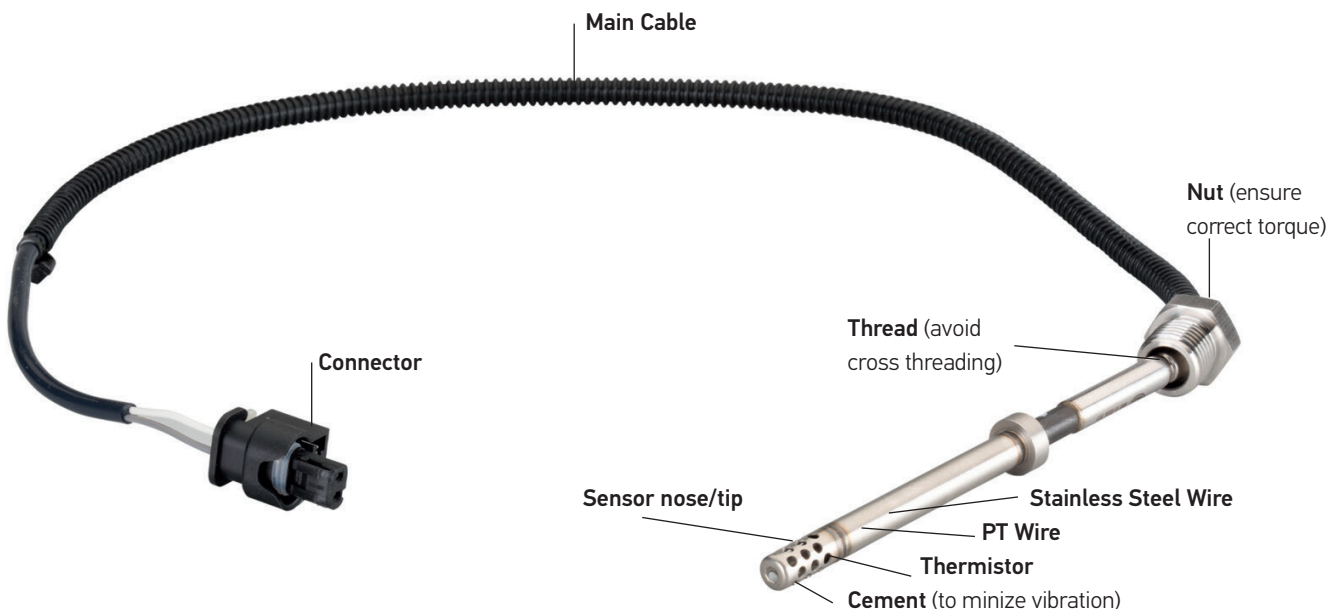
The following causes can be responsible for the failure of the exhaust gas temperature sensor:

- Faulty power supply
- External damage
- Internal damage to the electrical wiring caused by strong vibrations in the exhaust gas system
- Excessively high exhaust gas temperatures as a result of defects in the injection system or in the air-fuel mixture

Product life expectancy

Well-installed EGTs that haven't experienced any negative operating conditions can typically last for 100,000 miles or even longer. For guidance on inspection, testing, or service schedules, refer to the vehicle's operating manual. It's common for EGTs to become damaged during the replacement of exhaust parts.

Anatomy of an Exhaust Gas Temperature Sensor



HELLA EXHAUST GAS TEMPERATURE SENSOR

PRODUCT RANGE

PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
014494111		2014-2016	Audi	A6 Quattro A7 Quattro A8 Quattro Q5	BR
014494181		2015-2016	Audi	Q5	BR
014494321		2013-2014	Audi	A8 Quattro Q7	BR
014494531		2013-2015	Audi	A6 Quattro A7 Quattro A8 Quattro Q5 Q7	BR
358181311		2014-2016	Audi	A6 Quattro A7 Quattro A8 Quattro Q5	CN
358181651		2013-2015	Audi	Q7	CN
358181661		2014-2015	Audi	Q7	CN
7.08369.22.0		2009-2011	Audi	A6 A6 Quattro S6	BG
7.08369.41.0		2004-2010	Audi	A3	DE
7.08369.42.0		2009-2011	Audi	A6 A6 Quattro S6	DE
7.08369.45.0		2009-2016	Audi Porsche	A6 A6 Quattro Cayenne Q7 S6	DE
010376241		2015-2016	Audi Volkswagen	A3 Golf Golf SportWagen Passat	CN
014494101		2013-2015	Audi Volkswagen	A6 Quattro A7 Quattro A8 Quattro Q5 Q7 Touareg	BR
014494201		2009-2012	Audi Volkswagen	Q7 Touareg	BR

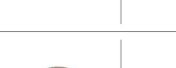
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PRODUCT RANGE

PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
014494251		2009-2014	Audi Volkswagen	Q7 Touareg	BR
014494311		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	BR
014494431		2011-2014	Audi Volkswagen	A3 Golf Jetta	BR
014494671		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	BR
014494691		2009-2012	Audi Volkswagen	Q7 Touareg	BR
014495101		2015-2016	Audi Volkswagen	A3 Golf Golf SportWagen Passat	BR
358181031		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	CN
358181161		2009-2012	Audi Volkswagen	Q7 Touareg	CN
358181301		2014-2016	Audi Volkswagen	A6 Quattro A7 Quattro A8 Quattro Q5 Touareg	CN
7.08369.01.0		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	BG
7.08369.03.0		2007-2013	Audi Volkswagen	A3 Bora Jetta	BG
7.08369.04.0		2009-2014	Audi Volkswagen	A3 Golf Jetta	BG
7.08369.13.0		2009-2012	Audi Volkswagen	Q7 Touareg	BG
7.08369.47.0		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	DE

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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
7.08369.62.0		2009-2015	Audi Volkswagen	Q7 Touareg	DE
7.08369.68.0		2009-2014	Audi Volkswagen	Q7 Touareg	DE
7.08369.73.0		2013-2015	Audi Volkswagen	A6 Quattro A7 Quattro A8 Quattro Q5 Q7 Touareg	DE
NEW! 010376601		2009-2012	Audi Volkswagen	Q7 Touareg	CN
NEW! 010376611		2009-2014	Audi Volkswagen	A3 Beetle Golf Jetta	BR
NEW! 010376411		2007-2010	Chevrolet GMC	Express 2500 Express 3500 Express 4500 Savana 2500 Savana 3500 Savana 4500 Sierra 2500 HD Sierra 3500 HD Silverado 2500 HD Silverado 3500 HD	CN
014494381		2010-2016	Chevrolet GMC	Express 2500 Express 3500 Express 4500 Savana 2500 Savana 3500 Savana 4500	BR
014494391		2011-2016	Chevrolet GMC	Sierra 2500 HD Sierra 3500 HD Silverado 2500 HD Silverado 3500 HD	BR
014494401		2007-2010	Chevrolet GMC	Sierra 2500 HD Sierra 3500 HD Silverado 2500 HD Silverado 3500 HD	BR
NEW! 358226121		2014-2016	Chevrolet GMC	Sierra 2500 HD Sierra 3500 HD Silverado 2500 HD Silverado 3500 HD	CN
NEW! 358226201		2020-2023	Chevrolet GMC	Sierra 2500 HD Sierra 3500 HD Silverado 2500 HD Silverado 3500 HD	BG
358181441		2007-2016	Dodge Mercedes-Benz	E250 GLK250 Sprinter 2500 Sprinter 3500	CN
014494571		2008-2010	Ford	F-250 Super Duty F-350 Super Duty F-450 Super Duty F-550 Super Duty	BR
NEW! 010376481		2014-2017	Jeep Ram	1500 Grand Cherokee	CN

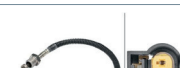
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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
NEW! 010376511		2014-2016	Jeep Ram	1500 Grand Cherokee	CN
NEW! 010376541		2016-2019	Jeep Ram	1500 1500 Classic Grand Cherokee	CN
010376121		2013-2022	Mercedes-Benz	Sprinter 2500 Sprinter 3500 Sprinter 3500XD Sprinter 4500	CN
010376131		2014-2017	Mercedes-Benz	E250 Sprinter 2500 Sprinter 3500	CN
010376201		2007-2012	Mercedes-Benz	GL320 GL350 ML320 ML350 R320 R350	CN
NEW! 010376311		2013-2022	Mercedes-Benz	Sprinter 2500 Sprinter 3500 Sprinter 3500XD Sprinter 4500	CN
NEW! 010376431		2010-2017	Mercedes-Benz	GL350 GLE300d GLS350d ML250 ML350	CN
014494011		2007-2018	Mercedes-Benz	GL350 ML250 ML350 R320 R350 Sprinter 2500 Sprinter 3500 Sprinter 3500XD	BR
014494131		2009-2016	Mercedes-Benz	E250 E350 GL320 GL350 GLK250 ML320 ML350 R320 R350	BR
014494191		2010-2022	Mercedes-Benz	Sprinter 2500 Sprinter 3500 Sprinter 3500XD Sprinter 4500	BR
014494471		2007-2013	Mercedes-Benz	E320 E350	BR
014494501		2012-2013	Mercedes-Benz	S350	BR
014494741		2011-2013	Mercedes-Benz	E350	BR
014494891		2014-2016	Mercedes-Benz	E250	BR

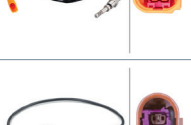
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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
014495021		2009-2012	Mercedes-Benz	GL320 GL350 ML320 ML350 R320 R350	BR
014495041		2015-2017	Mercedes-Benz	GLE300d ML250	BR
358181061		2012-2017	Mercedes-Benz	GL350 GLE350d GLS350d ML350 R350 S350	CN
358181211		2013-2016	Mercedes-Benz	E250 GLK250	CN
358181241		2005-2018	Mercedes-Benz	E320 Sprinter 3500XD	CN
358181411		2007-2013	Mercedes-Benz	E320 E350	CN
358181471		2009-2013	Mercedes-Benz	E350 GL320 GL350 ML320 ML350 R320 R350	CN
358181481		2009-2010	Mercedes-Benz	GL320 GL350 ML320 ML350 R320 R350	CN
358181551		2010-2012	Mercedes-Benz	GL350 ML350 R350	CN
358181611		2007-2009	Mercedes-Benz	GL320 ML320 R320	CN
358181671		2015-2017	Mercedes-Benz	GL350 GLS350d	CN
358181681		2012-2017	Mercedes-Benz	GL350 GLS350d ML350	CN
358181691		2013-2015	Mercedes-Benz	GLK250	CN
358181741		2009-2009	Mercedes-Benz	GL320 ML320	CN

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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
7.08369.06.0		2014-2017	Mercedes-Benz	E250 Sprinter 2500 Sprinter 3500	BG
7.08369.12.0		2007-2016	Mercedes-Benz	E250 GL320 GLK250 ML320	BG
7.08369.30.0		2005-2018	Mercedes-Benz	E320 Sprinter 2500 Sprinter 3500 Sprinter 3500XD	BG
7.08369.51.0		2009-2013	Mercedes-Benz	E350 GL320 GL350 ML320 ML350 R320 R350	DE
7.08369.61.0		2011-2013	Mercedes-Benz	E350	DE
NEW! 010376781		2013-2022	Mercedes-Benz	Sprinter 2500 Sprinter 3500 Sprinter 3500XD Sprinter 4500	BR
NEW! 010376841		2012-2013	Mercedes-Benz	S350	BR
NEW! 010376871		2015-2017	Mercedes-Benz	GLE300d ML250	BR
7.08369.05.0		2005-2011	Saab	9-3	BG
7.08369.17.0		2010-2011	Saab	9-5	BG
7.12196.41.0		2010-2011	Saab	9-5	BG
010376251		2010-2019	Volkswagen	Multivan Transporter	CN
014494231		2011-2012	Volkswagen	Touareg	BR
014494241		2013-2016	Volkswagen	Touareg	BR

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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
014494261		2005-2006	Volkswagen	Jetta	BR
014494551		2006-2008	Volkswagen	Touareg	BR
014494561		2006-2008	Volkswagen	Touareg	BR
358181281		2004-2005	Volkswagen	Passat	CN
358181631		2013-2016	Volkswagen	Touareg	CN
7.08369.00.0		2005-2006	Volkswagen	Jetta	BG
7.08369.20.0		2010-2018	Volkswagen	Multivan Transporter	BG
7.08369.21.0		2010-2018	Volkswagen	Transporter	BG
7.08369.24.0		2010-2018	Volkswagen	Multivan Transporter	BG
7.08369.25.0		2010-2018	Volkswagen	Transporter	BG
7.08369.33.0		2006-2009	Volkswagen	EuroVan	DE
7.08369.36.0		2006-2009	Volkswagen	EuroVan	DE
7.08369.39.0		2008-2012	Volkswagen	Crafter Van	DE
7.08369.40.0		2004-2005	Volkswagen	Passat	DE

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PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
7.08369.58.0		2008-2012	Volkswagen	Crafter Van	DE
7.08369.59.0		2011-2023	Volkswagen	Amarok Crafter Van	DE
7.08369.63.0		2006-2009	Volkswagen	EuroVan	DE
7.08369.64.0		2012-2017	Volkswagen	Crafter Crafter Van	DE
7.08369.66.0		2006-2008	Volkswagen	Touareg	DE
NEW! 010376621		2012-2014	Volkswagen	Passat	BR
NEW! 010376831		2012-2014	Volkswagen	Passat	BR
NEW! 010376851		2012-2014	Volkswagen	Passat	BR



Product features, specifications and availability are subject to change without notice.

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