

# SENSORS, WHEEL SPEED

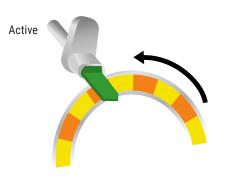
SENSORS | 21502

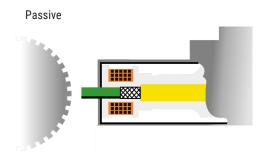
Wheel speed sensors record the rotary speed and, depending on the model, the rotation direction of the wheels. Driving safety systems such as ABS (anti-blocking system), ASR (anti-slip regulation) and ESP (electronic stability programme) are controlled with this information. Signals are sent to the control device, which initiates a control process if any deviation occurs. There are two different sensors: passive and active.

Passive sensors consist of a permanent magnet and a coil winding around it. Rotation movements are transmitted to the control device as a signal. They work without a power supply, which means that a usable signal can only be generated after a certain number of wheel revolutions.

Driving assistance systems such as ASR and ESP also require the rotation direction of the wheel to be recorded. Active sensors known as Hall sensors are used for this purpose. They are equipped with electronics to allow both, speed

and rotation direction, to be measured. They do not rely on the wheel revolution and therefore also work at standstill. A bipolar cable provides the sensor with power while tapping the signal via the positive cable.







#### **SYMPTOMS**

- · The control light is permanently on
- · Wheels lock when braking
- Wheels skid on unpaved or smooth roads
- Driver safety systems regulate unexpectedly while driving
- · Error in error memory



## **REASONS FOR FAILURE**

- Break and / or short circuit in the cable or sensor
- · Corrosion at plug connection
- · Heavy soiling
- Mechanical damage caused by defective wheel bearings or corroded sensor rings



# RECOMMENDED BY THE EXPERTS

- Check passive sensors by measuring resistance
- Only check active sensors by measuring the voltage or with an oscilloscope, otherwise the sensor measuring electronics could be destroyed



### SENSORS, WHEEL SPEED BY VEMO

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- iSP-film: safely packaged in anti-static iSP packaging film
- · Environmentally friendly: reduced emissions
- · Also available as repair kits



ABS-SENSOR + RING + WHEEL BEARINGS =



# SENSORS, WHEEL SPEED

SENSORS L21502

AUDI | SEAT | ŠKODA | PORSCHE | VW

**BMW** 

### **MERCEDES-BENZ**







Audi A3, Q3, TT

SeatAlhambra, Leon, ToledoŠkodaOctavia, Superb

Porsche Carrera

**VW** Beetle, Caddy, Eos, Golf V, Passat

X-Ref 7H0 927 804\* V10-72-1056

**BMW** E87, E90, E92

X-Ref 34 52 6 762 466\* **V20-72-0499** 

Mercedes-Benz CLS, E-Klasse

**X-Ref** 211 540 30 17\* **V30-72-0172** 

### AUDI | SEAT | ŠKODA | VW



Audi	A3, TT
Seat	Ibiza, Leon
Škoda	Octavia

VWCaddy, Golf III + IV, Passat, PoloConsists ofSensor (V10-72-0943) and<br/>Wheel Bearing Kit (V10-0045)

**X-Ref** 1J0 498 625 A kit\* **V10** 

V10-72-8803

### **BMW**



BMW	E46, Z4	
Consists of	Sensor (V20-72-0491) and Wheel Bearing Kit (V20-0517)	

X-Ref 31 22 6 757 024 kit\* **V20-72-8804** 

### **FORD**



Ford	Focus	
Consists of	Sensor (V25-72-0016) and Wheel Bearing Kit (V25-0459)	

X-Ref 1 085 569 kit V25-72-8800

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<sup>\*</sup> For detailed vehicle information, please refer to the vehicle lists under www.autoteile.de.