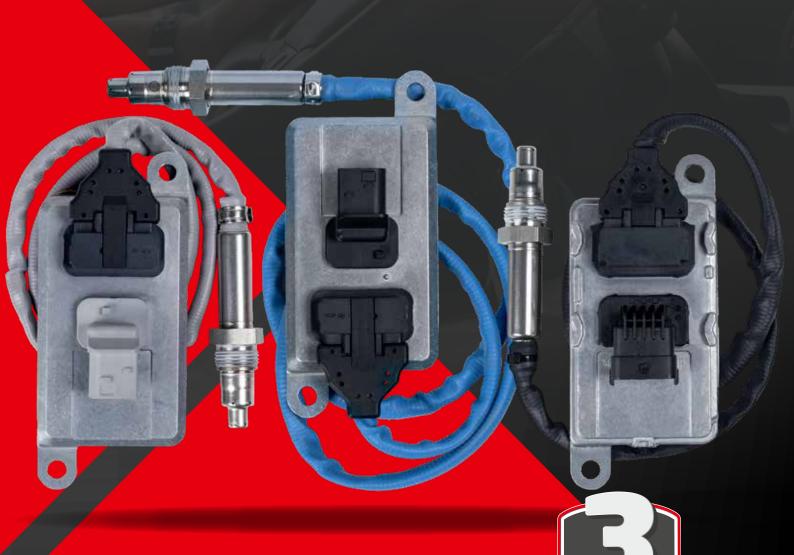


# The Greenkeeper of Giants

febi NOx Sensors





www.febi.com

**bilstein**group®

# febi Truck -**Your Specialist for Commercial Vehicle Replacement Parts**

Ferdinand Bilstein is one of the world's leading suppliers and manufacturers of repair solutions for commercial vehicles and passenger cars.

The company has been producing replacement parts for trucks, trailers, and buses for decades. Since 2020, articles for agricultural vehicles have also been gradually added to the range. Thanks to the extensive, dynamically growing product portfolio, febi Truck is in a position to offer tailor-made solutions for every customer.

The febi brand is firmly established in the Independent Automotive Aftermarket (IAM) and, in the commercial vehicle sector, it has a leading market position in the core competencies of steering and suspension, braking, clutches, and engine thermal management.

With a selection of more than 14,000 replacement parts and 37,500 applications in OE-matching quality, febi Truck ensures optimal availability of commercial vehicle components for all popular European brands ("BIG 7").

One part of the range is manufactured at our in-house production facility, e.g. king pins and sets, clutch release forks, as well as oil and water pumps. The strict quality requirements for the production of precision parts are consistently transferred to all partner manufacturers.







Chassis & Cabin



Clutch

**Engine Thermal** 

Management



Wheel Fastening







Management

Engine

Air-Conditioning









Fuel & Exhaust



Electrics



# The Greenkeeper of Giants

In diesel-powered commercial vehicles and passenger cars, the urea AdBlue® is used in conjunction with an SCR system (Selective Catalytic Reduction) for exhaust gas purification. AdBlue® is an aqueous solution of 32.5% synthetic urea and 67.5% demineralised water.

To monitor the reduction process of harmful nitrogen oxides, NOx Sensors (nitrogen oxide sensor) are installed before and after the SCR catalytic converter.

They monitor the function and effectiveness of the SCR system by measuring the nitrogen and oxygen concentration in the exhaust gas. If a sensor fails, the engine control unit switches to a so-called emergency running programme.

Depending on the vehicle type, the engine speed and power are reduced. If the fault in the system is not rectified, in the worst case, the next workshop can only be visited at walking speed.

### Join us on the road to sustainability.

Since NOx Sensors are part of the SCR system which is reducing the emissions of a truck, the environment also benefits from that.



# ► YouTube

Scan the QR code to watch the NOx Video or watch it online at: youtube.com/febiTruck





# **About NOx Sensors**

## The Structure

A NOx sensor consists of a probe (1), a connection cable (2), a control module (3) and a connector plug (4).

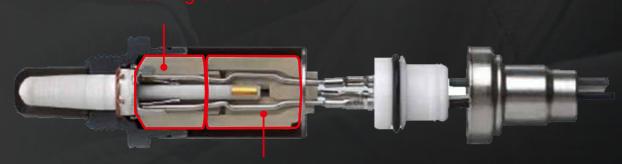
The measured data is used to calculate whether the NOx storage catalytic converter needs to be regenerated, the AdBlue® injection quantity needs to be adjusted and whether the SCR system is functioning correctly at all.



# The Measuring Principle

Current NOx measurement technology is based on electrochemical sensors with yttrium-stabilised zirconium dioxide ZrO<sub>2</sub>, whose design and mode of operation is similar to broadband oxygen sensors (lambda sensors). The sensor usually uses two adjacent measuring chambers with two electrochemical cells, also called pump cells.

# Measuring Chamber 1



Measuring Chamber 2

# **Benefits at a Glance**



**Safe function** thanks to excellent resistance to environmental influences like water and corrosion, as well as operating fluids of the vehicle



**Long service life** thanks to high-quality components with excellent resistance to vibrations and temperature fluctuations, as well as electronics sealed with silicone-based potting adhesive ensuring the high-protection class IP67



**Problem-free installation** and ultimate fitting accuracy thanks to OE-matching quality standards and production according to vehicle manufacturer specifications



**Reliable function** through consistent design for durability and regular factory inspections for micro-cracks during the production process - helping to prevent premature failure caused by temperature fluctuations



**Expanding product program** of NOx sensors as well as further replacement parts for SCR systems such as fuel filler caps, urea filters and exhaust gas temperature sensors in the febi product range

# Manufacturer Guarantee

**Our Quality Promise – Your Added Value** 

- Replacement parts in OE-matching quality
- 3-Year Manufacturer Guarantee and a high degree of installation safety and durability
- Over 175 years of experience in metalworking



febi	To Fit
176841	Repl. No. 51.15408.0015 Cable Length: 590 mm No. of Connections: 5 Outer Thread: M20 x 1.5
176842	Repl. No. 51.15408.0019 Cable Length: 640 mm No. of Connections: 6 Outer Thread: M20 x 1.5
176848	Repl. No. 51.15408.0018 Cable Length: 420 mm No. of Connections: 6 Outer Thread: M20 x 1.5
176902	Repl. No. 51.15408.0017 Cable Length: 990 mm No. of Connections: 6 Outer Thread: M20 x 1.5
178599	Repl. No. 51.15408.0016 Cable Length: 610 mm No. of Connections: 4 Outer Thread: M20 x 1.5
	176841 176842 176848



Sensors that have been dropped must not be installed.
The mechanical shock may have damaged the essential sensitive ceramic components inside the sensor.



febi	To Fit
176831	Repl. No. 010 153 93 28 Cable Length: 590 mm No. of Connections: 4 Outer Thread: M20 x 1.5
176838	Repl. No. 009 153 36 28 Cable Length: 590 mm No. of Connections: 5 Outer Thread: M20 x 1.5
176847	Repl. No. 010 153 95 28 Cable Length: 590 mm No. of Connections: 4 Outer Thread: M20 x 1.5
176853	Repl. No. 010 153 17 28 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5
176854	Repl. No. 010 153 14 28 Cable Length: 590 mm No. of Connections: 4 Outer Thread: M20 x 1.5
178604	Repl. No. 010 153 16 28 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5
178605	Repl. No. 010 153 15 28 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5
178606	Repl. No. 011 153 72 28 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5
184102	Repl. No. 011 153 74 28 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5

febi	To Fit	
176839	Repl. No. 58 0175 4015 Cable Length: 590 mm No. of Connections: 5 Outer Thread: M20 x 1.5	ECO
176840	Repl. No. 58 0175 4016 Cable Length: 890 mm No. of Connections: 5 Outer Thread: M20 x 1.5	H
178600	Repl. No. 58 0177 7219 Cable Length: 590 mm No. of Connections: 5 Outer Thread: M20 x 1.5	
178601	Repl. No. 58 0175 4014 Cable Length: 890 mm No. of Connections: 5 Outer Thread: M20 x 1.5	
182896	Repl. No. 58 0136 3754 Cable Length: 590 mm No. of Connections: 5 Outer Thread: M20 x 1.5	
febi	To Fit	S
176845	Repl. No. 2 296 799 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5	cania
176849	Repl. No. 2 294 290 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5	
176852	Repl. No. 2 294 291 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5	
178608	Repl. No. 2 296 798 Cable Length: 890 mm No. of Connections: 4 Outer Thread: M20 x 1.5	

# febi To Fit Volvo / Renault Trucks Repl. No. 22827993 / 74 22 827 993 Cable Length: 590 mm No. of Connections: 4 Outer Thread: M20 x 1.5



Volvo / Renault Trucks

Repl. No. 22827991 / 74 22 827 991

Cable Length: 610 mm No. of Connections: 4 Outer Thread: M20 x 1.5



D

176851

178603

Volvo / Renault Trucks

Repl. No. 22827995 / 74 22 827 995 Cable Length: 890 mm

No. of Connections: 4 Outer Thread: M20 x 1.5



182897

Volvo Trucks
Repl. No. 22827992
Cable Length: 890 mm
No. of Connections: 4
Outer Thread: M20 x 1.5



### aid Vou Know?

NOx Sensors age and have to be changed after a certain amount of time

febi does not only offer NOx Sensors but also other replacement parts for SCR Systems such as Fuel Filler Caps for AdBlue Tanks, AdBlue Liquid, AdBlue Urea Filters and Exhaust Gas Temperature Sensors.









# bilsteingroup® partsfinder

# SEARCHING BECOMES FINDING

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partsfinder provides direct access to over 62,000 replacement parts from the bilstein group. You can find the component you are looking for with just a few keywords.



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Search field makes finding results easy and effective



# **Detailed Product Information**

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