



Sensing and Control

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Sensorik für Abgasnachbehandlungssysteme

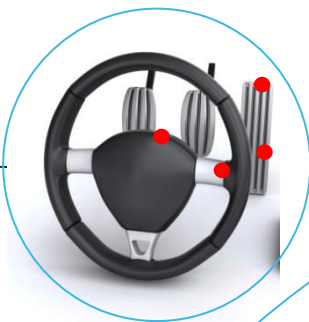


- Small car: 10 - 20 sensors & control points
- Premium car: 100+ sensors & control points

Steering & Throttle

4-6 sensors & control points

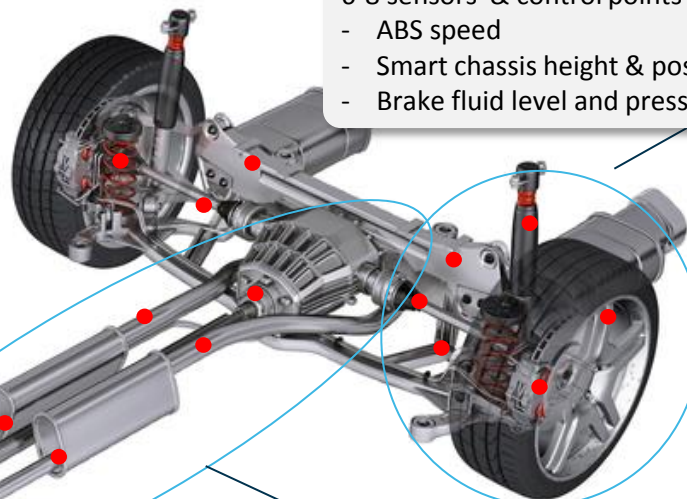
- Electronic power steering control
- Position and torque sensors
- Intelligent throttle control



Braking & Suspension

6-8 sensors & control points

- ABS speed
- Smart chassis height & position
- Brake fluid level and pressure



Exhaust

8-12 sensors & control points

- Gas temperature & pressure
- Nox sensing
- Urea/ad blue level and condition

Transmission

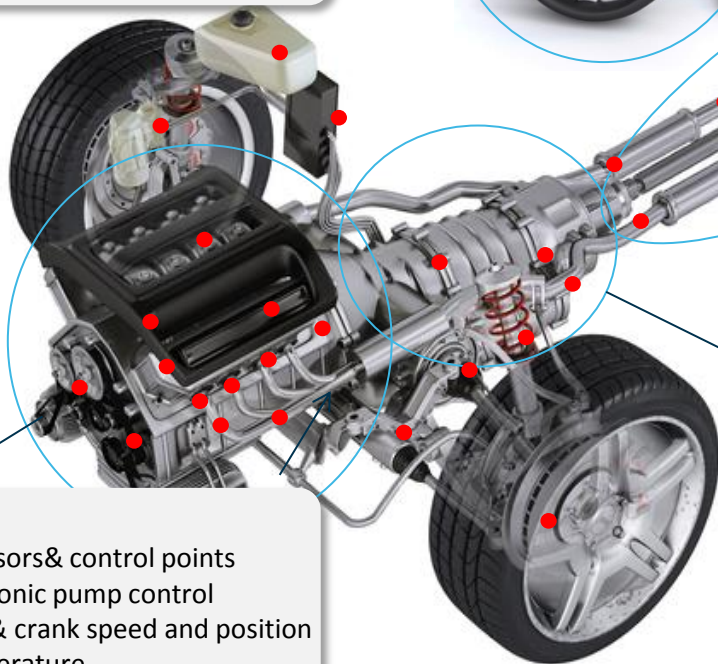
3-5 sensors & control points

- Smart gear detection & control
- Bearing wear
- Fluid pressure, level, temperature
- Transmission control

Engine

8-10 sensors & control points

- Electronic pump control
- Cam & crank speed and position
- Temperature
- Pressure



Speed sensors



- Engine management
- Gears and ABS

Temperature sensors



- engine appl. Coolant, fuels
- Air, Exhaust gas

Pressure sensors



- engine oil, fuels
- exhaust gas

pedals



- staying a. hanging mountage
- car and truck Applications

Position sensors

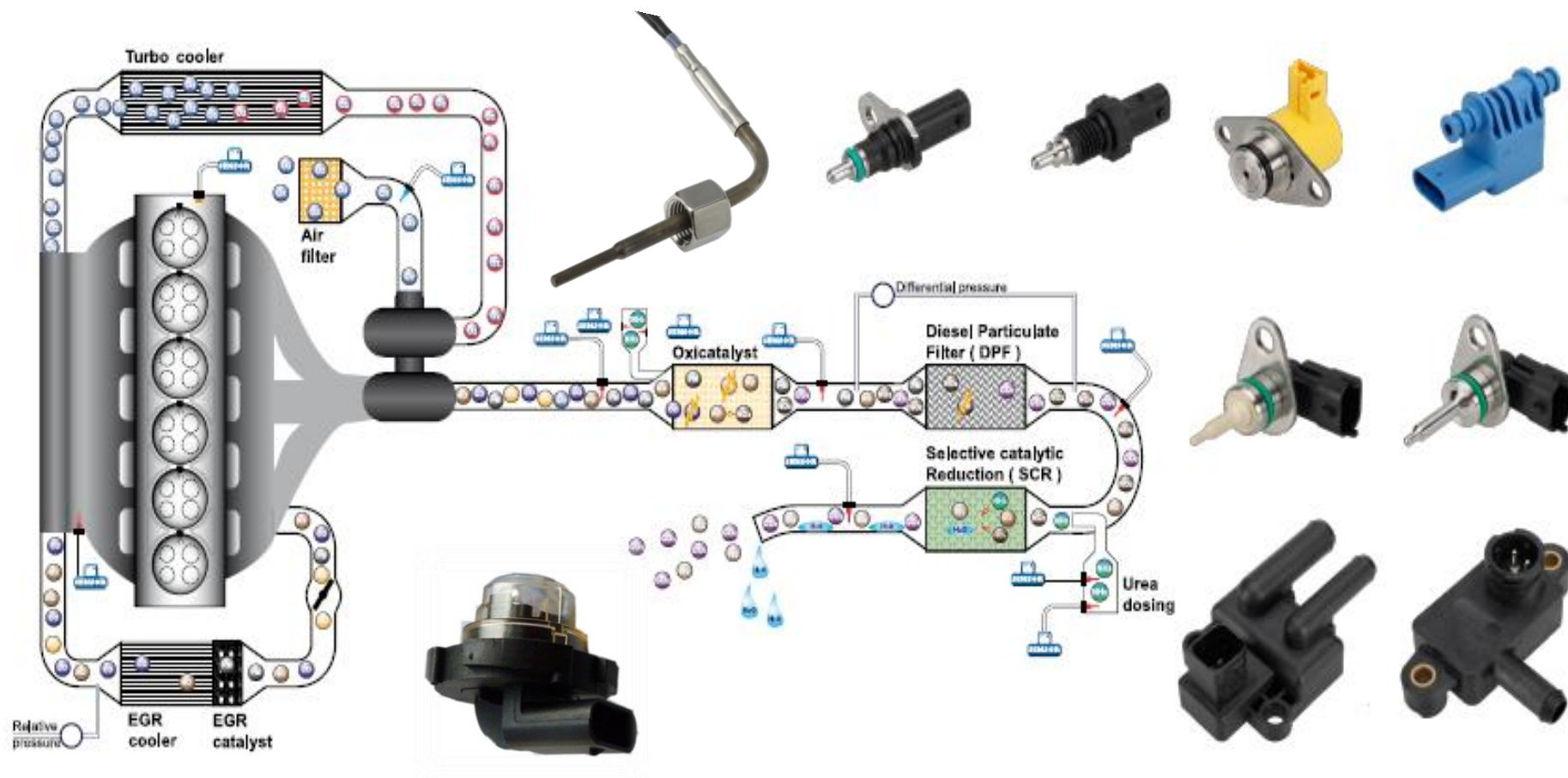


- Chassis, head lamp level, tops of cabriolets
- Thumble valves, Brakes

electromechanics



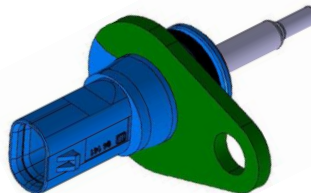
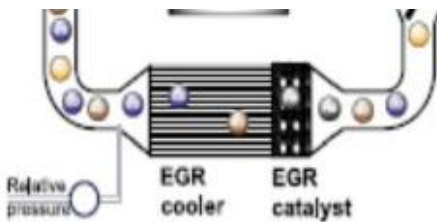
- Multifunctional application
- van control



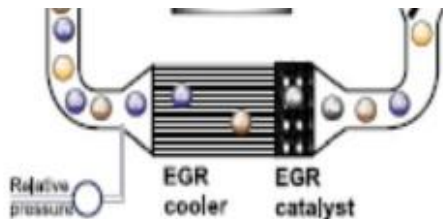
Overview

Temperature Sensors for EGR

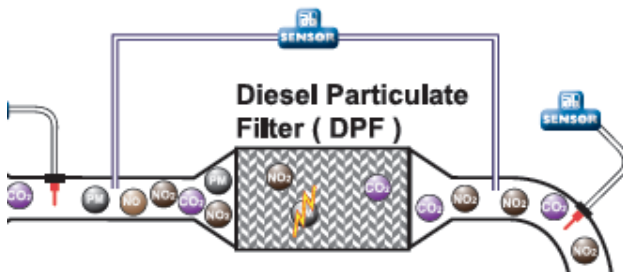
- NTC
- special sensor housing
- fast response with fully coated sensor tip (special housing materials)
- for gases up to 230°C
- customised design



Temperature Sensors for EGR



High temperature sensor

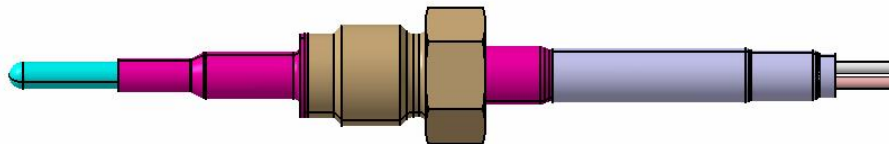


- fully coated sensor tip
- deep drawn housing without welding
- max. up to 800°C (PT 200)
- good response performance

High temperature sensor

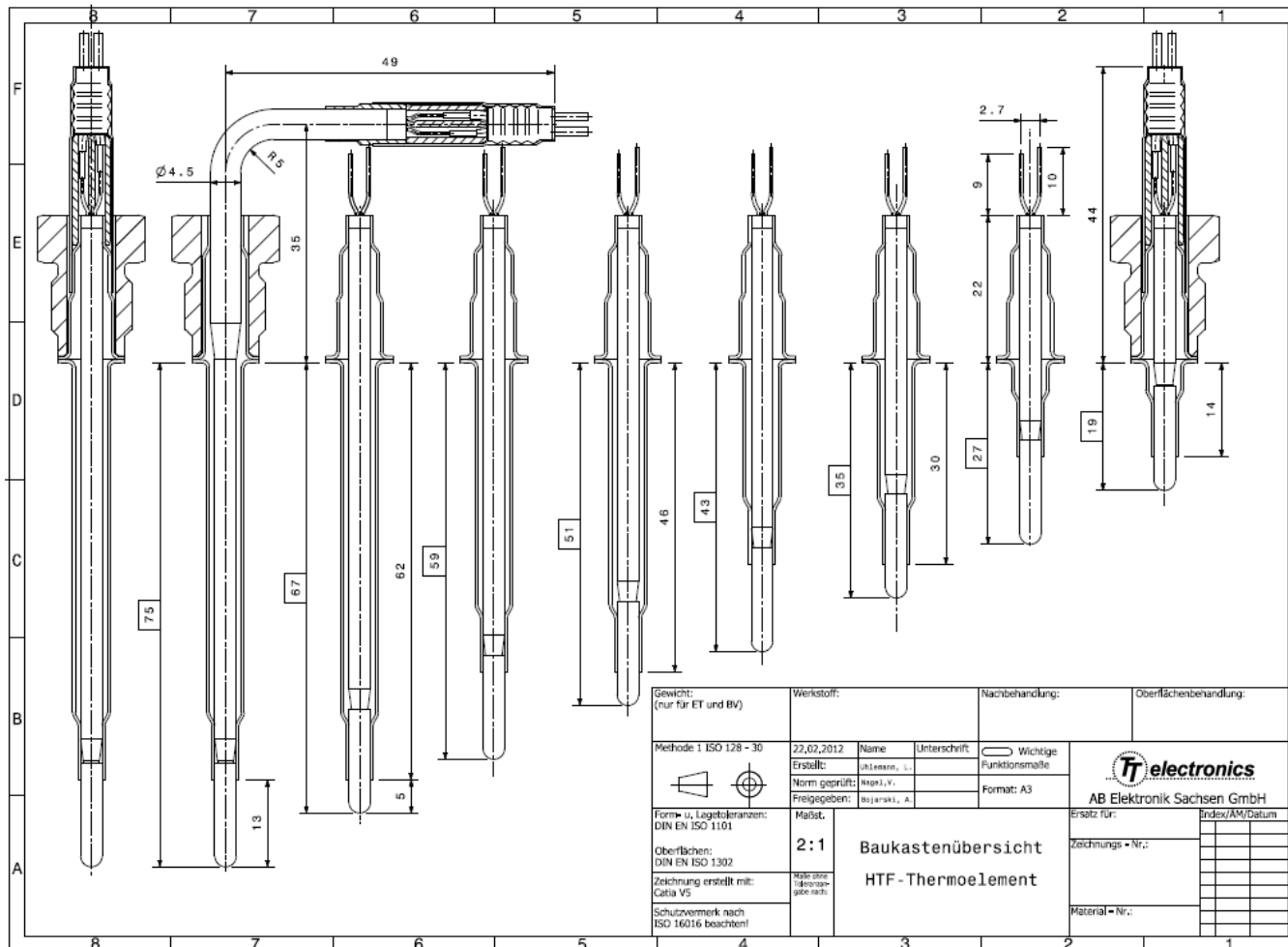


- Thermocouple type N
- for use in exhaust gas up to 1100°C
- fast response with fully coated sensor tip
- electronic amplifier integrated
- digital output to customer needs (SENT, CAN ...)
- sensor length 19 ... 75 mm

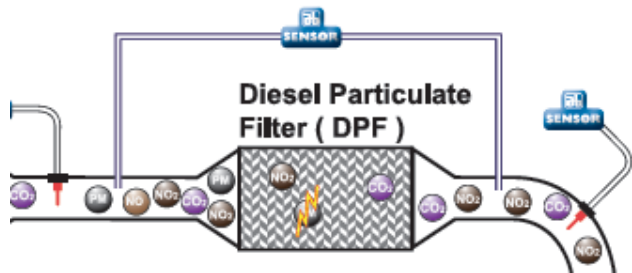


T3

Hardware Sensor Baukastensystem



Gewicht: (nur für ET und BV)		Werkstoff:		Nachbehandlung:		Oberflächenbehandlung:	
Methode 1 ISO 128 - 30		22.02.2012		Name: Unterschrift:		Wichtige Funktionsmaße:	
Erstellt: JH/Leone, L.		Norm geprüft: Knapf, V.		Format: A3		Format: A3	
Freigegeben: Rejzarski, A.		Maßst. 2:1		Baukastenübersicht		HTF - Thermoelement	
Form- u. Lagertoleranzen: DIN EN ISO 1101		Oberflächen: DIN EN ISO 1302		Zeichnung erstellt mit: Catia V5		Schutzvermerk nach ISO 16016 beachten!	
Firm- u. Lagerzeichen:		Maßst. 2:1		Baukastenübersicht		HTF - Thermoelement	
Oberflächen: DIN EN ISO 1302		Zeichnung erstellt mit: Catia V5		Schutzvermerk nach ISO 16016 beachten!		Material-Nr.:	
Firm- u. Lagerzeichen:		Maßst. 2:1		Baukastenübersicht		HTF - Thermoelement	
Oberflächen: DIN EN ISO 1302		Zeichnung erstellt mit: Catia V5		Schutzvermerk nach ISO 16016 beachten!		Material-Nr.:	
Firm- u. Lagerzeichen:		Maßst. 2:1		Baukastenübersicht		HTF - Thermoelement	
Oberflächen: DIN EN ISO 1302		Zeichnung erstellt mit: Catia V5		Schutzvermerk nach ISO 16016 beachten!		Material-Nr.:	



Back pressure sensor

- pressure range up to 1bar
- protected silicon cell

Differential pressure sensor

- in development
- integrated back pressure signal



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Pressure sensor



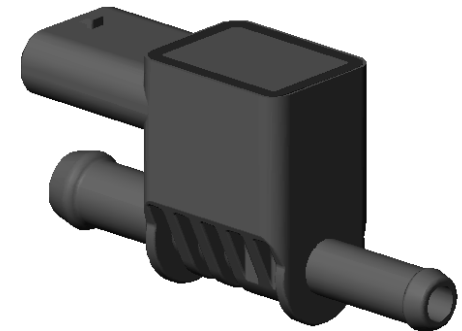
- freeze protected (airless systems)
- media protected
- *AdBlue application*

Temperature sensor



- separate or integrated in Combi sensor

Combined sensor



- incl. or excl. Temp. Sensor
- evacuated freeze protected (air supported systems)
- *AdBlue application*

SCR Dosing system

AdBlue Quality sensor



- Optical sensor principal
- Measuring range: 0 50% Urea
- Accuracy: better than +/- 2%
- Digital output (SENT, PWM, CAN)
- Life time: more than 10 years

- Low weight
- Frost proof
- No impact of surface contamination

Ich stehe für Ihre Fragen zur Verfügung.

