Data sheet
testo NanoMet3

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Nanoparticle measuring system for real driving emissions (RDE)

testo NanoMet3 – for the mobile measurement of nanoparticle number

- Measurement of number concentration and average diameter of nanoparticles (from 10 to 700 nm)
- Particle measurement according to RDE for type testing in accordance with Euro 6c
- Identical instrument settings for petrol and diesel vehicles
- Exhaust gas preparation with integrated PMP thermodilution
- Measurements at changing engine load possible thanks to fast response time
- No operating materials required

pt/cm³ | nm | mg/m³ | µm²/cm³

The testo NanoMet3 is a portable nanoparticle measuring system which was developed specially for operation under the real conditions of road traffic, in order to determine not only the number but also the diameter of the solid nanoparticles in exhaust gas highly precisely. Apart from this, it measures the particle mass and the surface concentration of lung-deposited particles. The testo NanoMet3 stands out thanks not only to its compact and robust construction, it also covers a broad size and concentration range, and is therefore suitable for the most varied applications.

These include particle measurement according to the “Real Driving Emissions” of the exhaust gas norm Euro 6c, the characterization of particle emissions from petrol and diesel engines as well as the identification of particles in the research and development of particle filters. Its easy handling and the practical one-button operation make it the perfect on-board diagnosis system. This was recognized by the Joint research Centre of the EU, who for two years in succession named the testo NanoMet3 the Golden Instrument for PEMS-PN (Portable Emissions Measurement System – Particle Number).

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Technical data / accessories

testo NanoMet3

Portable nanoparticle counter incl. transport case, heated sampling hose, LAN cable, USB-wireless LAN adapter, SD card, USB extension cable, cable for external signal, battery cable, D-Sub socket and D-Sub plug, exhaust gas hose with connector, country-specific mains cable and calibration protocol

Order.-no. 444

Technical data

Aerosol	Exhaust gas or air with nanoparticles
Concentration range	Sensor: 1E3 bis 1E6 pt/cm³; diluted: 1E4 bis 3E8 pt/cm³
Particle size	10 bis 700 nm = 0.01 to 0.70 µm
Range of average particle size (modal diameter)	10 bis 300 nm = 0.01 to 0.30 µm
Raw gas flow	4.0 lN/min, actively transported to diluter by internal pump
Dilution factors	Standard: 10, 100, 300 (freely selectable or automatic selection by the measurement system)
Measurement gas flow	1.0 lN/min
Power supply	12 to 24 VDC, max. 60 A. 90–240 VAC 50/60 Hz
Power consumption	Nominal power 650 W; 300 W under standard ambient conditions
Evaporator pipe temperatures	From ambient temperature up to 300 °C; accuracy ±3 °C
Assembly	19” housing with carrying handles
Weight	Approx. 18 kg; with accessories connected approx. 23 kg
Dimensions (W x H x D)	526 x 409 x 216 mm
Operating conditions	Ambient temperature: 5 to 35 °C; 0 to 80 % relative humidity, max. 80 % at 30 °C, linear reduction down to 50 % at 35 °C, non-condensing
Sensor calibration	Standard calibration with NaCl particles
System calibration	Against PMP system with soot from particle generator with GMD 60 nm and 85 nm

Accessories

	Order no.	
Mains cable 2 m, 3 x 1 mm², CH plug	78021	
IEC power cable 2.5 m, 3 x 1 mm², Schuko plug	78022	
Mains cable 2 m, 3 x 1 mm², US plug	78023	
Mains cable 2.5 m, 3 x 1 mm², GB plug	78024	
Mains cable 2.5 m, 3 x 1 mm², AU plug	78025	
Annual service package (incl. calibration)	2444	
Calibration	2446	
Accessories and spare parts testo NanoMet3		
testo NanoMet3 sensor	333	
Transport case	N3001	
Heated sampling hose	N1602	
Battery cable (power supply)	6424	
USB wireless LAN adapter	on request	
Cable for external signal for analog output	6425	
Excess gas output set		
Silicon hose	68010	
Connection hose	N3509	
OBD adapter set		
USB Bluetooth adapter	4444	
Navilock GPS	4447	
INCA connection (hardware and software)	4448	

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