



PORTABLE EMISSIONS MEASUREMENT SYSTEM

LEADERS IN GAS DETECTION

Since 1977

testo Nanomet3



Features:

- Particle number concentration and average particle size plots versus time, total counts provided by software interface
- PMP compliant VPR (sampling & conditioning)
- Fast response to rapid changes in aerosol concentration
- Butanol-free operation
- Embedded PC and pre-installed software
- Built in data logging and storage capability with removable memory card or internal hard disk.
- Quick change sensor cartridge
- Rotating disk with easy maintenance
- Long-life disk coating
- Low maintenance, 1000 operation hours of diluter between recommended service

testo NanoMet3 provides easy and cost effective access to valuable data such as:

- Particle number concentration [pt/cm³]
- Average particle mass [nm]
- Calculated particle mass [mg/m³]
- Lung deposition surface area (um²/cm³)

Communication

- Easy recording on «Secure Digital Memory Card »
- 2 USB ports
- RS232 port
- AO port
- LAN/Ethernet port
- WLAN (Optional)
- AK Protocol
- INCA Communication



Raw data can be stored in internal HD, exported by SD-card or directly read by a host computer.

testo NanoMet3 is a Portable Emissions Measurement System - PEMS to measure number concentration and average diameter of solid nanoparticles in the size range 10-700 nm under real driving conditions. It is compact, easily portable, rugged design and provides on-line response over a wide concentration range. These properties make it a suitable instrument for particle number concentration measurements in non-laboratory settings and even OBD concentration.

In addition to standard 100 - 240V AC power supply, testo NanoMet3 can be 12 - 24V DC battery operated for onboard and field measurements. The response time is short enough to measure transient engine operation, providing a complete data string with particle number concentration, average size, lung deposited surface area LDSA and calculated particle mass with 1Hz resolution. The wide measurement range (diluted 1E4 - 3E8 pt/cm³) covers practically all exhaust emission standards regarding particle number including the latest requirements of EURO6. Testo believes that NanoMet3 is therefore the ideal candidate for in-use-compliance testing, as well as for future PEMS type approval.

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Specifications

aerosol	primarily diluted exhaust gases or air which contains nanoparticles
concentration range	sensor: 1E3 to 1E6 pt/ccm; diluted: 1E4 to 3E8pt/ccm
particle size	10 to 700 nm = 0.01 to 0.70 µm
average particle size range (mode diameter)	10 to 300 nm = 0.01 to 0.30 µm
inlet gas flow	4.0 lN/min, actively fed to the diluter by internal pump
dilution factor	standard: 10, 100, 300. Optional one custom DF.
measuring gas	1.0 lN/min measuring gas
power supply	12-24 VDC, max. 60A. 90-240 VAC 50/60 Hz
power consumption	nominal 650W; 300 W under standard ambient conditions
evaporation tube temperatures	ambient to 300 °C / 572 °F; accuracy ±3 °C / 5,4 °F
assembly	19" case with handles
weight	approx. 18 kg; with complete connections: ca. 23 kg
operating conditions	Tamb: 5 to 35 °C; 0 to 80%RH, max. 80%@30 °C, linearly degrading to 50%@35 °C, non-condensing
sensor calibration	standard calibration with NaCl particles
system calibration	against PMP-System with soot from CAST @ GMD 60 nm and 85 nm