Dust analyser

Model EasyPM

With the dust analyser EasyPM dust fractions for PM10, PM2.5, PM1 and TSP can be measured parallel with only one instrument.

The analyser is particularly suitable for application in indoor or outdoor air quality monitoring.

The analyser is available as 19“ rack mount system, outdoor housing, or in combination with a CAMS (Compact Air Monitoring System) as smaller sensor unit integrtaed into the CAMS. All necessary equipment like, pump, heated sampling line, sampling head etc. is coming with the instrument

A number of possible options are to ensure the use of the analyser EasyPM for many applications.

Highlights

For parallel measuring of up to 4 particle fraction

Ranges in µg/m³ or mg/m³

RS232 interface

19" rack or table housing

Easy handling

Integrated pump

Optional

Analogue Output: 0-10V

Alarm contacts

EasyPM in outdoor housing

Umwelttechnik MCZ GmbH · Hohe Straße 8 · 61231 Bad Nauheim
Tel. +49(0)6032/92827-0 · Fax. +49(0)6032/92827-29 · www.mcz.de · E-mail: info@mcz.de

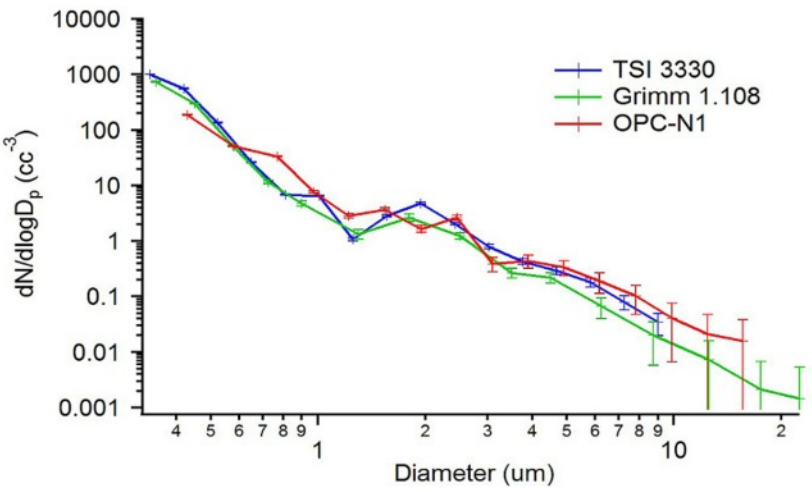
Product Specifications

Measuring principle: Like conventional optical particle counters, the optical particle counter (OPC) measures the light scattered by individual particles carried in a sample air stream through a laser beam. These measurements are used to determine the particle size (related to the intensity of light scattered via a calibration based on Mie scattering theory) and particle number concentration. Particle mass loadings- PM_1, $PM_{2.5}$,PM_{10} and TSP are then calculated from the particle size spectra and concentration data, assuming a particle density and refractive index (RI). Default settings are: density 1.65 g/ml, RI 1.5+i0. Respiratory profiles are included in the PM calculations

Technical data

Particle range (µm) Spherical equivalent size	0.38 to 17
Size categorisation (standard) Number of software bins	16
Sampling interval (seconds) Histogram period (recommended)	1 to 10
Total Flow rate (typical)	1,2l/min
Sample flow rate (typical)	220ml/min
Max particle count rate Particles/ second	10,000
Detection limits (PM_{10})	0,01µg/m³ Minimum 1500mg/m³Maximum
Coincidence probability % at 10_6 particles/ L	0.84
Output:	digital, RS 232
Analog,	0 ... 10V DC (option)
Input voltage:	230V/50Hz or 115V/60Hz
Dimension:	19“ , 4HU, or weatherproofed outdoor housing 200x200x150mm
Weight, depending on application:	approx. 2kg

Particle size derivate comparision



The OPC correlates well when validated with Grimm and TSI instruments.