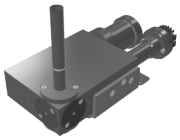
Print View

OEM Sensor



Dust sensors for production and process monitoring

We also make our technological expertise in optical particle measurement in the nano and micrometre range available to OEM partners. With our high-resolution particle sensor modules, we enable the monitoring and control of industrial processes and plants.
Wherever, for example, particle number concentration or their size distribution in the process or ambient air are important criteria, Palas sensors make a contribution to ensuring process and product quality and occupational safety.

Description

The sensors manufactured by Palas® work according to the proven principle of single particle measurement via the scattered light method with high resolution to determine the distribution of particle size and concentration.
They are individually configurable, e.g. via the following parameters/interfaces:

- Volume flow (1l/min - 16.7l/min)
- Measuring range (0.145μm - 40μm)
- Number concentration interval (single counting mode from max. 10K particles/cm^3 to 500K particles/cm^3)
- Interfaces (e.g. RS232 (UART-TTL) / USB - more on request.)
- Analog and digital outputs

Different variants and characteristics are available, which can be individually adapted to the needs of the user. This means that many applications can be covered, e.g. even under non-atmospheric conditions.
Our specialists for OEM sensors and integration are available to you as experienced contacts for the precise definition of your requirements - of course not only at our headquarters in Karlsruhe, but also at your site. As an ISO 9001:2015 certified company with more than 35 years of experience, Palas® is your long-term partner from the initial contact, through the professionally managed integration project to series production with the highest quality.

OEM Sensor

Benefits

- Individual configuration according to customer requirements
- Already realisable from quantities of approx. 100 units / configuration
- Direct evaluation of data and provision for further processing
- Mechanically robust, durable and easy to maintain
- Unambiguous and specific calibration of particle size determination via NIST-retraceable monodisperse aerosol.

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Datasheet

Parameter	*Description*
Interfaces	USB (andere auf Anfrage)
Measurement range (size)	0.145– 40 μm (depends on application)
Size channels	Max. 256 (128/Dekade)
Measurement range (number C_N)	0 – 100,000 P/cm³ (je nach Anwendung)
Volume flow	1 – 16,7 l/min
Power consumption	< 5 W / 12 V
Weight	< 1 kg
Reported data	PM_1, $PM_{2.5}$, PM_4, PM_{10},TSP, C_N, Partikelgrößenverteilung
Installation conditions	-20 – +50 °C (nicht kondensierend)

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Applications

- Various quality-determining monitoring control parameters such as:
- Number concentration Cn
- Aerosol size distribution PSD
- Detection of specific concentrations of a particle size or area
- On-line calculation of mass concentrations in aerosols

For the control, monitoring or regulation of, for example:

- Large-scale ventilation and air-conditioning systems
- Process and contamination monitoring
- Particle analysis for quality monitoring of particle-generating production processes
- and many more

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