

Process Aerosol Photometer

PAP 612



Process Aerosol Photometer PAP 612 with connection cable for power supply and data transfer

The PAP 612 is a combined inline extinction and scattered-light photometer with double-running test sections and two wavelengths, which can operate in over- or under pressure e.g. for measurements of gushes of oil. The device is primarily designed for investigations of crankcase ventilation of combustion engines. Thus it should support the development and testing of filter systems. Due to its compact design, its use is conceivable on test rigs for engines, on swivelling test rigs, under lab conditions as well as for test drives in field use.

Principle

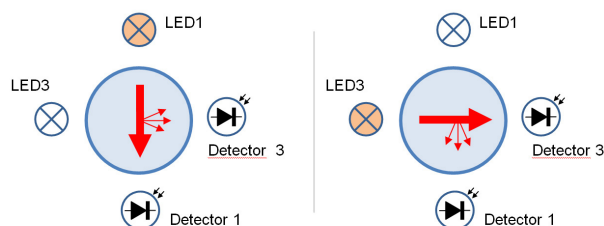
The measurement system is based on a dual extinction and scattered-light measurement which are offset at an angle of 90° . By an alternating circuit of the lighting unit (switching of the LEDs) the two extinctions and the two scattered-light intensities are measured successively. The PAP 612 records measuring signals which are internally evaluated. It can be used with the software PAPWin by a USB interface.

Advantages

- Transmission and scattered-light measurements of 2 wavelength with high time resolution
- Low uncertainty of measurement through two different measuring lengths
- Compact design for the use at laboratory, engine and tilt test stands and for field use
- Operation in over- and under pressure
- Use for aerosols and suspensions

Applications

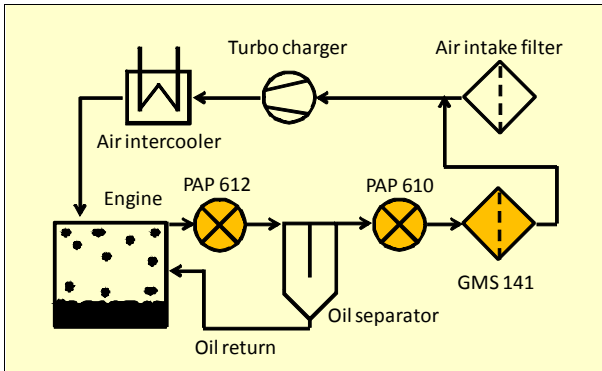
- Detection of unwanted fluids in pipe systems for gas transport (e.g. gushes of oil or detection of condensation)
- In-line characterisation and concentration monitoring of blow-by aerosols
- Concentration measurements in aerosols, suspensions and emulsions
- Monitoring of particle sizes of submicron aerosols



Measuring principle of the PAP 612



Specifications



Example: integration of the GMS 141 and the photometers PAP 610 and PAP 612 in an engine test stand

Windows-Software PAPWin

- Data acquisition
- Calibration and online determination of oil concentration
- Configuration of PAP 610

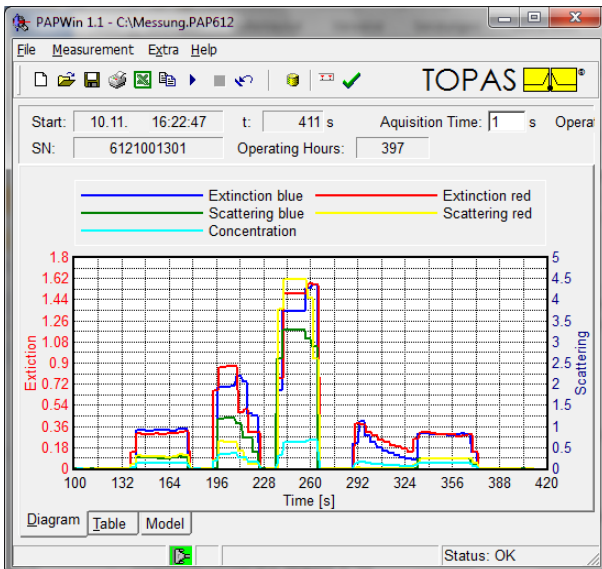


Diagram view of Software PAPWin

Technical Data

Measuring range of extinction	0...10 (equates to a transmittance of 100...0.005%)
Wavelengths	470 nm; 630 nm
Measurement parameters	Extinction, Scattering intensity (90°), wall film detection
Optical path length	25 mm
Max. pressure	4 bar
Temperature range	-10 ... + 60°C
Nozzle connection dimension	Pipe diameter 28 mm
Wetted materials	Aluminium, Viton (FKM), Sapphire glass
Power supply	12 V, 100 mA (USB supply)
Dimensions (L x Ø)	approx. 200 x 80 mm
Weight	1.2 kg

QMS certified to
DIN EN ISO 9001.



12 100 11908 TMS

For more information please visit
our website at
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