pegasor

PEGASOR DARTICLE COUNTER

ExtDC Technology | Simplified maintenance | Certified results

PEGASOR PARTICLE COUNTER INNOVATION AND ACCURACY



RELIABLE AND FAST

A significant proportion of particulate filters (DPFs) malfunction and emit up to 10,000 times more particulate matter. The average emissions of the entire vehicle fleet would therefore be underestimated by a factor of 5.

The Pegasor Particle Counter opens a new field thanks to a new measurement technology. The measurement of the number of particles is based on the detection of nanoparticles centered around 100 nm. This technology offers a very wide measurement range, while benefiting from a high sensitivity and a fast response time.

The measurement is done at idle in less than 30 seconds without the need for free acceleration, which is polluting, noisy and stressful for the engines or the operators.

The Pegasor Particle Counter uses ExtDC technology without soot clogging. The straight-through design keeps the sensor clean the sensor clean for extended operating time.



Pegasor G2 sensor used in GDI engine and pre-Euro3 diesel engine measurements demonstres the wide dynamic measurement range and capability of the measurement technology.





EXTENDED DIFFUSION CHARGING

RELIABILITY AND HIGH SENSITIVITY

ExtDC consists in electrically charging the particles by the diffusion of a high density of ions (positive) created in a ionization chamber by corona effect.

The concentration of charged particles is measured when leaving the sensor, the measurement corresponding to a leakage current per unit of time. This leakage current is proportional to the number of particles (and their specific surface) leaving the sensor per second, it allows to easily find the concentration in number and even in mass of particles.

PATENTED CLOG-FREE SOLUTION



The flue gas particles are sucked in by the Venturi effect thanks to a clean air flow and electrostatically charged (15 KV) at the sensor inlet. No risk of clogging the filter and the pump.



High availability	
No cleaning	
No recalibration	
No consumables	

ADVANTAGES

- No soot build-up
- No flammable operating liquid
- Insensitive to vibrations
- Independent of position during measurement
- No dilution
- No compressed air required.

HMI











Bluetooth communication

Tablet | PC | Smartphone

SPECIFICATIONS

PEGASOR PARTICLE COUNTER

Limit of detection	1 000 #/cm³
Measuring range	5 000 à 5 000 000 #/cm³
Resolution of indication	1 000 #/cm³
Response time	< 7s (T0 à T95)
Power supply	100-260 VAC - 50-60hz
Detection efficiency	20 - 60 % / 23 nm +/- 5 % 60 - 130 % / 50 nm +/- 5 % 70 - 130 % /80 nm +/- 5 %
Communication	Bluetooth



