

COSBER



INFOSHEET

Particle counter
COSBER C-EPC Serie



A SIGNIFICANT PROPORTION OF PARTICLE FILTERS 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.

INNOVATION AND ACCURACY

Introduction of particle counting for PTI is being implemented by some European countries. COSBER has developed a reliable and fast solution for the efficient measurement of particle-number concentration. The C-PN uses Extended Diffusion Charging measuring principle, an innovative technology to support PTI evolutions.

The particle counter complies with the particle concentration measurement requirements fixed by legislation in the Netherlands, Belgium and Switzerland. Further approvals are in progress.

FEATURES

EASY INTEGRATION

The C-PN can integrate into all COSBER emission testers.

It can be used in addition to the gas analyzer and opacimeter functions, or as a stand-alone unit.

SIMPLIFIED MAINTENANCE

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.

ECONOMIC AND SUSTAINABLE

The C-PN uses ExtDC measuring principle without soot clogging.

The straight-through design keeps the sensor clean for extended operating time.



Tablet



OBD-Dongle



Easy service

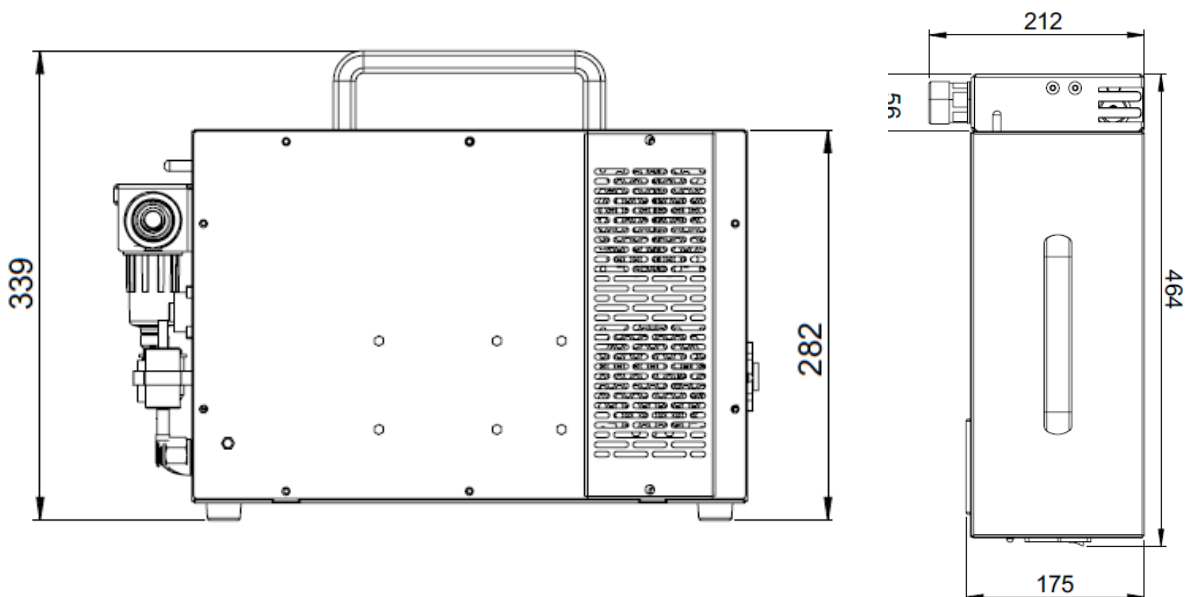


Accessories

TECHNICAL PARAMETERS

USER INTERFACE	
Communication	Bluetooth
Device	PC or Tablet
OS	Windows

MODEL	EPC70
Limit of detection	1 000 #/cm ³
Measuring range	5 000 à 5 000 000 #/cm ³
Resolution of indication	1000 #/cm ³
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 %



EXTENDED DIFFUSION CHARGING

RELIABILITY AND REPEATABILITY

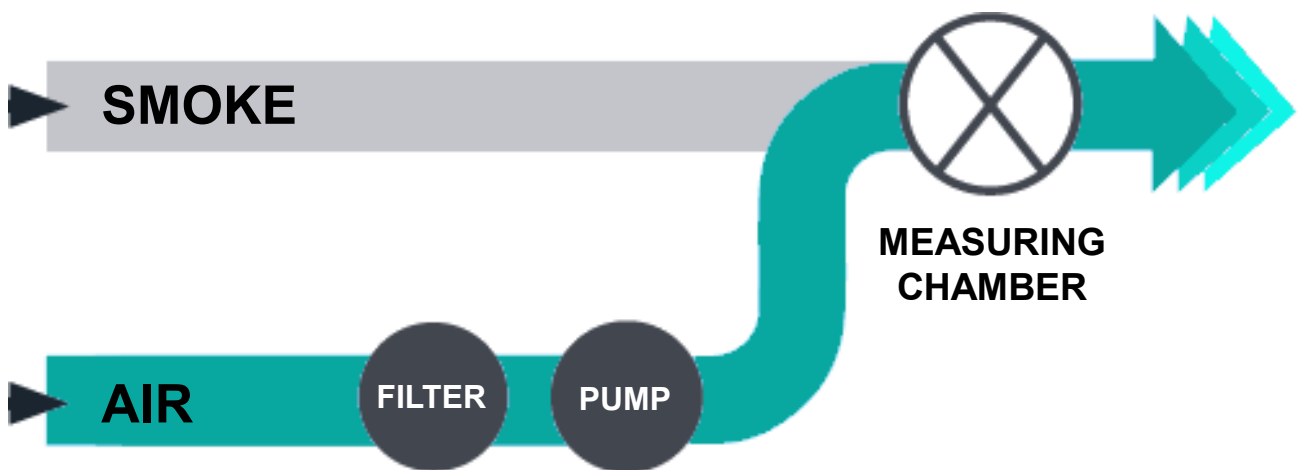
ExTDC consists in electrically charging the particles by the diffusion of a high density of ions (positive) created in an ionization chamber by corona effect.

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 SOOT-FREE SOLUTION

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



BENEFITS

- > HIGH AVAILABILITY
- > NO CLEANING
- > NO RECALIBRATION
- > NO CONSUMABLES
- > No soot build-up
- > No flammable operating liquid
- > Insensitive to vibrations
- > Independent of position during measurement
- > No dilution
- > No need of compressed air

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