

# CO

# Carbon Monoxide

**airpointer**  
European Monitoring System

## About Carbon Monoxide

Carbon monoxide is a highly toxic and flammable gas, which is a major product of the incomplete combustion of carbon and carbon-containing compounds.

Environmental tobacco smoke in dwellings, offices, vehicles and restaurants can raise the average carbon monoxide as well.



## Health and Environmental Effects

A sufficient exposure to carbon monoxide can reduce the amount of oxygen taken up by the brain to the point that the person becomes unconscious and can suffer brain damage from shortness of oxygen. Carbon monoxide may contribute to the greenhouse effect and global warming.

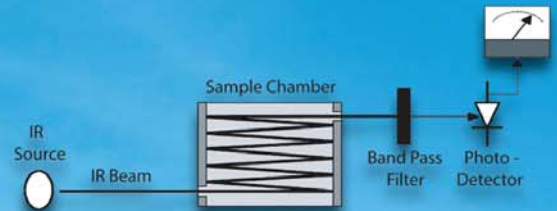
Sources: WHO Regional Publications, European Series, No. 91, „Air quality guidelines for Europe“, 2nd edition, 2000; GESTIS Stoffdatenbank (<http://www.hvbg.de/d/bia/fac/stoffdb/index.html>); U.S. Environmental Protection Agency ([www.epa.gov](http://www.epa.gov))

## Carbon Monoxide and the airpointer®

**Measurement Principle:**  
**Non-dispersive Infrared (NDIR)**  
 (EN 14626)

### CO / Non-dispersive Infrared

A beam from an infrared source goes through a chamber filled with sample gas. Carbon monoxide absorbs light and this decrease is measured by a photo-detector.



Component	EU Directive Methodology	Measurement Principle	Range	Units	Lower Detectable Limit	Zero Drift	Span Drift
Carbon Monoxide (CO)	Non-dispersive infrared (NDIR) (EN 14626)	Non-dispersive infrared (NDIR)	Dynamic range up to 1000 ppm	ppm, ppb, $\mu\text{g}/\text{m}^3$ , $\text{mg}/\text{m}^3$	< 0.08 ppm	< 0.2 ppm/24 hours < 0.4 ppm/7 days	< 2.0 % of reading/7 days

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Patents Pending

