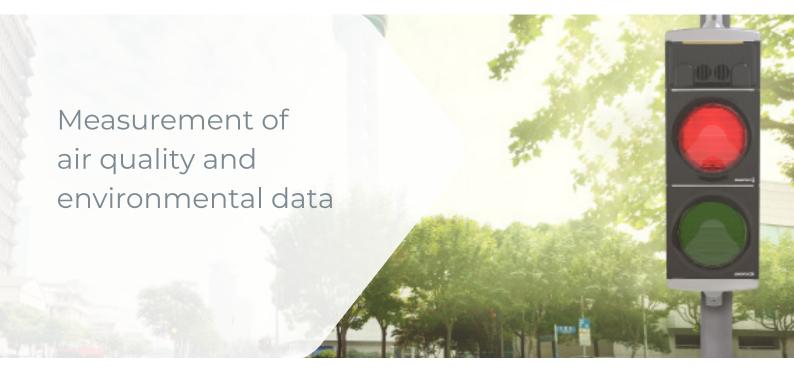# SWARCO
COMBIA – AIRDEC
Traffic Signal

Measurement of air quality and environmental data

Road intersections are the focal point of urban pollution and are critical for future environmental action.

The greatest danger of our time is environmental pollution. According to estimates by the World Health Organization (WHO), up to 7 million people worldwide die each year from smog. It is therefore all the more important to measure environmental quality effectively and present it in a time-accurate manner so that decisions and measures can be taken to improve the quality of life.

Accurate measurement of air quality directly at urban intersections provides the relevant decision-making basis for effective measures to improve the quality of life. By integrating the smart application AirDec into the COMBIA traffic signal, environmental data and pollutant levels can be reliably recorded directly at the intersection. Traffic signaling and environmental measurement thus become the basis for the greening of traffic.

The collected data is used to analyze the environment and provides important information on traffic volume, climatic conditions or pollution levels via a universal communication platform. Depending on the underlying data-based services, the information can be visualized or processed in different ways.

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AIRDEC

KEY BENEFITS

■ Precise and relevant measurement of environmental data – AirDec is located directly above the road intersection

■ Worldwide standardized communication

■ Modern, uniform cityscape – AirDec is an integrated component of the COMBIA traffic signal (no external applications necessary)

■ No influence of the measured data on the traffic signal

■ Evaluations and reports can be prepared and made available

■ AirDec can be combined with other smart features such as Sound and SafeLight in one traffic signal

■ AirDec can be used individually with all COMBIA traffic signals 200 mm (CIWAY, CIFLOW, CILANE)

■ The exchange of individual sensors is possible

TECHNICAL DETAILS

Measurement of Data (by sensors)	■ Brightness ■ Humidity ■ Air pressure ■ Particulate matter (PM1.0, PM2.5 , PM10) ■ GNSS-Coordinates ■ Rain intensity ■ Average sound level ■ Temperature ■ Different gases: Carbon monoxide (CO) Nitrogen dioxide (NO_2) Ozone (O_3)
Electrical specifications	■ Input voltage: 230V variant AC ±15% ■ ASTRIN variant: input voltage U=42V AC +25% -15% ■ OCIT variant: input voltage U=40V AC +25% -15% ■ Input voltage: 24V variant AC +25% -15%
Interfaces and visualization	■ IoT interfaces ■ optical visualization on web interface ■ periodic data analysis as report

Data collection platform

SWARCO Traffic management solution

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