ECoB



Indicative measurement solution connected via Bosch Cloud Services for monitoring PMx, CO, NO_2, SO_2 and O_3. The system is housed in a robust and durable enclosure and provides precise monitoring of traffic and environmental conditions in real time. Predictive traffic and emissions modeling along with advanced simulation software that highlights potential pollution hotspots and facilitates the implementation of pollution reduction measures.

Operation principle

Monitoring Ambient Air Quality

The ECoB (Environmentally connected Box) is a compact air quality measurement device that provides local emission data in real time. It is the perfect solution for all smart city, traffic measurement and construction site applications.

The carefully designed and calibrated system transmits locally determined outdoor air parameters while ensuring high comparability with official environmental measuring devices.

In combination with the Bosch simulation software for traffic solutions, the ECoB is the perfect solution for all projects to determine sustainable strategies for reducing pollutants in inner-city traffic and can be combined with well-known manufacturers of traffic control and simulation systems.

Sensor	Measurement Range	Resolution
O_3	0–1,000 $\mu g/m^3$	< 1 $\mu g/m^3$
NO_2	0–2,000 $\mu g/m^3$	< 1 $\mu g/m^3$
PM_1, $PM_{2.5}$, PM_{10}	0–1,000 $\mu g/m^3$	< 1 $\mu g/m^3$
SO_2	0–1,000 $\mu g/m^3$	< 1 $\mu g/m^3$
CO	0–5,000 $\mu g/m^3$	< 1 $\mu g/m^3$
T	-40 °C–+85 °C	< 0.1 K
rh	0%–100 %	< 0.1%

Table 2: ECOB EN

Benefits

- Precise measurement technology of various traffic-relevant gases and particles for better classification of emission sources (PM_1, $PM_{2.5}$, PM_{10}, CO, NO_2, SO_2, O_3)
- Extensive factory calibration against reference systems for best agreement, accuracy and precise data
- Manufactured by Palas in cooperation with Bosch
- Connection, data visualization and project management on MyAtmosphere possible
- Continuous validation of the data via the Bosch Cloud Services
- Integration into Bosch Mobility Solutions and traffic simulation software
- Easy & fast installation
- Robust & weather-resistant housing
- Low power consumption (solar panel and battery operation possible)

DATASHEET

Power supply	11.6–12.4 V (100–240 V AC at 50–60 Hz), solar power supply available
Power consumption	Typical 6 W ; max 24 W allowed
Installation conditions	-10 °C–+50 °C, relative humidity : 25 %–95 % (non condensing)
Pressure	80–120 kPa
Dimensions	280 x 280 x 230 mm
Weight	4 kg

Applications

- Inner-city traffic-induced immission measurement and monitoring
- Smart Cities
- Industrial and Construction Site Monitoring
- Sea & Airports
- Mining

Mehr Informationen:
https://www.palas.de/en/product/ecob