



City Intelligence™

GridLight™ AirQuality

Measurement of climate and environmental data

amplex



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Upgrade GridLight™ with Environmental Metrics

Cities all across Europe consider introducing bans on diesel vehicles and other initiatives to improve air quality – but to what extent does it work?

By upgrading the street lighting management at strategic locations around the city, air quality can easily be measured and monitored. This way, a base level can be found before launching initiatives, and when implemented, the effect can be followed continuously with GridLight™ AirQuality. The Amplex Air Quality Sensor is part of a range of Smart City applications that Amplex offers as extensions to the GridLight™ street light control platform.

The upgrade is easy if you already use Amplex AmsCPU/AmsCPU-IO modules. Simply connect an Amplex Air Quality Sensor to the serial input of the Amplex module and let Amplex install the necessary software to run the solution on the existing GridLight™ platform. Quick and easy. No additional communication systems need to be installed – the preexisting GridLight™ infrastructure is reused. The sensor must then be placed next to the cabinet at least 1.5 meters above the ground.

Data are collected at fixed intervals, e.g. every five minutes, and sent to the GridLight™ server, where they are visualized in graphs.

The data can also be delivered to other systems, either as historical measurements or with real-time integration through the open GridLight™ APIs.

Here are some of the benefits this platform offers:

- Can be easily installed on existing GridLight™ streetlight solutions or as a new installation dedicated to environmental measurements.
- Measurement of both meteorological and environmental data.
- Better knowledge of air quality ensures that the right initiatives are initiated.
- Optimal planning of where new institutions, nursing homes etc. are to be placed in relation to air quality.
- Automatic alarm when threshold values are exceeded.
- Very compact: 125 × 125 × 128 mm – 690g.
- Can be used for permanent and temporary environmental monitoring.

Amplex Referencer

Amplex has been controlling street lights since 2001 and has references worldwide under all conceivable climate conditions.

GridLight™ is by far the most used streetlight management system and today controls millions of lamps in more than 22 countries.

Projects range from complete cities to whole countries and include state roads, ports, cities as well as utilities.



GridLight™ AirQuality provides good knowledge of air quality, graphically, for further analysis.

Amplex Air Quality Sensor

Amplex uses an Air Quality Sensor from Finnish Vaisala, which is the world's leading supplier of meteorological and environmental measurement equipment. Delivery is via cooperation with Danish Brdr. Jørgensen, who calibrates the equipment to continuously ensure correct measurements.

The used sensor monitors:

- Nitrogen dioxide (NO₂)
- Sulfur dioxide (SO₂)
- Carbon monoxide (CO)
- Ozone (O₃)

Meanwhile, temperature, pressure, and humidity are also measured – everything in just one small unit.

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