Trusted outdoor solutions

SIDEREA

Citizen-Centric Lighting





... and follows its rhythm.

Citizen-Centric Lighting

Urbanisation. Climate change. Reputation. And at the centre of all this: citizens. Our society follows a rapid rhythm. Cities and communities must adapt to this in order to remain appealing to residents, visitors and entrepreneurs. A modern infrastructure that offers people security and promotes their well-being while simultaneously reducing a city's ecological footprint is an essential step towards a smart future.

Tridonic is familiar with the needs both of urban environments and the lighting industry. The SIDEREA range from Tridonic is ideal for citizen-centric outdoor lighting that uses smart technologies to optimise asset management and provide the perfect answer for every lighting application. New standards such as Zhaga book 18 and D4i form the basis for future-proof, flexible and open systems and straightforward integration.



Digital cities and communities

Standardisation that delivers safety and flexibility



Future proof

Luminaires with standardised interfaces and the latest communication protocols are fully ready for a future with a wide range of as-yet unknown tasks. The required sensors and communication modules are activated simply via Plug & Play. The luminaire already features the intelligence and sensor technology required for the application at hand.

Safe

High-quality lighting solution components ensure reliable operation, something Tridonic has demonstrated in even the toughest environmental conditions within industry. The risk of system failure is therefore much lower, which in turn increases the safety of the people in cities and communities.

Innovative

Tridonic's many years of experience plus dialogue with visionaries and experts in lighting technology enable the company to develop innovative use cases. This helps cities and communities on their way to becoming "digital cities".

Efficient

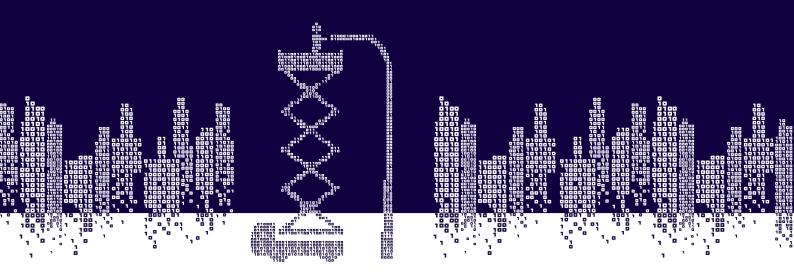
The clever functions offered by the system components deliver enormous potential for reducing energy and maintenance costs. Extremely flexible and easy to use, they guarantee that resources within asset management can be developed truly efficient.



The Zhaga interface provides a safe and future-proof interface for outdoor lighting – like USB used to, it allows system extensions to be connected via Plug & Play. D4i is a standard created by the lighting industry to supply and exchange data with higher-level systems.

Asset Management

Monitoring and controlling luminaires in real time



Within cities and communities, lighting is one of the major cost factors. Proactive support offering better monitoring and short response times can change all that. Errors that are precisely located and diagnosed can be rectified for less. Real-time data on the remaining life time makes it possible to plan the replacement of individual components in advance. Ongoing monitoring that flags unexpected events such as fluctuations in consumption data provides further potential for optimisation. Digitalisation therefore makes management easier, plus the proportion of the budget saved in day-to-day operation is available for investments in the future.



Operation and maintenance

- Planning of maintenance and replacement cycles
- Monitoring of energy needs
- __ Simple commissioning
- Real-time status information



Data transfer

- For error management and diagnostics
- _ To create energy consumption reports



A built-in interface helps to draw together data from the entire system and facilitates clear presentation.

Light on Demand

Minimising energy consumption and light pollution



An ever-increasing number of people are actively calling for the environment to be protected and long for "green cities". Cities and communities are also faced with the challenge of implementing the Sustainable Development Goals set by the United Nations by the year 2030. When it comes to lighting, the solution lies in providing the right amount of light only when and where it is needed. That's why SIDEREA enables the integration of motion sensors so that the illuminance can be automatically adjusted to the road users present. The result? Increased safety on the streets with a simultaneous reduction in energy consumption. Not only do known quiet periods at night help to save costs; they also minimise the amount of light pollution, meaning both people and animals benefit from minimal disturbance at night.



Adaptive light intensity

- _ Daylight-linked dimming/brightening
- Situation-based on/off/dimming
- __ Adjustment based on motion



Many paths and squares are used only sporadically during twilight and after dark, yet lighting is a key safety factor. Light is proven to reduce the number of criminal attacks. The solution is to dim luminaires to, for example, 10% when the paths are not in use. This reduces energy consumption and pollution without jeopardising the safety of residents through a complete shutdown of the luminaires.

Dynamic Lighting

Drawing attention and channelling emotion

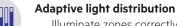


The benefits of adapting colour temperatures outdoors are threefold: Luminaires with Tunable White technology provide biological support to the natural human day-night cycle. To give an example: Cooler colour temperatures in the morning provide stimulation, while warm-white light in the evening has a relaxing effect. On an emotional level, colourdynamic lighting solutions have the potential to promote interaction and enliven public spaces. For instance, a warm light colour that gives a city and its architecture a charming ambience during the evening can be brightened during the early-evening rush hour to encourage a fast and safe flow of traffic. Not least, the appropriate light colour is also a matter of cultural differences. Tunable White solutions enable adaptation to the preferences of the citizens.



Tunable White

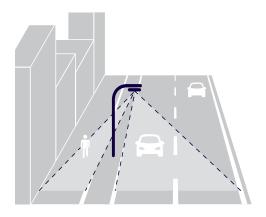
- __ Lighting with a circadian rhythm
- Switch colour temperature according to the time and situation
- __ Dim-to-Warm
- _ Dim-to-Cool



- Illuminate zones correctly for the application
- Change the proportion of direct/indirect light



Colour temperatures that adapt to the situation really help people to feel good within a city and enjoy spending time in outdoor areas.



For optimum safety, roadways and walkways are lit individually or separately. SIDEREA provides the opportunity for individual illumination.

Trusted Outdoor Solution

Creating urban value with intelligent lighting

The name Tridonic is a guarantee of wide-ranging expertise throughout the entire outdoor range – from LED modules and LED drivers to sensors. Customers are provided with optimum support through a whole host of services. The intensive, diverse technology partnerships ultimately benefit perfect luminaire and system quality.

Added value for successful customer relations

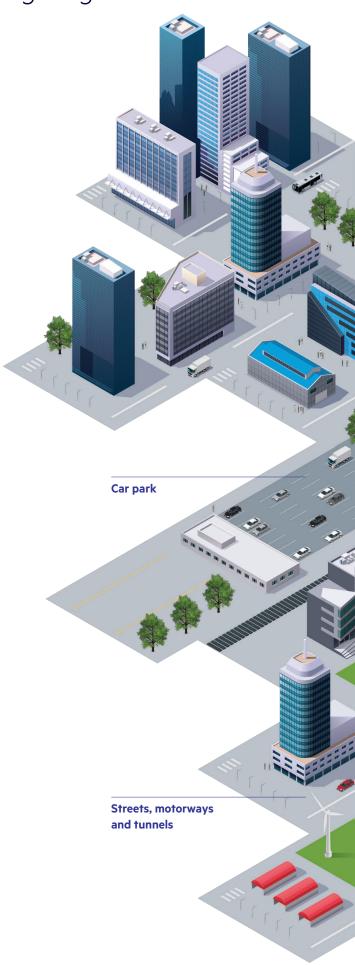
- __ More than 60 years of expertise within lighting and sensors
- Future-proof, standardised components for IoT networks and smart city platforms
- Competitive position through simple installation. Better system monitoring and maintenance, and thus optimisation of the total cost of ownership.
- Tried-and-tested services such as design-in support for luminaires

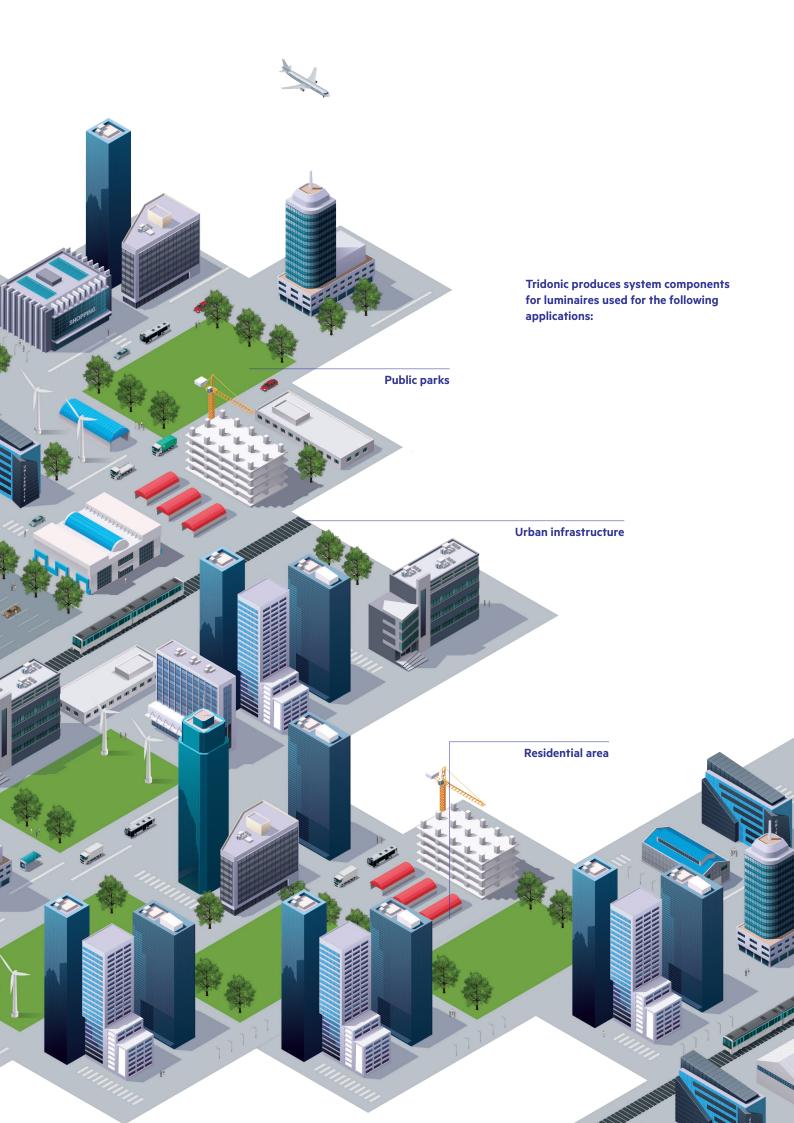
Added value at product level

- _ Maximum quality standards
- Protection of sensitive sensors against overvoltage caused by lightning or mains transients up to 10 kV
- Industry leader in overheating protection
- Flicker-free light for optimum visual conditions

Added value at system level

- __ Simple integration of luminaires and sensors into a digital network
- _ Remote maintenance
- Analysis of energy, system and street usage
- _ Data exchange for integrated, optimised control
- Efficient use of resources through system feedback,
 maintenance forecasts and data on infrastructure usage





Outdoor lighting solution with system

From the intelligent luminaire to the urban network









walkways and cycle paths.







With D4i, the Digital Illumination Interface Alliance (DiiA) is defining a new standard for the DALI bus within the luminaire.

DALI part 250 Bus power supply

DALI part 251 Asset management

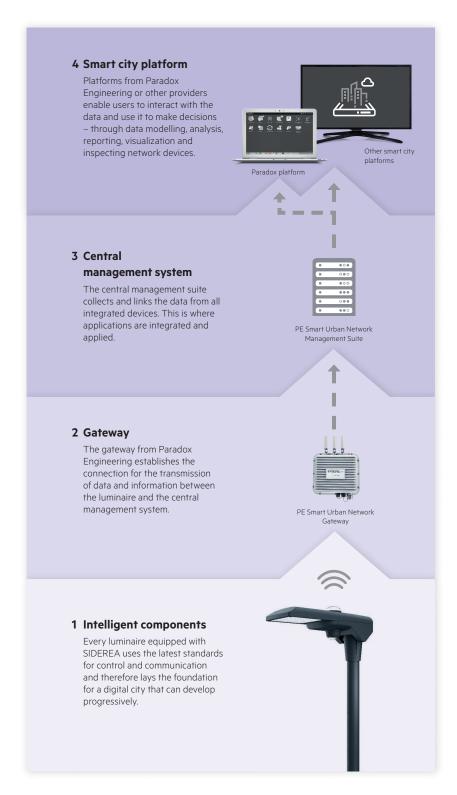
DALI part 252 Energy usage

DALI part 253 Diagnostic

AUX power

Strategic partnership with Paradox Engineering

Fully integrated solution based on open standards



PE Smart Urban Network from Paradox Engineering

A wireless network and a central management system remotely monitor IoT applications such as street lighting and car parks as well as high-speed services such as video monitoring and WiFi hotspots. Based on standards and open data models, PE Smart Urban Network enables complete interoperability in the management of devices, data and applications. When it comes to future extensions and integrating additional applications, the possibilities are limitless. The embedded blockchain technology optimises security and enables innovative models for data monetisation.



The benefits of the PE Smart Urban Network

- Manufacturer-independent central management system
- Seamless integration of customer-specific systems and applications
- Guaranteed, continuous further development
- Active member of the uCIFI Alliance for open, multi-manufacturer, fully compatible, wireless communication of smart cities and smart supply companies.

Close light

We attach great importance to a strong international presence - this allows us to stay sufficiently close to our customers

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