

 **odak**[®] **R&D**
CENTER

smart city technologies

Product Catalogue
2024-2025

www.odakarge.com

Odak R&D Center is a technology company that develops value-added and sustainable technologies that make a difference in the fields of smart city technologies (Traffic, Energy, Lighting). Odak R&D Center aims to gather all sub-elements of Smart City Technologies under a unique platform by developing new generation hardware, software and sub-systems.

Our aim is to develop products (hardware and software) and systems that meet medium and high technology criteria in our own fields of activity; to be a company that has brand awareness among expert companies in our country and in the world and has signed major projects.

Odak R&D Center contributes to the standard, technical method and software activities developed in our country in the field of traffic. Our engineers receive training and certificates in Ertico Smart Transportation Systems (ITS&C-ITS and MaaS) and develop products/systems with this vision in their applications. At the same time, it follows IoT-based applications and technologies, which are the most important parts of Smart Cities. For this purpose, it is also a LoRa Alliance Member.

In addition to Smart City Technologies, we also carry out special projects for the defense industry, aviation and medical sectors. As Odak Arge Center, in order to introduce our work in the defense industry and increase our awareness about the sector, Aselsan Gücümüz Bir member has become a member of Defense Industry YETEN.

Odak Arge Center employees participate in leading competitions in the field of lighting and also use leading analysis programs in this regard. It can also develop KNX and DALI automation, which are leading building automation standards in lighting automation, and also carry out lighting change/transformation projects using Dialux/Relux within the scope of EN12464 standards. It continues its regional and global studies in the field of lighting as a member of AGİD (Lighting Equipment Manufacturers Association).

Odak Arge Center engineering team prepares your lighting change/transformation projects in your factories and facilities in a computer environment in the most realistic way (over 95% accuracy), accelerates your decision-making processes with engineering studies together with investment return analyses and carries out the studies you need for a correct investment.

MEMBERSHIPS, AWARDS and ACHIEVEMENTS

- LED and LED Lighting Project Competition First Prize
- DIALux evo Featured Project Winner
- Academy Ertico Intelligent Transportation Systems Certificate (ITS&C-ITS)
- Academy Ertico Intelligent Transportation Systems Certificate (MaaS), 2022





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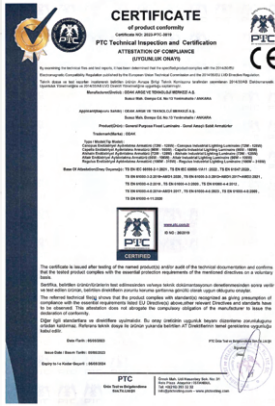
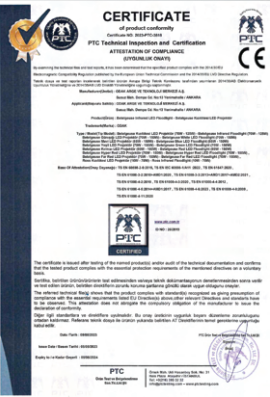
QUALITY CERTIFICATES



PATENT AND TRADEMARK REGISTRATION DOCUMENTS



PRODUCT CERTIFICATES



MEMBERSHIP DOCUMENTS





Rapid population growth, rural migration, education opportunities in metropolises or large cities, access to health services and job or other economic opportunities are causing cities to become more crowded. As long as these factors continue to affect the inhabitants, the population of cities seems to continue to increase. Global reports also state that urban populations will increase every year. This situation will create new challenges in areas such as infrastructure, transportation, housing and resource management and will require innovative solutions for urban planning. Therefore, the Smart City trend continues to gain momentum all over the world.

Reasons such as rapid urbanization, inadequate infrastructure, increasing population and stakeholder expectations, increasing density, increasing economic competition and increasing environmental challenges faced by traditional cities reveal the need for Smart Cities. At the same time, rapidly decreasing technology costs and rapid increase in technological competencies show the applicability of Smart Cities. In today's world where technology is rapidly developing, the creation and management of smart cities is becoming increasingly important. When city administrations and decision makers embark on a Smart City transformation journey, it is critical to assess the current situation, design a transformation roadmap, and clearly define the desired point in order to ensure success. This catalogue lists solutions related to the issues demanded in our country and underlined in strategies and policies.

Odak R&D Center produces solutions for the needs of smart cities with innovative approaches. Our catalogue is a guide for managers and decision makers who want to implement smart city projects. We offer our customers comprehensive solutions in the fields of Smart City Systems, Smart Transportation Systems, Lighting Systems, Aviation Systems and Defense Systems and Security using the latest technology. Each of our solutions is equipped with innovative and scalable technologies and is designed to enable cities to take steps towards a sustainable, efficient and secure future.

SMART CITY SYSTEMS OUR TRAFFIC SYSTEMS SOLUTIONS



Technological developments that facilitate solutions to transportation-related problems are a driving force in the transportation sector. Technological developments that create change in every field also lead to new trends in the field of transportation, offering various opportunities for transportation systems to be safer, higher quality, more convenient, more economical, more multi-modal, more environmentally friendly and more sustainable. This situation has given rise to the concept of Intelligent Transportation System (ITS). Cities around the world are making initiatives by creating plans and projects for ITS in order to increase their competitiveness and create sustainable urban transportation systems.

Traffic systems developed within the scope of ITS benefit from advanced technologies to improve traffic flow and make urban transportation more efficient. Intelligent Traffic Management Systems (ITS) collect real-time traffic data and optimize traffic flow by adjusting signal durations according to traffic density.

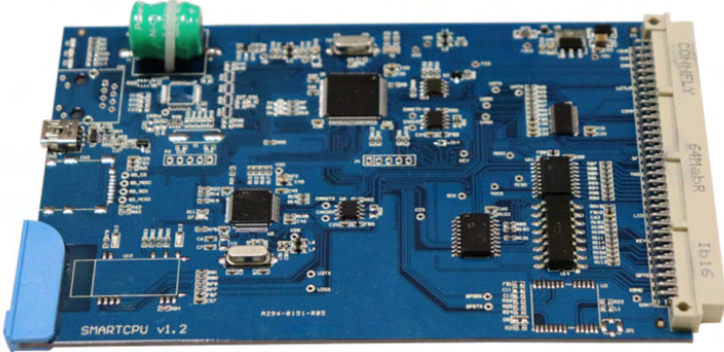
While cameras and sensors are used for traffic flow and real-time data, intersection control devices and software are used for the control of roads and intersections. Intersection and corridor management systems ensure continuous movement of vehicles with green wave applications and prioritize emergency or public transportation vehicles.

Public transport and bike lane systems also play an important role in regulating traffic. Dedicated roads for public transport and advanced bike lane networks encourage alternative modes of transport. Roadside units or in-car units that prioritize public transport vehicles communicate with intersection control devices to prioritize these types of vehicles.

Sensors that recognize/detect bicycles and scooters and pedestrians can ensure that vulnerable road users pass through intersections safely.

Traffic safety and control systems contribute to increasing road safety by detecting anomalies such as speed violations and red light violations. These systems are generally used to shorten transportation times, reduce traffic accidents, and minimize environmental impacts, thus providing a more sustainable city life.

HARDWARE SOLUTIONS

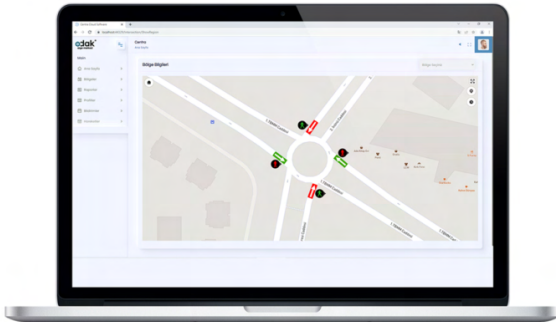


SMART CITY MANAGEMENT CARD

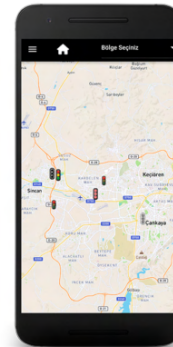


REMOTE ACCESS FLASHING SYSTEM

SOFTWARE SOLUTIONS



CENTRA



SMART INTERSECTION REMOTE ACCESS MOBILE APPLICATION

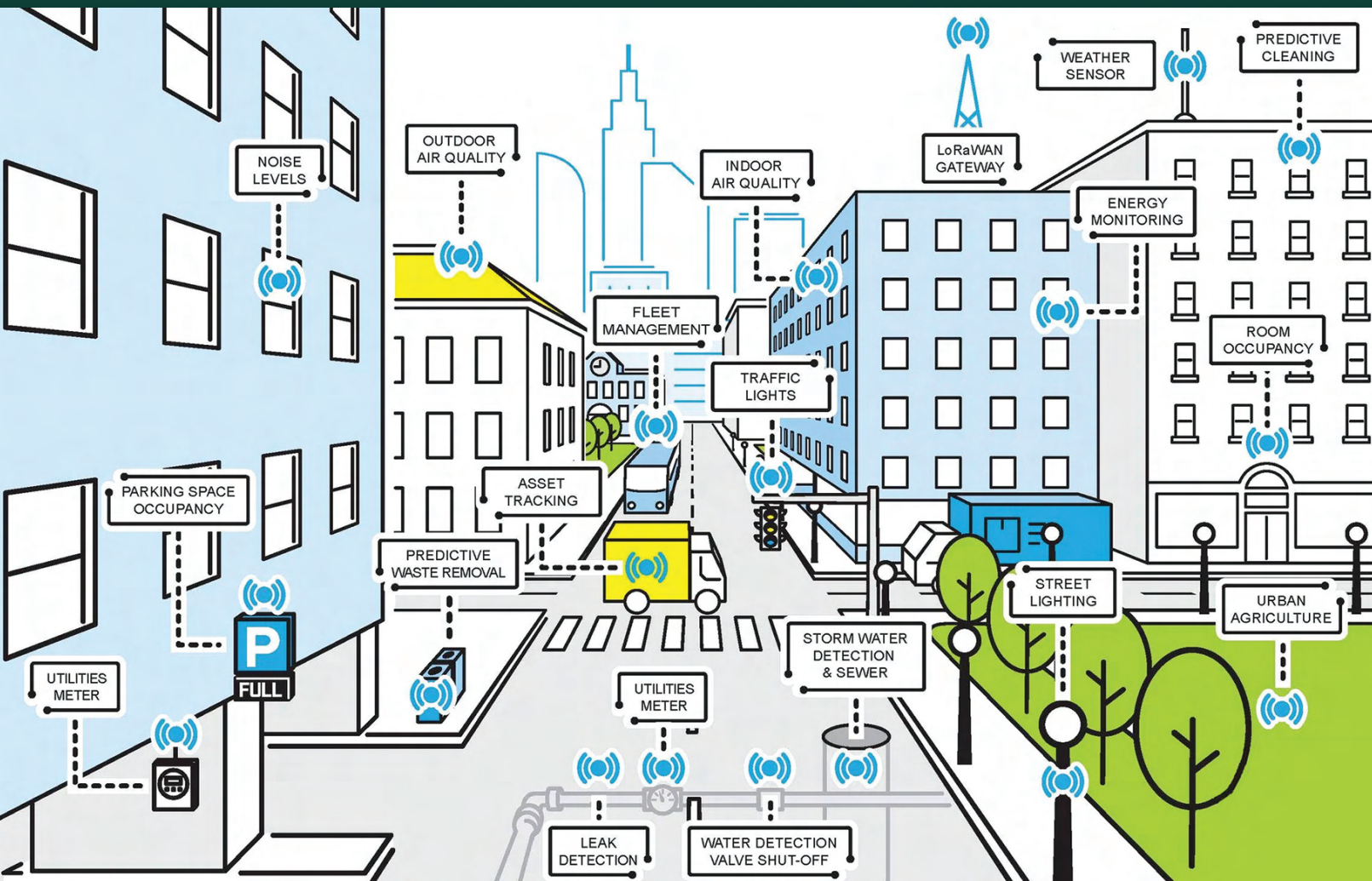


SINTRA MOBILE TOOL



SINTRA PC TOOL

SMART CITY SYSTEMS SENSORS



The role of sensors in smart cities is very important. Sensors are critical system components used to collect and analyze data in smart cities. The data collected by the sensors provides management representatives with a valuable resource to make better decisions and optimize services. By constantly monitoring sensors, environmental conditions, traffic flow, energy consumption and many other factors, it helps to manage cities efficiently and effectively.

In order to improve decision-based mechanisms, it is necessary to increase the variety of sensors and sensors, starting with the areas with the most needs. Among these sensors, we can list the most requested and requested sensors as well.

• Meteorology Sensors

It is used to measure air quality (Temperature, Humidity, Pressure), Wind speed, Wind direction, meteorological events (Rain, Hail, Snow) and air pollution levels. Meteorological stations are sensors that provide all the data that city managers want to monitor in a combined manner and are suitable for digital infrastructure.

• Traffic and Traffic Sensors

Traffic and transportation sensors are used to monitor traffic density in cities, vehicle mobility, frost, snow, icy conditions on the road surface, fog density level and visibility on the highway, density of vehicles waiting at the intersection and occupancy rates of open parking areas. In addition to these, radar sensors, laser/lidar sensors, inductive coils and advanced traffic cameras can be given as examples of sensors used in the field of traffic and transportation.

• Smart Lighting Sensors

Smart lighting systems use sensors to automatically adjust the illumination level of street lights according to environmental conditions and traffic density. These sensors usually detect light levels, movement, or traffic density. Photoresistors, motion sensors, radars that show traffic speed and density, and cameras are also among the sensors used in this category.

• Water and Waste Management Sensors

Water and waste management sensors are used to monitor water consumption, water quality, and wastewater levels in city infrastructure. Smart meters, water pressure sensors, water level sensors, and wastewater analyzers are included in this category.

• Thermal Sensors

Thermal sensors are used to monitor heating and cooling systems in urban infrastructure, optimize energy consumption, and analyze building performance. Heat sensors, thermal cameras, and thermal sensor networks are among the sensors used in this category.



Road Surface Condition Sensor



Meteorological Station

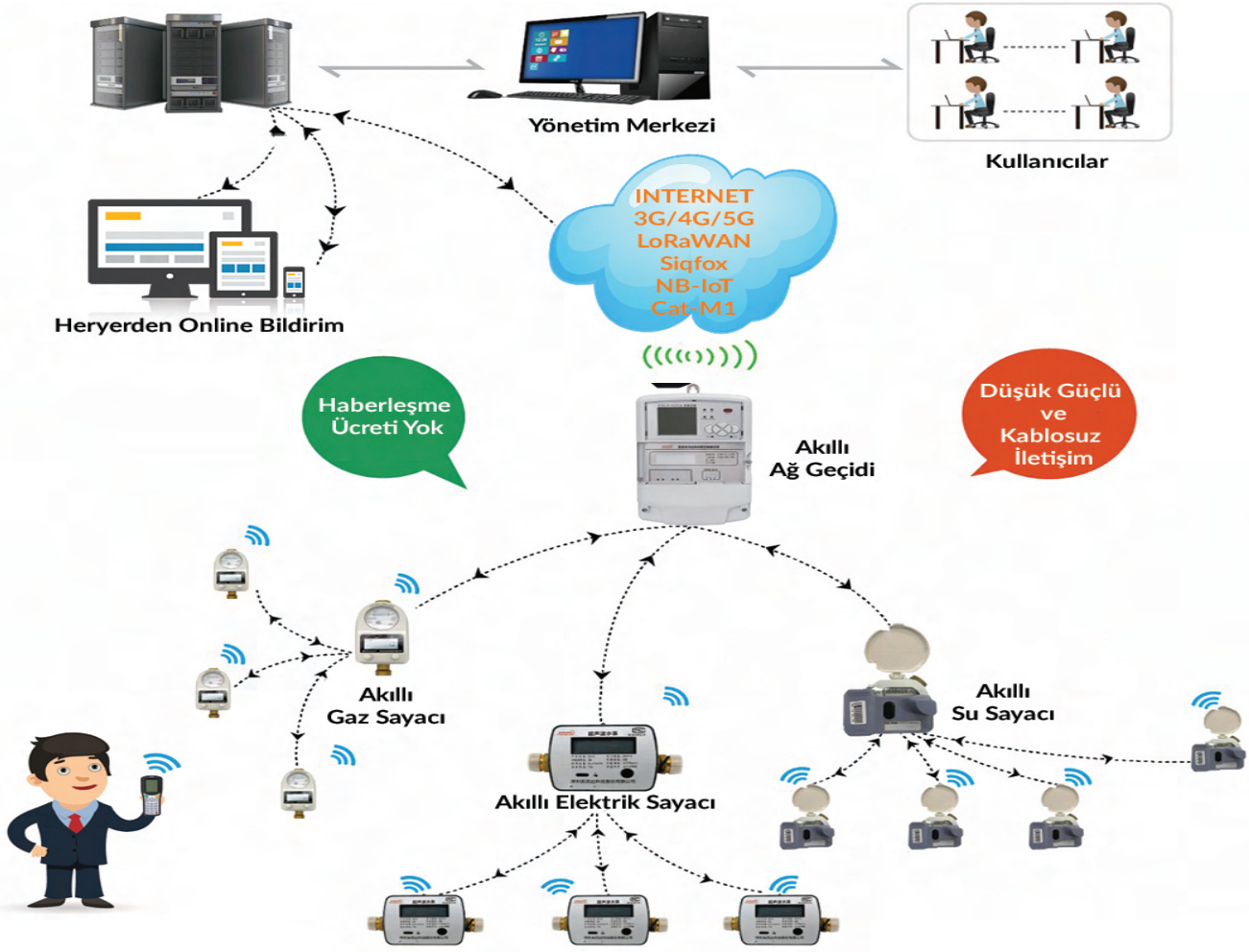


Fog (Visibility) Sensor



Focus-Loop Artificial Intelligence Platform

SMART CITY SYSTEMS ENERGY



Today, global energy consumption is constantly increasing, while energy costs are also increasing. This situation is a worrying situation at a time when energy resources are limited and their environmental impacts are increasingly felt. Future trends are shaping up to encourage more sustainable and efficient energy use. These trends include the transition to renewable energy sources, the development of energy storage technologies, the spread of smart grids, and policies and practices focused on energy efficiency.

Energy saving measures can be applied in a wide range from individuals to industrial facilities. These include measures such as the use of energy efficient devices, increasing the insulation of buildings, renewing lighting systems, and implementing energy management systems. In the future, focusing on these trends is of critical importance in order to reduce the pressure on energy consumption and costs and to build a sustainable energy future. Based on the principle of "You can't control what you don't measure, you can't manage what you don't control", energy monitoring, meter reading, and data collection technologies are used to monitor and manage energy consumption in modern cities. These systems reduce costs by increasing energy efficiency and contribute to sustainability goals.

These technologies, integrated with smart meters and cloud-based software, are preferred for automated meter reading, determining energy consumption trends, reducing waste, optimizing energy management and supporting decision-making processes. As Odak Arge, we help you realize your dreams and goals in this field with our hardware and software solutions in the catalog.



**ELECTRICITY CONSUMPTION
CALCULATION APPLICATION**



WM-BUS REMOTE READING MODULE



WM-BUS DATA COLLECTOR



SMART LIGHTING SYSTEM

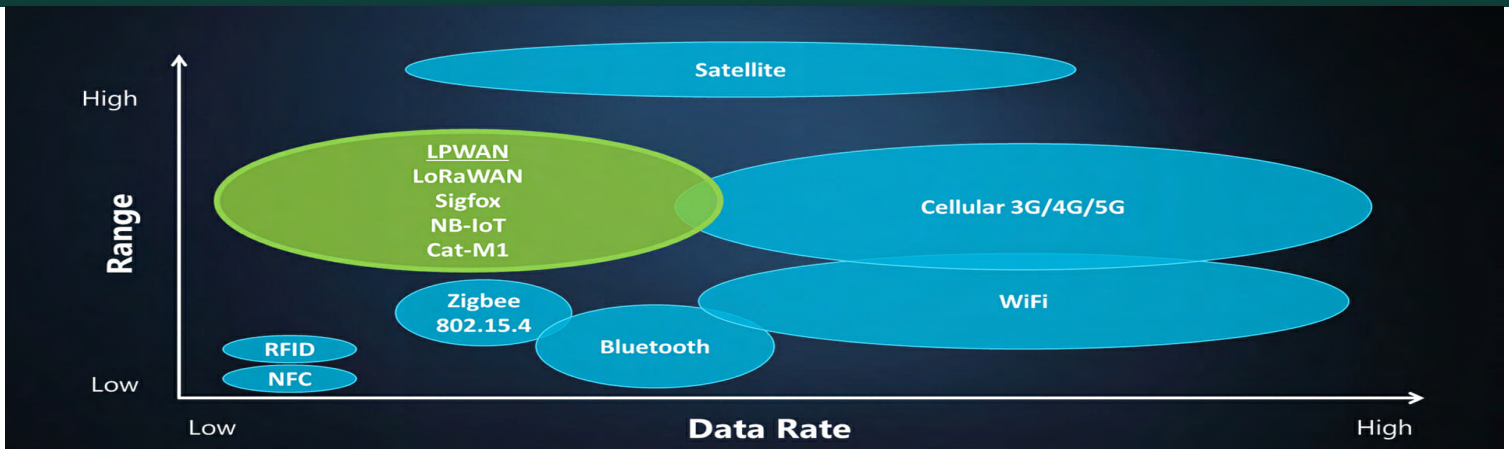


2G + 4G AMR COMMUNICATION UNIT



**TEDAŞ 2019 TYPE-4
COMPATIBLE WITH MODEM SPECIFICATION
2G + 3G + 4G AMR COMMUNICATION UNIT**

SMART CITY SYSTEMS WIRELESS TECHNOLOGIES



In order for a city to become smart, it needs to constantly monitor and track environmental conditions, traffic flow, energy consumption and many other factors. In order for cities to be managed efficiently and effectively, smart cities can be possible by receiving/obtaining data from the entire city and then processing this data.

The "Internet of Things (IoT)", which is the communication of devices throughout the city with each other, is possible by connecting physical devices to the internet. In smart cities, the "Internet of Things (IoT)" is used to connect sensors, devices and infrastructures to each other and to share data. For example, devices such as traffic sensors, smart meters, smart lighting systems can be connected to a network via IoT and exchange data. Collecting data from the entire city with wireless technologies is among the cost-effective solutions. Wireless technologies contribute to cities being more sustainable, efficient and livable. We can list examples of the most preferred and used Wireless technologies as follows.

4G/5G Mobile Communication

4G/5G technology enables connection to a wide network of devices with high speed and low latency. In smart cities, 4G/5G is used in applications such as smart transportation systems, video surveillance and security systems, and smart energy management with its high bandwidth and low latency. For example, 4G/5G-supported traffic management systems can collect and analyze real-time traffic data. The disadvantage is the high service costs.

Wi-Fi and Bluetooth Technologies

Wireless networks are used in smart cities for extensive data collection and connecting devices to the internet. Wi-Fi and Bluetooth technologies can be used in many different areas such as smart transportation systems, free internet access in public areas, smart building systems, and communication between public devices. Free Wi-Fi access in city parks or Bluetooth connections in smart building systems can be given as examples. The disadvantage is the low speed and narrower coverage areas.

LPWAN Technologies such as LoRaWAN and Sigfox

LPWAN (Low Power Wide Area Network) technologies, which have long range, low power consumption, and low data rates, are ideal for communicating with sensors over long distances in smart cities. They are especially used in remote areas or large infrastructure systems. LoRaWAN is a candidate to be one of the most preferred Wireless technologies in cities with its long-range communication capability, low power consumption, coverage up to 10km, low service cost, encrypted communication and reliability with the LoRaWAN standard, the ability to build large systems and scalability.

As Odak Arge, our company has become a corporate member of the LoRaWAN Alliance since 2024 and has started to develop LoRaWAN compatible systems for smart cities and offer solutions to cities on this subject.

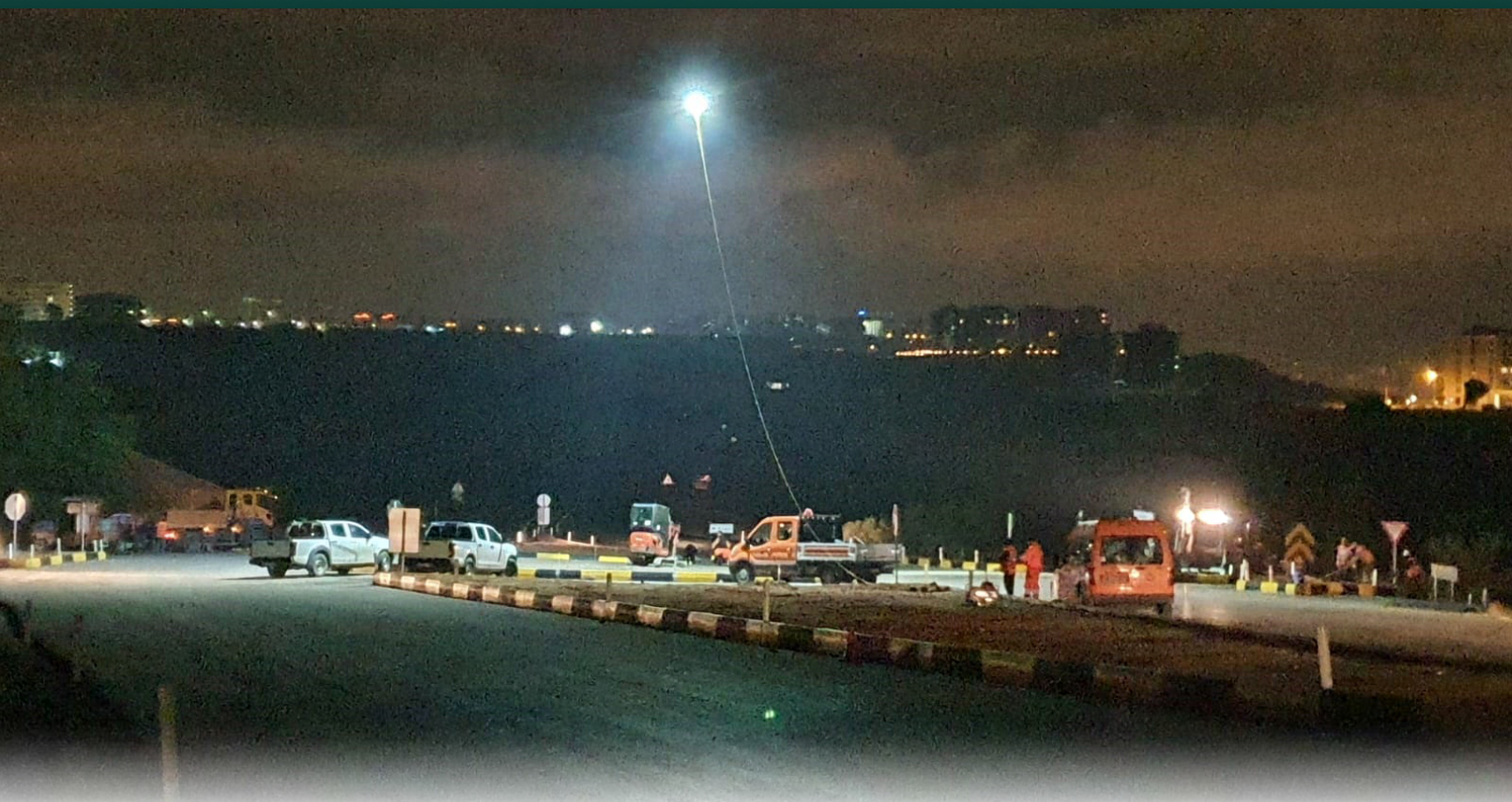
Uzaktan Kontrollü LoraWAN/IOT Çözümleri



Uzaktan Kontrollü 4G/LTE IOT Çözümleri



WIRED LIGHTING UAVS



Wired UAVs are rotary wing aircraft that are physically connected to a power station on the ground. The power station on the ground converts the mains voltage to high voltage direct current and provides the UAV with a cable that is as big as the load it will carry. It has a DC-DC converter for low-power LED lighting and other electronic systems operating on the UAV. Since wired UAVs are connected to the power station, they can stay in the air much longer than normal UAVs without any interruption. Thanks to this ability, they provide uninterrupted lighting from an altitude of 30/50 meters until sunrise.

Wired UAVs are designed to be used in search and rescue activities, construction works, firefighting and fire interventions, traffic accidents on highways or road construction works or first aid interventions and fixed missions. The system consists of a Quadcopter Drone Platform to provide wide area surveillance and high illumination, a high-power LED Lighting Module and / or camera, a wired power system for uninterrupted power and a command and control controller. The payload capacity of the aircraft consists of the LED lighting module. There is no additional payload add-on or capacity.



G2L Wired Lighting Drone



G3L Wired Lighting Drone



G5L Wired Lighting Drone



G6LS Wired Lighting Drone



G6LVS Wired Lighting Drone



G7LVS Wired Lighting Drone



**GBI2023DA
Wired Lighting Drone**

SECURITY AND MONITORING SYSTEMS



Border security systems are used to protect the borders of countries and detect illegal crossings. Border security systems include many different technologies; They are used to monitor large areas in a city, increase security, prevent crime and respond quickly to incidents. These systems usually consist of radars, thermal cameras, motion detectors and other sensors. This equipment monitors and detects activities in border areas, sends warnings to border security personnel and determines situations that require intervention. The artificial intelligence-supported Border Security System, which we developed with the support of Tubitak, is an autonomous system that automatically detects threats and sends warnings.

24/7 monitoring systems used in ports, train stations and airports are used to increase security in these facilities, prevent theft, detect smuggling and respond to emergencies.

These systems usually include cameras, x-ray devices, metal detectors, chemical sensors and other monitoring equipment.

This equipment is used to ensure the security of cargo and luggage, monitor activities within the facility and detect hazardous materials. With our PTZ cameras, you can view at very long ranges day and night and integrate it with your current systems that can communicate in accordance with the Pelco-D standard.

You can also use Wired Drones that can reach 30/50 meters in height and provide continuous HD images 24/7 to illuminate border security and potential threat areas or to view beyond the wall.



Border Security System



Long Range Laser PTZ Camera



Wired Lighting UAV

LIGHTING FIXTURES AND CONTROL SYSTEMS



Revolutionizing modern lighting technologies, LED (Light Emitting Diode) light source luminaires stand out with their energy efficiency, durability and superior lighting performance. Offering lower energy consumption and long-lasting use compared to traditional lighting solutions, LED light source luminaires are widely preferred in commercial and industrial areas.

LED light source luminaires provide more lighting with less energy with their high light efficiency, which reduces energy costs while supporting environmental sustainability. They increase efficiency in businesses thanks to their compatibility with automation systems. These luminaires, which can be integrated with automation controls, create programmable lighting scenarios, save energy and respond dynamically to the lighting needs of businesses. In addition, thanks to the dimming feature, the light level can be easily adjusted, thus providing appropriate lighting according to the requirements of the environment and user preferences. They offer safe and comfortable working environments with low heat generation. In addition, they minimize maintenance and replacement costs thanks to their long life.

LED luminaires, which offer various color and light distribution options, increase creativity in lighting design. They provide superior performance in both indoor and outdoor spaces with their high color accuracy and instant full brightness. It increases work efficiency and employee comfort with its flicker-free and eye-friendly lights.

LED lighting fixtures are an ideal solution for modern businesses looking to achieve energy efficiency and sustainability goals. This innovative technology plays an important role in providing brighter, more efficient and environmentally friendly lighting.

INDUSTRIAL LIGHTING FIXTURES



LED light source industrial luminaires pay for their investment with the energy savings they provide!

In today's world where energy is becoming increasingly important, efficient use of energy and reducing energy costs are among the priorities of every business.

Did you know that if you replace your traditional light source (Metal Halide, Fluorescent, Sodium Vapor) lighting luminaires with LED light source luminaires that do not require a light source change for 5 years and do not require maintenance, instead of changing the lamp every two years, your expenditure/investment will cover the cost of the luminaire in less than 2 years with the energy savings they provide?

As of September 2023, T5 and T8 fluorescent and compact fluorescent tubes (CFL) have begun to be phased out in accordance with the European Commission's eco-design and RoHS directives. For this reason, the use of LED light source luminaires for factories and industrial facilities is increasing. Thanks to their low energy consumption and long life, they reduce operating costs by keeping maintenance requirements to a minimum. They also stand out with their environmental friendliness, because they consume less energy and create less waste. KNX or DALI automation options, compatible with presence and daylight sensors also provide additional savings and flexibility. This increases the operational efficiency of businesses and allows them to keep costs under control.

LED light source industrial luminaires are an environmentally friendly option by providing high energy savings and low consumption, and they create less waste. The flexible design of LED light source luminaires offers various options to meet different lighting needs. LED light source industrial luminaires are a perfect lighting solution for businesses with their energy efficiency, full compatibility with automation and industry 4.0, long life and environmentally friendly features.

LOW CEILING LIGHTS



ALTAIR 56W



ALTAIR 74W



ALTAIR 106W



LUMISTAR 100W



ALSHAIN
72/96/128W

HIGH CEILING LIGHTS



LUMISTAR 100W



REGULUS 106W



REGULUS 212W



REGULUS 318W



CAPELLA
72/96/128W

GAS STATION LIGHTING FIXTURES



CANOPUS 72W



CANOPUS 96W



CANOPUS 128W

BELLATRIX LINEAR ARMATURES



65 CM

BELLATRIX 33W-42W



125 CM

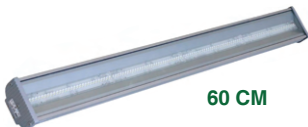
BELLATRIX 42W-50W



125 CM

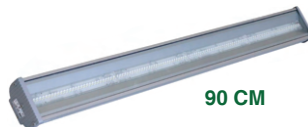
BELLATRIX 50W-59W

LINEAR HIGH CEILING LAMPS



60 CM

LYRA 56W-65W



90 CM

LYRA 85W-100W



120 CM

LYRA 113W-133W

WATERPROOF FIXTURES



60 CM

HYDRA 18W



120 CM

HYDRA 36W



150 CM

HYDRA 65W



127 CM

HYDRA FIX-S 80W

STREET LIGHTING FIXTURES



Today, high-pressure sodium vapor lamps, which are frequently used in street lighting, are not suitable for the environmentally friendly production trend and due to the heavy metals they contain, they are being replaced by LED light source street fixtures with the development of LED technology. Apart from the roads used in intercity highways, LED light source fixtures offer the most economical and long-lasting option in all other applications (M2...M6 Class). In the coming years, together with lighting automation, LED light source fixtures will also be preferred in highway lighting (M1 Class).

Today, LED light source street fixtures have an efficiency factor as high as sodium vapor lamps ($>125\text{lm/W}$). LED light source fixtures protect the environment while reducing operating costs with their long life, low energy consumption and automation. Their high efficiency allows them to produce more light using less energy. In addition, their durable structures and long life reduce maintenance requirements and increase the reliability of the systems, and with these features, they are the ideal solution to meet the needs of modern cities.

With different power options, Skystar lighting fixtures meet the desired light level and homogeneity requirements for multiple road types and classes (M1...M6), thermal management guidelines and efficiency levels for the best cost, and global standards. Skystar series fixtures are designed in accordance with the LED Light Source Road Lighting Fixtures Technical Specification prepared by TEDAŞ and are currently used safely on our country's highways and by many municipalities.

Meissa series lighting fixtures also meet the desired light level and homogeneity requirements and global standards for multiple road types and classes (M1...M6). Meissa series fixtures are models with reduced features compared to the Skystar series and do not have on-site maintenance and repair capabilities or the ability to open a case without tools. Therefore, they meet the technical requirements of the Tedaş specification. If the Tedaş specification requirement is not mandatory in your projects and an economical solution is sought, Meissa will be a good option.



SKYSTAR
30~50 W



SKYSTAR
60~80 W



SKYSTAR
100~120 W



SKYSTAR
150~180 W



SKYSTAR
250~320 W



MEISSA - S
20~80 W



MEISSA - M
90~150 W

SOLAR POWERED LIGHTING FIXTURES



In areas where city grid voltage is not available, on the coast, and in places where historical texture is not desired to be damaged, solar-powered LED light source street luminaires offer an environmentally friendly and energy-efficient solution compared to traditional street lighting systems. Although it is not very preferred due to the high price of system components, its use will continue to become widespread as system costs decrease. Especially on roads without electrical infrastructure and in factory environments, solar-powered luminaires appear to be the most economical solution when compared to the total cost of electrical infrastructure, wiring labor, and electricity consumption.

Thanks to the low energy consumption of LED technology, they provide high-performance and environmentally friendly lighting. Working with solar energy contributes to carbon neutrality targets and meets the requirements of a sustainable system. Integrated battery systems enable solar energy to provide uninterrupted lighting even at night and on cloudy days. Their durable structures and long life keep maintenance requirements to a minimum and reduce costs. Equipping with smart lighting control systems optimizes energy savings. Solar-powered LED light source street luminaires are also a reliable and effective option to meet the needs of cities.

URSA-M series solar energy lighting fixtures meet the desired light level and homogeneity requirements and other desired global standards for multiple road types and classes demanded domestically and abroad. System components are determined by calculating the lighting calculation and total power according to the requested working hours and power. The system is completed with Monocrystalline Solar Panel, MPPT charge regulator and lithium battery, gel battery or dry type battery in parallel with the customer request. With Ursa-M series solar energy lighting fixtures, long-lasting systems and systems that exactly meet traditional fixtures operating with mains voltage can be made.

Polaris series products, on the other hand, cannot be high-powered since they offer all components such as solar panel, battery, mppt charge regulator on the fixture. Since the battery and solar panel are very small in these fixtures used for environmental lighting purposes, sensor systems have been developed for long-term operation. When the sensor detects movement, it reaches 100% light level, and after a certain period of time, the lighting brightness value is immediately reduced to 10% level and it is provided to operate for up to 4 hours. You can use Polaris series luminaires for environmental lighting purposes in places such as factories, farms and vineyards that do not require much light.

URSA - M SOLAR POWERED LIGHTING SYSTEM

Sistem Mimarisi



Monokristal
Solar Panel



LED Armatür



Deep Cycle Jel /LiFePO4
Batarya



MPPT Solar Şarj Kontrol Cihazı



Armatür Direği



Montaj Braketi



URSA M
30W-40W-50W/HOUR

POLARIS SOLAR POWERED LIGHTING FIXTURE



POLARIS
16 W/SAAT



POLARIS
32 W/SAAT



POLARIS
48 W/SAAT

LIGHTING CONTROL SYSTEMS



Along with the concept of smart city, smart transformations are also demanded in the street and avenue lighting in cities. Within the scope of the Paris Agreement of the countries; there are responsible consumption, sustainable smart city and climate actions. A control system that will serve these actions will contribute to the realization of multiple goals. For this reason, IOT-based lighting control systems have become a system that is increasing its popularity and in demand all over the world.

The technologies used in the wireless infrastructures that will serve all Smart Cities are Bluetooth, Zigbee, GSM or LoRa. The Zigbee solution is not preferred because of its high cost per luminaire, the Bluetooth communication method cannot provide service to the whole city and is generally preferred indoors, and GSM-based systems cause monthly subscription expenses to service providers per luminaire.

LoRa Wireless technology, which takes its name from the initials of Long Range, which provides long-distance communication in urban lighting in the world, has become popular. Our system is equipped with LoRa wireless technology.

In street lighting luminaire control, American-origin NEMA and the still young Zhaga Socket have entered our lives. More widely preferred Nema Socket compatible RF receivers are used in our system. In this way, you can use it without any problems with all NEMA socket fixtures that are compatible with ANSI C136.41.



LoRa Compatible Gateway



Nema Socket Covers



Nema Socket Compatible Photocells



LoRa Compatible 1-10V RF Receiver (Node Controller 1-10V)



Nema Socket 3P



Nema Socket 5P



Nema Socket 7P

PROJECTORS



LED light source projectors pay for their investment with the energy savings they provide!

Today, where energy is increasingly important, efficient use of energy and reducing energy costs are among the priorities of every business. Instead of using your traditional light source (Metal Halide, Fluorescent, Sodium Vapor) lighting fixtures by changing the lamp every two years, if you replace them with LED light source fixtures that do not need to change the light source for 5 years and do not require maintenance; the expense/investment you make will amortize itself in less than 2 years with the energy savings it provides.

As of September 2023, T5 and T8 fluorescent and compact fluorescent tubes (CFL) have begun to be phased out in accordance with the European Commission's eco-design and RoHS directives. For this reason, the use of LED light source fixtures is increasing for hotels, shopping malls, factories and industrial facilities. Thanks to their low energy consumption and long life, they keep maintenance requirements to a minimum and reduce operating costs and minimize maintenance requirements. They also stand out with their environmental friendliness because they consume less energy and create less waste. KNX or DALI automation options, and their compatibility with presence and daylight sensors also provide additional savings and flexibility. This increases operational efficiency of businesses and allows them to keep costs under control.

LED light source projectors are an environmentally friendly option by providing high energy savings and low consumption, and they create less waste. The flexible design of LED light source projectors offers a variety of options to meet different lighting needs. LED light source projectors are a perfect lighting solution for businesses with their energy efficiency, full compatibility with automation and industry 4.0, long life and environmentally friendly features. Moreover, they increase creativity in both commercial and artistic applications with their color options in different wavelengths. The wide color options offered by LED projectors allow businesses and individuals to achieve greater flexibility and creativity in their lighting solutions. This makes LED light source projectors superior not only in terms of energy efficiency, but also in terms of aesthetics and functionality.

PROJECTORS

PROJECTORS



CAPELLA
72/96/128 W



DENE B
250 W



DENE B
300 W



HEKA
400 W



VEGA
500 W



VEGA
600 W

DOB PROJECTORS



CASTOR DOB
30 W



CASTOR DOB
50 W



CASTOR DOB
100 W



CASTOR DOB
150 W



CASTOR DOB
200 W



CASTOR DOB
300 W

INFRARED PROJECTORS



With the developing technology, electronic security systems using qualified cameras have become widespread. While cameras work flawlessly during the day in areas such as vehicle counting, classification and license plate recognition systems on highways, vehicle detection systems at the entrance and exit of industrial facilities, and plate and vehicle class detection processes in city parking lots, they need lighting systems to work uninterruptedly and with the same quality in the dark of night.

Infrared projectors support cameras to capture quality images. Infrared projectors, which are used to obtain clear and high-quality images in low-light conditions or in dark environments, are used in every area where entrances and exits are recorded. LED light source infrared projectors offer advantages such as high resolution, wide coverage, low energy consumption and long life compared to traditional technologies.

In today's technology, they are demanded for use in areas such as in-car imaging, 24/7 vehicle counting classification, detection of driver fatigue in the vehicle, and artificial lighting in invisible areas. Its compact dimensions and flexible mounting options allow for various applications in different sectors. Infrared projector technology is a constantly developing field and is expected to become even more widespread in the future.

As a company that develops smart city technologies, we design and produce infrared projectors in different powers and sizes as import substitution systems according to the demands of our customers. We are waiting for the infrared projector demands and orders of our customers and business partners.



ROSS 8 W



ROSS 40 W



ROSS 70 W



BETELGEUSE
70W



BETELGEUSE
100W



BETELGEUSE
125W

OFFICE LIGHTING FIXTURES



LED light source luminaires pay for their investment with the energy savings they provide!

Today, where energy is increasingly important, efficient use of energy and reducing energy costs are among the priorities of every business. Did you know that if you replace your traditional light source (Metal Halide, Fluorescent, Sodium Vapor) lighting fixtures with LED light source fixtures that do not require a light source change for 5 years and do not require maintenance, instead of changing the lamp every two years, your expenditure/investment will cover the cost of the fixture in less than 2 years with the energy savings it provides.

As of September 2023, T5 and T8 fluorescent and compact fluorescent tubes (CFL) have begun to be phased out in accordance with the European Commission's eco-design and RoHS directives. For this reason, the use of LED light source fixtures in offices and building interiors is increasing. The low energy consumption of LED technology significantly reduces the energy costs of businesses and supports their sustainability goals. In addition, the long life of LED fixtures keeps maintenance requirements to a minimum and reduces operating costs. KNX or DALI automation options and compatibility with presence and daylight sensors also provide additional savings and flexibility. This increases operational efficiency and helps businesses keep costs under control.

LED fixtures are also an environmentally friendly option because they consume less energy and create less waste. The flexible design of LED fixtures offers a variety of options to meet different lighting needs. This not only provides an aesthetic appearance in office environments, but also increases employee productivity. As a result, LED light source fixtures used in offices and building interiors are an excellent lighting solution for businesses with their energy efficiency, long life, and environmentally friendly features.

OFFICE LIGHTING PRODUCTS

Rigel Recessed Office Lighting Fixtures (Rockwool, Clip-In, Plasterboard)



Rigel Surface Mounted Office Lighting Fixtures



DOWNLIGHT LIGHTING PRODUCTS

Glint Recessed Downlight Lighting Fixtures



Glint Surface Mounted Downlight Lighting Fixtures



IP 40 LINEAR LIGHTING FIXTURES

Elegance Linear Lighting Fixtures



Linda Linear Lighting Fixtures



Alya Linear Lighting Fixtures



MAGNETIC TRACK SPOT LIGHTING FIXTURES



Unlike traditional lighting solutions, magnetic track spotlights have gained great popularity in recent years. These lighting products attract attention with their unique designs and functionality. Magnetic track spotlights usually consist of spotlights or wide-angle fixtures mounted on a special magnetic track system. This system allows the fixtures to be easily moved and to provide lighting in the desired direction.

They operate with 48V DC low-current and since it eliminates the need to use separate drivers for each fixture, the system cost is also more affordable. While you can mount spotlights, pendant spotlights, or directional spotlights on magnetic rails, you can also mount linear lighting fixtures that provide general lighting. They have an extremely flexible structure in assembly and changes. You can easily move and adjust the fixtures to the desired position on the magnetic track. Since there is no risk of collision, anyone who wants can easily mount or disassemble the fixture without requiring special expertise. Thanks to this feature, it makes it possible to make lighting arrangements quickly and practically and provides advantages in terms of decoration innovations.

The color quality of the LEDs used in the Pearl series fixtures that can be mounted on magnetic rails is better than the existing LED fixtures. LED technology, low energy consumption with 48V DC common supply and advantages such as long life have made magnetic track spotlights more attractive. You can make different designs possible by using fixtures and accessories that you can easily use in offices, business centers, stores as well as homes.

MAGNETIC TRACK SPOT LIGHTING FIXTURES



PEARL 6W



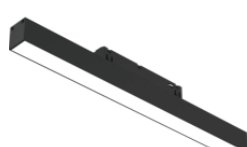
PEARL 12W



PEARL 18W



PEARL LINE
10W



PEARL LINE
18W



PEARL TILT
6W



PEARL TILT
12W



PEARL ROD
7W



PEARL ROD
15W



PEARL ROUND
7W



PEARL ROUND
7W



PEARL ROUND
7W

SURFACE MOUNTED APPARATUS



PRC41-00211



PRC41-10211



PRC41-10201

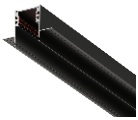


PRC41-10401

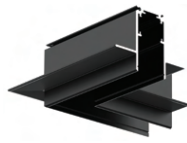


PRC41-10221

FLUSH MOUNTED APPARATUS



PRC42-00411



PRC42-10101



PRC42-10111



PRC42-10121



PRC43-00111

HANGING APPARATUS



PRC40-90051



PRC40-90041

ELECTRICAL CONNECTION APPARATUS



PRC40-90031



PRC40-90011



PRC40-90021

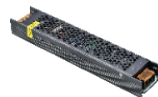
MAGNETIC RAIL SPOT POWER SUPPLIES (48VDC)



PRC03-21001



PRC03-22001



PRC03-22000



PRC03-23500

RAIL CONNECTIONS AND ACCESSORIES



PRC40-90091



PRC40-90081



PRC42-90301

LOADING LIGHT



Today, efficiency and safety are critical to the success of operations in the logistics and transportation sectors. Providing appropriate lighting, especially during truck loading and unloading operations, greatly contributes to the acceleration of work processes and increased occupational safety. In this context, LED technology stands out with its energy efficiency, longevity and superior lighting capacity. LED light source projector used in truck loading areas effectively illuminate both interior and exterior environments, allowing employees to do their jobs more safely and efficiently.

Various LED lighting solutions such as ramp lights, projector lights, portable LED projectors and truck underfloor lights offer flexibility for different needs. Adjustable brightness levels produce solutions suitable for lighting needs with wide or narrow beam angles. The durability and energy efficiency of LED light source luminaires reduce operating costs, while their long life minimizes maintenance costs. All these features make truck loading and unloading operations faster, safer and more efficient, thus increasing the overall efficiency of logistics processes.

These advantages offered by LED light source luminaires and loading arms clearly show why they are increasingly preferred in the illumination of truck loading areas. These innovative lighting solutions not only meet today's needs, but also contribute to creating sustainable and safe work environments in the future.

LOADING LIGHT



50 W



100 W



200 W

LOADING LIGHT ARMS



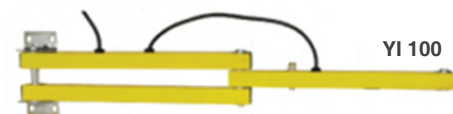
YI 300



YI 225



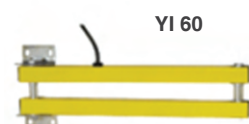
YI 150



YI 100



YI 75



YI 60

EMERGENCY LIGHTING AND GUIDANCE FIXTURES



Emergency lighting is a secondary lighting type that is activated immediately, independently of the generator system, when the normal lighting system is disabled due to an emergency such as an electrical fault, earthquake, fire, flood or sabotage, and allows people to safely evacuate from the building.

The primary purpose of the emergency lighting system is to prevent loss of life by ensuring a safe evacuation; It helps people to evacuate quickly and safely from the building without getting stuck in any obstacles, getting injured, crushed, panicking, or overcrowding and congestion, and in a way that they can easily see the exit route. In addition, it helps to prevent accidents that may occur in risky areas by ensuring that fire alarms and extinguishing devices and first aid equipment are noticed. Emergency lighting systems act as a lifesaver in dangerous situations by reducing panic, providing the necessary lighting and directing people in the building to safe exit points. Emergency lighting is not a type of lighting that is needed under normal conditions. However, it should work as required in an emergency. If it does not work at any time, it puts human life at risk.

There are many situations where emergency lighting is necessary. These are mains power outage, evacuation operations where reduced visibility requires additional light sources, or fire hazards. The selection of emergency lighting products depends on the intended use. The intended use includes emergency exit lighting, exit route lighting, backup lighting, outdoor lighting (or anti-panic lighting), lighting of exit signs, special lighting for areas where high-risk tasks are performed, or a combination of all these technologies within the building.

As Odak Arge; We meet the emergency lighting / directional luminaires that should be used in your buildings and facilities at global standards and can prepare the minimum numbers and luminaire locations that should be used in your facilities with an engineering approach.

EMERGENCY LIGHTING AND GUIDANCE FIXTURES



ALKAID EMERGENCY
DIRECTION



ALCOR EMERGENCY
DIRECTION



MOON EMERGENCY
DIRECTION



MOON EMERGENCY
DIRECTION



TRITON EMERGENCY
LIGHTING
(IP 20)





TRITON EMERGENCY
LIGHTING
(IP 65)

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