



# More than 40 years of experience with light and LED technology

Sloan AG was founded in 1967 in Switzerland as a sister company of SloanLED of California (then Sloan Inc.). The objective was to manufacture the American signal light range in metric measurements for the European market. Sloan AG continued to develop the existing lights, supplemented the programme with its own models and specialised in optoelectronic components and assemblies in the lighting and signals field. With the emergence of the LED, Sloan AG switched to this promising technology and replaced its existing conventional bulb-based lights with LED light solutions.

The Sloan product catalogue ranges from individual LEDs and assemblies to complete installation solutions. Sloan's lights meet the highest quality requirements at market prices. Both high quality and a fair market price are made possible by the expertise of well-trained and highly motivated employees, many years of knowledge of the LED market and LED technology as well as the innovative use of modern and high performance production facilities. Sloan AG always pursues the goal of an optimal solution for each set of requirements.

The benefits and possibilities of LED technology have rapidly increased in recent years and will continue to grow strongly in the future. The rapid development of LED brightness and efficiency is opening up ever wider fields of application. We have long since progressed from the simple display to general lighting. Application options have been further expanded by the large number of different designs and LED types. The new technology also provides new challenges. Heat management becomes a key issue in the use of power LEDs. With our many years of experience with LED technology and the continuous training of our employees, we are the ideal supplier of LED light solutions.

From initial concept and development through to design and production, Sloan offers a full service in its own facilities. Oriented towards the specific challenge, our service includes:

- Product design/feasibility analysis
- Prototype development/design for series production
- Serial production
- Support and continued development of the latest technology

Reliability in consulting, meeting deadlines and delivery of the required solution are natural ingredients of the service provided by our company.

Long-term relationships with select suppliers and partners secure the quality and continuity of Sloan products.

With representation in 26 countries around the world, Sloan offers optimal care for domestic and international clients.

Sloan AG is an independent Swiss company.

# From consultation and development to production

## EFFICIENCY IN CONSULTATION AND DEVELOPMENT

The qualified consultation, development and sales team of Sloan AG consists of flexible, reliable and competent employees with many years of experience in optoelectronics. They are always open to suggestions and questions and are happy to work on optimal solutions with the client. The creative and innovative design engineers of Sloan AG work closely with the sales team and, therefore, ensure in small and flexible project groups optimal communication between the decision-makers, full implementation of all specific requirements and inclusion of all relevant factors from the start.

Sloan AG continuously works on creating new standards and innovative approaches in the field of display and light technology to take into account the continuous development of LED technology and supply the most modern solutions.

## PRODUCTION FROM MANUAL FITTING TO SMD MANUFACTURE

Sloan AG's production consists of an SMD line (Pick & Place machine, reflow furnace) as well as several manual fitting workstations.

At the existing workstations solutions with through-hole and SMD components are produced in-house. Good and flexible production organisation enables the manufacture of design proposals and prototypes within a short time period. The automated SMD production line enables rational and efficient manufacturing using SMD components. Manual fitting, especially in the signal lights and small series fields, allows Sloan AG to react quickly to requirements and handle delivery times and quantities flexibly.

Continuous, steady process improvements from materials acquisition and production to deadline-compliant product delivery take centre stage at Sloan.

Excellent supplier relationships guarantee maintaining uniform quality and the shortest delivery times.

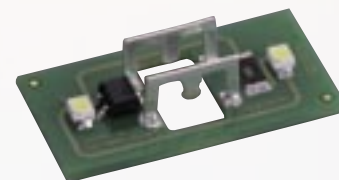




## LED modules for hospital room signal lights

These LED modules in various colours (also available in bicoloured versions) were developed to replace the conventional 24VDC/60mA light bulbs with wedge bases in an existing hospital call system.

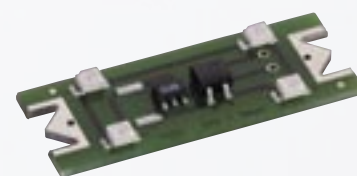
The LED modules were constructed so that they can simply be inserted into the wedge base fitting without any changes to the existing light fixture and put into operation. The advantages of the LED modules are more intensive and homogeneous colours, a much longer useful life. This results in greatly reduced servicing costs as well as reduced electricity consumption of only 15 to 18mA at 24VDC. In addition, the modules can also be operated with 24VAC.



## Festoon lamp replacement module with LED

The LED replacement module for festoon lamps was also developed for a hospital call system. However, it also offers versatile application options wherever festoon lamps are used. The LED module's construction was developed so that it will fit in a conventional festoon lamp fitting by simply inserting it and turning it on. The advantages are the clear, pure colours throughout the LED's long life as well as a significantly lower energy consumption of less than 0.5 watts compared to 3 to 5 watts in normal festoon lamps.

The LED modules are designed for use with 24 VAC/DC and an energy consumption of 20 mA.



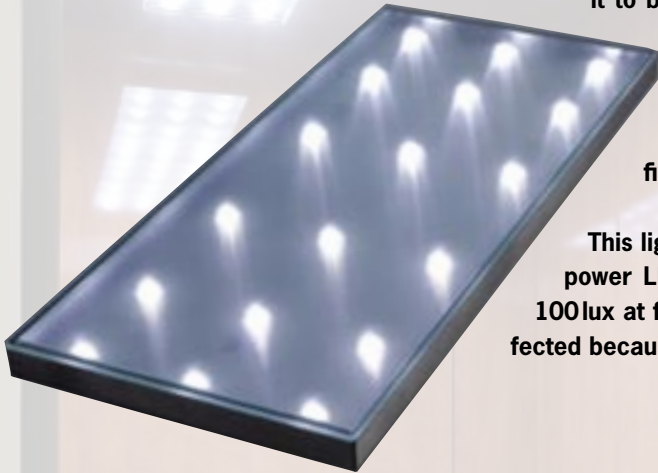
*LED modules are outstandingly suitable as replacements for conventional light bulbs in continuous use applications. The significantly longer useful life of LEDs reduces service costs significantly. The colours and light strength are consistent throughout the entire useful life and energy consumption is greatly reduced.*

## Ultra-flat LED light for lifts

The flat LED light for lifts intrigues viewers with its compact and robust form. Given a depth of only 25mm, the LED light uses very little space when installed and, therefore, does not further restrict the already limited height of the lift cabin. The robust chrome steel casing with a safety glass cover allows it to be used in passenger lifts as well as vandal-proof lift cabins.

A stable but simple and timesaving installation device is another requirement that was implemented in its construction. Apart from these aspects related to its use, the design also specifically incorporates a light effect created by profiled glass to create a rippled three-dimensional structure.

This light, 470x210x25mm in size, contains 18 cold white 1-Watt power LEDs, and achieves from a height of 2.15m an intensity of 100lux at floor level. In addition, the cabin's temperature remains unaffected because the LED does not give off heat towards the front.



## Power LED module for CNC machines

This power LED module with optical enhancement through a triple lens was constructed as an assembly for installation in CNC machines. The power LED's longevity and vibration-proofing were decisive factors for using LED technology for minimising service and stoppage times. The circular aluminium circuit board is fitted with three 1-Watt power LEDs and has a triple lens that optimally bundles light. The circuit board also has a power control of 24 VDC that ensures constant operation at varying temperatures in a confined space and blocks power spikes in the grid. The aluminium circuit board supports a heat sink over the casing. Suitable materials for heat management are critical in successfully using a power LED module.

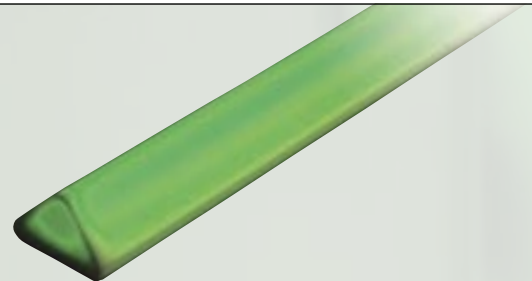


## LED emergency exit lighting and power LED flashing light

The green LED light component was developed for permanently marking emergency exits in motorway tunnels and underground garages. The power LED flashlight is used in emergencies to indicate the nearest emergency exit.

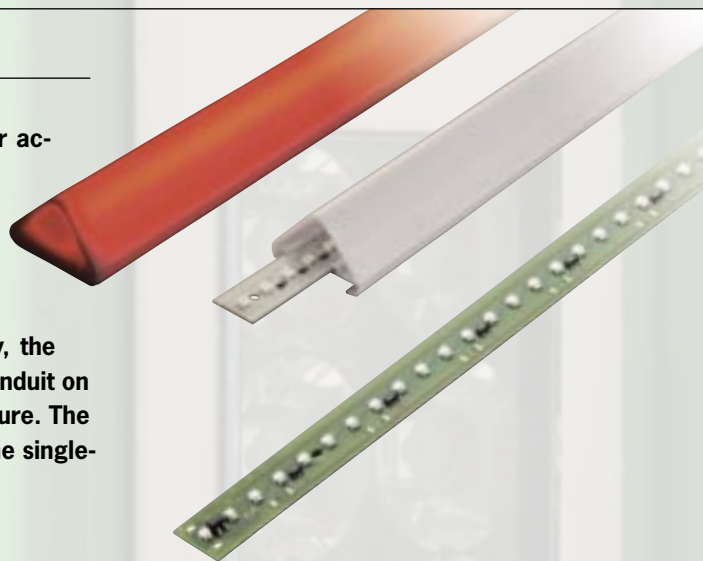
The robust, waterproof LED light component is ideally suited for outdoor use under demanding conditions and meets all requirements of the Swiss road and motorway tunnel standards. The light's operation is ensured even with heavy vibrations. Use of SMD LEDs results in homogeneous lighting of the entire tube cross section with clear and well recognizable contours while only using 17.5 watts over 1.5 metres.

The power LED flashing light, which in case of an emergency shows the nearest emergency exit to fleeing people, has six optically amplified power LEDs. This guarantees visibility over considerable distances with a light strength of up to 390 candelas. The flashing light unit's casing is waterproof, impact-proof and corrosion-resistant. It is controlled by a control unit that was also developed by Sloan AG.



## RGB light component for outside and inside use

This white LED light component can be used both with RGB LEDs for accent lighting as well as with single-colour or white LEDs. The diffuse white surface as well as the optimal arrangement of the SMD LED creates homogeneous lighting and excellent colour reproduction over the entire body of the light component. This robust, waterproof and UV-resistant light component is ideally suited for outside and inside use. By means of winged screws supplied for assembly, the component can be directly mounted on various surfaces. A cable conduit on the underside permits power supply without any additional substructure. The RGB LED is controlled by a conventional 24VDC RGB control unit. The single-colour SMD LED is also designed for operation with 24VDC.



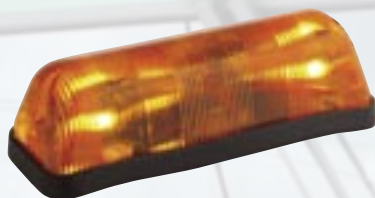
*Applications in areas difficult to access for service work such as motorway tunnels or facades are particularly suited for lighting solutions using LEDs. The longevity and vibration resistance of LEDs offers clear advantages compared to conventional lighting.*





## LED blinkers and rear lights for public transportation

LED lights were developed for trams in public transport to replace the light bulbs in the indicators, the rear lights and the inside door lighting. The LED replacement modules were designed so that they can be inserted into the existing fittings and, therefore, are retrofit compatible. The objective of reducing power consumption and the longer durability of LEDs compared to light bulbs were decisive factors in LED use in public transport. The indicator's electricity consumption was reduced from 625mA for a 15-watt light bulb to 100mA in a 1-watt power LED. The inside door lighting and the rear lights have a constant flicker-free brightness when operated at 9 to 24VDC and also use significantly less electricity.



## Interior lighting for military vehicles

The interior lighting for military vehicles has two separately controlled light circuits. One is white for normal operation and the other red for combat operation. The white lighting consist of twelve 1-watt power LEDs and the red lighting of eight SMD LEDs. The white light was designed for rescue vehicles with emergency operating tables. Through optimal arrangement of the seven lights, a light strength of at least 500 lux in the centre and at least 300 lux in the corners of the medical couch is achieved from a height of 1.2 m. The black spray-painted metal casing serves as a heat sink and protects the light from overheating. The unit is operated with 24VDC.



## Power LED police and rotating warning light

The power LED rotating warning light is available with caps in five different colours and is suitable for use in emergency and police vehicles, construction machines, safety systems, alarm and warning systems. Various installation options such as flat bases, wall fastening, adhesive bases and magnet bases for up to 250km/h enable use in almost all fields. 18 power LEDs guarantee long-range visibility and 16 pre-programmed, freely selectable rotation and flash programmes cover the requirements of very diverse applications. The hoods can be replaced with a simple motion and the rotating light is protected from dust and water entry by a gasket.



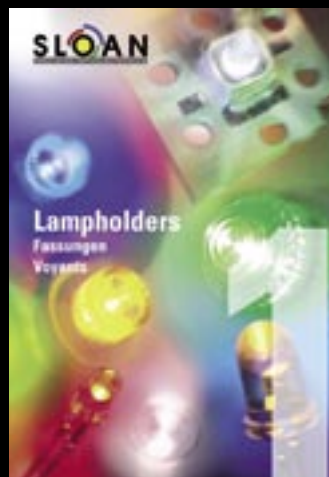
Request our standard catalogues for LED and signal lights with fittings or visit us at [www.sloan.ch](http://www.sloan.ch).

#### **SLOAN Catalogue 1**

Standard lights such as flat lights, signal lights with reflectors and LED products with BA9S, E10 and other bases.

#### **SLOAN Catalogue 2**

Standard LED Product line ranging from 3 mm, 5 mm and Advanced Lifetime LEDs to SMD and power LEDs as well as LED products with BA9S, E10 and other bases.



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