Okružná 2406/39 / 960 01 Zvolen

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Product partner of the slovak exhibition at EXPO 2015 in Milan.

LED MODULE white
1SL3Woptic-BL

established 2003

warranty 5 years

custom made

made in Slovakia

NICHIA LEDs

180 lm/W

CE

A++

eco

PARAMETER	STANDARD	UNIT
Supply voltage*	2,9-48*	V
Supply current*	700-1250*	mA
Input	2,1-3,9	W
Protection	65	IP
Luminous flux	330-525	lm
Temperature of the white color	3000-6500	K
Beam angle	10 to 50	degrees
Ambient temperature	-30 to +50	°C
Cable length between modules	140-300	mm
Dimensions (1 module)	13x55x55	mm
Weight (1 module)	12	g

* this type of module is supplied with constant current 1050mA. It means, that the supply voltage depends on the quantity of the connected LED modules. Standard supply is to 1050mA, the module can be supplied with higher current 1250mA what increase its luminous flux. In such case it is necessary to ensure additional cooling and assembling with thermal-conductive tape on an aluminium surface.

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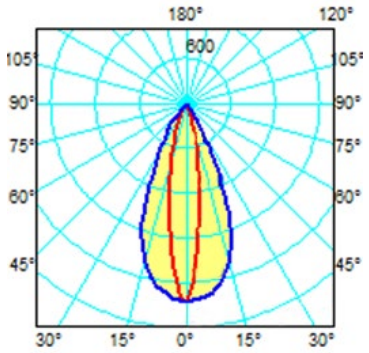
LED module 1SL3Woptic-BL includes not only good manufacturing qualities, but also good lighting effect thanks to good LED and lens.

LED module 1SL3Woptic-BL is normally made from PCB with LED and lens, without heatsink. By normal supply current to 1050mA it does not need any additional heatsink and can be mounted on a plastic surface. By higher supply current it is necessary to mount it on an aluminium surface by using thermal-conductive tape.

The required lighting effect can be reached with using lens with special optics:
Lens type: TIR with elliptic characteristic: light difussion to 90%
Lens and holder material: polycarbonate-thermoplastic polymer, thermal glass transition: 150°, UV stable with good optic characteristics.

The beam angle of the LED with lens is cca. 10°-50° (see picture).



The color shade of the LED module is determined by two parameters: CRI and temperature of the white color (Kelvins). The LEDs in 1SL3Woptic-BL modules have **CRI from 70 to 95** and temperature of the white color **from 3000 to 6500K.**

The high quality LED from NICHIA is assembled with the latest technologie on the 2mm thick PCB, from material, which meets the standard EN 61249-2-5.

The PCB surface is protected by a coating material, which meets not only the aesthetic but also protective function (against weather conditions, etc.).
The LED modules 1SL3Woptic-BL are protected against external influences through silicone coating material from Dow Corning company. This coating varnish is intended for surface treatment of PCB or other electronic devices or semiconductors.

Installation of 1SL3Woptic-BL modules
Normally by using screws, rivets or double sided tape. In case of higher supply current than 1050mA it is necessary to use additional cooling and mounting on an aluminium surface by thermal-conductive tape (tape is part of LED module).

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The LED modules are powered by constant current power supplies with output current standard 1050mA. It is possible to increase on 1250mA, but providing to compliance with the installation instructions. By connecting the LED modules to the power supply it is necessary to keep the right connection procedure. First connect the LED modules to the power supply, after then connect the power supply to the network. By bigger projects is possible to connect the LED modules "parallel-serial" on power suppplies with higher performance 100-320W.

The LED modules 1SL3Woptic-BL can be used by bigger lightboxes and pylons with the edge lighting method (LED modules face opposite each other from the edges). With this method you can use the modules by panels, lightboxes or pylons with width 0,5 to 10m and depth 60 to 400mm. So we are able to illuminate from two edges (2 x 20m) for example size 9 x 20m, etc. The length is not important. The min. recommended depth of the lightbox depends on the width = distance between LED modules on the edges. The smaller the width, the smaller the depth of the panel and vice versa.

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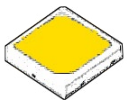
THE EXCEPTIONALITY OF THE LED MODULE IS IN ITS SIMPLICITY AND CONSTRUCTION TOGETHER WITH THE BEST COMPONENTS

High quality optic lens from renowned manufacturer with beam angle 10 to 50 degrees effectively directs the light without unnecessary losses.

The perfect LED protection against humidity and meteorological influences with IP65 ensures **high quality coating material** from Dow Corning.



The heart of the LED module forms a high power **LED** from japanese manufacturer **NICHIA.** The LED module is supplied by optimal current 1050mA and reaches up to 450 lumens. The max. current supply can be 1800mA, by 700-1250mA the high efficiency and long lifetime of the LED is most preserved.

High quality **aluminium PCB** 13x55x55mm is made directly in Slovakia and meets EN 61249-2-5.

The thermal-conductive **3M double-sided sticky tape** ensures the heat dissipasion from the LED module and protects it against overheating and damage.

ENVIRONMENT AND RECYCLING

eco

For the production of our LED lights are used only **ecological** materials.

warranty 5 years

The components guarantees a long service life, as evidenced by the **5 years warranty**.

high effectivity lm/W

High luminance and low power consumption means **ecology** in every spared Wat.

We guarantee that our light sources and lamps are **recyclable**.

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ELECTRICAL DIAGRAM

Panel 1000x2400mm

- The LED modules 1SL3Woptic-BL are placed on the edges 2x2400mm in amount 2x15pcs and distance ca. 160mm (axis-axis).
- The LED modules are powered by Mean Well 1050mA/60W, by these power supplies is a principle, that on one power supply is possible to connect from 3 to 15pcs LED modules 1SL3Woptic-BL.
- It is important to keep the right connecting procedure by the installation. First connect the LED modules to the power supply and then the power supply to the network. Do not ever connect the LED modules to the power supply under voltage!
- The LED modules have to be placed on an aluminium surface to ensure the heat dissipation.
- One LED module should have min. 150cm^2 of cooling area. For this purpose it is possible to use directly the aluminum construction of the panel, or aluminum profile (min. 1,5mm thick).
- The LED modules can start to light only after placing on the aluminum surface.
- The LED modules are placed on the edges exactly how they are connected with the cables (axis-axis=cables-modules). The LED modules have, thanks to the optics, light beam in form of a "strip". Because of this, it is not possible to place the modules in 90° angle (it can cause lighting lines).

- By the depth e.g. 200mm we recommend to place the LED modules 100-160mm from the front side of the panel.
- More details about the installation please find in the "Installation instruction", which is part of the delivery.