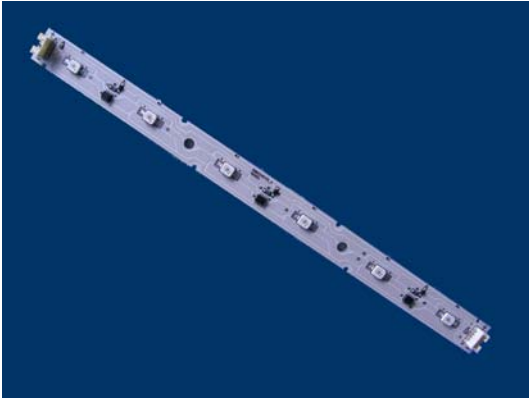


LINEARlight-DRAGON® - LD06A/B

Data Sheet



Benefits

- Compact and powerful LED lightsource
- Available in light colours 830, 840, 854
- Easy connection with OSRAM CONNECTsystem

Applications

- General lighting
- Furniture lighting
- Shop lighting
- Architectural lighting

Technical Operating Data

Product	Color	Number of LEDs	Voltage [V DC]*	Power [W]*	Current [A]*	Radiance Angle [°]*	Wavelength [nm] Color Temp [K]*	Lum. Flux [lm]*
LD06B-W4F-854	white	6	24	12,0	0,5	170	5400 K	630
LD06A-W3F-854 **	white	6	24	8,0	0,3	120	5400 K	350
LD06B-W4F-840	white	6	24	12,0	0,5	170	4000 K	630
LD06B-W4F-830	white	6	24	12,0	0,5	170	3000 K	630
LD06A-W3F-827 **	white	6	24	12,0	0,5	120	2700 K	280

*) All Data are related to the entire module

Due to the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

+) Preliminary Data

**) Discontinued

Technical Features

- Each module comprises 6 high-flux GOLDEN DRAGON® (Plus) LEDs
- LD06B: Approx. 80% - 125% higher luminous flux as LD06A depending on light colour
- LD06B: Wide viewing angle, 170° per LED
- Mounting hole (Ø 5 mm) allows easy installation with screws
- Easy connection with OSRAM CONNECTsystem LD-2x
- Operation only with OPTOTRONIC® power supplies: OT20, OT20S, OT75, OT75E
- Parallel connection of up to 6 modules with the power feed in the center to one OT75
- Dimmable by pulse width modulation (PWM) with the electronic controller OT DIM
- 2 lenses OP1x1 for flood and wallwaching available, see additional datasheet
- Up to 70,000h lifetime

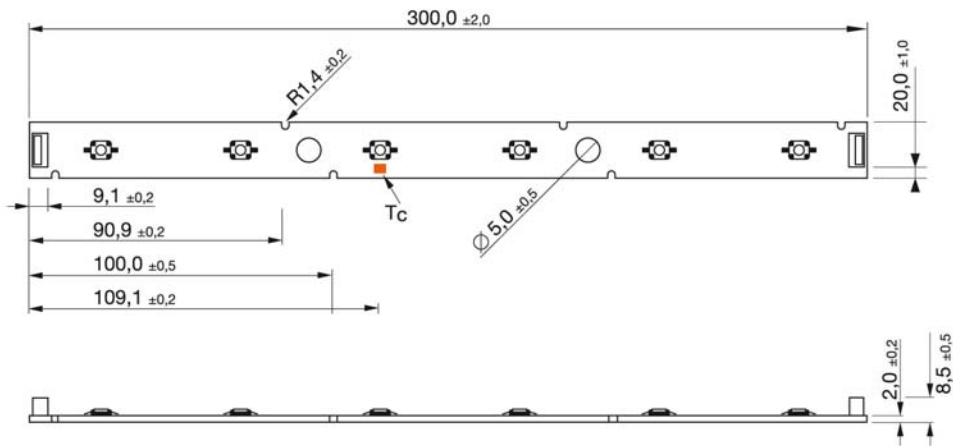
Minimum and Maximum Ratings

Product	Operating Temperature at Tc-Point [°C] *	Storage Temperature [°C] *	Voltage Range [V dc] *	Reverse Voltage [V dc] *
LD06B-W4F-854	-30 ... 80	-30 ... 85	23 ... 25	25
LD06A-W3F-854 **	-30 ... 80	-30 ... 85	23 ... 25	25
LD06B-W4F-840	-30 ... 80	-30 ... 85	23 ... 25	25
LD06B-W4F-830	-30 ... 80	-30 ... 85	23 ... 25	25
LD06A-W3F-827 **	-30 ... 80	-30 ... 85	23 ... 25	25

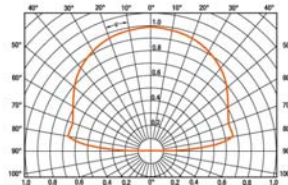
*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Module.
 Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Module.
 The temperature of the LED module must be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label. For exact location of the Tc-point see drawing below.

Drawings

LD06 B



Abstrahlcharakteristik (Einzel-LED)
Radiation Characteristic (Single-LED)
 $I_{rel} = f(\varphi); T_A = 25\text{ °C}$



Alle Angaben in mm
 All values in mm

Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- The mounting of the module is carried out by attaching it at the mounting holes. Metal mounting screws with 3 mm must be treated with synthetic washers to prevent circuit board damage and possible short circuiting. Using of plastic screws 4 mm is also possible.
- To avoid mechanical damage to the connecting cables, the boards should be attached securely to the intended substrate. Heavy vibrations should be avoided.

In order to drive OSRAM LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilised power supply protecting against short circuits, overload and overheating.

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards:

CE: EC 61374-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61374-2-13 and IEC/EN 62384.

Also check for the mark of an independent authorized certification institute.

Please see the relevant brochure for more detailed information (see "Related and Further Information")

OSRAM OPTOTRONIC® electronic control gear complies to all relevant standards and guarantees safe operation.

- Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Observe correct polarity!
Depending on the product incorrect polarity will lead to emission of red or no light. The module can be destroyed! Correct polarity immediately! (see "reverse voltage", page 2)
- Parallel connection is highly recommended as safe electrical operation mode.
Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the LED module.
- Pay attention to standard ESD precautions when installing the module.
- Use only LD-2x CONNECTsystem for electrical installation. Three types of connectors are available: LD-2PIN - Feeder with 500 mm cable length. LD-2CONN-40 - Connector for through wiring with 40 mm cable length. LD-2CONN-100 - Connector for through wiring with 100 mm cable length.
- Connect the two red cables with the plus pole and the two black cable with the minus pole of the OPTOTRONIC. Both red cables must be used as common plus pole and both black cables must be used as common minus poles.
- The LED module can typically survive levels of up to 2 Amperes. As a general design precaution, if the maximum output current of the power supply is more than 2 Amperes, fast-blow fuses should be incorporated into the wiring plan.
- Electrical contact is achieved with the contact cables. A maximum number of 4 modules (12 W version) and 6 modules (8 W version) respectively can be installed consecutively from one power feed. Operation with more than 4 (12 W version) or 6 (8 W version) consecutive modules will reduce photometric performance and exceed the current carrying capacity of the module.
- Installation of 6 modules (for 12 W version) or 9 modules (for 8 W version) on one OPTOTRONIC® 75W has to be realised by either feeding the power to the centre or by splitting the power feed to contact groups of the maximum allowed number of modules in-line.
- The module, as manufactured, has no conformal coating and therefore offers no inherent protection against corrosion.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For outdoor usage, a housing is definitely required to protect the board against environmental influences. The design of the housing must correspond to the IP standards in the application.

Assembly Information

- The mounting of the module has to be done on a metal heat sink!
- In order to optimise the thermal management the metal surface needs to be clean (dirt and oil free) and planar for the best contact with the LED module.
- To connect one module, the feeder LD-2PIN must be plugged in the "INPUT" side of the module. For two or more modules, the "OUTPUT"-side of the first module must be connected with the "INPUT"-side of the following module via LD-2CONN-40/100. Please connect more boards as described above.

Ordering Guide

Productgroup	Productname	EAN *	S-Unit *
LINEARlight-DRAGON®	LD06B-W4F-854	4008321395993	6
LINEARlight-DRAGON®	LD06A-W3F-854 **	4008321940414	6
LINEARlight-DRAGON®	LD06B-W4F-840	4008321395870	6
LINEARlight-DRAGON®	LD06B-W4F-830	4008321395757	6
LINEARlight-DRAGON®	LD06A-W3F-827 **	4008321940452	6

*) EAN: Ordering number per single module
S-Unit: Modules per shipping unit

Note: Typical performance data are subject to change without any further notice, particularly as LED technology evolves.

Sales and Technical Support

OSRAM GmbH

Hellabrunner Strasse 1
D - 81536 München
Germany
www.osram.com
+49 (0)89 6213-0

Sales and technical support is given by the local OSRAM subsidiaries.
On our world wide homepage all OSRAM subsidiaries are listed with complete address and phone numbers.

Related and Further Information

- The new dimension of light
153 S006 GB
www.osram.com/led-systems-downloads
- OPTOTRONIC® Data Sheets
<http://catalog.myosram.com>
- OPTOTRONIC® Technical Guide
130 T008 GB www.osram.com/ecg-downloads
- New standards for LED control gear
130 W011 GB
www.osram.com/ecg-download