

BackLED M - BA01MA

Preliminary Data Sheet



Benefits

- Flexible chain comprising 60 medium power LED boards
- Specially designed optics provide for uniform backlighting and best-in-class application efficiency

Applications

- Signage and illuminated advertising
- Backlighting of medium-sized channel letters

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]*
BA01MA-W4F-765	white	60	12	30,0	2,4	155 batw.	6500 K	1810 +
BA01MA-W4F-830	white	60	12	30,0	2,4	155 batw.	3000 K	1510 +
BA01MA-R2	red	60	12	30,0	2,4	155 batw.	623 nm	890 +
BA01MA-B2	blue	60	12	30,0	2,4	155 batw.	468 nm	270 +

*) 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

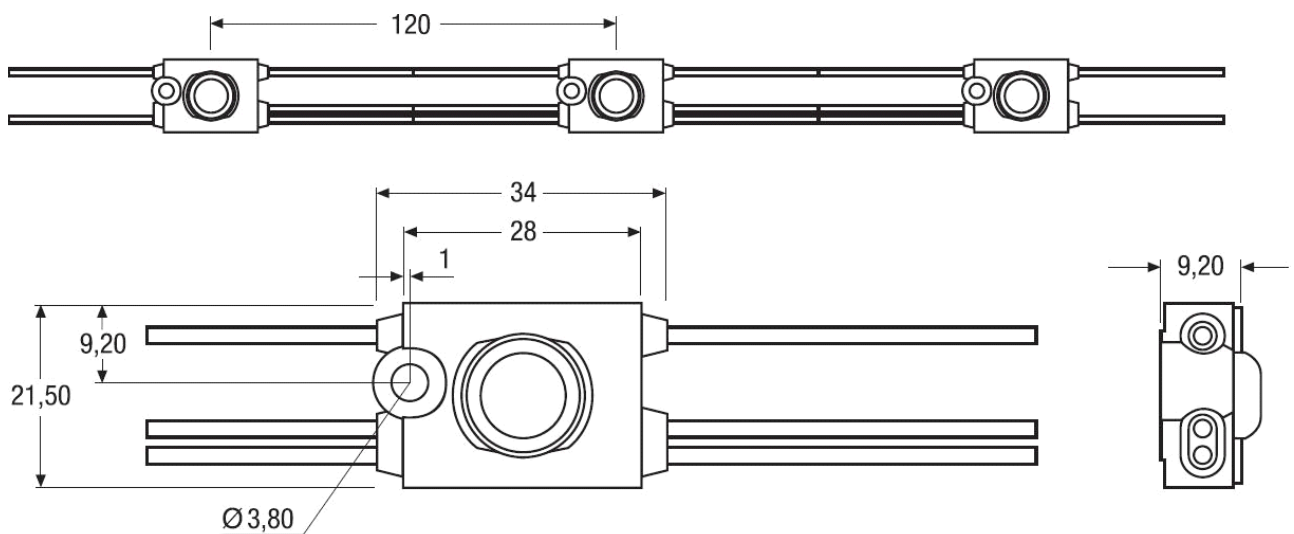
- LED module chain comprising 60 LED boards connected with flexible cables
- The maximum length of the entire chain is 7.20m
- The maximum LED pitch is 120mm
- Specially designed optics with Flat-Ray technology for best application efficiency
- One LED per LED board
- Mounting holes and pre-mounted adhesive tape allow for easy mounting
- Optimal operation on OPTOTRONIC® 12V power supplies (15W, 30W, 60W, 120W)
- Full encapsulation of the LED boards with ingress protection IP66
- Chain can be subdivided every 3 LED boards
- Fully integrated heat sink

Minimum and Maximum Ratings

Product	Operating Temperature at Tc-Point [°C] *	Storage Temperature [°C] *	Voltage Range [V dc] *	Reverse Voltage [V dc] *
BA01MA-W4F-765	-25 ... 70	-25 ... 60	12 ... 13	13
BA01MA-W4F-830	-25 ... 70	-25 ... 60	12 ... 13	13
BA01MA-R2	-25 ... 70	-25 ... 60	12 ... 13	13
BA01MA-B2	-25 ... 70	-25 ... 60	12 ... 13	13

*) 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



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.
- To avoid mechanical damage, the LED boards should be attached securely to the intended substrate. Heavy vibration 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 61347-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61347-2-13 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.
- Electrical contact is achieved with the contact cables. A maximum 60 LED boards (20 groups with 3 boards each) can be operated on one OPTOTRONIC® 30W. A maximum of 30 LED boards (10 groups with 3 boards each) can be operated on one OPTOTRONIC® 15W.
- Installation with more than 60 LED boards (= one full LED chain) on one OPTOTRONIC® 60W or 120W may take the form with a power feed to the centre or with a splitting of the power feed to contact groups of single LED-chains.
- Detach each LED board unit of the module chain only by severing the connecting cables. Only cut where there are 2 cables leaving the LED board. Not to be cut were 3 cables leave the LED board.
- Pay attention to ESD steps when mounting the module.
- When using power supplies other than OSRAM OPTOTRONIC®, in order to ensure continuous safe operation the output voltage has to be 12.5V +/- max. 5%.
- The LED module must not be operated in places which are directly exposed to atmospheric conditions. For outdoor applications, hence the LED module has to be protected by appropriate enclosures or covers. Operation in or under water is prohibited.

Ordering Guide

Productgroup	Productname	EAN *	S-Unit *
BackLED M	BA01MA-W4F-765	4008321640901	1
BackLED M	BA01MA-W4F-830	4008321641021	1
BackLED M	BA01MA-R2	4008321641144	1
BackLED M	BA01MA-B2	4008321641168	1

*) 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.

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