

## BackLED S – BA01SA



### Benefits

- Flexible chain comprising 90 LED modules
- Specially designed optics provide for uniform backlighting and best-in-class application efficiency

### Applications

- Signage and illuminated advertising
- Backlighting of small and flat channel letters

### Technical Operating Data

Product	Color	No. of LED-modules per chain	No. of LEDs per module	Voltage [V DC]*	Power chain / module [W]*	Radiance Angle [°]*	Wavelength [nm] Color Temp [K]*	Lum. Flux chain / module [lm]*
BA01SA-W4F-765	White	90	1	12	15.0 / 0.17	155	6500 K	1341 / 14.9
BA01SA-W4F-830	White	90	1	12	15.0 / 0.17	155	3000 K	1134 / 12.6
BA01SA-R2	Red	90	1	12	15.0 / 0.17	155	625 nm	432 / 4.8
BA01SA-O2	Orange	90	1	12	15.0 / 0.17	155	603 nm	513 / 5.7
BA01SA-G2	Green	90	1	12	15.0 / 0.17	155	522 nm	549 / 6.1
BA01SA-B2	blue	90	1	12	15.0 / 0.17	155	467 nm	162 / 1.8

\*) 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.

### Technical Features

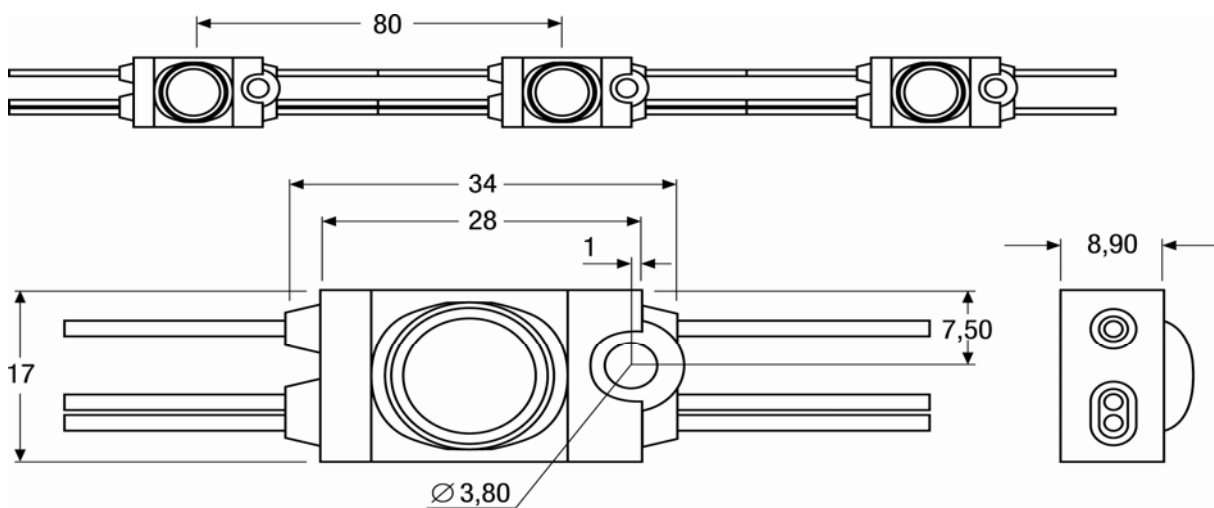
- LED chain comprising 90 LED modules connected by flexible cables
- The maximum length of the entire chain is 7.20m
- The maximum LED pitch is 80mm
- Specially designed optics with Flat-Ray technology for best application efficiency
- One LED per module
- Mounting holes and pre-mounted adhesive tape allow for easy mounting
- Optimal operation on OPTOTRONIC® 12V power supplies (15W, 30W, 60W, 120W)
- Full encapsulation of the LED modules with ingress protection IP66
- Chain can be subdivided every 3 LED modules

## Minimum / Maximum Ratings

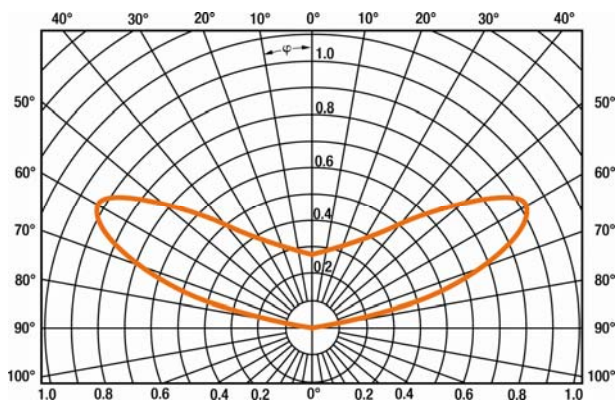
Product	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Voltage Range [V dc]*	Reverse Voltage [V dc]*
BA01SA-W4F-765	-25 ... 78	-25 ... 55	12 ... 13	13
BA01SA-W4F-830	-25 ... 78	-25 ... 55	12 ... 13	13
BA01SA-R2	-25 ... 78	-25 ... 55	12 ... 13	13
BA01SA-O2	-25 ... 78	-25 ... 55	12 ... 13	13
BA01SA-G2	-25 ... 78	-25 ... 55	12 ... 13	13
BA01SA-B2	-25 ... 78	-25 ... 55	12 ... 13	13

\*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Modules.  
 Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Modules.  
 The temperature of the LED modules 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.

## Dimensions



## Light Distribution



## 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 modules 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 stabilized power supply protecting against short circuits, overload and overheating.**

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules must carry the CE mark.

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!  
Incorrect polarity will lead to no light emission. Correct polarity.
- 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 90 modules (30 groups with 3 modules each) can be operated on one OPTOTRONIC® 15W
- Installation with more than 90 modules (= one full chain) on one OPTOTRONIC® 30W, 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 modules.
- Detach the chains only by severing the connecting cables between the modules. Only cut where there are 2 cables leaving the LED module. Not to be cut where 3 cables leave the LED module.
- 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

Product group	Product name	EAN*	S-Unit*
BackLED S	BA01SA-W4F-765	4008321640666	1
BackLED S	BA01SA-W4F-830	4008321640741	1
BackLED S	BA01SA-R2	4008321640826	1
BackLED S	BA01SA-O2	4008321640840	1
BackLED S	BA01SA-G2	4008321640864	1
BackLED S	BA01SA-B2	4008321640888	1

\*) EAN: Ordering number per single chain  
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

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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.