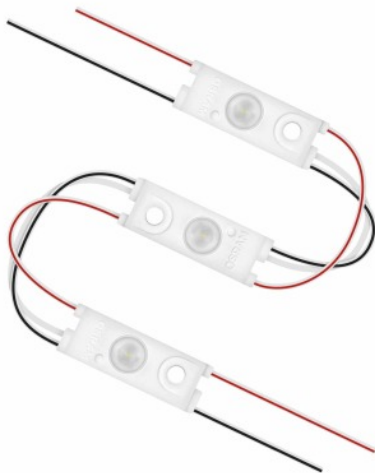


## BackLED S Plus

LED modules for light advertising and backlighting



### Areas of application

- Signage and illuminated advertising
- Backlighting of small and/or flat channel letters
- Permanent outdoor use in enclosed light boxes or channel letters

### Product benefits

- Uniform illumination at high LED pitches thanks to Flat Ray technology
- Significantly better application efficiency compared to systems without lenses
- Quick and easy installation by screwing
- Excellent module efficacy
- Very long lifetime

### Product features

- Chain of 90 linear LED modules (45 modules with BA01SB-B3)
- Maximum length of one chain: 11.25 m (5.62 m with BA01SB-B3)
- Connected with flexible cables
- Protection class of LED module: IP66
- Special robust encapsulation
- Fully integrated heat sink



# Product family datasheet

## Technical data

### Electrical data

Product description	Nominal voltage	Nominal wattage	Nominal wattage per LED module	Reverse Voltage	Input voltage range
BA01SB -W4F-765	12.0 V	28.8 W	0.32 W	13 V	11...13 V
BA01SB -W4F-840	12.0 V	28.8 W	0.32 W	13 V	11...13 V
BA01SB -W4F-830	12.0 V	28.8 W	0.32 W	13 V	11...13 V
BA01SB -B3	12.0 V	14.4 W	0.32 W	13 V	11...13 V

### Photometrical data

Product description	Color temperature	Color rendering index Ra	Light color (designation)	Light color LED	Nominal dominant wavelength	Luminous flux per module chain
BA01SB -W4F-765	6500 K	>70	Daylight	White	-	2790 lm
BA01SB -W4F-840	4000 K	>80	Cool White	White	-	2340 lm
BA01SB -W4F-830	3000 K	>80	Warm White	White	-	2070 lm
BA01SB -B3			Blue	Blue	470 nm	270 lm

Product description	Luminous flux per LED module	Luminous efficacy	Standard deviation of color matching
BA01SB -W4F-765	31 lm	96.9 lm/W	≤3 sdc
BA01SB -W4F-840	26 lm	81.3 lm/W	≤3 sdc
BA01SB -W4F-830	23 lm	71.9 lm/W	≤3 sdc
BA01SB -B3	6 lm	18.8 lm/W	

### Light technical data

Product description	Beam angle
BA01SB -W4F-765	155 °
BA01SB -W4F-840	155 °
BA01SB -W4F-830	155 °
BA01SB -B3	155 °

# Product family datasheet

## LED module information

Product description	Number of LEDs per module	Number of LED modules per chain	Minimum operable number of LED modules
BA01SB -W4F-765	1	90	1 <sup>1)</sup>
BA01SB -W4F-840	1	90	1 <sup>1)</sup>
BA01SB -W4F-830	1	90	1 <sup>1)</sup>
BA01SB -B3	1	45	1 <sup>1)</sup>

<sup>1)</sup> If the complete operated module number cannot be divided by 3, then a termination unit must be used

## Dimensions & weight

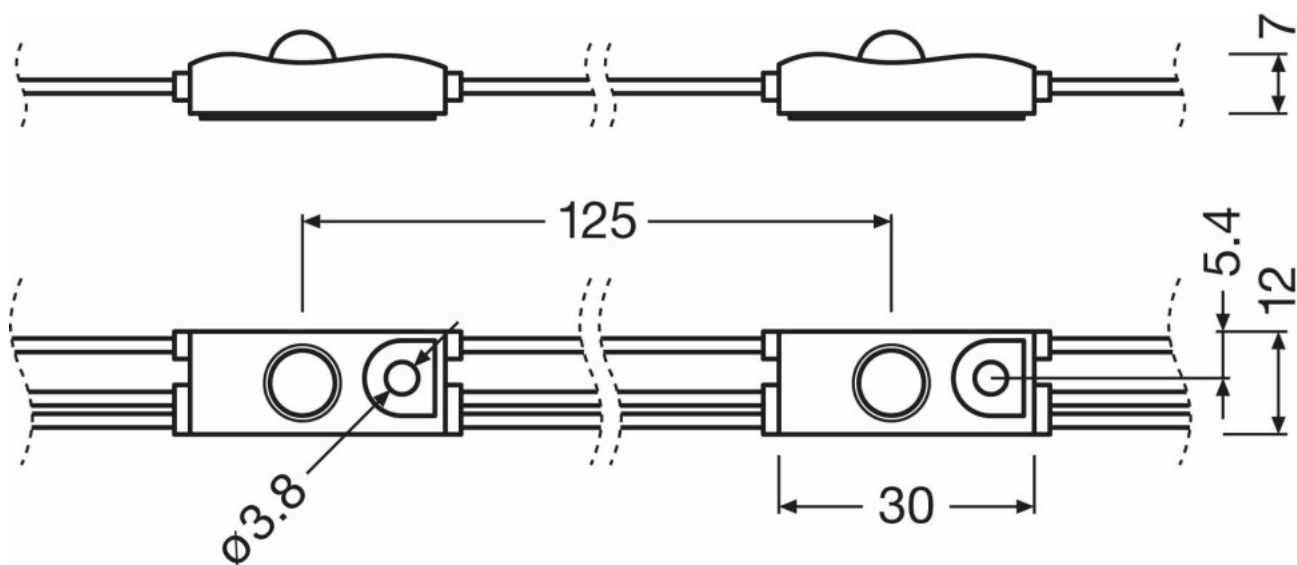
Product description	Length	Width	Height	Product weight
BA01SB -W4F-765	11250 mm <sup>1)</sup>	12.0 mm	7.0 mm	440.00 g <sup>2)</sup>
BA01SB -W4F-840	11250 mm <sup>1)</sup>	12.0 mm	7.0 mm	440.00 g <sup>2)</sup>
BA01SB -W4F-830	11250 mm <sup>1)</sup>	12.0 mm	7.0 mm	440.00 g <sup>2)</sup>
BA01SB -B3	5620 mm <sup>1)</sup>	12.0 mm	7.0 mm	224.00 g <sup>2)</sup>

<sup>1)</sup> Maximum LED pitch 125 mm

<sup>2)</sup> Per chain

# Product family datasheet

## Product line drawing



BA01SB -W4F-765, BA01SB -W4F-840, BA01SB -W4F-830, BA01SB -B3

## Temperatures

Product description	Temperature range in operation	Temperature range at storage
BA01SB -W4F-765	-25...70 °C <sup>1)</sup>	-25...85 °C
BA01SB -W4F-840	-25...70 °C <sup>1)</sup>	-25...85 °C
BA01SB -W4F-830	-25...70 °C <sup>1)</sup>	-25...85 °C
BA01SB -B3	-25...70 °C <sup>1)</sup>	-25...85 °C

<sup>1)</sup> At the  $T_c$  point

## Lifespan

Product description	Lifespan
BA01SB -W4F-765	50000 h <sup>1)</sup>
BA01SB -W4F-840	50000 h <sup>1)</sup>
BA01SB -W4F-830	50000 h <sup>1)</sup>
BA01SB -B3	50000 h <sup>1)</sup>

<sup>1)</sup> L70/B50 at  $T_c$  70 °C

# Product family datasheet

## Capabilities

Product description	Dimmable	Dimming range
BA01SB -W4F-765	Yes	5...100 % <sup>1)</sup>
BA01SB -W4F-840	Yes	5...100 % <sup>1)</sup>
BA01SB -W4F-830	Yes	5...100 % <sup>1)</sup>
BA01SB -B3	Yes	5...100 % <sup>1)</sup>

<sup>1)</sup> When termination unit is used, dimming range is only permitted from 100% to 30%

## Certificates & standards

Product description	Energy consumption	Energy efficiency class	Type of protection
BA01SB -W4F-765	1 kWh/1000h	A++	IP66
BA01SB -W4F-840	1 kWh/1000h	A++	IP66
BA01SB -W4F-830	1 kWh/1000h	A++	IP66
BA01SB -B3			IP66

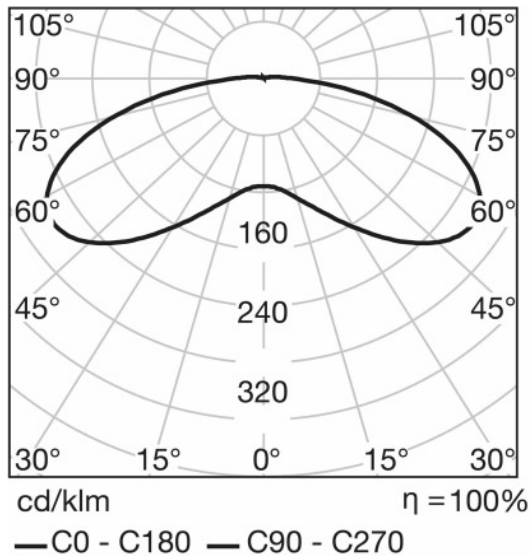
Product description	Standards
BA01SB -W4F-765	Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2
BA01SB -W4F-840	Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2
BA01SB -W4F-830	Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2
BA01SB -B3	Acc. to EN 61347-2-13/Acc. to EN 55015/Acc. to EN 61547/Acc. to EN 61000-3-2

## Logistical data

Product description	Temperature range at storage
BA01SB -W4F-765	-25...85 °C
BA01SB -W4F-840	-25...85 °C
BA01SB -W4F-830	-25...85 °C
BA01SB -B3	-25...85 °C

## Product family datasheet

### Light Distribution



BA01SB -W4F-765, BA01SB -W4F-840, BA01SB -W4F-830,  
BA01SB -B3

### Equipment / Accessories

- Several types of OPTOTRONIC 12 V power supplies available
- BackLED termination unit for operation of single LED modules or groups of two modules

### Application advice

For more detailed application information and graphics please see product datasheet.

### Additional product information

- Installation of LED modules (with power supplies) needs to be made under consideration of all valid regulations and norms.
- Installation by qualified electrician only.
- Please see the relevant application guides and instructions sheets for more detailed safety and mounting information. Additional information is available on request.
- Complies with IEC/EN 61547
- Complies with IEC/EN 61000-3-2
- Complies with EN 55015, CISPR 15
- Complies with IEC/EN 61347-1
- Complies with IEC/EN 61347-2-13
- LED modules are dimmable by means of PWM (pulse width modulation). It is recommended using the following OSRAM control gears: OPTOTRONIC OT DIM, OT DALI DIM or OPTOTRONIC 24 V power supplies with integrated 1...10 V dimming interface.

## Product family datasheet

Parallel connection is mandatory for safe electrical operation. Serial connection of LED modules is strongly discouraged. Unbalanced voltage drop in serial connection can cause hazardous overload and damage the LED module.

- Electrical contact is achieved with the contact cables or the terminals of the module. Please refer to the technical data for maximum number of LED modules that can be operated on one control gear.
- In order to operate OSRAM LED modules safely, it is absolutely necessary to operate them with an electronically stabilized power supply that protects against short circuits, overload and overheating.
- In case other power supplies than OSRAM OPTOTRONIC are used, compliance to the necessary operating parameters (voltage, current, power) has to be ensured.
- Pay attention to polarity! Wrong polarity can cause destruction or malfunction of the module.
- Conducting paths on the circuit board must not be damaged or destroyed during installation.
- The LED module itself and all its components must not be stressed mechanically.
- Operation in or under water is prohibited.
- To avoid mechanical damage, the LED modules have to be attached securely to the intended mounting surface. It is recommended to avoid heavy vibration.
- In case that the LED module is equipped with a pre-mounted double-sided adhesive tape, OSRAM assumes no liability and provides no guarantee for a permanent adherence of the modules to the surface. OSRAM recommends fixation of the modules by means of suitable screws.
- Complies with IEC 61347-1 cl. 18.3, cl. 18.4, IEC 60695-2-10, IEC 60695-11-5, IEC 60695-11-10 (classification V-0)

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### Sales and Technical Support

Sales and Technical Support [www.osram.com](http://www.osram.com)








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### Country specific information








Product description	Product code	METEL-Code	SEG number	STK-Number	UK Org
BA01SB-W4F-765	4008321848406	-	8334371	-	-

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### Download Data

File	
	Brochures APP GUIDE BackLED (GB)
	Brochures Technical application guide - IP codes in accordance with IEC 60529 (GB)
	Declarations of conformity EC - Declaration of Conformity BackLED Plus
	Declarations of conformity EC-DoC BackLED S-M-L Plus
	Declarations of conformity EC-Man_DoC BlackLED S-M-L Plus
	Installation/Operation notice Installation Instruction BackLED L M S Plus
	Eulumdat BackLED S PLUS BA01SB-W4F-765

## Product family datasheet

	Eulumdat BackLED S PLUS BA01SB-W4F-765
	Eulumdat BackLED S PLUS BA01SB-W4F-840
	Eulumdat BackLED S PLUS BA01SB-W4F-840
	Eulumdat BackLED S PLUS BA01SB-W4F-830
	Eulumdat BackLED S PLUS BA01SB-W4F-830
	Eulumdat BackLED S PLUS BA01SB-B3 BLUE
	Eulumdat BackLED S PLUS BA01SB-B3 BLUE

### Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4008321848406	BA01SB -W4F-765	Shipping carton box 5	505 mm x 383 mm x 146 mm	28.24 dm <sup>3</sup>	3406.00 g
4008321848482	BA01SB -W4F-840	Shipping carton box 5	505 mm x 383 mm x 146 mm	28.24 dm <sup>3</sup>	3406.00 g
4008321848567	BA01SB -W4F-830	Shipping carton box 5	505 mm x 383 mm x 146 mm	28.24 dm <sup>3</sup>	3406.00 g
4008321848642	BA01SB -B3	Shipping carton box 5	388 mm x 293 mm x 146 mm	16.60 dm <sup>3</sup>	1891.00 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

### Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.