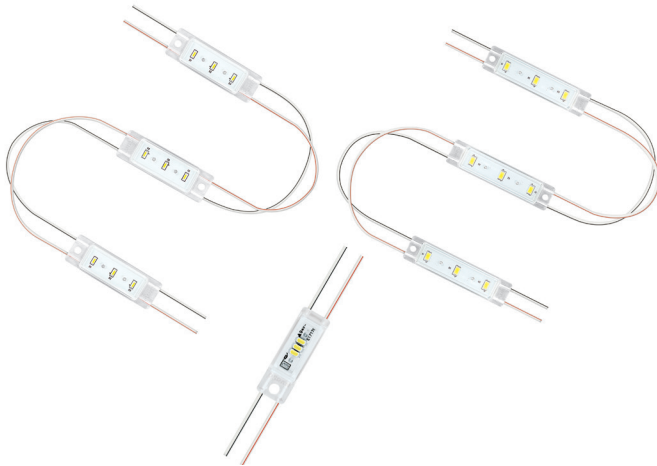


# BackLED B

## LED Chain Signage Modules



The BackLED B family of LED chain modules are ideal products to illuminate channel letter signage with medium to deep faces. Available in three sizes and three color temperatures to meet any applications needs. The BackLED L B modules are designed for large channel letters with a deep stroke. The BackLED M B modules are ideal for letters with a small to medium size stroke and the BackLED XS B are designed for small channel letters.

All BackLED modules are connected via flexible cables and are single board cuttable allowing for a custom fit.

These modules are IP66 rated creating a seal against dust and moisture. All BackLED B modules are optimally paired with OPTOTRONIC® 12V<sub>DC</sub> power supplies, available in both dimming and non-dimming models. These modules are listed in the UL Sign Components Manual (SAM) for new signage installations and are UL Classified for retrofit installations when paired with our OPTOTRONIC power supplies.

### Application Information

#### Applications

- Backlighting of small, medium and large channel letters
- Signage and illuminated advertising

### Key Features & Benefits

- Single board cuttable chain of LED modules with flexible connection cables
- The tight 120° beam angle of the BackLED B modules deliver brighter sign faces and outstanding uniformity in deeper channel letters (5-8") when compared to modules with wider beam angles
- Fully integrated heat sink
- IP66 rated to protect against dust, moisture, and condensation in outdoor operation
- Long life: up to 50,000 hours (L<sub>70</sub>) minimizing maintenance frequency so long as max T<sub>A</sub> is below 25°C
- Fast, accurate installation is simplified through pre-mounted adhesive tape and mounting holes
- Backed by a 5-year system warranty when paired with OPTOTRONIC® 12V<sub>DC</sub> and 12V<sub>DC</sub> dimmable power supplies

### Product Offering

Type	Ordering Abbreviation	Lumens/ft.	Color
BackLED L B	BA-L-BC-840	167	4000K
BackLED L B	BA-L-BC-850	170	5000K
BackLED L B	BB03LA-W4F-770	180	7000K
BackLED M B	BB03MA-W4F-840	115	4000K
BackLED M B	BA-M-BC-850	142	5000K
BackLED M B	BA-M-BC-865	142	6500K
BackLED XS B	BA-XS-BC 865	76	6500K

### Specifications and Certifications



The BackLED B family of products is UL Classified for sign retrofit when paired with our OPTOTRONIC power supplies. (UL File # E311887)



Listed in the Sign Components Manual (SAM). (File # E258264)



# OSRAM

## Ordering Information

Item Number	Ordering Abbreviation	Length (ft.)	Number of Modules	Module Pitch (in)	Color Temperature	Voltage (Voc)	Power per Module(W)	Lumens per Module	Watts /ft	Lumens /ft	LPW	Case Qty.
73667	BA-L-BC-840	23.7	36	7.9	4000K	12	1.25	110	1.9	167	88	5
73745	BA-L-BC-850	23.7	36	7.9	5000K	12	1.25	112	1.9	170	89	5
71923	BB03LA-W4F-770	23.7	36	7.9	7000K	12	1.6	118	2.5	180	72	5
71919	BB03MA-W4F-840	20	40	6	4000K	12	0.75	57	1.5	115	76	5
73746	BA-M-BC-850	20	40	6	5000K	12	0.75	71	1.5	142	95	5
73670	BA-M-BC-865	20	40	6	6500K	12	0.75	71	1.5	142	95	5
73569	BA-XS-BC 865	13.3	50	3.1	6500K	12	0.26	20	0.98	76	78	5

## Ordering Guide

<b>B</b>	<b>B</b>	<b>03</b>	<b>MA</b>	-	<b>W</b>	<b>4F</b>	-	<b>8</b>	<b>40</b>
BackLED	B=Basic	Number of LEDs per Module	LA=Large MA=Medium		W=White	LED Generation		CRI > 80	Color Temperature 40=4000K
<b>BA</b>	-	<b>XS</b>	-	<b>BC</b>	-			<b>8</b>	<b>65</b>
BackLED		XS = Extra Small M = Medium L = Large		BC=Basic (no lens)				CRI > 80	Color Temperature 65=6500K

## Power Supply Information

Item Number	Ordering Description	BackLED L B (73667 & 73745) Max. No. of Modules	BackLED L B (71923) Max. No. of Modules	BackLED M B Max. No. of Modules	BackLED XS B Max. No. of Modules
51604	OT20W/12V/UNV	13	11	23	56
51632	OT60W/12V/UNV	41	34	69	168
51633	OT60W/12V/UNV/DIM	41	34	69	168

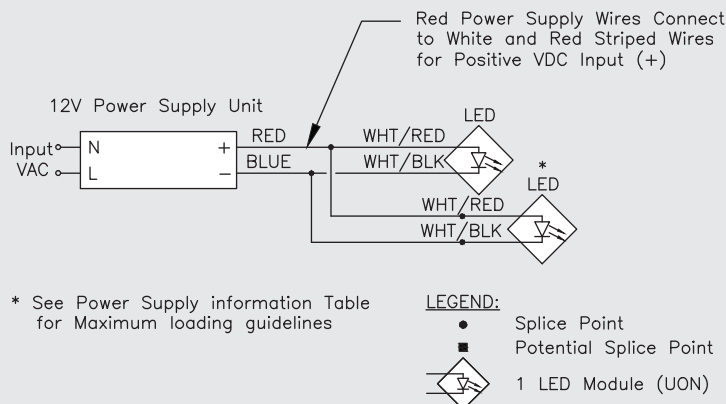
## Minimum and Maximum Ratings

Parameter	BackLED L B Values	BackLED M B Values	BackLED XS B Values
Operating Temperature at Tc point	-25 to 65°C (-13 to 149°F)	-25 to 65°C (-13 to 149°F)	-25 to 70°C (-13 to 158°F)
Storage Temperature Range	-25 to 85°C (-13 to 185°F)	-25 to 85°C (-13 to 185°F)	-25 to 85°C (-13 to 185°F)
Voltage Range	11.5–13Voc	11.5–13Voc	11.5–13Voc

Notes:

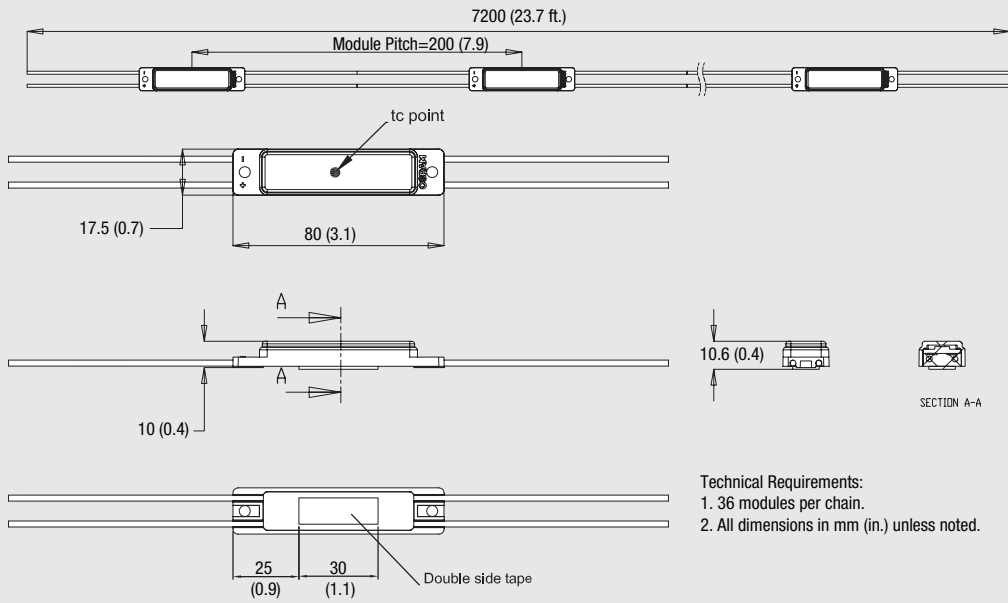
- Exceeding maximum ratings for operating and storage temperature will reduce expected lifetime or destroy the LED module.
- Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED module.
- The temperature of the LED module must be measured at the Tc point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

## Wiring Diagram



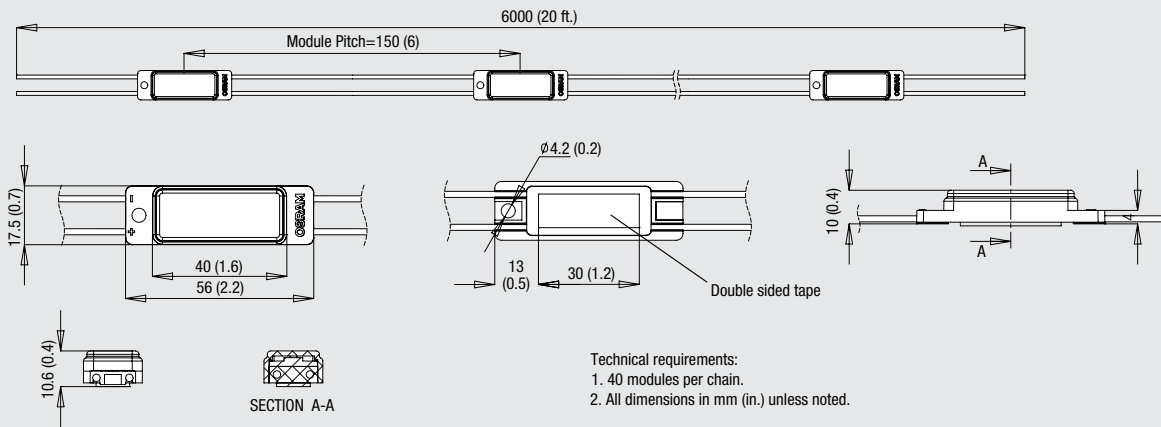
# Assembly Diagram

## BackLED L B



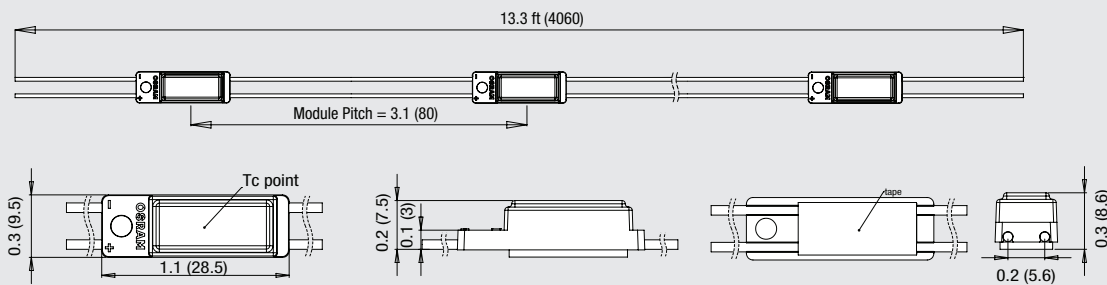
Technical Requirements:  
1. 36 modules per chain.  
2. All dimensions in mm (in.) unless noted.

## BackLED M B



Technical requirements:  
1. 40 modules per chain.  
2. All dimensions in mm (in.) unless noted.

## BackLED XS B



Technical Requirements:  
1. 50 modules per chain.  
2. All dimensions in in. (mm) unless noted.

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## Safety Information

**WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION. TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES.**

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriters Laboratories (UL) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction.

1. The LED module itself and all its components shall not be subjected to mechanical stress and assembly must not damage or destroy conducting paths on the circuit board.
2. Installation of LED modules shall be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
3. Observe correct electrical polarity, incorrect polarity may destroy the module.
4. Electrostatic Discharge (ESD) precautions shall be incorporated when handling or installing the module. (For more information, reference document LED093 ESD Protection for LED Systems.)
5. Circuit boards should be attached securely to the intended substrate, but do not over-tighten screws or rivets. Heavy vibration should be avoided

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## Assembly Information

1. Mounting tape is provided as an installation aid only, not for permanent adhesion. It is recommended all modules are secured to the mounting surface using screws of appropriate size.
2. Do not over-tighten mounting screws as over-torque could damage the module housing. Do not exceed 10 in-lbs torque.
3. The LED module shall not be subject to mechanical stress or heavy vibration.
4. When using power supplies other than OSRAM OPTOTRONIC power supply, voltage must not fall below 12Vdc.
5. For complete installation instructions, refer to BackLED L and M B Installation Instructions and BackLED XS B Installation Instructions.

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## Warranty

Five-Year Full System Warranty. Please refer to the Signage Warranty (LED087).

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