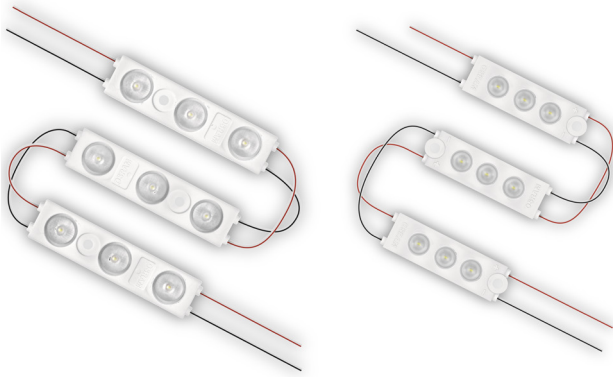


BackLED Plus

LED Chain Signage Modules



The BackLED Plus family of LED chain modules are ideal products to illuminate channel letter signage with shallower depth faces. These modules utilize Flat-Ray optical lens technology to ensure uniform illumination at the sign face, even at minimal depths. They are available in two sizes and four color temperatures to meet the requirements of any application. The BackLED L Plus modules are designed for high brightness requirements in large stroke letters. They ship in 21 foot chains consisting of 32 modules—each with 3 LEDs. The BackLED M Plus are available in white and red and are designed for medium to smaller sized channel letters. They ship in 20 foot chains consisting of 40 modules—each with 3 LEDs.

All modules are connected via flexible cables and are single board cuttable creating a custom fit for each installation. Fast, accurate installation is simplified through pre-mounted adhesive tape and mounting holes. These modules are IP66 rated creating a seal against dust and moisture.

Application Information

Applications

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

Key Features & Benefits

- Single board cuttable chain of LED modules with flexible connection cables
- The 150° distribution of our Flat-Ray optical lens ensures a bright, uniformly illuminated sign face
- Ideal for shallower signs
 - 3"-6" deep
- BackLED L Plus is designed for large stroke letters with high brightness requirements
- BackLED M Plus is designed for medium to smaller sized channel letters
- BackLED M Plus is available in either white or red LEDs
- Fully intergrated heat sink
- IP66 rated to protect against dust, moisture, and condensation in outdoor operation
- Fast accurate installation is simplified through pre-mounted adhesive tape and mounting holes
- Optimal operation on OPTOTRONIC® 12Vdc and 12Vdc dimmable power supplies

All BackLED Plus modules are optimally paired with OPTOTRONIC® 12Vdc 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 OTOTRONIC power supplies.

Product Offering

| Type | Ordering Abbreviation | Lumens/ft. | Color |
|----------------|-----------------------|------------|-------------|
| BackLED L Plus | BA-L-PL-830 | 190 | 3000K |
| BackLED L Plus | BA-L-PL-840 | 205 | 4000K |
| BackLED L Plus | BA-L-PL-850 | 209 | 5000K |
| BackLED L Plus | BA03LA-W4F-865 | 195 | 6500K |
| BackLED M Plus | BA03MA-W4F-830 | 100 | 3000K |
| BackLED M Plus | BA03MA-W4F-840 | 115 | 4000K |
| BackLED M Plus | BA03MA-W4F-865 | 135 | 6500K |
| BackLED M Plus | BA03MA-R2 | 27.5 | Red (625nm) |

Specifications and Certifications



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



BackLED Plus modules are UL Classified for sign retrofits when paired with our OPTOTRONIC power supplies. (UL File # E311887)



Specification Data

| | |
|-------------|------|
| Catalog # | Type |
| Project | |
| Comments | |
| Prepared by | |

Ordering Information

| Item Number | Ordering Abbreviation | Length (ft.) | Number of Modules | Module Pitch (in) | Color Temperature | Voltage (Voc) | Power per Module (W) ¹ | Lumens per Module | Watts/ft | Lumens/ft | LPW | Case Qty. |
|-------------|-----------------------|--------------|-------------------|-------------------|-------------------|---------------|-----------------------------------|-------------------|----------|-----------|-----|-----------|
| 73664 | BA-L-PL-830 | 21 | 32 | 7.9 | 3000K | 12 | 1.56 | 125 | 2.38 | 190 | 80 | 5 |
| 73665 | BA-L-PL-840 | 21 | 32 | 7.9 | 4000K | 12 | 1.56 | 135 | 2.38 | 205 | 86 | 5 |
| 73744 | BA-L-PL-850 | 21 | 32 | 7.9 | 5000K | 12 | 1.56 | 137 | 2.38 | 209 | 88 | 5 |
| 71279 | BA03LA-W4F-765 | 21 | 32 | 7.9 | 6500K | 12 | 1.8 | 127 | 2.74 | 195 | 70 | 5 |
| 71282 | BA03MA-W4F-830 | 20 | 40 | 6 | 3000K | 12 | 0.72 | 50 | 1.44 | 100 | 69 | 5 |
| 71283 | BA03MA-W4F-840 | 20 | 40 | 6 | 4000K | 12 | 0.72 | 57 | 1.44 | 115 | 79 | 5 |
| 71284 | BA03MA-W4F-765 | 20 | 40 | 6 | 6500K | 12 | 0.72 | 68 | 1.44 | 135 | 94 | 5 |
| 71285 | BA03MA-R2 | 20 | 40 | 6 | 625nm | 12 | 0.72 | 14 | 1.44 | 27.5 | 19 | 5 |

Nominal ratings at ambient of 25°C.

Notes:

1. All data is related to the entire module. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.

Performance values were taken at steady state. Instant-on measurements may be higher.

Ordering Guide

| | | | | | | | | | |
|------------|----------|---------------------------|-----------------------|----------------------------------|----------|----------------|-----------|----------|---|
| B | A | 03 | LA | - | W | 4F | - | 8 | 30 |
| B=BackLED | A=Plus | Number of LEDs per Module | LA=Large MA=Medium | | W=White | LED Generation | | CRI > 80 | Color Temperature 30=3000K 40=4000K 65=6500K |
| BA | - | L | - | PL | - | 8 | 30 | | |
| BA=BackLED | | L=Large | | PL=Plus (Flat Ray Technology) | | CRI > 80 | | | Color Temperature 30=3000K 40=4000K 50=5000K |

Power Supply Information

| Item Number | Ordering Description | BackLED L Plus | BackLED M Plus |
|-------------|----------------------|---------------------|---------------------|
| | | Max. No. of Modules | Max. No. of Modules |
| 51604 | OT20W/12V/UNV | 9 | 22 |
| 51632 | OT60W/12V/UNV | 28 | 72 |
| 51633 | OT60W/12V/UNV/DIM | 28 | 72 |

Minimum and Maximum Ratings

| Parameter | BackLED L Plus Values | BackLED M Plus Values |
|-----------------------------------|------------------------------|------------------------------|
| Operating Temperature at Tc point | -25 to +75°C (-13 to +167°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) |
| Voltage Range | 11.5–13Voc | 11.5–13Voc |

Notes:

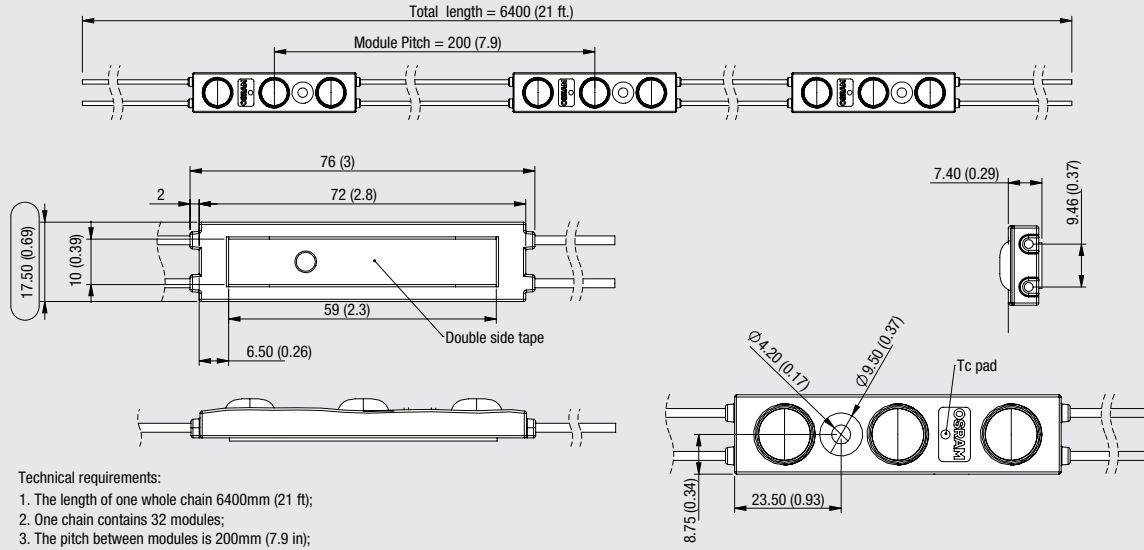
1. Exceeding maximum ratings for operating and storage temperature will reduce expected lifetime or destroy the LED module.

2. Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED module.

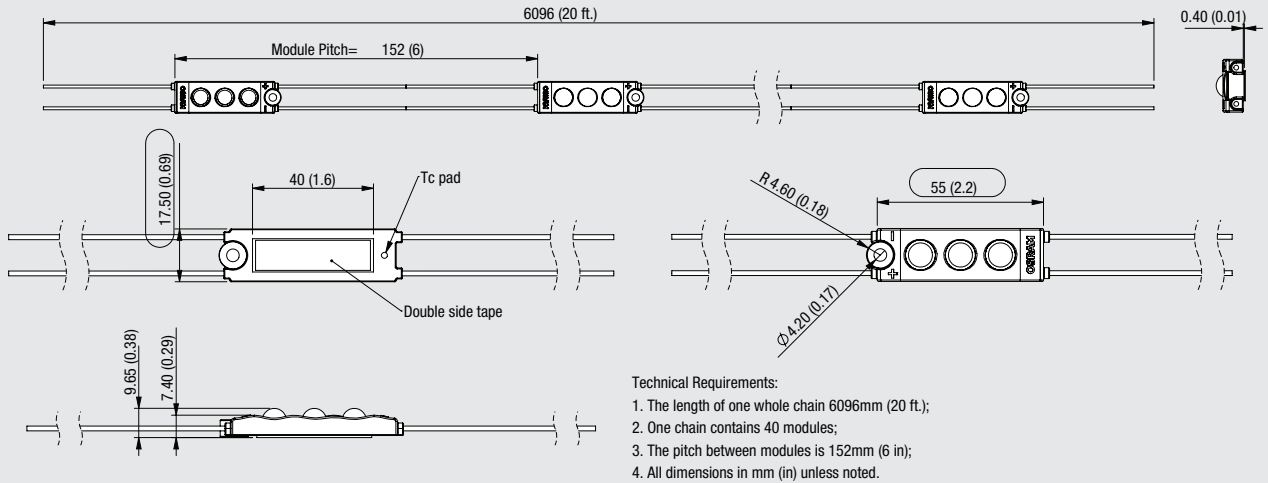
3. The temperature of the LED module must be measured at the Tc point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Assembly Diagram

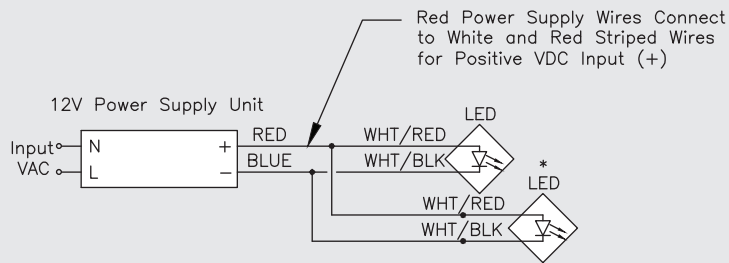
BackLED L Plus



BackLED M Plus



Wiring Diagram



* See Power Supply information Table for Maximum loading guidelines

LEGEND:

- Splice Point
- Potential Splice Point
- ◊ 1 LED Module (UON)

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.

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 30 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 Plus Installation Instructions LED349.

Warranty

5 Year Full System Warranty. Please Refer to Signage Warranty (LED087).

Distributed by:



Toll Free: 1.800.277.7898

www.piedmontplastics.com

OSRAM is a registered trademark of OSRAM GmbH. All other trademarks are those of their respective owners. Specifications subject to change without notice.

© 2016 OSRAM

The OSRAM logo is displayed in a large, bold, orange sans-serif font.