

## CHANNEL LIGHTS

### ZM-SERIES



ZM-359-CW



ZM-6223-CW



ZM-3537-CW



ZM-129-CW



ZM-333-CW



ZM-333-B

#### ZM Series:

|               |   |
|---------------|---|
| ZM-6223-CW    | 18° x 70° Edgelight LED Sign Module - Cool White    |
| ZM-359-CW     | 165° Wide Beam Channel LED Rectangle - Cool White   |
| ZM-3537-CW    | 160° Wide Beam Channel LED Square - Cool White      |
| ZM-333-CW/B/R | 170° Wide Beam Channel LED - Cool White, Blue, Red  |
| ZM-333-CWHO   | 170° Wide Beam Channel LED - High Output Cool White |
| ZM-129-CW     | Mini Wide Beam Channel LED - Cool White             |

### APPLICATIONS

JKL Components ZM-Series LED Channel Modules are designed for backlighting and edgelighting. The ZM-Series include a selection of LED lights available in 12VDC or 24VDC. While most commonly used for signs, the LED modules are often used in kiosks, 3D printers and industrial equipment.

3M double-sided tape is included on the back side of each LED module as well as screw holes for mounting. LED Channel Modules are well suited for architectural accent lighting, backlighting channel letters and for fluorescent and neon retrofitting. The modules are water-resistant and suitable for outdoor applications.

### POWER & MAXIMUM LENGTH

The chart on the following page shows specifications for various ZM Series LED Channel Lights offered by JKL. The maximum length given is for a single string of modules wired from the power source. Additional technical details for individual part numbers can be found on the JKL website: [www.jkllamps.com](http://www.jkllamps.com)



RoHS Compliant  
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Quality Lighting Solutions  
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Since 1972

## JKL ZM-SERIES LED MODULES

## ZM SERIES

| Part Number            | Voltage | Wattage | Color                 | Beam Angle | Modules per strand | Lm/Watt | Max Length in series | IP Rating | Use          |
|------------------------|---------|---------|-----------------------|------------|--------------------|---------|----------------------|-----------|--------------|
| <b>ZM-6223-CW</b>      | 24VDC   | 1.92    | Cool White<br>6,500°K | 18° X 70°  | 30                 | 110     | 11.5 Feet            | IP67      | Edgelighting |
| <b>ZM-359-CW</b>       | 24VDC   | 1.6W    | Cool White<br>6,500°K | 165°       | 20                 | 115     | 19 Feet              | IP67      | Backlighting |
| <b>ZM-3537-CW</b>      | 12VDC   | 1.0W    | Cool White<br>6,500°K | 160°       | 30                 | 100     | 33 Feet              | IP67      | Backlighting |
| <b>560-ZM-333-CW</b>   | 12VDC   | 0.66W   | Cool White<br>6,500°K | 170°       | 50                 | 115     | 24 Feet              | IP67      | Backlighting |
| <b>560-ZM-333-B</b>    | 12VDC   | 0.66W   | Blue<br>465nm         | 170°       | 50                 | 18      | 24 Feet              | IP67      | Backlighting |
| <b>560-ZM-333-R</b>    | 12VDC   | 0.66W   | Red<br>625nm          | 170°       | 50                 | 31      | 24 Feet              | IP67      | Backlighting |
| <b>560-ZM-333-CWHO</b> | 12VDC   | 1.00W   | Cool White<br>6,500°K | 170°       | 50                 | 115     | 32 Feet              | IP67      | Backlighting |
| <b>ZM-129-CW</b>       | 12VDC   | 0.36    | Cool White<br>6,000°K | 160°       | 50                 | 91      | 10 Feet              | IP67      | Backlighting |

### SELECTING A POWER SUPPLY

**1** - Determine the Voltage of the selected LED Module.

**2** - Determine how many modules will be needed for your project and multiply wattage per module. Once you have determined the total wattage of the modules needed, multiply by 1.2 to achieve the minimum wattage of the power supply to be selected.

*Example:*

LED Module ZM-333-CWHO is 12V and 1 Watt per module. If the project requires 50 modules:

50 Modules x 1 Watt= 50 Watts. 50 Watts x 1.2=60 Watts. *Select a 60 Watt (minimum) Power Supply*

Note: The added 20% (1.2 multiplier) provides a safety margin that helps to avoid overloading and prolongs the lifespan of the power supplies and LEDs.

It is acceptable to use a power supply that provides more than the application requires. The power supply will only provide what the LED actually draws. In the above example, 60 Watts represents the minimum Wattage of the 12V power supply that should be selected. However, it is acceptable to use a 100 Watt supply.

**3** - If the power supply is to be used outdoors, determine what waterproof IP (Ingress Protection) rating is required. IP67 is suitable for most outdoor applications and many IP67 rated power supplies are available.

**4** - If the application is for indoor use and does not require more than 35 Watts, it maybe possible to use a wall mount/wall plug power supply. As always, add a 20% safety margin to the total wattage needed.



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