

# 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  
ISO9001 Certified

## 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 6,500°K	18° X 70°	30	110	11.5 Feet	IP67	Edgelighting
<b>ZM-359-CW</b>	24VDC	1.6W	Cool White 6,500°K	165°	20	115	19 Feet	IP67	Backlighting
<b>ZM-3537-CW</b>	12VDC	1.0W	Cool White 6,500°K	160°	30	100	33 Feet	IP67	Backlighting
<b>560-ZM-333-CW</b>	12VDC	0.66W	Cool White 6,500°K	170°	50	115	24 Feet	IP67	Backlighting
<b>560-ZM-333-B</b>	12VDC	0.66W	Blue 465nm	170°	50	18	24 Feet	IP67	Backlighting
<b>560-ZM-333-R</b>	12VDC	0.66W	Red 625nm	170°	50	31	24 Feet	IP67	Backlighting
<b>560-ZM-333-CWHO</b>	12VDC	1.00W	Cool White 6,500°K	170°	50	115	32 Feet	IP67	Backlighting
<b>ZM-129-CW</b>	12VDC	0.36	Cool White 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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