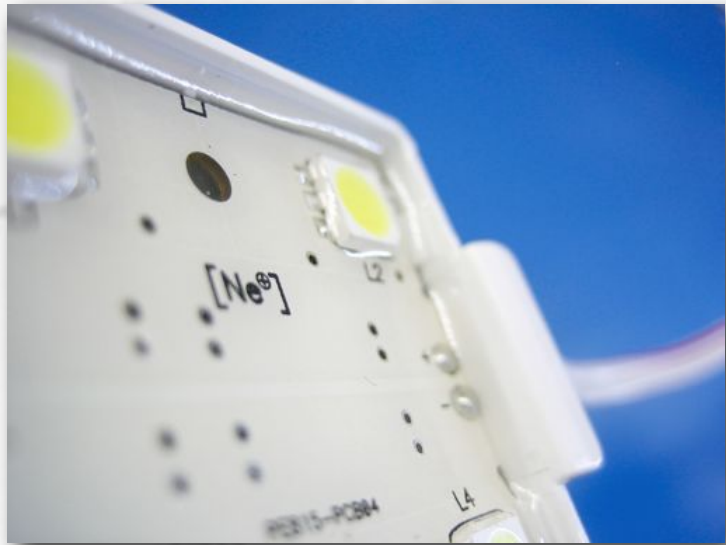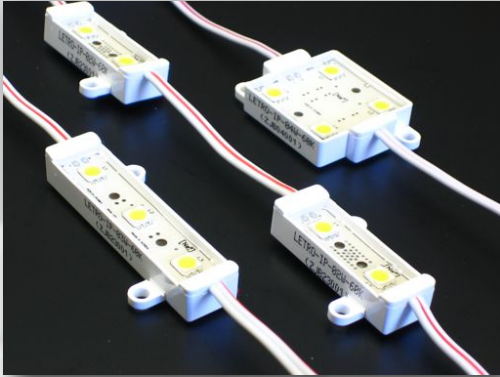# LED Module IP66

For Interior/Exterior Lighting

- *Abundant Light for channel letters and transparencies*
- *IP66 Certified*
- *Solid and durable LED modules*
- *Corrosion protection*
- *Over-current protection*
- *Cut between any module*
- *Safe, low-voltage operation*
- *Flash and dim-able*
- *High color consistency due to fastidious batch selection*
- *Uniform lighting due to wide angle light output*
- *High energy efficiency*
- *Designed with simplicity of installation in mind*
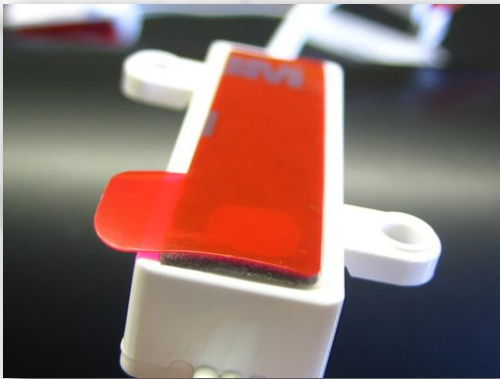- *For indoor and outdoor applications*
- *Made in Korea by NP Lighting*

Form follows Function

In todays lighting environment, people understand that a light source has to be more than just a bright source. LED lighting solutions have to be flexible in application, simple in installation, reliable in operation, efficient in energy consumption, and last but not least, be available at affordable prices. The LETRO-LED module based LED-string system fulfills these requirements with ease.

Flexible in Application

The LETRO-LED string system has been especially designed to fulfill the needs of the advertisement lighting industry. From illuminating channel letters to light boxes, from architectural lighting to such environmental extremes as bridge lighting, LETRO-LED will have the perfect application solution for your needs. Where other LED systems fail to provide a bright and uniform light, the LETRO-LED string system really shines!

Simple in Installation

The LETRO-LED LED string system was designed with both simplicity in installation and operation in mind. The individual modules can be pushed together as close as necessary and can be stretched up to 105-mm - 125-mm (depending on module). The string can be cut anywhere between each module. An end-cap can be placed at the end of each string to protect it from the environment. Simple to use, gel-filled splice connectors (IP66) make branching and extending the string as simple as 123!

Attaching the modules takes place either by pop-riveting them with the help of the removable mounting tabs or by using the self adhesive tape strip (3M) at the back of each module.

Reliable in Operation

The complete LETRO-LED string system is fully IP66 certified. From the power supplies, via the cables and connectors to the LED modules themselves. Every module has a parallel connection, permitting the string to be cut anywhere. Electric current controllers in each module guarantee a constant current to the LED circuits, preventing premature failure and reducing the total cost of ownership of the sign system.
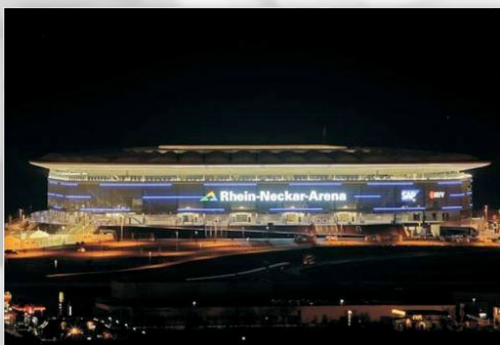
Efficient in Performance

Low energy consumption has always been a trademark of LEDs. Choose between 2, 3 and 4 LED module systems depending on your lighting requirements. Should that not be enough, LETRO-LEDs can also be dimmed or toggled. LETRO-LED offers a wide range of programs to remote control the LED string system. The open, KNX/EIB system architecture also permits you to program your own lighting settings and is compatible WITH the DMX standard (used in stage lighting).
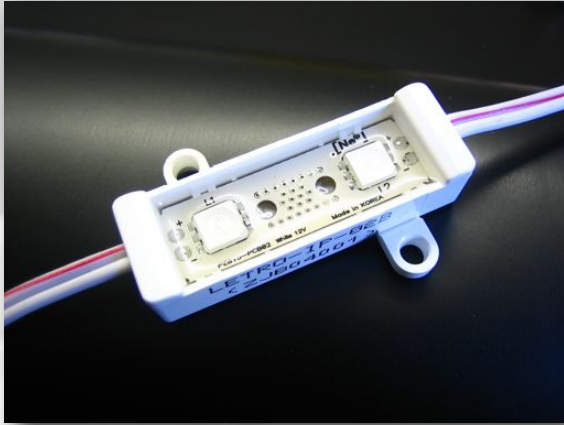
Colors Galore

The standard LETRO-LED program covers the colors cool white (6000K), warm white (3000K), red, green, blue, and amber. The same modules are also available in a programable RGB setup.
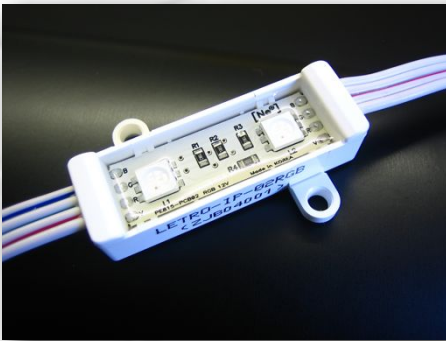
Power Without the Price

LETRO-LED lighting solutions are available exclusively from Eurocom at prices that are unmatched by the industry. Call 1-800-888-0932 or write to info@eurocom-inc.com for more information and a price quote.

Eurocom-Inc.
Light years ahead!

2-LED Module
LETRO-IP66

	White, Red, Green, Blue, Amber	RGB
	Application: Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.	Application: Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.
System Type:	Flexible LED String	Flexible LED String
Certification Level:	IP66	IP66
Circuit Type:	12V DC Parallel	12V DC Parallel
Nr. of LEDs per module:	2	2
Beam Angle	120˚	120˚
Power mW/Module	480mW	800mW
Maximum Power mW/Module	580mW	1W
Life Expectancy @ 77˚F and 45% humidity.	50,000 h	50,000 h
Module Dimensions (LxDxH):	1.65 x 1.14 x 0.43 inch	1.65 x 1.14 x 0.43 inch
Distance between middle of each module:	variable with a maximum of 4.13 inches	variable with a maximum of 4.13 inches
Cut Positions:	Per Module	Per Module
Nr. of LED-Modules/Chain:	20	20
Max Nr. of LED-Modules/ branch:	50	50
Wire Cross Section:	2-vein AWG20 (0.519 mm^2)	4-vein AWG20 (0.519 mm^2)
Programmable Options:	Dim and Toggle	Dim and Toggle
Connection Options	Pop rivet or double sided tape (attached)	Pop rivet or double sided tape (attached)

Accessories:

Endcaps:	LETRO-LCM-ENDCAP (3.2 mm Ø)	LETRO-LCM-ENDCAP (3.2 mm Ø)
Extenders:	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm^2)	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm^2)
LED Cable:	LETRO-CABLE-IP2P (2-vein flat wire, 0.5 mm^2)	LETRO-CABLE-IP4P (2-vein flat wire, 0.5 mm^2)

The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.

White
6000 K
30 lm
LETRO-IP-02W-60K

White
3000 K
25 lm
LETRO-IP-02W-30K

Red
625 nm
9 lm
LETRO-IP-02R

Green
525 nm
18 lm
LETRO-IP-02G

Blue
465 nm
5 lm
LETRO-IP-02B

Amber
595 nm
12 lm
LETRO-IP-02A

RGB
625/525/465 nm
N.A.
LETRO-IP-02RGB

3-LED Module
LETRO-IP66

	White, Red, Green, Blue, Amber	**RGB**
	Application: Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.	Application: Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.
System Type:	Flexible LED String	Flexible LED String
Certification Level:	IP66	IP66
Circuit Type:	12V DC Parallel	12V DC Parallel
Nr. of LEDs per module:	3	3
Beam Angle	120˚	120˚
Power mW/Module	720mW	1100mW
Maximum Power mW/Module	870mW	1320W
Life Expectancy @ 77˚F and 45% humidity.	50,000 h	50,000 h
Module Dimensions (LxDxH):	2.44 x 1.14 x 0.43 inch	2.44 x 1.14 x 0.43 inch
Distance between middle of each module:	variable with a maximum of 4.92 inches	variable with a maximum of 4.92 inches
Cut Positions:	Per Module	Per Module
Nr. of LED-Modules/Chain:	20	20
Max Nr. of LED-Modules/ branch:	33	33
Wire Cross Section:	2-vein AWG20 (0.519 mm^2)	4-vein AWG20 (0.519 mm^2)
Programmable Options:	Dim and Toggle	Dim and Toggle
Connection Options	Pop rivet or double sided tape (attached)	Pop rivet or double sided tape (attached)

White 6000 K 45 lm LETRO-IP-03W-60K	**White** 3000 K 40 lm LETRO-IP-03W-30K
Red 625 nm 13 lm LETRO-IP-03R	**Green** 525 nm 26 lm LETRO-IP-03G
Blue 465 nm 8 lm LETRO-IP-03B	**Amber** 595 nm 18 lm LETRO-IP-03A
RGB 625/525/465 nm N.A. LETRO-IP-03RGB	

Accessories:

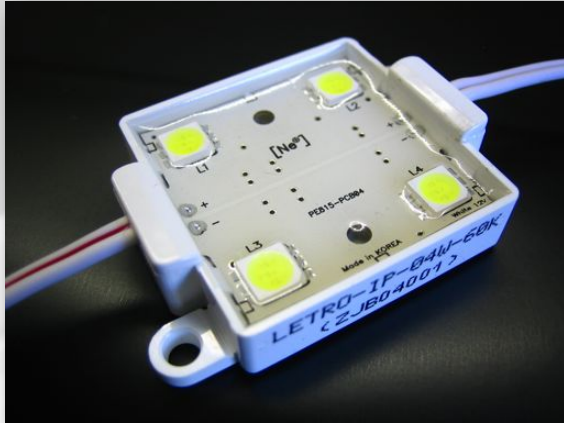|		
Endcaps:	LETRO-LCM-ENDCAP (3.2 mm Ø)	LETRO-LCM-ENDCAP (3.2 mm Ø)
Extenders:	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm^2)	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm^2)
LED Cable:	LETRO-CABLE-IP2P (2-vein flat wire, 0.5 mm^2)	LETRO-CABLE-IP4P (2-vein flat wire, 0.5 mm^2)

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4-LED Module
LETRO-IP66

White	White
White 6000 K 60 lm **LETRO-IP-04W-60K**	**White** 3000 K 55 lm **LETRO-IP-04W-30K**
Red 625 nm 18 lm **LETRO-IP-04R**	**Green** 525 nm 35 lm **LETRO-IP-04G**
Blue 465 nm 10 lm **LETRO-IP-04B**	**Amber** 595 nm 24 lm **LETRO-IP-04A**

RGB
625/525/465 nm
N.A.
LETRO-IP-04RGB

	White, Red, Green, Blue, Amber	RGB
Application:	Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.	Channel Letters with transparent faceplates up to a build hight of 39 inches or greater, and a depth of 4 inches or greater.
System Type:	Flexible LED String	Flexible LED String
Certification Level:	IP66	IP66
Circuit Type:	12V DC Parallel	12V DC Parallel
Nr. of LEDs per module:	4	4
Beam Angle	120˚	120˚
Power mW/Module	960mW	1500mW
Maximum Power mW/Module	1150mW	1800mW
Life Expectancy @ 77˚F and 45% humidity.	50,000 h	50,000 h
Module Dimensions (LxDxH):	1.85 x 1.14 x 0.43 inch	1.85 x 1.14 x 0.43 inch
Distance between middle of each module:	variable with a maximum of 4.92 inches	variable with a maximum of 4.92 inches
Cut Positions:	Per Module	Per Module
Nr. of LED-Modules/Chain:	20	20
Max Nr. of LED-Modules/branch:	25	25
Wire Cross Section:	2-vein AWG20 (0.519 mm²)	4-vein AWG20 (0.519 mm²)
Programmable Options:	Dim and Toggle	Dim and Toggle
Connection Options	Pop rivet or double sided tape (attached)	Pop rivet or double sided tape (attached)

Accessories:

Endcaps:	LETRO-LCM-ENDCAP (3.2 mm Ø)	LETRO-LCM-ENDCAP (3.2 mm Ø)
Extenders:	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm²)	LETRO-CONNECTOR-XTEND (transparent, IP66, 0.5 mm²)
LED Cable:	LETRO-CABLE-IP2P (2-vein flat wire, 0.5 mm²)	LETRO-CABLE-IP4P (2-vein flat wire, 0.5 mm²)

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Accessories

Endcaps

The Endcaps are designed to insulate the ends of the two vein wire. On RGB LED string, the 4-vein wire is split and two endcaps are used. The endcaps prevent short-circuits that may be caused by accidental connections with metal surfaces.

Dip-formed protective cap,
PVC flexible, black, Interior measurements: 3.2 x 13-mm

Units per package: 50 Caps
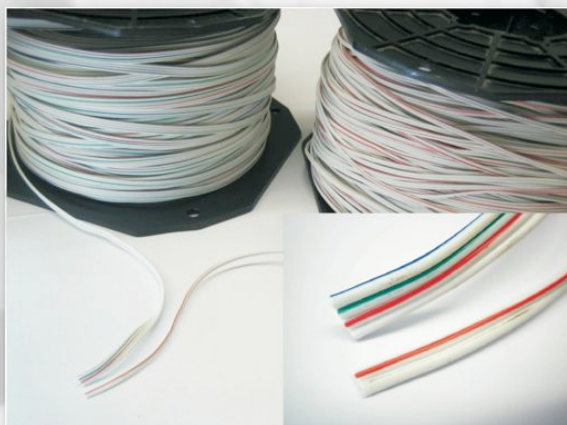Product-Nr.:   LETRO-LCM-ENDCAP

Connector Extends

The gel-filled connector extends connect the LED string with the power supplies as well with wire extensions.
They are simple to use, no splicing the plastic from the wire required. Just push in the wire, press down, and the connection is made. The silicone gel inside the connectors offers reliable protection against corrosion.

Technical properties: Insulation-resistance > 10^6 MΩ
Max Nr. of veins: 2 veins
Silicone Filling: Yes
Color: Transparent

Units/Package: 10
Product Nr.:   LETRO-CONNECTORS

Extension Cable

Extend the distance between power supply and LED modules, or from string section to string section using this wire.
Please use the 2-vein wire for the standard LED modules and use the 4-vein wire for the RGB modules. All wires are color coded for your convenience.

IP2P Extension Wire: 2-vein wire with +/- connection
Units/Package: 3 feet
Product Nr.:   LETRO-CABLE-IP2P

IP4P Extension Wire: 4-vein wire with V/R/G/B connection
Units/Package: 3 feet
Product Nr.:   LETRO-CABLE-IP4P