

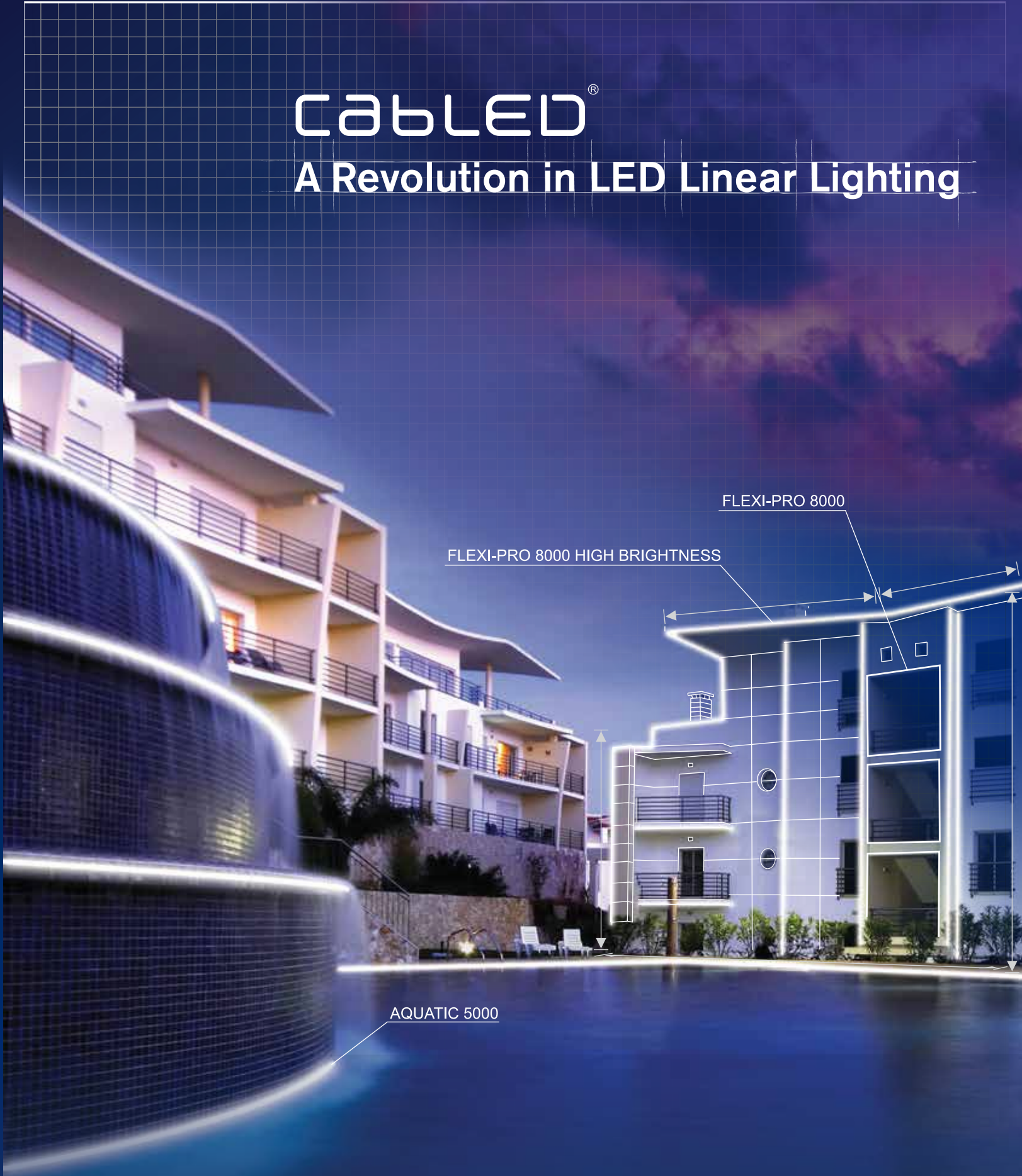
OPTILED

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www.optiled.com

CABLED[®]
A Revolution in LED Linear Lighting



CABLED®

Welcome to CABLED®, the latest LED lighting solutions. The result of strong R&D efforts, CABLED® is a revolutionary technology designed for indoor and outdoor environments which allows you to create brilliant lighting in areas you could never illuminate before without the cost of extensive retooling or complex installation procedures. CABLED® is the only LED linear lighting solution which offers both supremely flexible, cost efficient installation and exceptional lighting performance with total reliability.

* US Design Patent No. D635 930 S



Awards



Spark Pro Bronze Award 2011
by the Spark Awards



Most Innovative Product Design Award 2011
by Hong Kong Perspective Magazine



Innovation And Creativity Award 2009
by Hong Kong Awards For Industries

FLEXI-PRO 8000 &
HIGH BRIGHTNESS (HB)



AQUATIC 5000



BENEFITS OF THE CABLED® SERIES



**Energy Efficient and
Eco Friendly**

CABLED® uses significantly less energy than traditional light sources and generates no harmful ultra violet or infrared emissions. They are RoHS-compliant and free of mercury and other toxic substances.



Cool Lighting Solution

Unlike conventional LED strips that use "Flexible PCB" conductors which often leads to overheating, CABLED® combining cable and LED technology generates up to 40% less heat and therefore contributes to reduced air conditioning and cost.



**Superior Brightness
and Quality**

Incorporating advanced LEDs from Cree, CABLED® meets the most stringent international CE & UL certification standards and reliability standards of brightness with up to 440 lumen per meter. CABLED® provides up to 35,000 hours of high quality performance – 35 times longer than an average incandescent bulb.



Rigidity

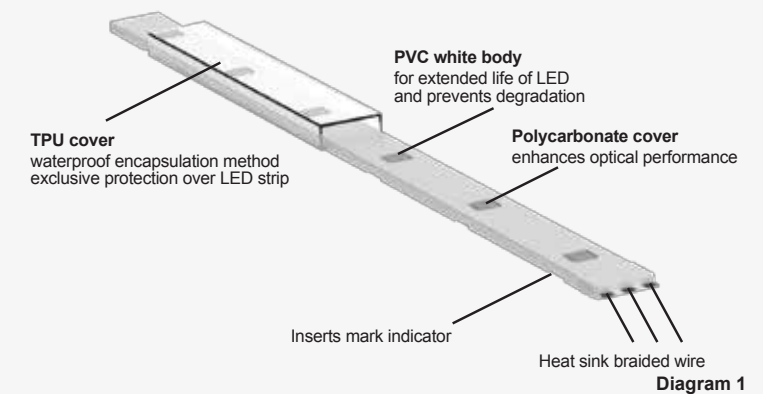
Flexing and bending conventional LED strips may create cracks on the "Flexible PCB" leading to malfunctions. CABLED®, however, is much more durable and reliable due to the cable technology used. (Please refer to Diagram 1)



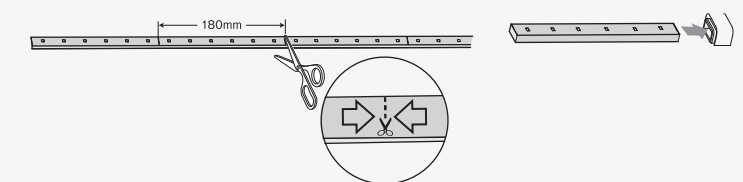
Flexibility and Versatility

CABLED® can be cut into segments and installed easily anywhere with a wide variety of convenient accessories which makes the user's life easier. With few or no accessories available for conventional LED strips, installation is more demanding and may require professional skills. Most conventional strips are only 10 meters long at best, which creates further challenges for the installer. CABLED®, however, offers continuous run strips of up to 25 meters.

CABLED® Structure



General Installation Procedure



Connection Diagram



Diagram 2

CABLED® vs competition products

	CABLED®	Fluorescent Tube	Other linear light strip in the market
Length	Flexible length	2ft, 3ft, 4ft, 5ft, 6ft, 8ft	Flexible length
Max. connection per power supply	25M	1.8M	less than 10M
Applications	Indoor, outdoor and underwater	Indoor	Indoor, outdoor
Allow the user to cut and reconnect	Yes, with mounting options and accessories	No	Yes, but only the technicians can do it; soldering is required
Accessories	Full range	No	Very limited
Safety	DC low voltage device (24V DC), safe for normal installation	Low voltage, high frequency, AC device; require certified technician for installation	DC low voltage device (12V DC), safe for normal installation
Life Time	Up to 35,000 hours	Approximately 10,000 hours	Up to 20,000 - 35,000 hours
Surface Temperature	Up to 50 deg C	65 deg C	Up to 80 deg C

UV Resistant

CABLED® uses of UV-protected material, no degradation and discoloring under direct sunlight, enhance product durability and lifetime.



Salt Water Resistant

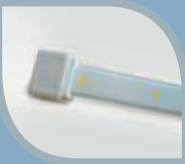
CABLED® is fully sealed off from water and uses anti-salt protection coating ensures product lifetime, enhance product durability and unlike many LED liner strip products in the market, it is free of harmful substances which is safe and reliable.



Salt Water Resistant Test


CABLED®

Result :
CABLED® 5000 sample is still in operation and without any material property change




Competitor Sample B

Result :
Salts condense on those affected parts




Competitor Sample A

Result :
Connectors are being oxidized because of electrolysis



Competitor Sample C

Result :
Connectors are being oxidized, electrolysis happened along the strip and the sample is no longer functioning within hours



*All tested samples claimed to be waterproof, tested using solution with salt concentration equivalent to that of sea water for 30 days.

Weather and Waterproof

CABLED® is ideal for all weathers and conditions. The Aquatic 5000 series is fully encapsulated and can be used for outdoor and underwater application.



Fire - Retardant

CABLED® tested & fulfilled glow wire flammability test at 650°C, providing extra level of fire safety for common areas, public transportation and hotels projects especially in those environments of higher fire risks.



*Ignited and withstand 650°C high temperature for 30 sec, the contact point ignited becomes non-combustible within seconds.



Surface Pressure Test

CABLED® tested with 200N / cm² on LED surface for one minute.



Sample A :
A number of LEDs are off.
CABLED®:
CABLED® 8000 still lights up and without any noticeable change.



FLEXI-PRO 8000 & HIGH BRIGHTNESS (HB)

The easiest and most versatile indoor and outdoor water resistant lighting solution up to 440 lumen per meter

PRODUCT FEATURES

- Water resistant**
conform to IP65 waterproof standard
- Ultra bright**
up to 440 lumen per meter
- Superior light**
high evenness of color and light spread
- Customized**
can be freely customized any length in multiple of 180mm

- Continuous run**
up to 25 meters (FLEXI - PRO 8000)

BENEFITS

- Flexibility and unique properties**
Lends itself to creative lighting design
- Easy installation**
Suitable for various mounting methods
- Safe**
Virtually unbreakable and free of harmful substance

IDEAL FOR

- Indoor**

 - Cove and contour lighting
 - Ambient shops
 - Backlighting for special situations where normally mounting a lighting fixture would be extremely difficult

Outdoor

 - Gardens
 - Facade
 - Architectural highlights
 - Pergolas
 - Patios
 - Landscape lighting

ACCESSORIES

- Bonding, linking, extending and adapting are the principal functions of the wide series of accessories which enhance the versatility of the CABLED® range of lighting strips.

Connectors

- Flexible Coupler**
4" / 6" / 12" / 24"
Model: C808-A/B/C/D
Part no.: 6 401 402 305 /
6 401 402 005 /
6 401 402 405 /
6 401 402 505
- PS-Link Connector**
Model: C801
Part no.: 6 401 401 805
- T-Connector**
Model: C804A
Part no.: 6 401 401 705
- 4 Way PS Splitter**
Model: C004
Part no.: 6 401 403 905
- X-Connector**
Model: C805A
Part no.: 6 401 401 805
- I-Connector**
Model: C802
Part no.: 6 401 401 505
- U-Connector**
Model: C803
Part no.: 6 401 401 605
- L-Connector**
Model: C806
Part no.: 6 401 401 905
- End Cap**
Model: C809
Part no.: 6 401 400 805 (Pack of 10)

Mountings (Also Applicable For Aquatic 5000)

- Channel Bracket**
Model: M10
Part no.: 6 401 500 105 (Pack of 10)
- Bridge Bracket**
Model: M11
Part no.: 6 401 500 205 (Pack of 10)
- Edge Bracket**
Model: M12
Part no.: 6 401 500 305 (Pack of 10)
- Garden Stake**
Model: M14
Part no.: 6 401 403 005 (Pack of 10)
- Channelling**
Model: M13
Part no.: 6 401 402 805 (Pack of 2)
- 1M/2M Aluminum Extrusion Single Slot Channelling**
Part no.: 6 401 405 405/
6 401 404 605
- 1M AL Extrusion 2-slot channel**
Part no.: 6 401 405 305 (Pack of 1)



Cove Indoor



Indoor Lightbox



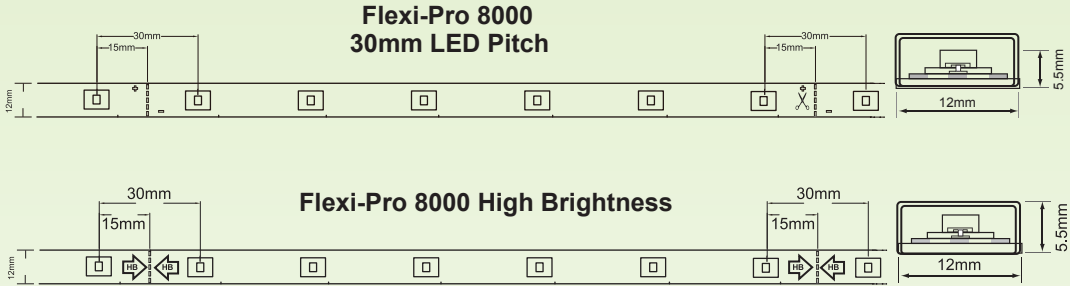
Garden Lighting



Facade Lighting

Product Dimensions & Specifications

FLEXI-PRO 8000 & HIGH BRIGHTNESS(HB)



Specifications					
Product Name	FLEXI-PRO 8000 LED Strips (30mm LED Pitch)			FLEXI-PRO 8000 High Brightness (HB) LED Strips (30mm LED Pitch)	
Model	C8K-A0-28L3B	C8K-A0-35L3B	C8K-A0-65L3B	C8K-A0-28M3B	C8K-A0-65M3B
Part No.	4037051305	4037050105	4037060105	4037283011	4037653011
Color	Warm White		Daylight	Warm White	Daylight
Color Temperature (CCT)	2800 K	3500 K	6500 K	2800 K	6500 K
Color Rendering Index (CRI)	80 Ra	80 Ra	72 Ra	80 Ra	72 Ra
Input Voltage	24V DC			24V DC	
Rated Current	154 mA			300 mA	
Lumen Output per meter	150 lm		180 lm	400 lm	440 lm
Total Power per meter	3.7 W			6.7 W	
Lumen Efficacy	41 lm/W		49 lm/W	60 lm/W	66 lm/W
Radiation Angle	110°			120°	
Minimum Bending Radius	100mm			100mm	
Maximum Connection Length [#]	25 m			10 m	
Life Span	35,000 hrs*				
Operating Temperature	-20°C ~ +50°C				
Storage Temperature	-25°C ~ +60°C				
Maximum Loading Force	10 kg				
Flammability	Flame Retardant				
Application	Outdoor				
IP Rating	IP65				
Dimmable	Yes				
RoHS	Yes				
Packing					
CABLED	25m per reel ^Δ			10m per reel ^Δ	
Mechanical					
Dimension	12 mm(W) x 5.5 mm(H)				
Segment Length	18 cm				
Number of LEDs	6 per segment				
LED Pitch	30 mm				
Weight	100 g/m				
Material	UV/IR protected PVC, RoHS Compliant			UV/IR protected TPU, RoHS Compliant	

* The designed lifetime is under 24V DC at top 25°C, with 70% lumen maintenance. ^Δ Please contact our representative for packing detail.



LED Driver for CABLED®

Specifications				
				
Product Name	LED Driver 24V DC 18 W	LED Driver 24V DC 30 W	LED Driver 24V DC 60 W	LED Driver 24V DC 100 W
Part No.				
(UK/HK plug)	5420101817	5421103017	5422106017	5423110017
(Australia plug)	5424101817	5425103017	5426106017	5427110017
(Europe plug)	5432101817	5433103017	5434106017	5435110017
(Europe & Asia without plug)	5440101817	5441103017	5442106017	5443110017
Input Voltage	100-240V AC			
Rated Current	0.3A		0.4A	0.6A
Rated Frequency	50/60Hz			
Output Voltage	24V DC			
Output Current	0.75 A max.	1.25 A max.	2.5 A max.	4.16 A max.
Rated Power Output	18W max.	30W max.	60W max.	100W max.
Efficiency	80%	80%	82%	82%
Power Factor	>0.8		>0.9	
Operating Temperature	-20°C ~ +50°C			
Driving Length (30mm LED pitch)	≤4.5m	≤7.5m	≤15m	≤25m
IP Rating	IP67			
Dimension (L x W x H)	120 x 35 x 28 mm	148 x 45.6 x 35 mm	185 x 53 x 40 mm	185 x 53 x 40 mm
Packing	Pack of 1			

Please check the part no. of respective plug with your local sales representative.

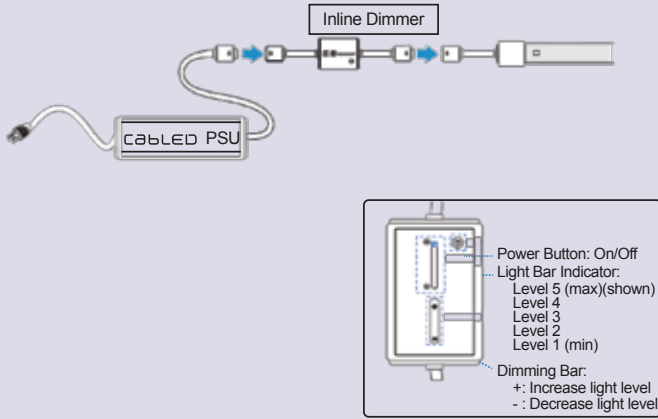


Dimming Solution for CABLED®

Specifications	Home Application
Product Name	Inline Dimmer
Part No.	6401404105
Input Voltage	24V DC
Standby Current	15mA
Input Current	4A/25m
Input Power	100W/25m
Max. Connection Length with a Single PSU	25m
Operating Temperature	-20°C ~ 50°C
Storage Temperature	0°C ~ 80°C
Application	Indoor / Outdoor
IP Rating	IP65
Dimension (L x W x H)	78.5 x 50 x 23mm
Packing	Pack of 1



Wiring Diagram Examples



Wiring Diagram for Inline Dimmer

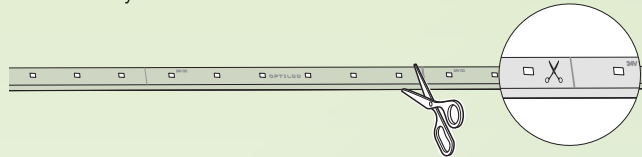
For more information, please refer to the product instruction manual

General Installation Procedure

Step 1 Cut CabLED® Strip

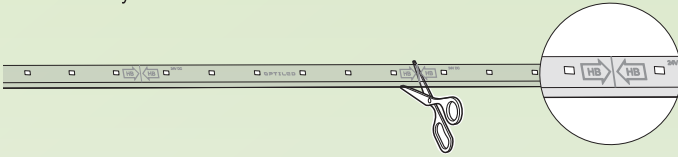
Cut CabLED® 8000 Strip

Cut CabLED® strip to desired length along the cut mark indicated every 18cm / 7inches.



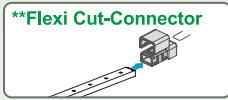
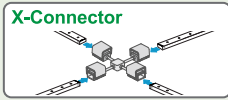
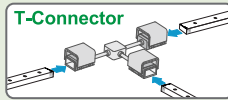
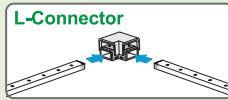
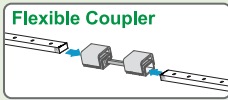
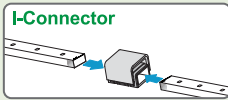
Cut CabLED® 8000 High Brightness (HB) Strip

Cut CabLED® strip to desired length along the cut mark indicated every 18cm / 7inches.



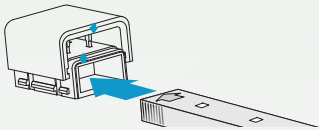
Step 2 Install Connectors

A With the LED side facing up, slide one CabLED® strip into the opening in bottom half of one side of the connector until it reaches the end. Repeat with the other CabLED® strips in the other sides of the connector if required.



The wiring connection of the light chain should be carried out by qualified person. All connectors only use once.

B Make sure all notches and arrow mark on CabLED® are fully inserted inside the connector.

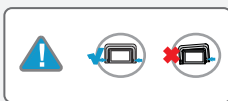
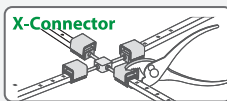
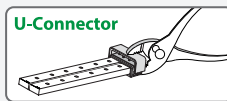
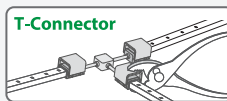
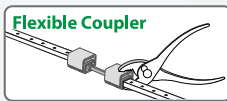
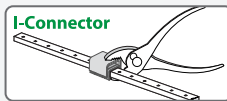


** Not compatible with In-line dimmer & it is for Cabled 8000 only.



Slide until all notches and arrow mark is fully covered.

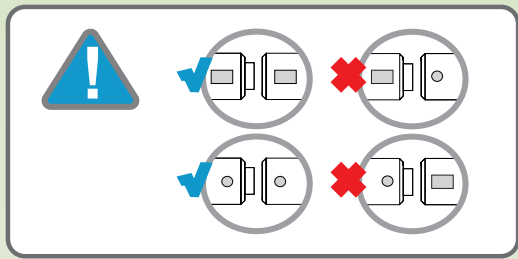
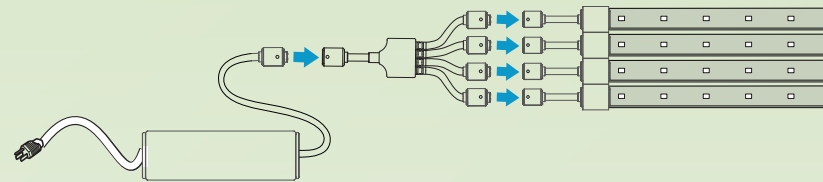
C Using pliers, apply even pressure to the bottom and top halves of the connector to push connector together, securing CabLED® strip inside.



OR

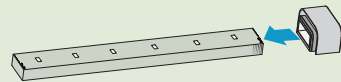
Install 4 Way Power Splitter

Match the icons on each PS-Link Connector with the icons on the 4 Way Power Splitter. Repeat the same connection method with the power supply and the 4 Way Splitter.



Step 3 Install End Cap

Slide End Cap onto CabLED® strip that will have no connector. The End Cap protects the CabLED® strip.



Slide until all notches and arrow mark is fully covered.

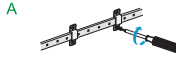
Step 4 Choose Your Mounting Option

Model	Description
Bridge Bracket M11	Holds CabLED® strip securely in place using two screws.
Channel Bracket M10	It installs easily with one screw and is barely visible after CabLED® strip is snapped into place.
Channeling M13	CabLED® strip snaps securely into channeling that runs the length of the installation.
Edge Bracket M12	Use for flush mount installations such as along a baseboard. Suitable for use in high traffic areas.
Garden Stake M14	Use for outdoor ground installations. Holds the CabLED® above ground so it will not be submerged in water and adjusts to direct the angle of light from 0 to 135 degrees. May be used with Channeling.
M2.9 (#4) screw is recommended	

Mark Placement for Brackets



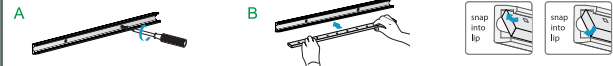
Install Bridge Bracket



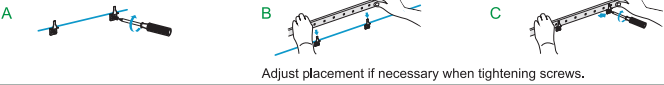
Install Channel Bracket



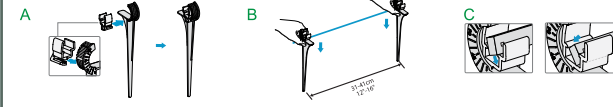
Install Channeling



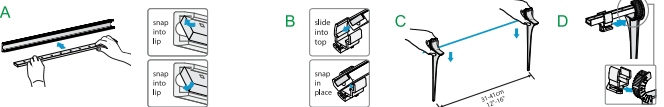
Install Edge Bracket



Install Garden Stake



Install Garden Stake With Channeling



AQUATIC 5000

Waterproof and weather resistant - Ultra bright up to 440 lumen per meter, warm or cool color temperature for outdoor or underwater lighting

PRODUCT FEATURES



Underwater
fully encapsulated
for underwater
applications



Ultra bright
up to 440 lumen
per meter
(Aquatic 5000 HB)



Continuous run
up to 25 meters
(Aquatic 5000)



Waterproof
conforms to IP68
waterproof standard



Superior light
high evenness of
color and light spread

BENEFITS

- Supplied with custom - designed aquatic holding clips
- Highly effective marine adhesive
- Custom-made terminals for multiple connections

IDEAL FOR

- Marina pontoon lighting
- Bath and shower lighting
- Swimming pool lighting
- Fish pond lighting
- Fountain and waterdisplay lighting
- Waterway lighting
- Aquarium lighting
- Spa lighting



AQUATIC 5000



Marine Lighting



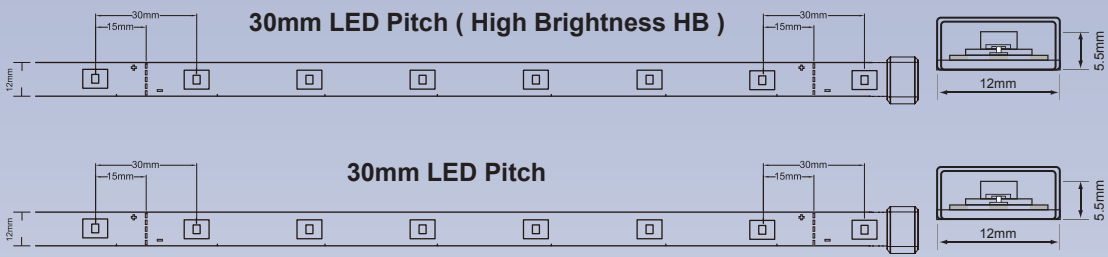
Marine Lighting



Refrigerator Lighting

Product Dimensions & Specifications

AQUATIC 5000



Specifications				
Product Name	Aquatic 5000 High Brightness LED Strips [*]		AQUATIC 5000 LED Strips (30mm LED Pitch)	
Model	C5K-A0-28M3B	C5K-A0-65M3B	C8K-A0-35L3B	C8K-A0-65L3B
Part No.	4036283012	4036653012	4036050105	4036060105
Color	Warm White	Daylight	Warm White	Daylight
Color Temperature (CCT)	2800 K	6500 K	3500 K	6500 K
Color Rendering Index (CRI)	80 Ra	72 Ra	80 Ra	72 Ra
Input Voltage	24V DC		24V DC	
Rated Current	55 mA		154 mA	
Lumen Output per meter	400 lm	440 lm	150 lm	180 lm
Total Power per meter	6.7 W		3.7 W	
Lumen Efficacy	55 lm/W	60 lm/W	41 lm/W	49 lm/W
Radiation Angle	100°		110°	
Maximum Connection Length	10 m		25 m	
Life Span	35,000 hrs*			
Operating Temperature	-20°C ~ +50°C			
Storage Temperature	-25°C ~ +60°C			
Maximum Loading Force	10 kg			
Minimum Bending Radius	100 mm			
Flammability	Flame Retardant			
Application	Outdoor			
IP Rating	IP68^			
Dimmable	Yes			
RoHS	Yes			
Packing				
CABLED	18 cm per segment [#]			
Mechanical				
Dimension	12 mm (W) x 5.5 mm (H)			
Segment Length	18 cm			
Number of LEDs	6 per segment			
LED Pitch	30 mm			
Weight	100 g/m			
Material	UV/IR protected TPU, RoHS Compliant			

^{*} The designed lifetime is under 24V DC at top 25°C, with 70% lumen maintenance
[#] Tailor-made for special projects.

[^] Once the light strip is cut, IP68 is no longer applicable

★ While stock lasts

