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PCB High Power White G4

The liniLED® PCB High Power LED strip (IP00) is a high quality, flexible LED strip equipped with 3M adhesive tape. Thanks to its small dimensions the PCB LED strip is ideal for usage in small (indoor) spaces.

In order to power liniLED® products safely, it is necessary to operate them with an electronically stabilized power supply protected against short circuits, overload and overheating.

To ease the luminaire/installation approval, electronic control gear for liniLED® products should carry the CE mark. Preferably a controller from the liniLED® Control range. In Europe, the declarations of conformity must include the following standards: CE: EN 55015, IEC 61547 and IEC 61000-3-2.

For the latest version of this datasheet, visit our website: www.liniLED.com

USPs

Up to 2 SDCM ellipse
Extra long lifetime – 60,000 h (L80/B10)
Internal constant current regulator
Excellent lumen/Watt ratio
Single piece reel-to-reel technology
Made in Europe

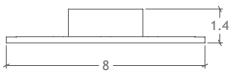
Available colours

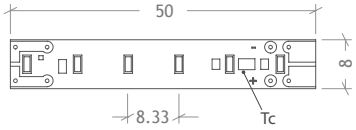
Colour	Description
Extra Warm White 2700K	liniLED® PCB High Power 2700K G4
Warm White 3000K	liniLED® PCB High Power 3000K G4
Natural White 4000K	liniLED® PCB High Power 4000K G4
Cold White 6500K	liniLED® PCB High Power 6500K G4

Technical specifications

	Extra Warm White 2700K HP G4	Warm White 3000K HP G4	Natural White 4000K HP G4	Cold White 6500K HP G4
Product code [m]	12252	12253	12254	12255
Power (24V DC)	7.7 W/m	7.0 W/m	7.0 W/m	7.0 W/m
Power (25V DC)	8.0 W/m	7.3 W/m	7.3 W/m	7.3 W/m
CCT[1]	2750K	3065K	4030K	6740K
CRI	>80	>80	>80	>80
Luminous flux[1]	800 lm/m	800 lm/m	800 lm/m	800 lm/m
Luminous efficiency[1]	104 lm/W	114 lm/W	114 lm/W	114 lm/W
Spool length	Max. 50 m			
Section length	50 mm			
LED type	3014			
Number of LEDs	6 per section/120 per metre			
Max. connection length	10 m			
Min. operating voltage	23V DC			
Max. operating voltage	25V DC			
Beam angle	120°			
Dimensions	8 x 1.4 mm			
Dimmable	PWM dimming, 24V DC Common Anode			
MacAdam Steps	3 steps			
Weight	9 gram per metre			
Expected lifetime	L80/B10 > 60,000 hrs @ Tc = 40°C			
Ingress protection	IP00			
Storage temperature	-40°C … 80°C			
Operating temperature[2]	-30°C … 75°C			
Minimum bending radius	20 mm			

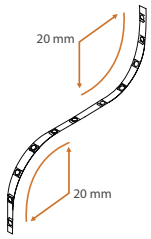
[1] Typical values are given, which due to tolerances in components and production process can vary up to 10%.
[2] Max. connection length between -30°C and -20°C is 7 metres.

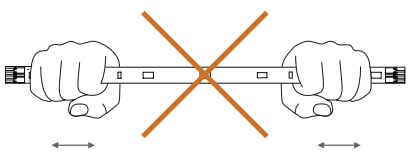


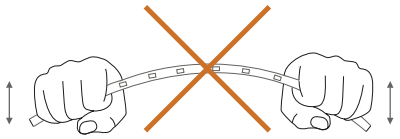


Bending radius

Maximum bending radius is 20 mm. Solely bend up or downward. Do not compress, stretch or bend the LED strip sideways.



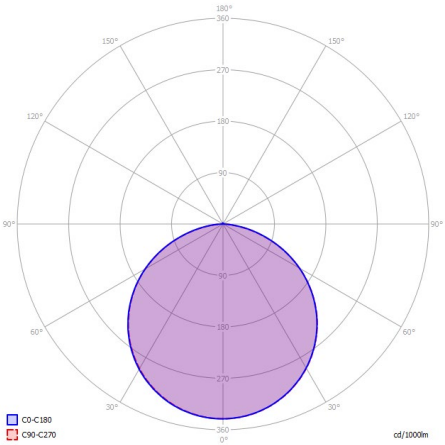




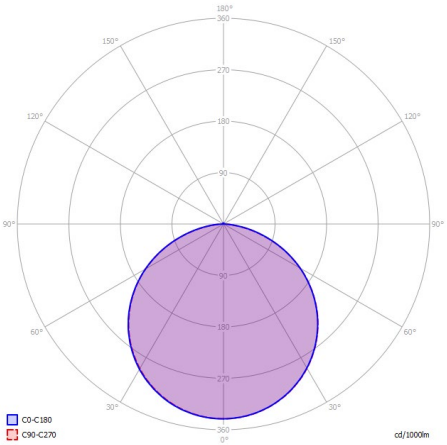
Photometric information

In the process of lighting design and calculations, the luminous flux and beam angle alone are not enough information to create a representative and realistic calculation or render. There is one set of photometric files for a one metre length of LED strip and one for a segment length, that corresponds to the cutting length of each LED strip type. Using the one metre data, quick calculations and long lengths can be simulated with photometric software. The segment data allows very detailed simulations, even curved lines can be approached in high detail.

The information on the website is available in two different file formats:
- Eulumdat (.ldt)
- IES LM-63-1995 (.ies)



WW 3000K HP G1



NW 4000K HP G1

Power consumption

To power the liniLED® LED strips and lighting fixtures, a power supply from the liniLED® Power assortment can be selected. Selection of the correct power supply must be done by taking the total requested power and the environment into account.

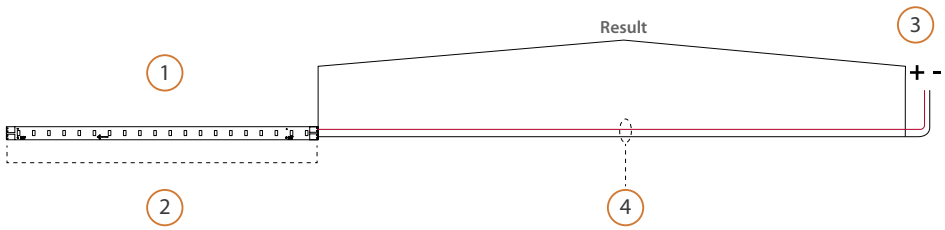
The total power consumption can be calculated by summing the requested power of all connected products. To calculate the power consumption of a single length of LED strip, use the equation below. The typical equation is valid if the product is supplied by a 24 V DC constant voltage power supply. If the output voltage of a power supply is increased, the power consumption will increase with the same ratio and needs to be corrected by using the optional part of the equation found between brackets.

$$P_{STRIP} = P_{PRODUCT} \times X_{LENGTH} \times 110\% \left[\times \frac{U_{SUPPLY}}{24} \right]$$

P_{STRIP}	Calculated power consumption of one LED strip in Watt
$P_{PRODUCT}$	Typical power consumption in Watt per metre of the selected LED strip This value can be found under 'Product characteristics' on page 2
X_{LENGTH}	Length of the connected LED strip in metres
110%	Safety margin to buffer differences over all production batches
	Optional:
U_{SUPPLY}	Set supply voltage of the power supply in Volt
24	Nominal supply voltage of liniLED® in Volt

Maximum cable length

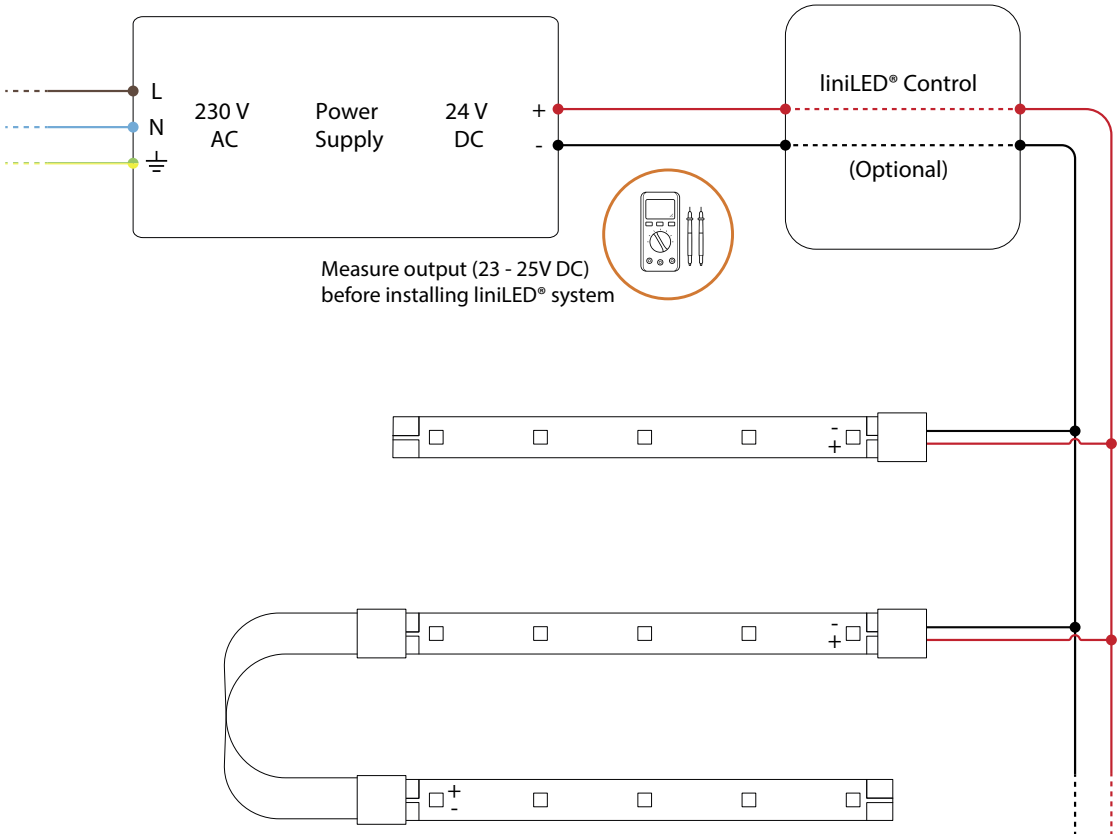
1 = Select colour temperature.
2 = Select LED strip length.
3 = Select output voltage.
4 = Select cable cross section.
Result = Maximum cable length based on the cable thickness and power supply voltage.



1. Colour temperature		3000K							
2. LED strip length		1 m		2 m		5 m		10 m	
3. Voltage		*24 V DC*	*25 V DC*	*24 V DC*	*25 V DC*	*24 V DC*	*25 V DC*	*24 V DC*	*25 V DC*
4. Cable cross section	**0.50 mm²** - 0.035 Ω/m	42.9 m	83.7 m	20.8 m	41.2 m	7.5 m	15.7 m	3.1 m	7.2 m
	0.75 mm² - 0.023 Ω/m	64.6 m	125.9 m	31.3 m	62.0 m	11.3 m	23.6 m	4.7 m	10.8 m
	1.00 mm² - 0.018 Ω/m	85.9 m	167.4 m	41.7 m	82.4 m	15.1 m	31.4 m	6.2 m	14.4 m
	1.50 mm² - 0.012 Ω/m	129.3 m	251.8 m	62.7 m	124.0 m	22.7 m	47.2 m	9.4 m	21.7 m
	2.50 mm² - 0.007 Ω/m	215.2 m	419.2 m	104.4 m	206.3 m	37.9 m	78.6 m	15.7 m	36.1 m

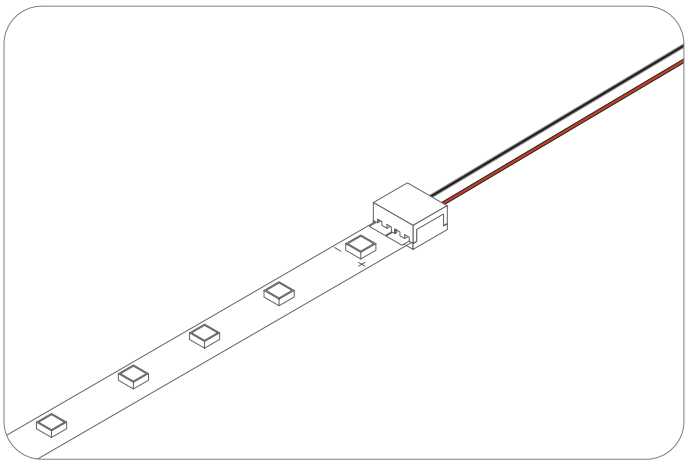
⚠ **Note:** Calculations are based on a standard connector with 1 metre cable (0.5 mm²).

Power and connection diagram



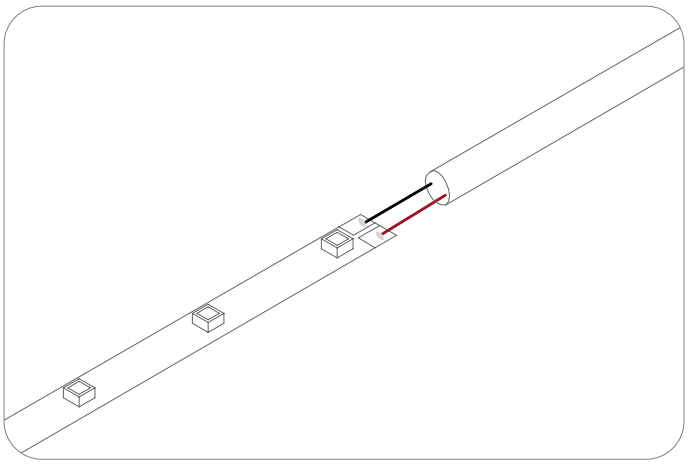
Area advice

Depending on the area where the liniLED® LED strip is installed we offer a range of solutions to cope with external factors. The product portfolio for the liniLED® PCB LED strip includes an IP00 connector.



Indoor environment | **(IP00)** | liniLED® PCB Connector Set

Product code: 11808



Indoor environment | **(IP00)**

Solder

Symbols

Electro Static Discharge (ESD) sensitive device, apply standard ESD precautions when handling the product.

Manufacturer's declaration that the product meets the applicable EC directives.

Suitable for mounting on all surfaces and suitable to cover with insulating material.

Restriction of Hazardous Substances (RoHS): product complies with the RoHS directive and each homogeneous material does not exceed the limits for the materials mentioned under the RoHS directive (Pb, Hg, Cd, Cr6+, PBB and PBDE).

Not protected against ingress of solid foreign objects. Not-protected against ingress of water.

Bending of the LED strip is possible with a radius of ≥ 20 millimetres in the specified direction.

Electrical appliance class III: this product is designed to be supplied from an extra-low voltage (≤ 60.0 V DC or ≤ 42.4 V AC).

System guarantee of 5 years when the complete system consist of liniLED® products with the 5 years system warranty logo.
Terms & conditions apply.

Operating voltage of 24 V DC.

White colour consistency up to 2 SDCM ellipse over an entire single strip length. LEDs used are single BIN 3 SDCM ellipse, but their careful combination in a LED strip during the production process, results in a mixed light through a diffusive material which is within a 2 SDCM ellipse (probability >90%). Due to variability this is not legally binding. The guaranteed colour consistency can be found in the technical specifications.

Disclaimer