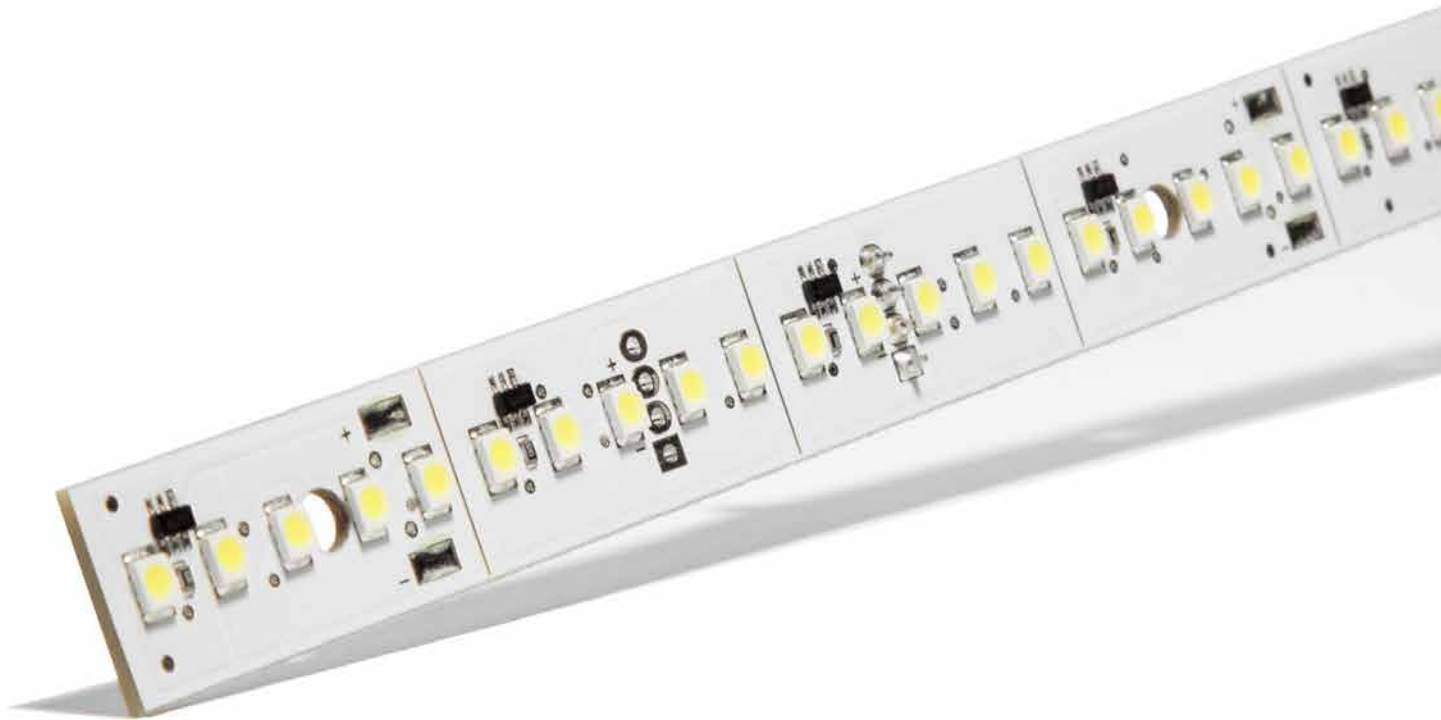


# LED-Strip L6 MK2

Product Sheet



# Introduction

## FEATURES

- System compatible with other series from Schnick-Schnack-Systems
- Made in Germany

- High-quality LEDs
- Even colours thanks to best possible degree of sorting (ANSI batch selected)
- Wide emission angle 115°
- Dimmable in a way suitable for cameras
- Linear light dimming, also for stageless control in the lower intensity range, using patented Lehmann-Modulation
- Even brightness despite various supply line lengths due to integrated linear regulator
- Enough "headroom" for longer durability

- Can be directly connected to 24V DC

- Low surface temperature
- With connected (through hole) plug connectors
- Extremely robust and reliable
- Various mounting options

## Use

The LED-Strips L are equipped with high-quality, efficient single-colour or white LEDs. The LEDs can be activated in blocks. Thus, they are the ideal LED light source for applications for which only one solid light colour is needed. The LED-Strips L6 are used in, amongst other things, architecture (e.g. accents on walls, floors, counters/bars, decoration elements), in backlighting for light boxes and stretch ceilings, in light pens and in trade fair appearances.

## Technology

The LED-Strips L6 are available in seven colours:

- Warm white (2700K, 3000K, 3500K)
- Neutral white (4000K)
- Cold white (5000K, 5700, 6500)

The LED strip L6 is available in a length of 125mm, 250mm and 500mm equipped with 20, 40 or 80 LEDs in a pitch of 6,25mm. Due to the practical dimensions, the LED strips can follow almost every curve and bending.

The distance between the individual LEDs is dimensioned in a way that results in homogenous illumination. Thanks to the Lehmann-Modulation, stageless brightness control is also possible in the lower intensity range, as is (flicker-free) dimming that is suitable for cameras.

When using diffusers, the distance needed to create a homogeneous surface depends on the material. There should be at least 1cm from the top side of the LED to the diffuser.

The LED strips are mounted with board holders.

## Control

The LED-Strips L6 MK2 are activated via the Long Distance Controller, the Sys One or System Power Supplies 4 and 4E with a Big Intelli XLR. In terms of small installations, the LED-Strips can also be activated via a corresponding power supply and – if dimmability is desired – with a Big Intelli Monochrome.

The LED-Strips L6 MK2 are plug-compatible with the existing RGB LED system from Schnick-Schnack-Systems: Each of the three RGB channels is used to activate the LED-Strips L. By using special cross cables, each LED-Strips in a section can be assigned to a channel. So the structure is simple. Thanks to the cross principle RGB controller can be used sustainably for monochrome LED strips. Thanks to the integrated current regulator, even long power lines do not result in a decrease in brightness on the strip.

# Mechanical data

Features	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
Length	125mm	250mm	500mm
LED-Pitch	6,25mm	6,25mm	6,25mm
Number of LEDs	20	40	80
Pin connection and -colour	System connector blue	System connector blue	System connector blue
Safety class	IP00	IP00	IP00
Weight	10g	16g	29g



LED-Strip L6-125 (front view)



LED-Strip L6-125 (rear view)



LED-Strip L6-250 (front view)



LED-Strip L6-250 (rear view)

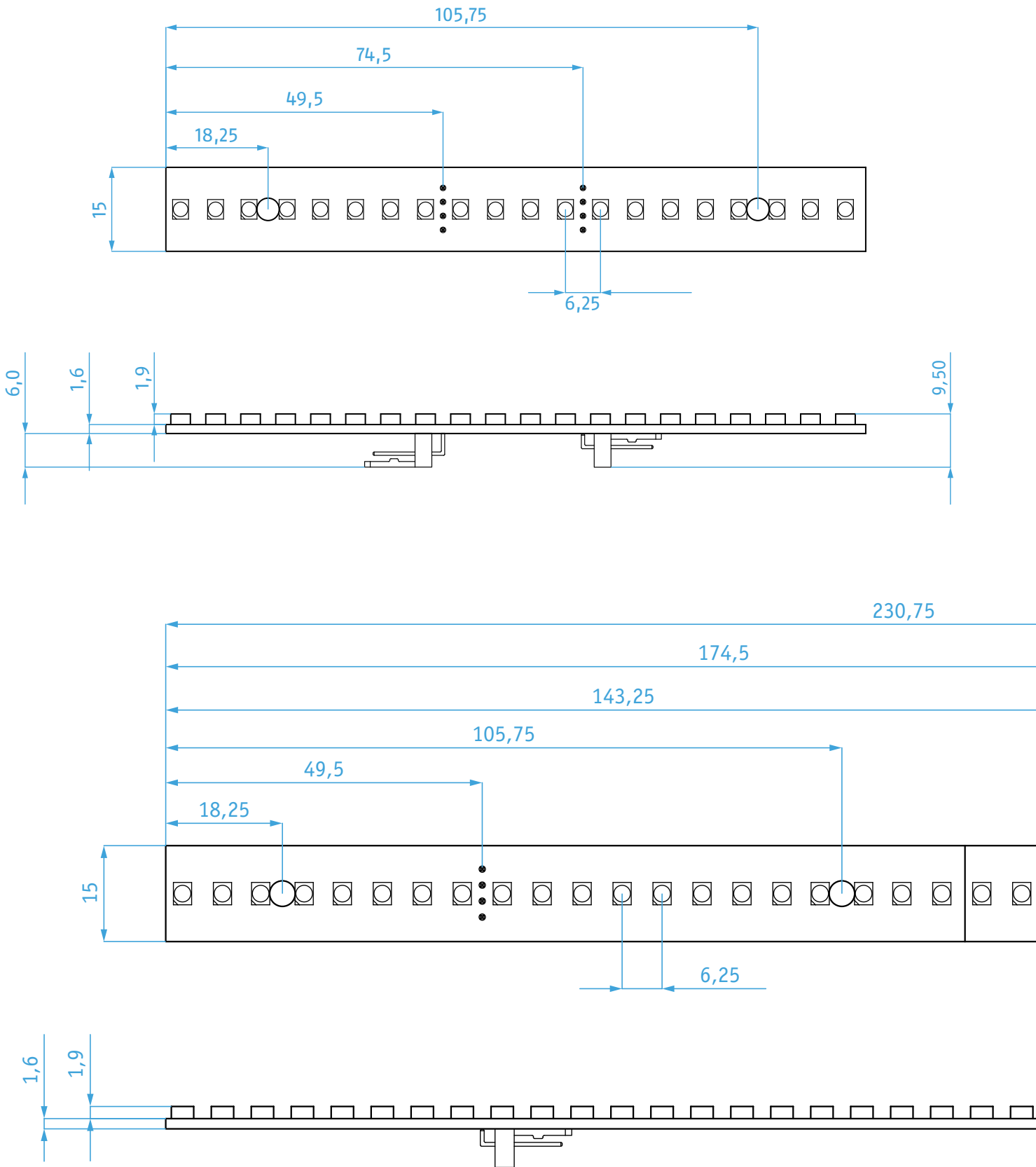


LED-Strip L6-500 (front view)

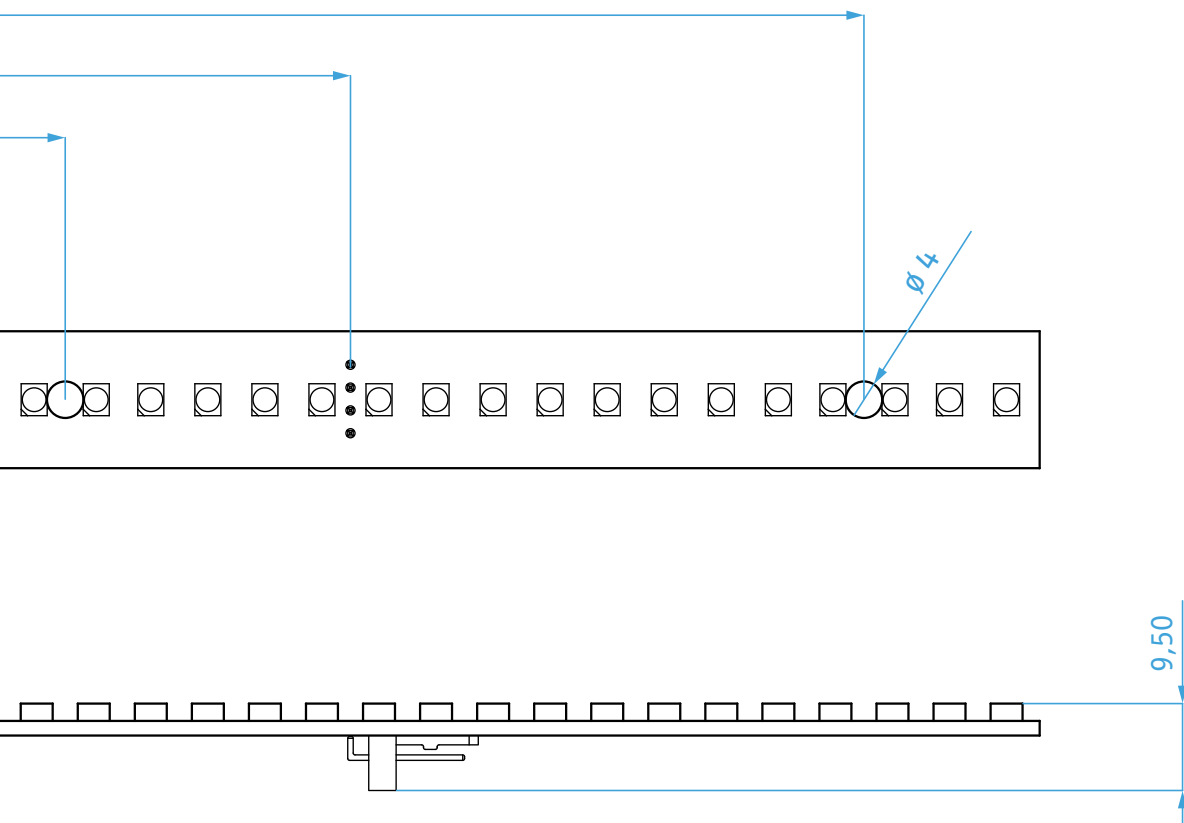


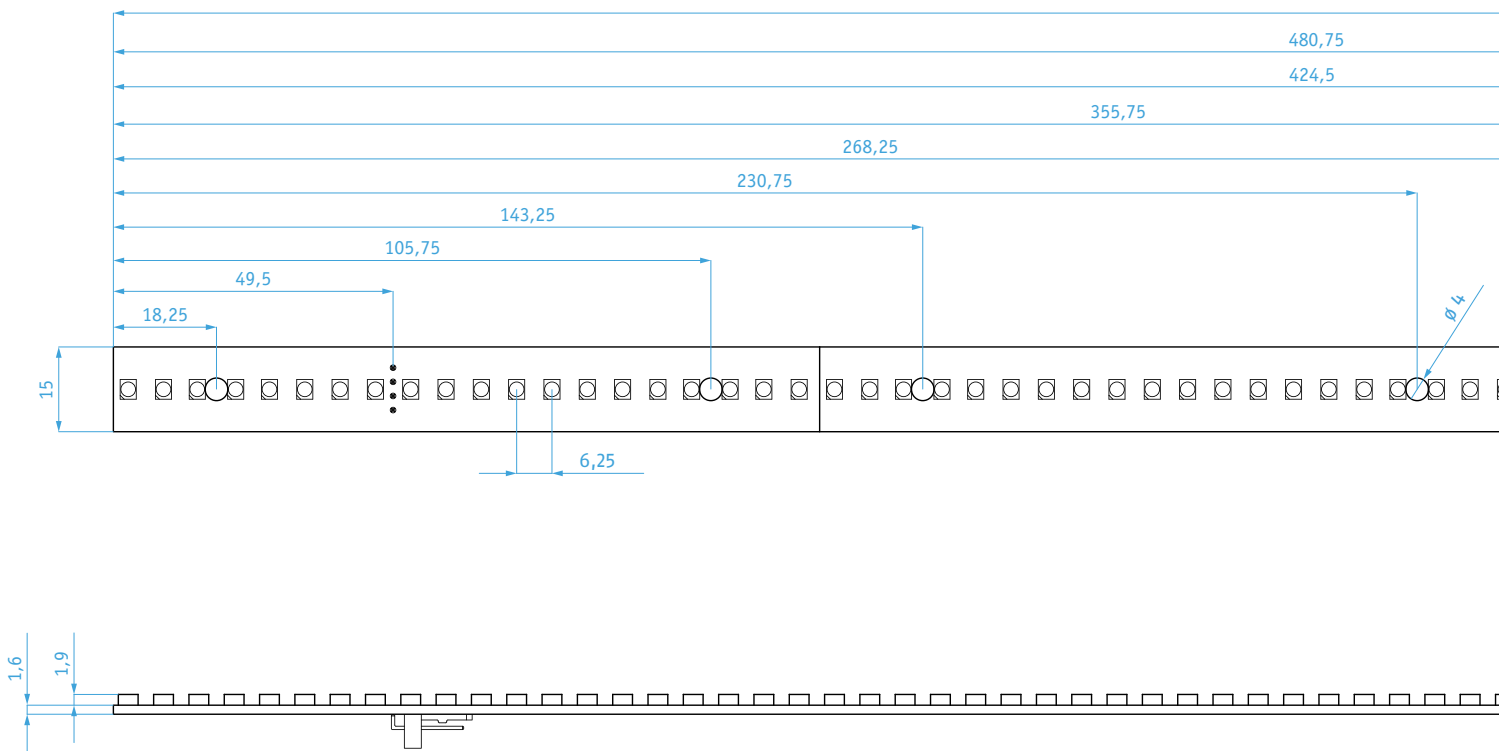
LED-Strip L6-500 (rear view)

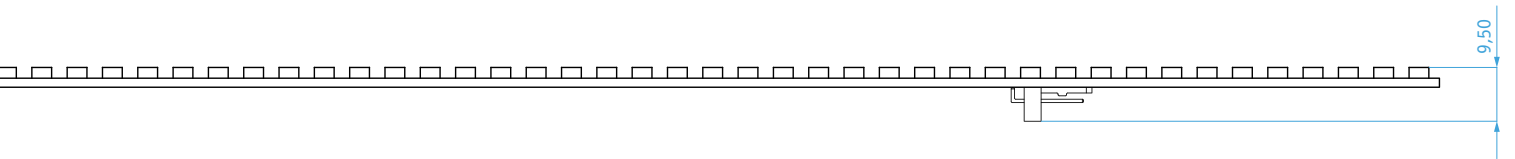
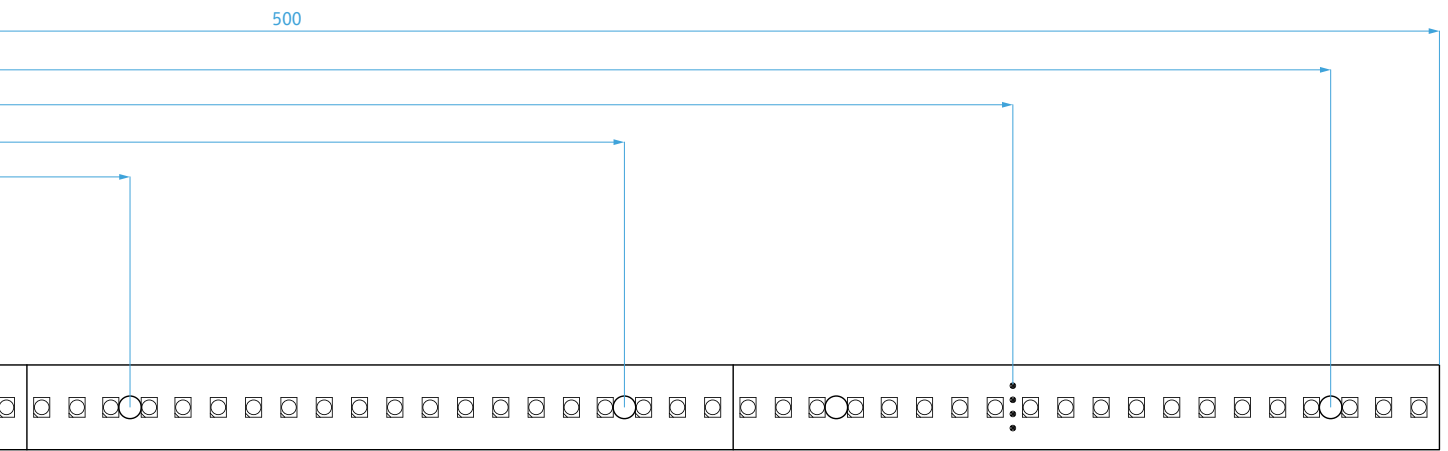
# CAD drawing\*



\* without scale / all units in mm







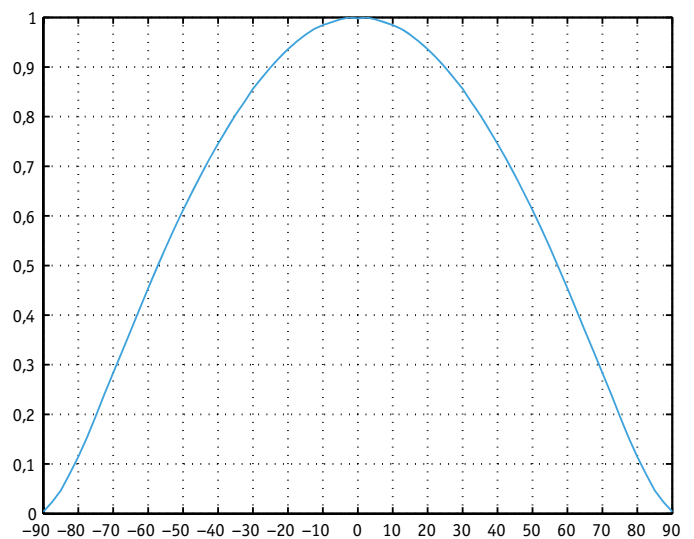
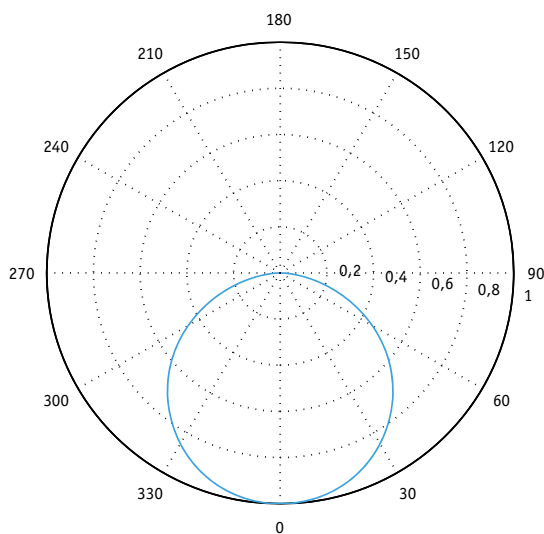
# Optical Data

Features	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
Colour	6500K**	6500K**	6500K**
	5700K	5700K	5700K
	5000K	5000K	5000K
	4000K	4000K	4000K
	3500K	3500K	3500K
	3000K	3000K	3000K
	2700K	2700K	2700K
Emission angle	115°	115°	115°
Lighting current	116lm*	232lm*	466lm*
Efficiency (at 20V)	ca. 65lm/W*	ca. 65lm/W*	ca. 65lm/W*
Colour reproduction $R_a$	ca. 80*	ca. 80*	ca. 80*
Light intensity	40cd*	80cd*	160cd*

## Distance/Lux table

Distance	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
0,5m	160lx*	320lx*	640lx*
1m	40lx*	80lx*	160lx*
2m	10lx*	20lx*	40lx*

## Light distribution curves

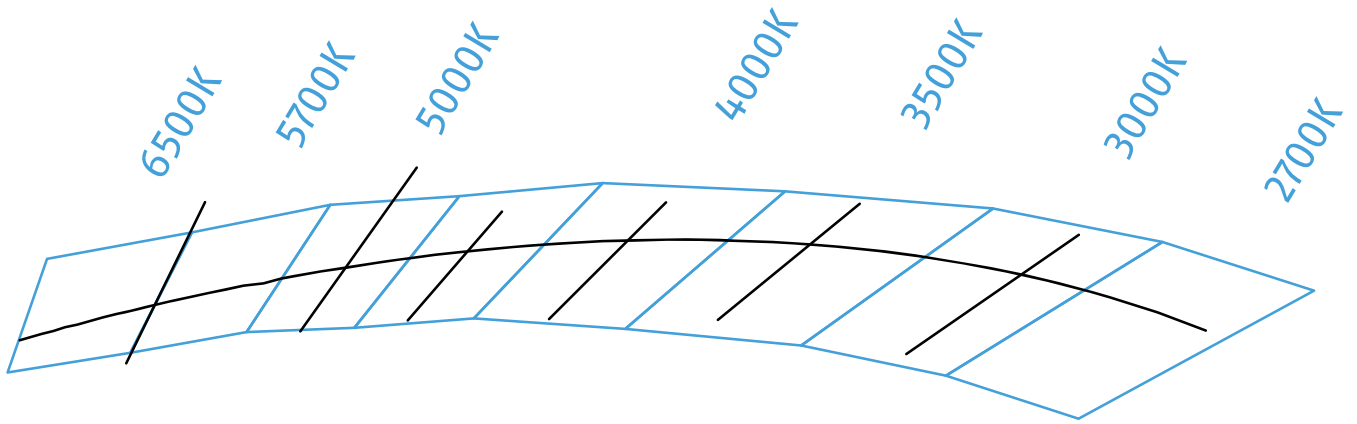


\*The data provided are measured values. As these values are subject to fluctuations, the actual values of the delivered LEDs may deviate from them. The photometric values were measured using an LED-Strip L6-125 in white (red, green, blue and amber on request).

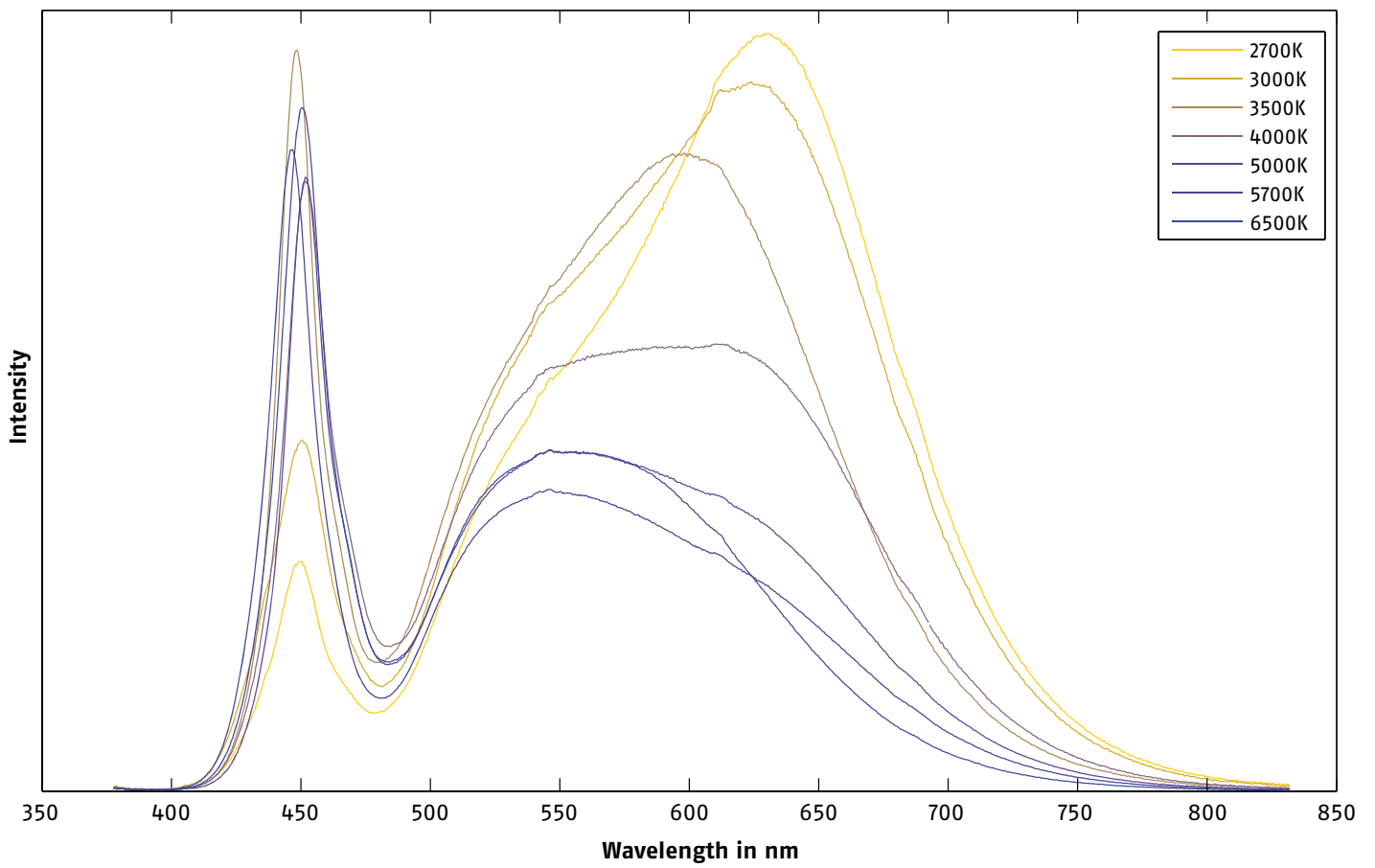
\*\* For 6500K the  $R_a$  is at least 70



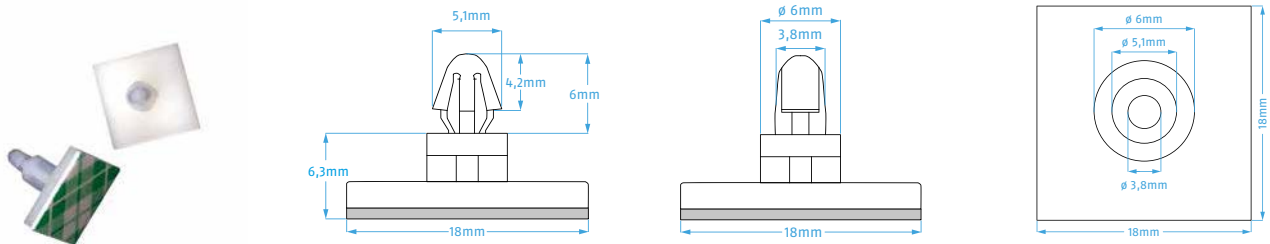
### Binning (ANSI)



### Spectral distribution



# Mounting

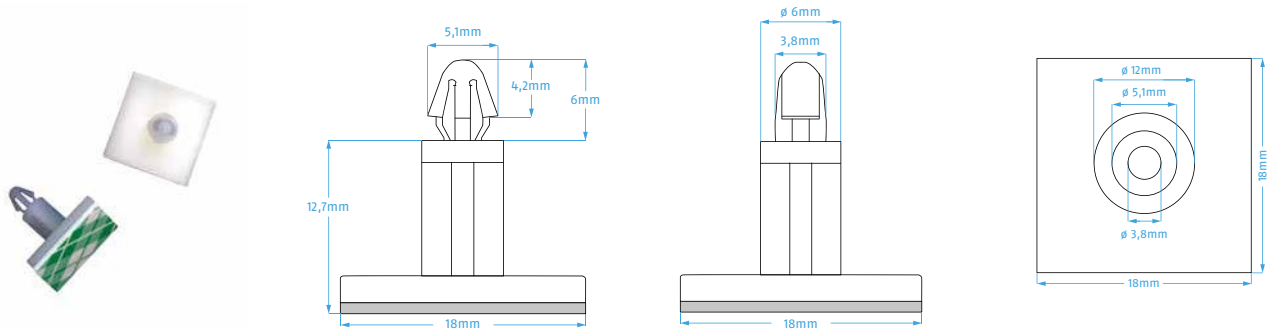


**Description**

PCB holder 6mm, self-adhesive version

**Item number**

802.0001

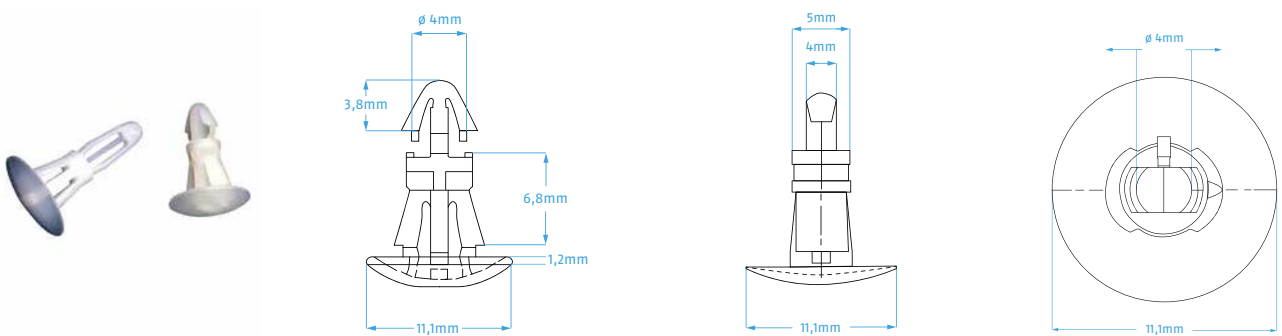


**Description**

PCB holder 12mm, self-adhesive version

**Item number**

802.0002



**Description**

PCB holder 6mm, plug-in version (for plates)

**Item number**

802.0003

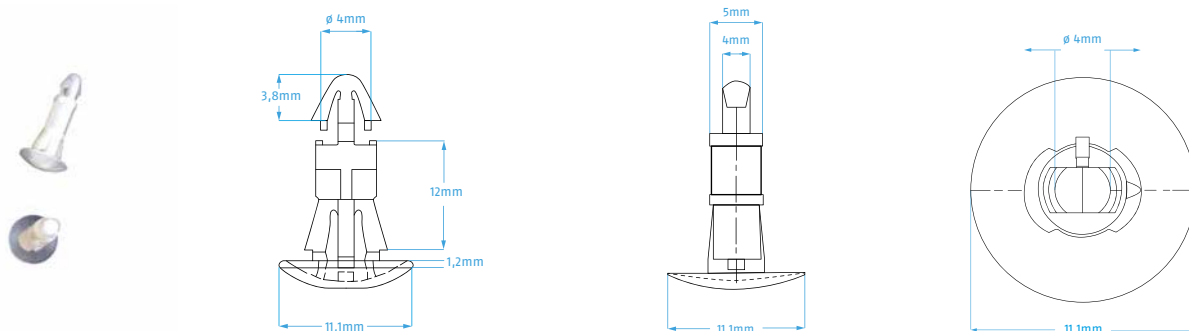
**Drill hole**

5,4mm

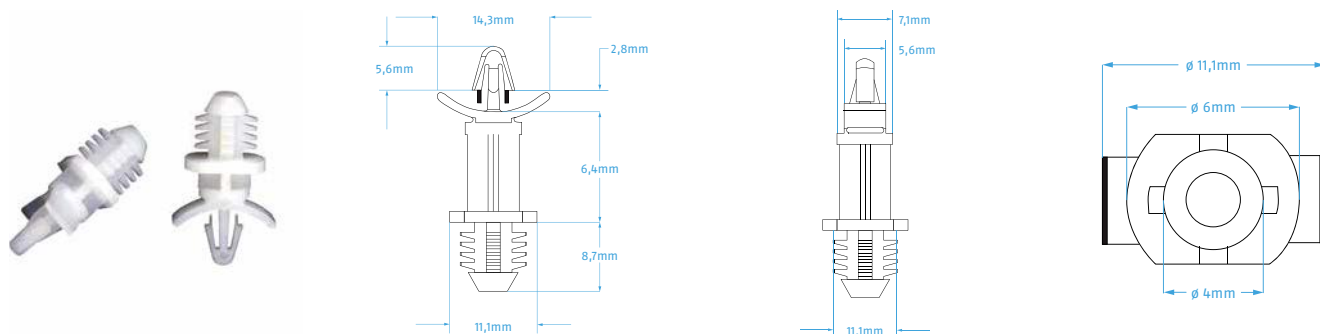
**Material thickness**

1,5-1,6mm

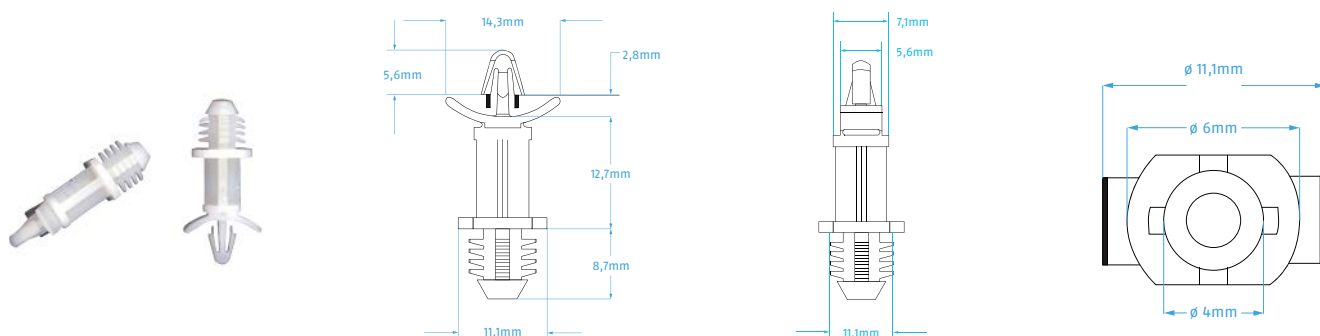
LED-Strips L with soldered Intelligence need PCB holders with a height of at least 12mm.



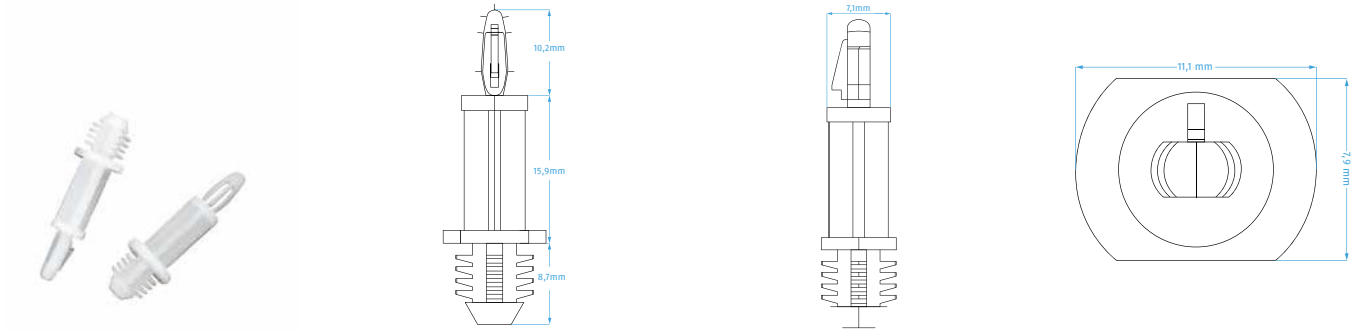
Description	Item number	Drill hole	Material thickness
PCB holder 12mm, plug-in version (for plates)	802.0004	5,4mm	1,5-1,6mm



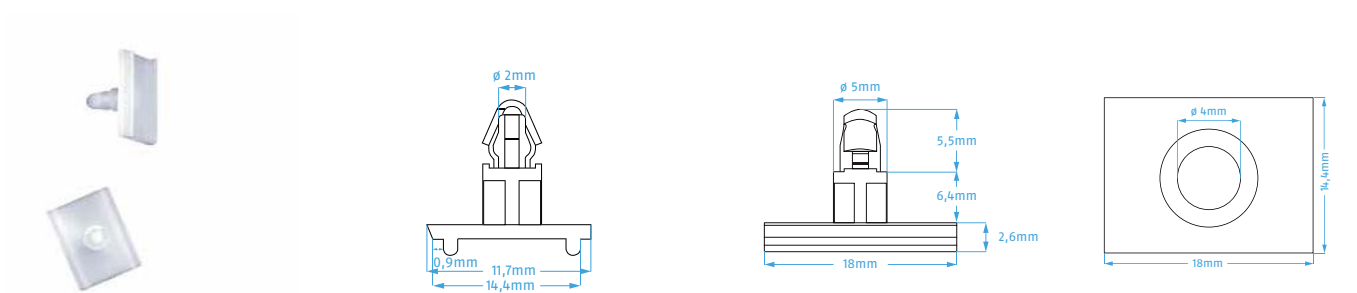
Description	Item number	Drill hole	Material thickness
PCB holder 6mm, drill version (for wood or plastic)	802.0006	7,9mm	minimum 6,4mm



Description	Item number	Drill hole	Material thickness
PCB holder 12mm, drill version (for wood or plastic)	802.0007	7,9mm	minimum 6,4mm



Description	Item number	Drill hole	Material thickness
PCB holder 16mm, drill version (for wood or plastic)	802.0008	7,9mm	minimum 6,4mm

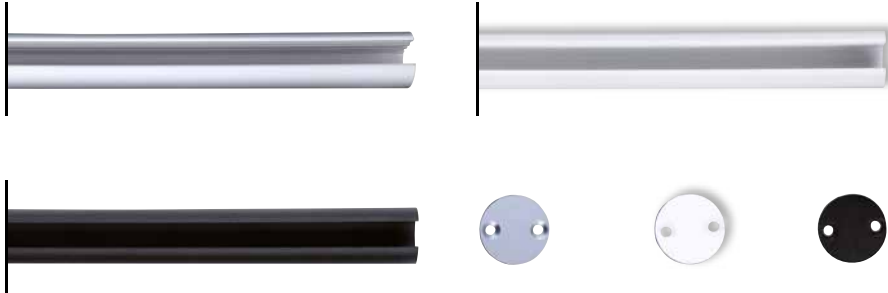


Description	Item number
PCB holder 6mm, plug-in version (for click-profile)	802.0009

LED-Strips L with soldered Intelligence need PCB holders with a height of at least 12mm.

# Accessoires

## Cylindrical profiles



Cylindrical profiles	Item number
Cylindrical profile, 2m, ø 25mm, aluminium anodised	804.2504
Cylindrical profile, 2m, ø 25mm, white	804.2505
Cylindrical profile, 2m, ø 25mm, black	804.2506

Bracket	Item number
Bracket for cylindrical profile (white)	802.0037
Bracket for cylindrical profile (transparent)	802.0038
Bracket for cylindrical profile (black)	802.0039

Covering	Item number
Covering for cylindrical profile 2m, transparent	804.2594

Head ends	Item number
Head end aluminium natural, lasered, 2mm thin, including screws	804.2520
Head end aluminium, rotated, anodised, 12mm width, including screws	804.2541
Head end aluminium, rotated, anodised, 12mm width, with cable outlet, including screws	804.2551
Head end white, lasered, 2mm thin, including screws	804.2522
Head end white, rotated, 12mm width, including screws	804.2542
Head end white, rotated, 12mm width, with cable outlet, including screws	804.2552
Head end black, lasered, 2mm thin, including screws	804.2523
Head end black, rotated, 12mm width, including screws	804.2543
Head end black, rotated, 12mm width, with cable outlet, including screws	804.2553

Special lengths and colours available upon request. For special colours please provide relevant RAL-information.

## Rectangular profiles



Rectangular profiles	Item number
Rectangular profile, 2m, 24mm × 30mm (W × H), aluminium anodised	804.2401
Rectangular profile, 2m, 24mm × 30mm, aluminium anodised, in pack of ten	804.2411
Rectangular profile, 2m, 24mm × 30mm (W × H), white	804.2402
Rectangular profile, 2m, 24mm × 30mm (W × H), white, in pack of ten	804.2412
Rectangular profile, 2m, 24mm × 30mm (W × H), black	804.2403
Rectangular profile, 2m, 24mm × 30mm (W × H), black, in pack of ten	804.2413

Brackets	Item number
Bracket for rectangular profile, 2m, plastic, black	802.0040
Bracket for rectangular profile, 2m, plastic, black, in pack of ten	802.0041

Click profile	Item number
Click eachfile for rectangular profile, 2m, transparent	804.2492
Click eachfile for rectangular profile, 2m, in pack of ten	804.2493

Head ends	Item number
Head end aluminium anodised, 6mm, including screws	804.2431
Head end aluminium anodised, 12mm, including screws	804.2441
Head end white, lacquered, 6mm, including screws	804.2432
Head end white, lacquered, 12mm, including screws	804.2442
Head end black, lacquered, 6mm, including screws	804.2433
Head end black, lacquered, 12mm, including screws	804.2443

Special lengths and colours available upon request. For special colours please provide relevant RAL-information.

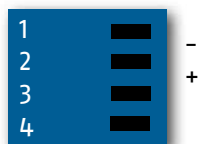
# Electrical Data

Features	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
Voltage	20-27V	20-27V	20-27V
Current ( $I_{max}$ )*	0,09A	0,18A	0,36A

\*At 24V

# Pin Connection

System connector blue



# Control options for LED-Strip L6 MK2

There are countless combinations when using our LED-Strips L6 MK2 with Intelligence. Of course, the possible combinations always depend on the respective product.

However, in order to give you an overview of our system, we have presented some scenarios with example calculations and cabling examples on the following pages.

## Overview of control options for LED-Strip L6-250 MK2

	Control channels	LED-Strip per channel	LED-Strip per power supply	Details see on page	Calculation example see on page
System Power Supply 4E with Intelligence (with 1 LED strip per control channel)	96	1	96		24
System Power Supply 4 with Intelligence* (with 1 LED strip per control channel)	96	1	96		
System Power Supply 4/4E with Intelligence (maximum number of LED strips per control channel)	96	1	96	20	24
System Power Supply 4/4E with Big Intelli XLR (two Big Intellis each output)	24	5	120	20	
Sys One with Intelligence (XLR-Adapterboard), (with 1 LED strip per control channel)	48	1	48	18	
Sys One with Intelligence (XLR-Adapterboard), (maximum number of LED strips per control channel)	48	1	48		
Sys One (System connector blue)	6	5	30	18	
Long Distance Controller	18	5	90	17	
Big Intelli monochrome with 70W power supply	1	15	15	22	
60W power supply (undimmed)			16	23	

\*A System Power Supply 4 cannot control more than 60 channels per output.

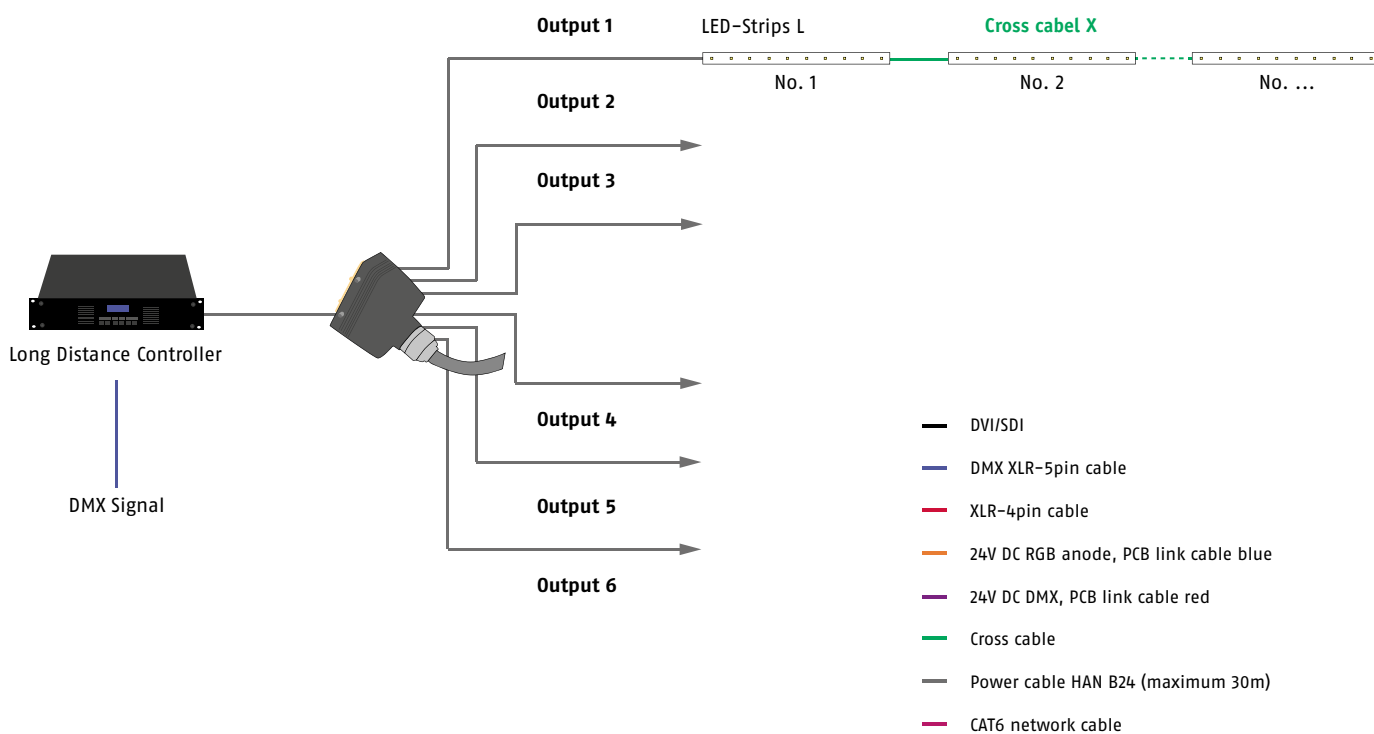


### Long Distance Controller



LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
180 LED-Strips per controller	90 LED-Strips per controller	36 LED-Strips per controller
30 LED-Strips per output	15 LED-Strips per output	6 LED-Strips per output
10 LED-Strips per channel	5 LED-Strips per channel	2 LED-Strips per channel

### Cabling example for Long Distance Controller with LED-Strip L6



## Sys One

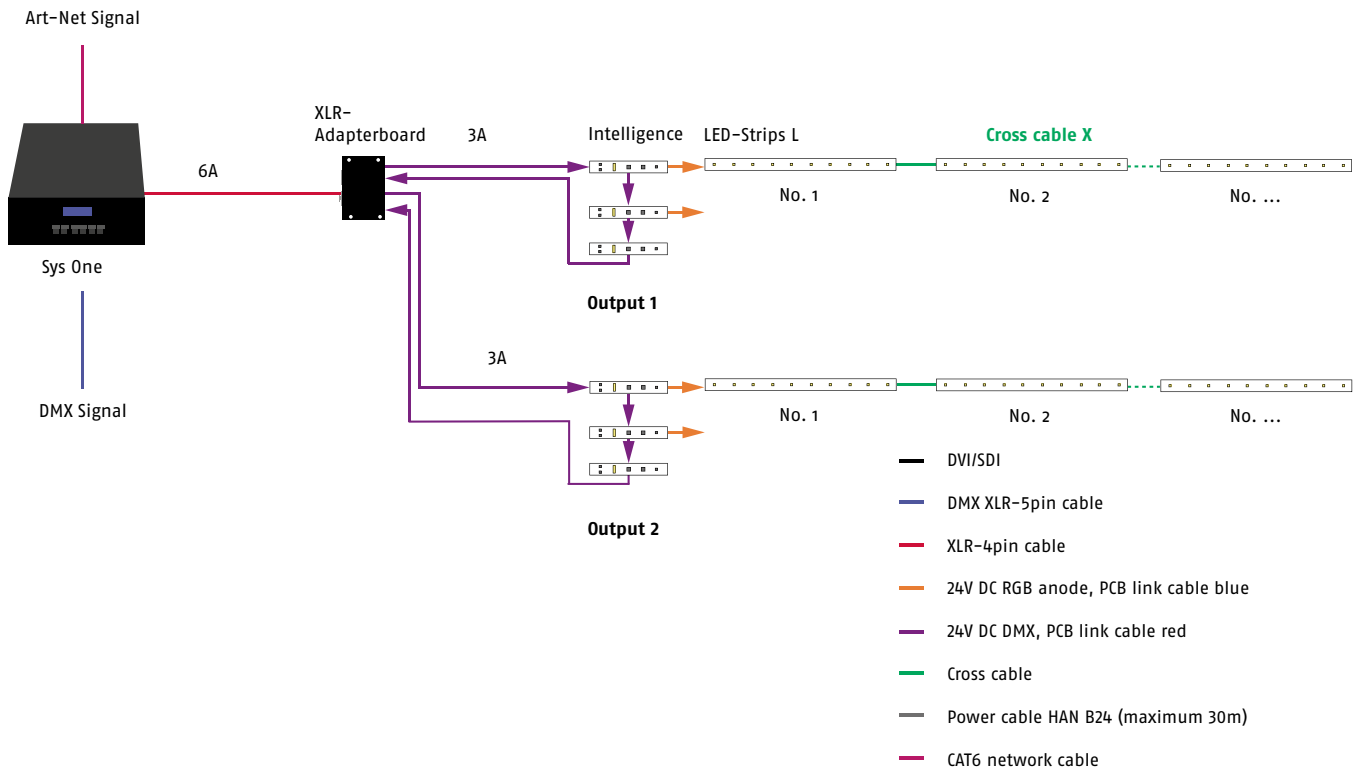
Specific feature: fanless operating



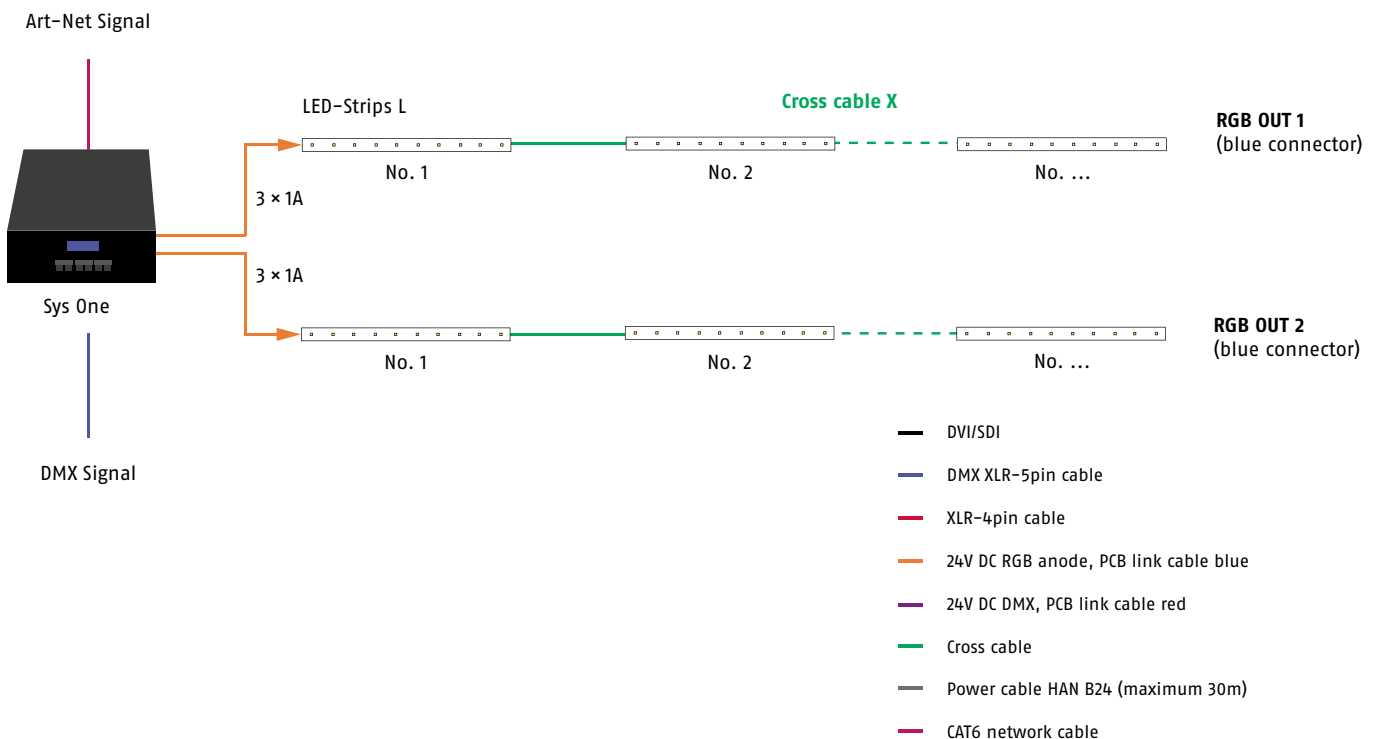
Power Data Out	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
Output XLR-4pin, <b>one control channel per LED strip</b>	48 LED-Strips per controller 1 LED-Strip per channel	24 LED-Strips per controller 1 LED-Strip per channel	
Output system connector blue	66 LED-Strips per controller 33 LED-Strips per system connector blue 11 LED-Strips per channel	30 LED-Strips per controller 15 LED-Strips system connector blue 5 LED-Strips per channel	12 LED-Strips per controller 6 LED-Strips system connector blue 2 LED-Strips per channel

**Please note: connect only one output variable (XLR-4pin or System connector blue)!**

### Cabling example for Sys One (XLR-4pin connector) with Intelligence and LED-Strip L6



### Cabling example for Sys One (System connector blue) with LED-Strip L6



## System Power Supply 4E and System Power Supply 4\*\*

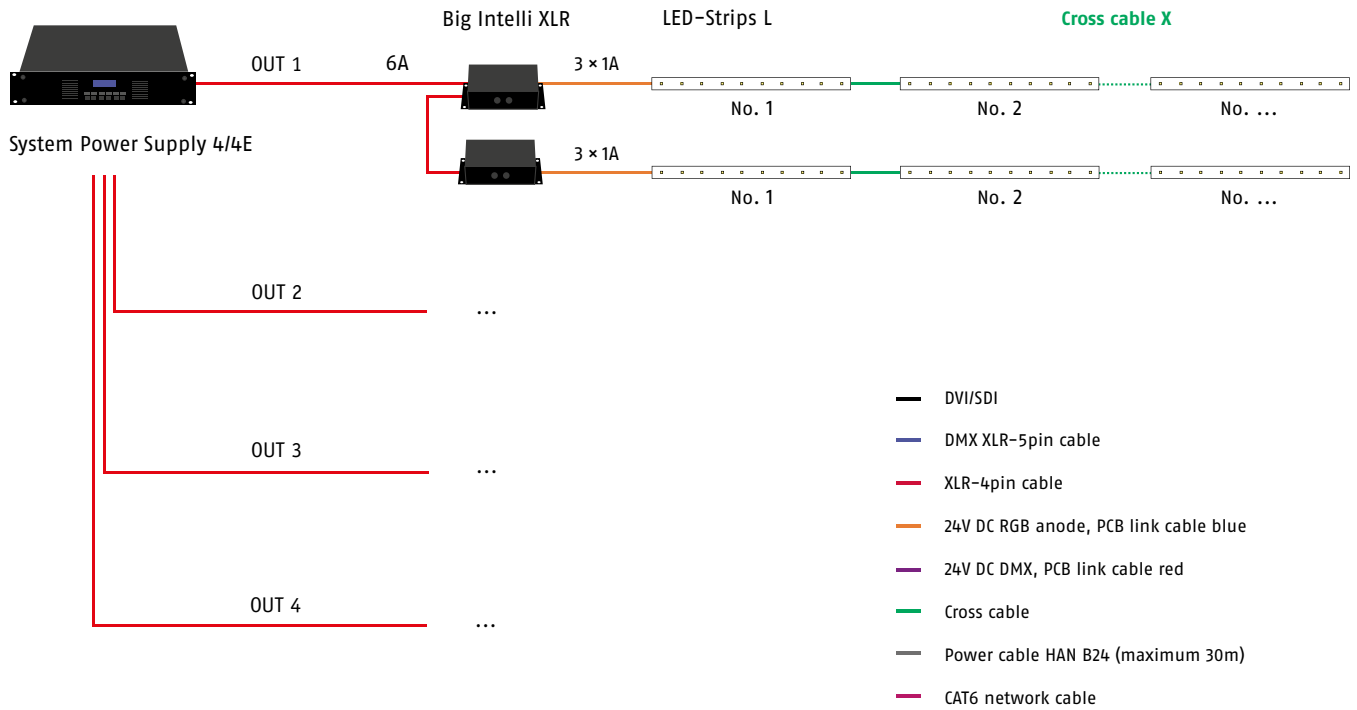


	LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
with Big Intelli XLR*, two Big Intellis per output	264 LED-Strips per controller 66 LED-Strips per output 11 LED-Strips per channel	120 LED-Strips per controller 30 LED-Strips per output 5 LED-Strips per channel	48 LED-Strips per controller 12 LED-Strips per output 2 LED-Strips per channel
with Intelligence*, maximum number of LED strips per Intelligence	216 LED-Strips per controller 54 LED-Strips per output 3 LED-Strips per channel	96 LED-Strips per controller 24 LED-Strips per output 1 LED-Strips per channel	

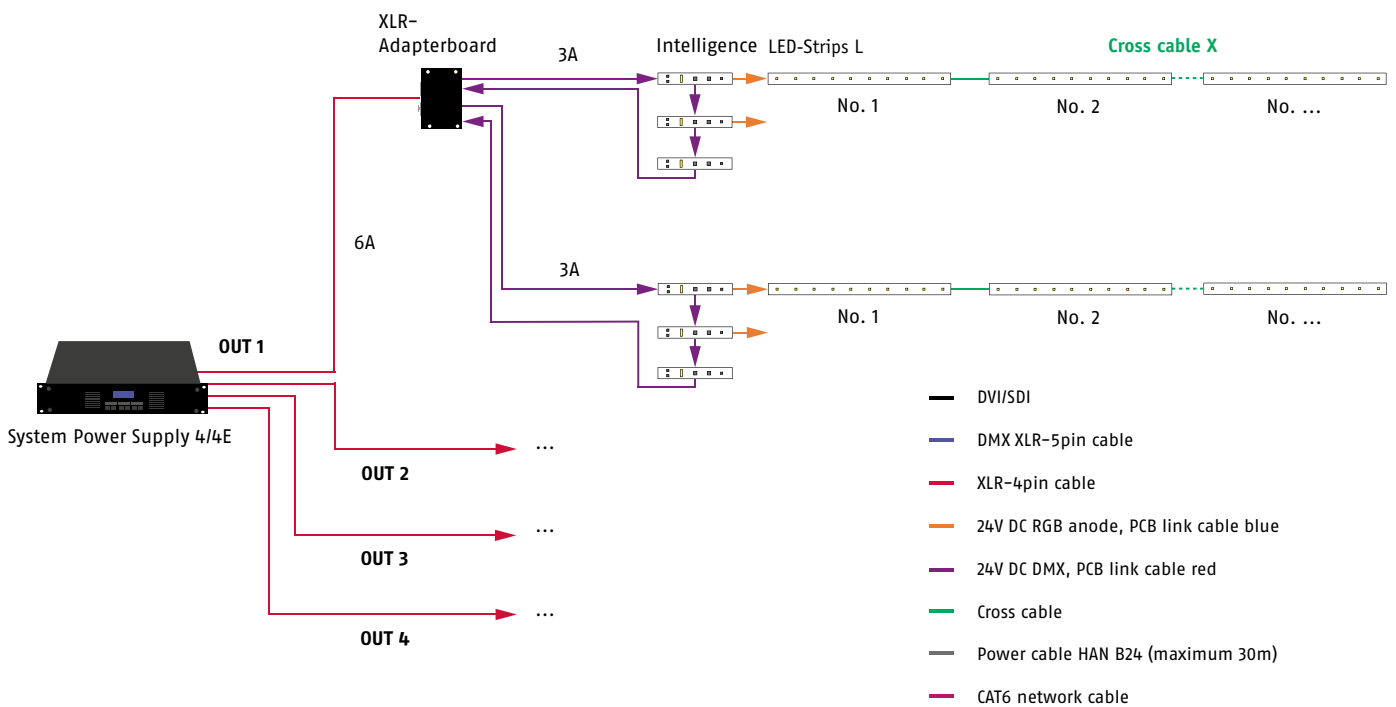
\* The System Power Supplies 4 and 4E can only control the LED-Strips L with an additional Intelligence.

\*\* A System Power Supply 4 cannot control more than 60 channels per output.

### Cabling example for System Power Supply 4 or 4E and Big Intelli XLR with LED-Strip L



### Cabling example for System Power Supply 4 or 4E and Intelligence with LED-Strip L



## 70W Power Supply and Big Intelli (dimmable)



### LED-Strip L6-125

33 LED-Strips per Power Supply  
33 LED-Strips per channel

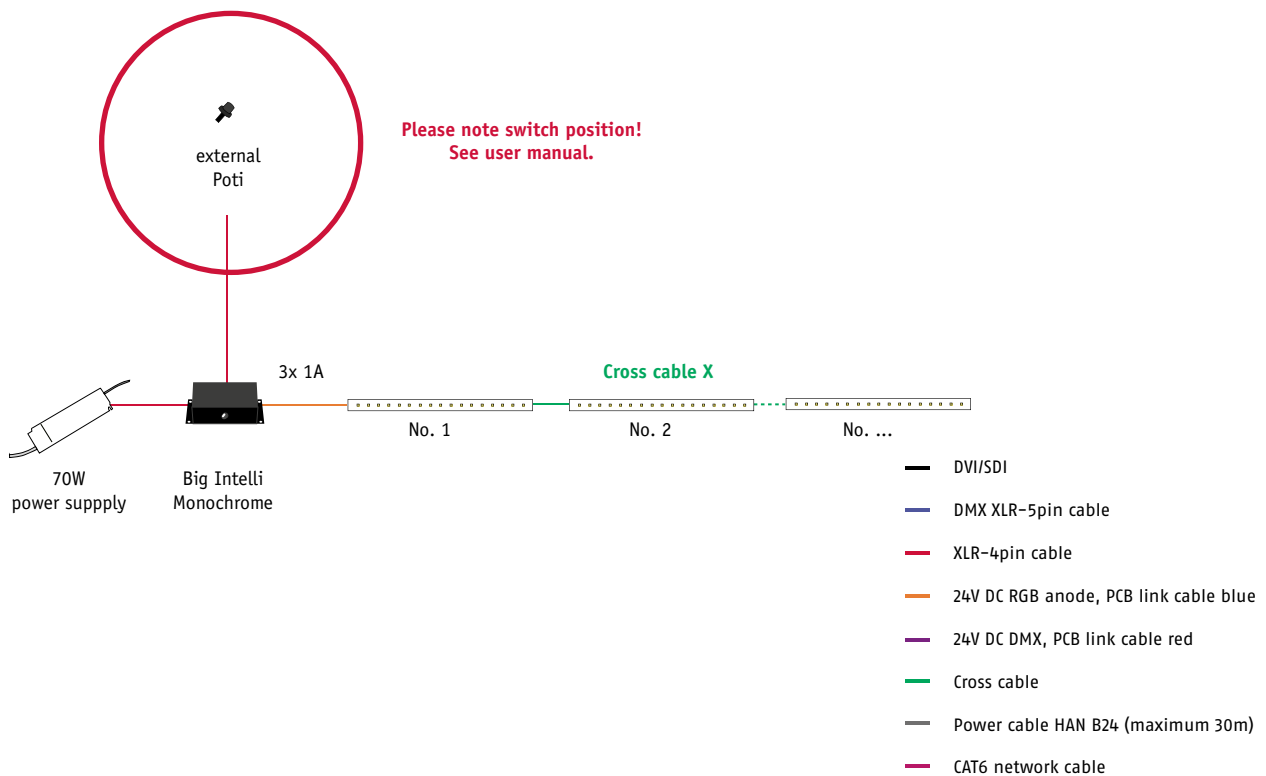
### LED-Strip L6-250

15 LED-Strips per Power Supply  
15 LED-Strips per channel

### LED-Strip L6-500

6 LED-Strips per Power Supply  
6 LED-Strips per channel

## Cabling example for 70W Power Supply and Big Intelli with LED-Strip L6

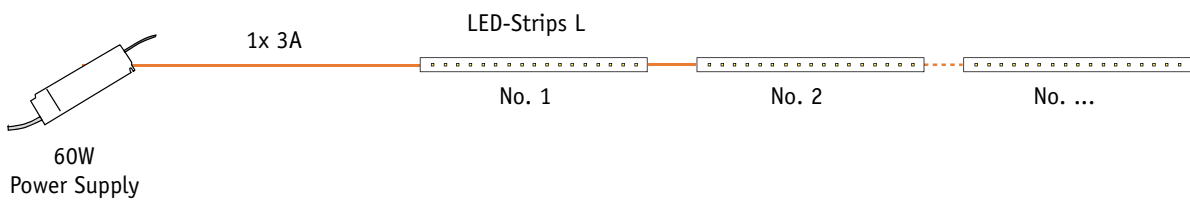


### 60W Power Supply (undimmed)



LED-Strip L6-125	LED-Strip L6-250	LED-Strip L6-500
33 LED-Strips per Power Supply	16 LED-Strips per Power Supply	8 LED-Strips per Power Supply

### Cabling example for 60W Power Supply with LED-Strip L6



- DVI/SDI
- DMX XLR-5pin cable
- XLR-4pin cable
- 24V DC RGB anode, PCB link cable blue
- 24V DC DMX, PCB link cable red
- Cross cable
- Power cable HAN B24 (maximum 30m)
- CAT6 network cable

## Calculation example for System Power Supply 4E with Intelligence and LED-Strip L6-250

### 1. requirement: One control channel with each LED-Strip

One Intelligence can control  $3 \times 0,3A$  (three control channels per Intelligence)

$3 \times 0,18A$ ( $I_{\max}$ L6-250) =	0,54A
Requirement for Intelligence	0,07A
Total	0,61A

3A per system plug / 0,61A = **4 Intelligences, each with three LED-Strips**

$2 \times 3A$  per Output  $\triangleq 2 \times 12$  LED-Strips = **24 LED-Strips per output**

4 outputs per System Power Supply 4E  $\triangleq 4 \times 24$  = **96 LED-Strips per System Power Supply 4E**

### 2. requirement: As few Intelligences as possible should be used.

One Intelligence can control  $3 \times 0,3A$

0,3A per channel / 0,18A per LED-Strip = **1 LED-Strip per channel**  
**Corresponds to  $3 \times 1 = 3$  LED-Strips per Intelligence**

$3 \times 0,18A$ ( $I_{\max}$ L6-250) =	0,54A
Requirement for Intelligence =	0,07A
Total	0,61A

3A per channel  $\triangleq 3A / 0,61A = 4$  Intelligences per system plug

$\triangleq 8$  Intelligences per output

$\triangleq 32$  Intelligences per System Power Supply 4(E)

$\triangleq 32 \times 3 =$  **96 LED-Strips per System Power Supply 4E**



# Order numbers

	LED-Pitch	Length	Channels	Power ( $I_{max}$ )	Colour	Item number
LED-Strip L6-125 S <sup>2</sup>	6,25mm	125mm	0,09A	0/1 <sup>1</sup>	6500K	103.6566
					3500K	103.3566
					3000K	103.3066
					5700K	103.5766
					5000K	103.5066
					4000K	103.4066
					2700K	103.2766
LED-Strip L6-250 S <sup>2</sup>	6,25mm	250mm	0,18A	0/1 <sup>1</sup>	6500K	103.6564
					3500K	103.3564
					3000K	103.3064
					5700K	103.5764
					5000K	103.5064
					4000K	103.4064
					2700K	103.2764
LED-Strip L6-500 S <sup>2</sup>	6,25mm	500mm	0,36A	0/1 <sup>1</sup>	6500K	103.6562
					3500K	103.3562
					3000K	103.3062
					5700K	103.5762
					5000K	103.5062
					4000K	103.4062
					2700K	103.2762

	Operating voltage	Power ( $I_{max}$ )	Power (auxiliary power)	Channels	Connection	Item number
LED-Intelligence	24V DC	3 × 0,3A	0,07A	3	System connector red/blue	302.0015
Big Intelli XLR (in case)	24V DC	3 × 1A	0,07A	3	System connector red/blue XLR-4pin	203.0030
Big Intelli Monochrome (in case)	24V DC	3 × 1A		1	System connector red/blue	203.0031

	Operating voltage	Power (I <sub>max</sub> )	Channels	Input	Output	Item number
System Power Supply 4E	110-240V AC	4 × 6A*	4 × 3072 channels (DPB) 4 × 512 channels (DMX)	Ethercon RJ 45 XLR-5pin IN/Trough	4 × XLR-4pin	203.0003
System Power Supply 4	110-240V AC	4 × 6A	4 × 60	XLR-5pin IN/Trough	4 × XLR-4pin	203.0002
Sys One	110-240V AC	1 × 6A or 2 × 3A or 2 × (3 × 1A)	1 × 512** or 2 × 512**	XLR-5pin IN/Trough	1 × XLR-4pin 2 × System connector red 2 × System connector blue	203.0007
Long Distance Controller	110-240V AC	6 × (R: 0,9A + G: 1,1A + B: 1,1A)	18	XLR-5pin IN/Trough	Multicore-24pin	203.0001
70W-Power Supply (24V DC)	220-240V AC				System connector red	204.0151
60W-Power Supply (20V DC)	100-240V AC				System connector blue (L-Series)	204.0653

\* Note: american version only 4 × 4A at 110V

\*\* depending on the output configuration

# ESD warning

Please be aware that electrostatic discharges can destroy LED boards, and our experience shows that this does happen. During assembly, we recommend wearing at least one antistatic wrist strap and avoiding static discharges – such as those that arise when removing protective film or dry cleaning acrylic glass, for example – near LEDs! Antistatic materials should be used when packaging the LED boards. Normal bubble wrap or other plastic bags are not suitable.

For reasons of safety and radio shielding, please only use systems we have approved to provide a power supply for our LED components. All technical information is based on the version at the time of printing.

We reserve the right to make technical specifications in terms of a product improvement without prior notice. Printing – even excerpts – requires the written consent of Schnick-Schnack-Systems GmbH.

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## **Why Schnick Schnack Systems?**

As installation times become increasingly shorter the complexity of systems simultaneously increases as do the requirements of customers.

We are a supplier who delivers high-quality reliable systems – under tight deadline constraints that are not only quick to install but also simple to operate and service.

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[www.schnickschnacksystems.com](http://www.schnickschnacksystems.com)

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Version May 2017: All technical data and the weight and dimension information were carefully created – errors reserved. Any colour deviations are printing-related.

We reserve the right to make changes that serve further improvement.