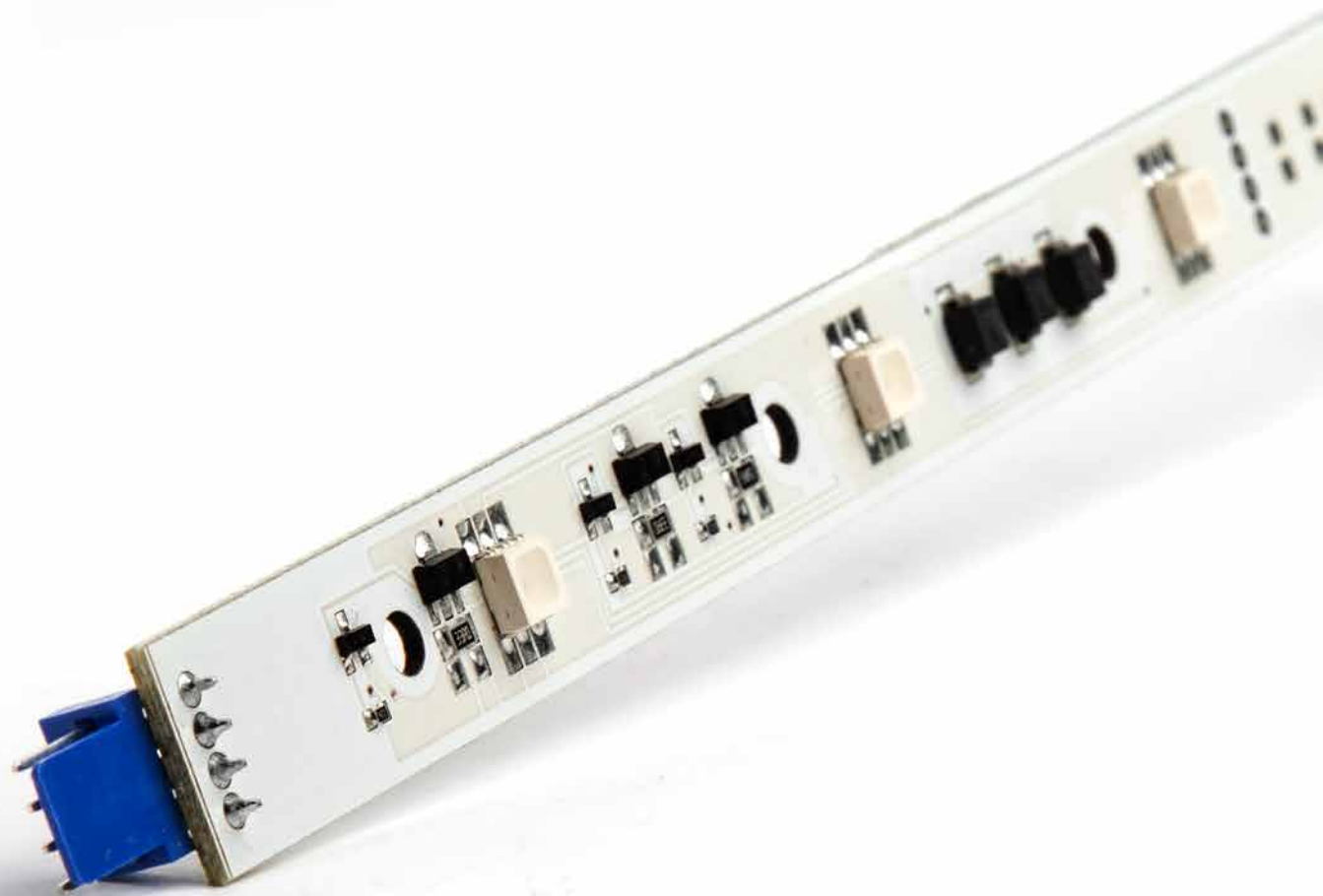


LED-Strip B50

Product Sheet



Introduction

FEATURES

- System compatible with other series from Schnick-Schnack-Systems
- Free patch, colour change and scroll text control software
- Made in Germany

- Premium quality LEDs
- Optimum RGB colour mixing in an SMD-component (no coloured shadows)
- Equal colours due to the best possible bin intensity and batch-based voltage adjustment
- Wider 115° beam angle
- Camera friendly dimmer control
- Equal brightness despite different cable lengths due to integrated linear regulator
- Enough "headroom" for longer durability

- Direct control with DMX 512-A
- Direct connection to 24V DC

- Pliable, fiberglass reinforced board
- Re-useable for various applications
- Through hole connectors enable many mating cycles
- Minimal surface temperature
- Diverse mounting options

Use

The Product B Series LED Strips are equipped with high quality, efficient RGB-LEDs. Each individual LED on an LED strip can be controlled as a group and are therefore the ideal LED light source for all uses where surfaces, edges or decorative elements are going to be illuminated with any color from a short distance. The B Series LED Strips are most often used, among other applications, to set color accents in vaults or on walls, to backlight steps, floors and expansive wall surfaces as well as to accentuate edges or for lateral light input into large acrylic glass surfaces.

Technology

The B50 LED Strips come in lengths of 200mm, 250mm, 400mm, 450mm and 500mm with four, five, eight, nine or ten LEDs in a 50mm grid. Thanks to these practical dimensions, the LED Strips can follow almost any curve or bend.

The three primary colors are already mixed in the light emitting diodes so colored shadows are avoided. Active current regulators on the board can balance out voltage differences that arise from varying cable lengths. Due to the arrangement of the LEDs there is no color shift in the horizontal viewing angle when mounted vertically.

When using diffusers, the distance needed to create a homogeneous surface depends on the material. There should be at least 3.5 cm from the topside of the LED to the diffuser.

The LEDs are mounted with board holders.

Control

The B Series LED Strips are controlled with the Long Distance Controller, the Sys One or the System Power Supply 4 or 4E with Intelligence – or for smaller installations also via an appropriate power supply and a Big Intelli RGB.

This product is CE certified and UL accredited.

Mechanical data

Features	LED-Strip B50-200	LED-Strip B50-250	LED-Strip B50-400	LED-Strip B50-450	LED-Strip B50-500
Length	200mm	250mm	400mm	450mm	500mm
LED-Pitch	50mm	50mm	50mm	50mm	50mm
Number of RGB LEDs	4	5	8	9	10
Pin connection and -colour	System connector blue	System connector blue	System connector blue	System connector blue	System connector blue
Safety class	IP00	IP00	IP00	IP00	IP00
Weight	12,6g	15,2g	23,4g	25,7g	25g



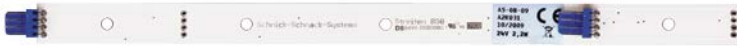
LED-Strip B50-200 (front view)



LED-Strip B50-200 (rear view)



LED-Strip B50-250 (front view)



LED-Strip B50-250 (rear view)



LED-Strip B50-400 (front view)



LED-Strip B50-400 (rear view)



LED-Strip B50-450 (front view)



LED-Strip B50-450 (rear view)

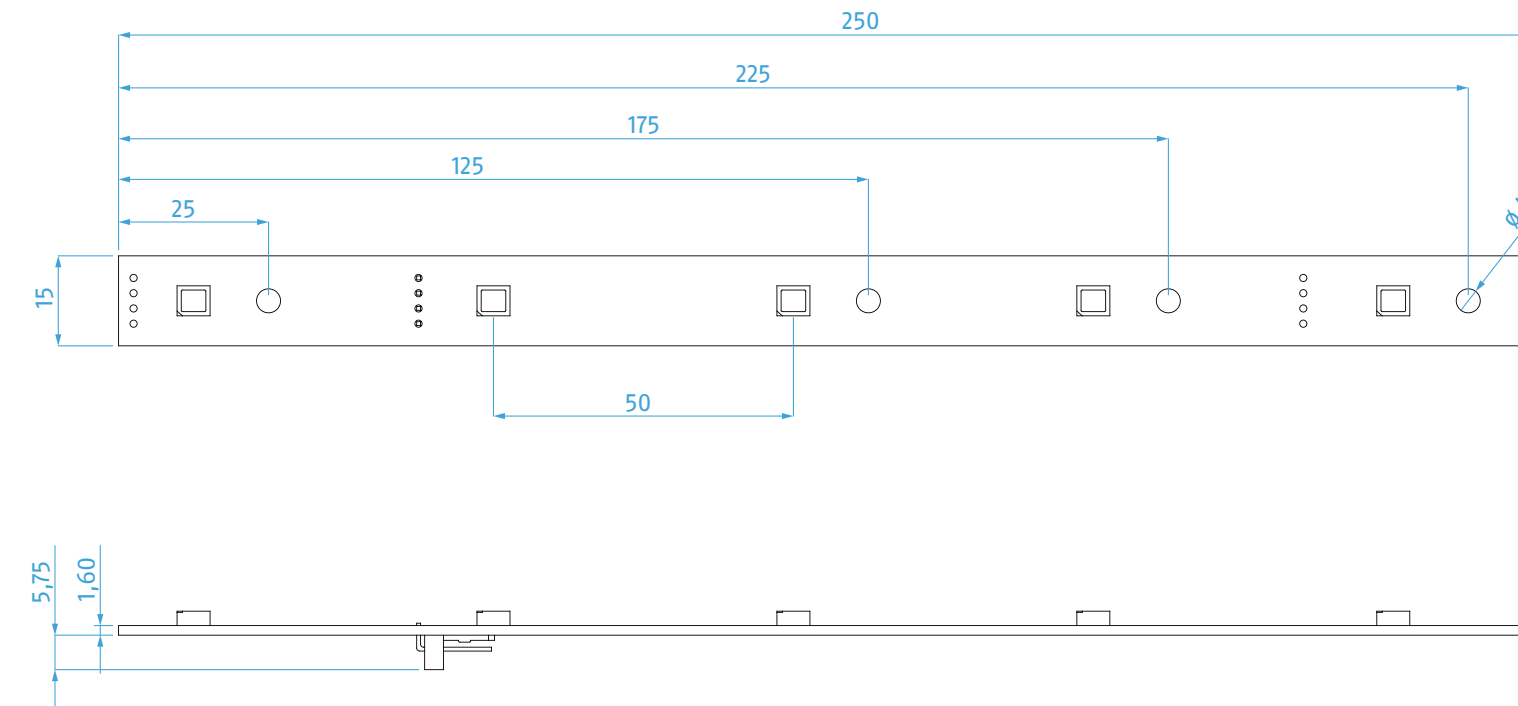
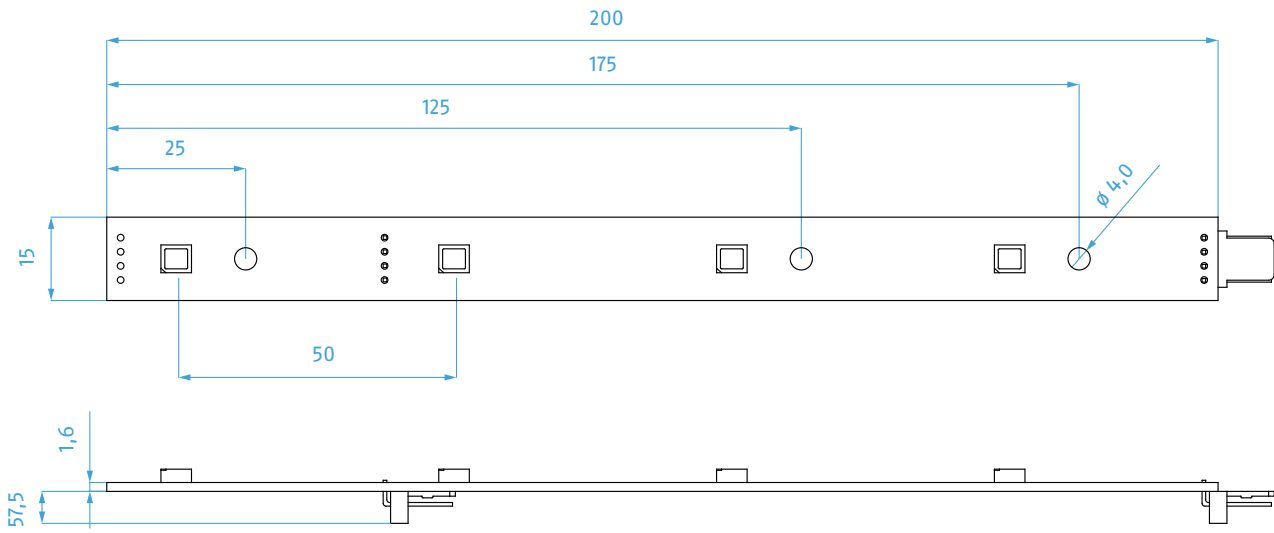


LED-Strip B50-500 (front view)

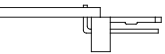
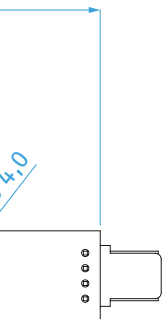


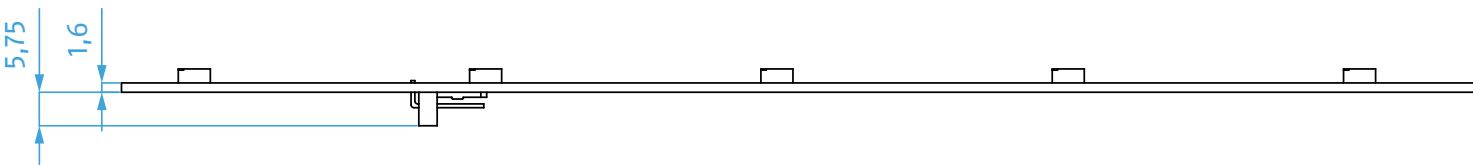
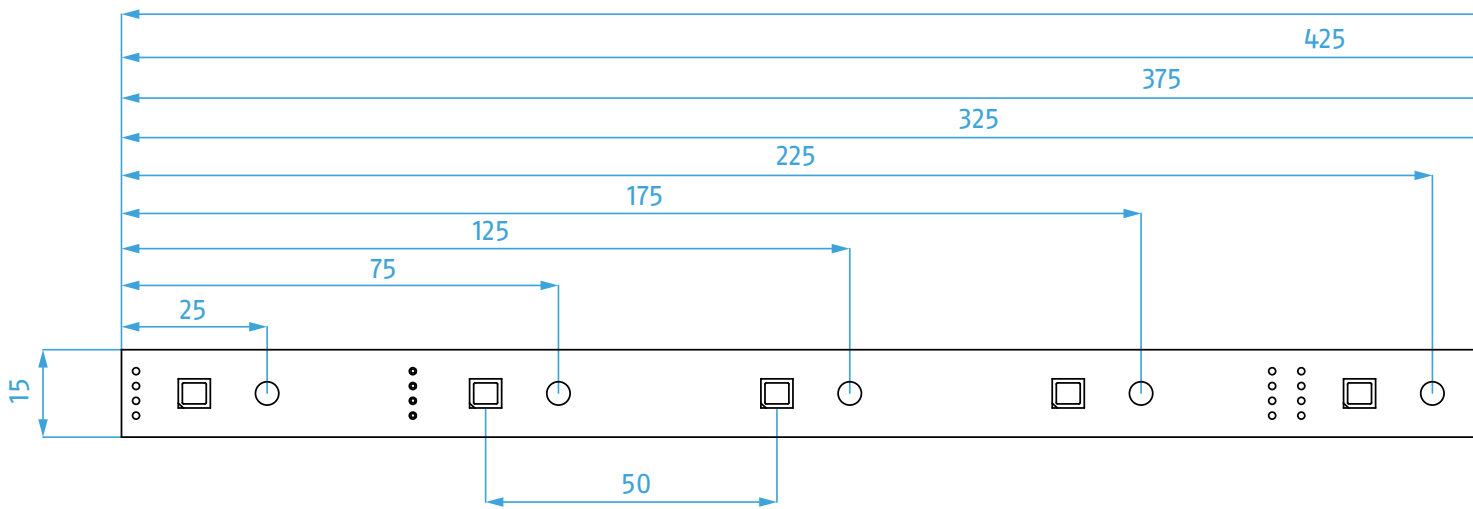
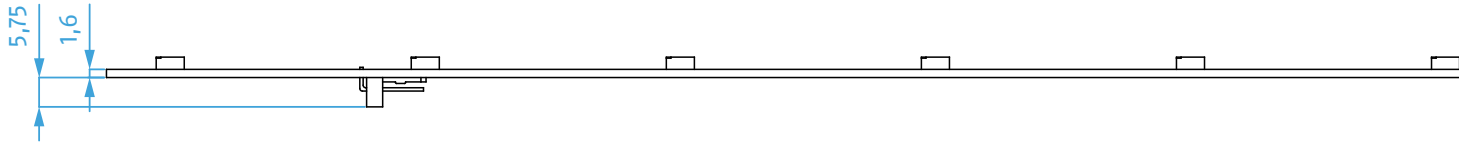
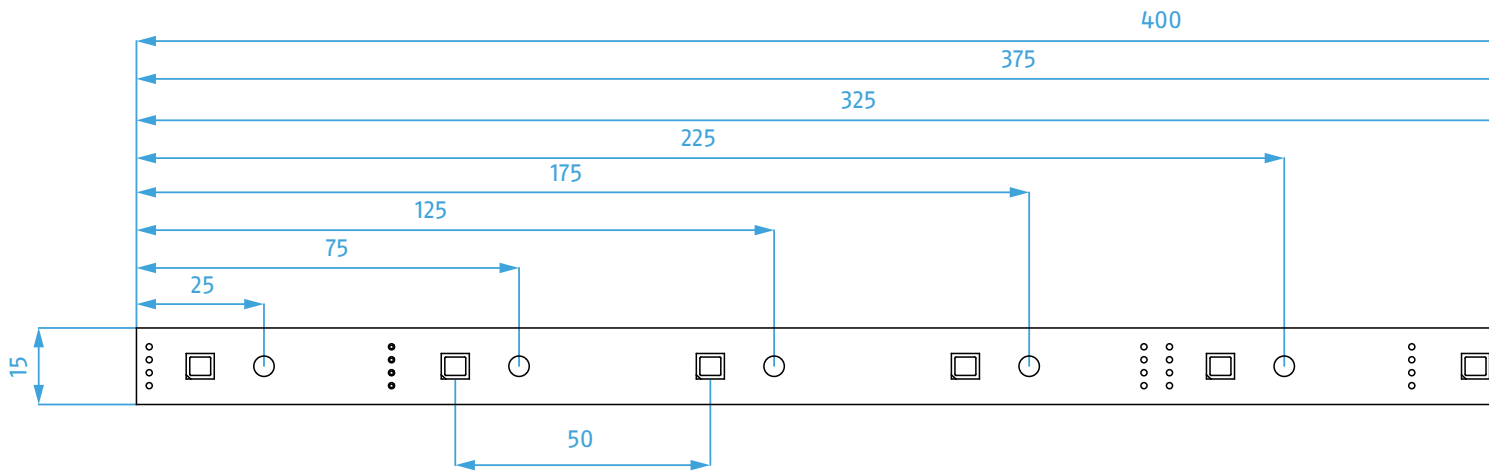
LED-Strip B50-500 (rear view)

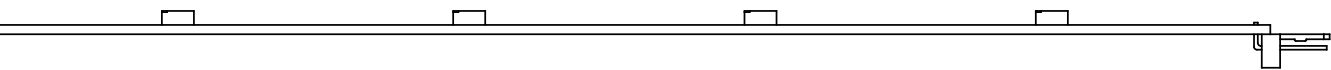
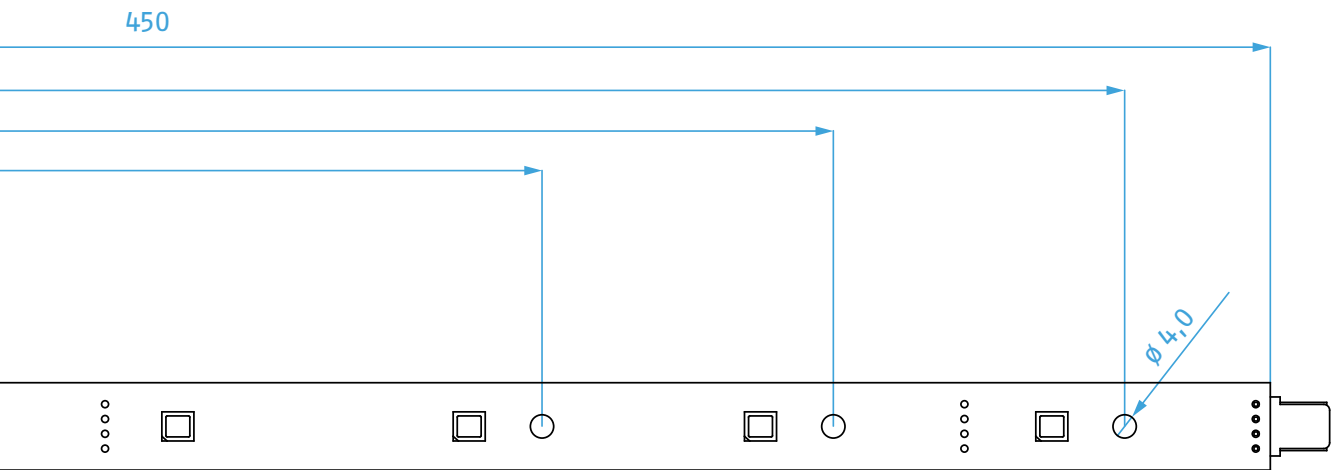
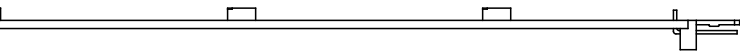
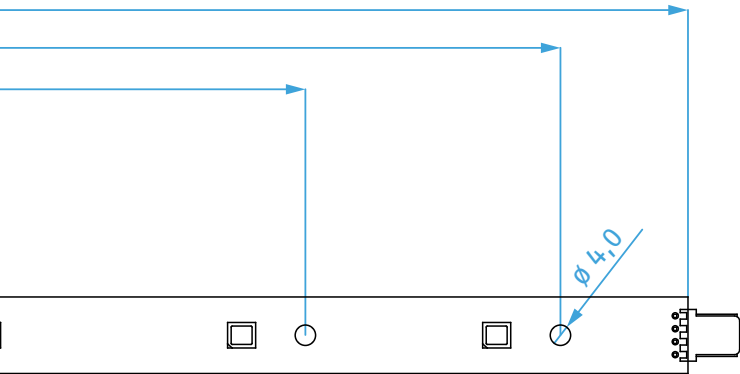
CAD drawing*

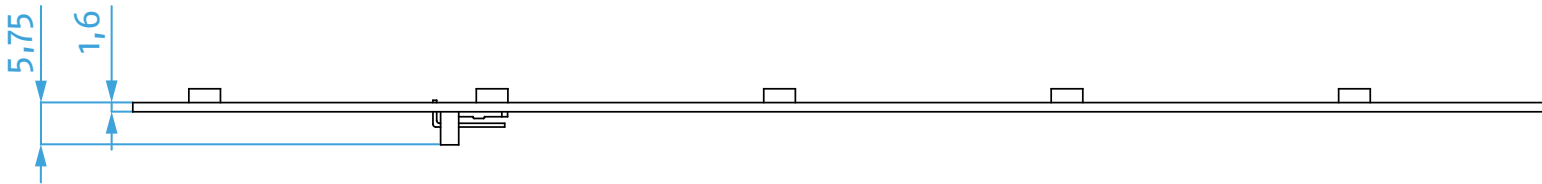
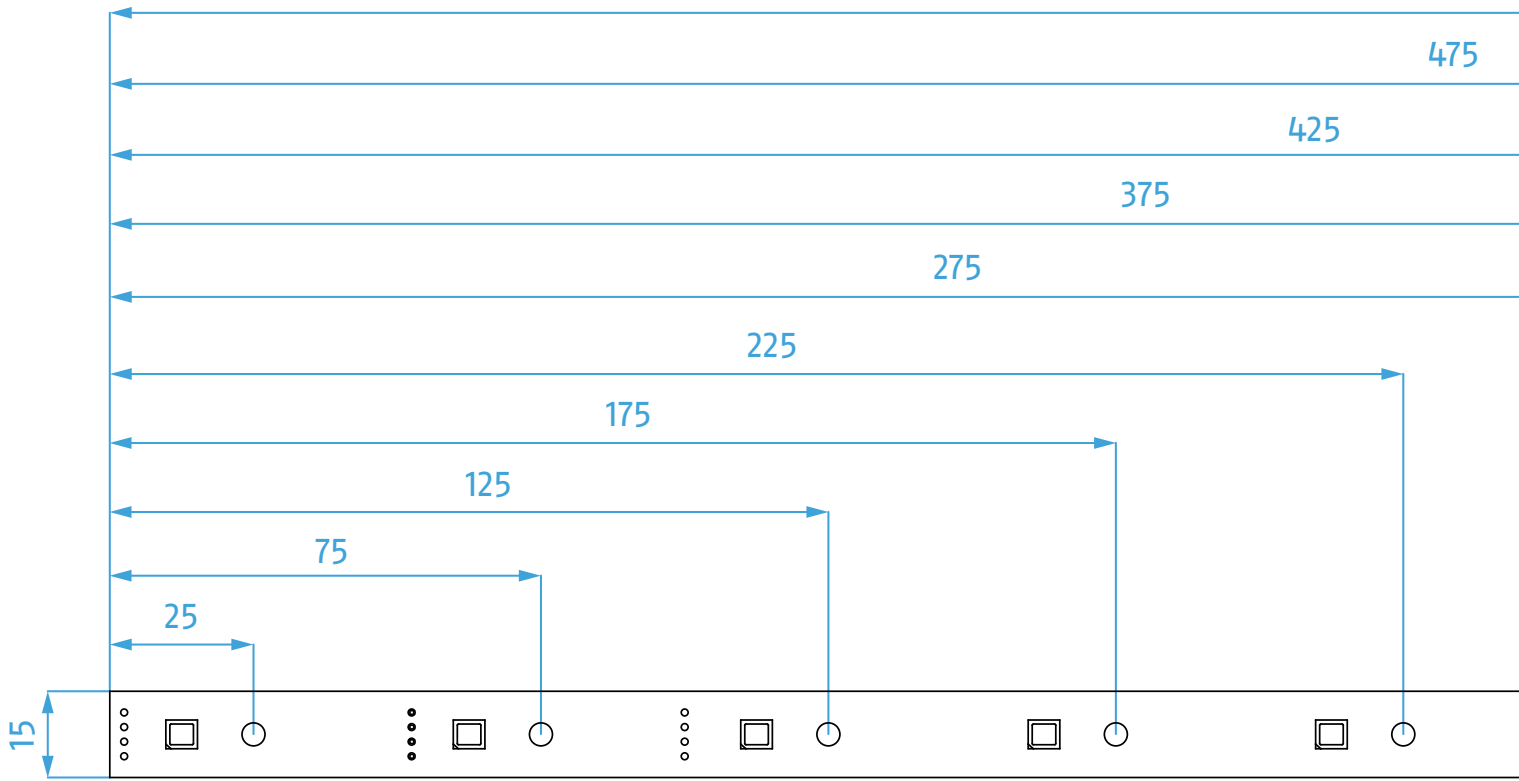


* without scale / all units in mm

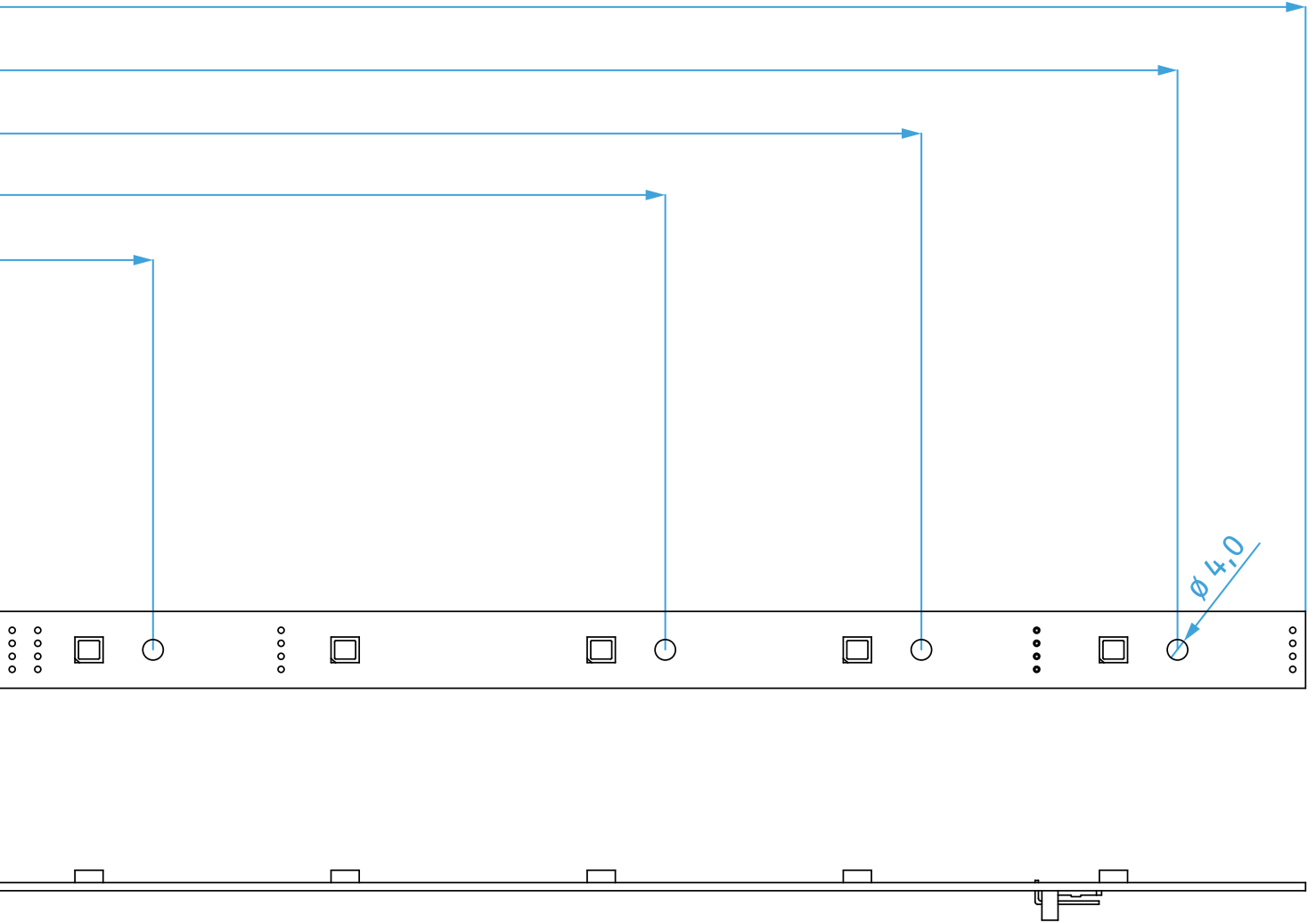








500



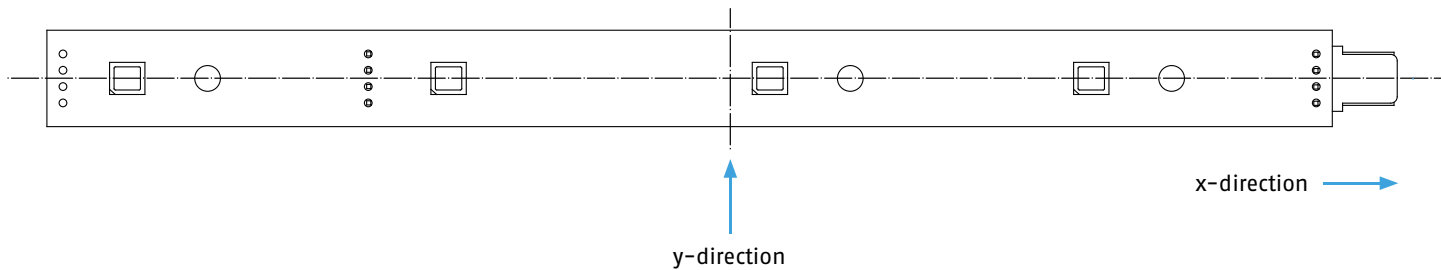
Optical Data

Features	LED-Strip B50-200	LED-Strip B50-250	LED-Strip B50-400	LED-Strip B50-450	LED-Strip B50-500
Colour	RGB	RGB	RGB	RGB	RGB
Emission angle	115°	115°	115°	115°	115°
Lighting current	26lm*	32lm*	51lm*	58lm*	64lm*
Light intensity	8,8cd*	11cd*	17,6cd*	19,8cd*	22cd*

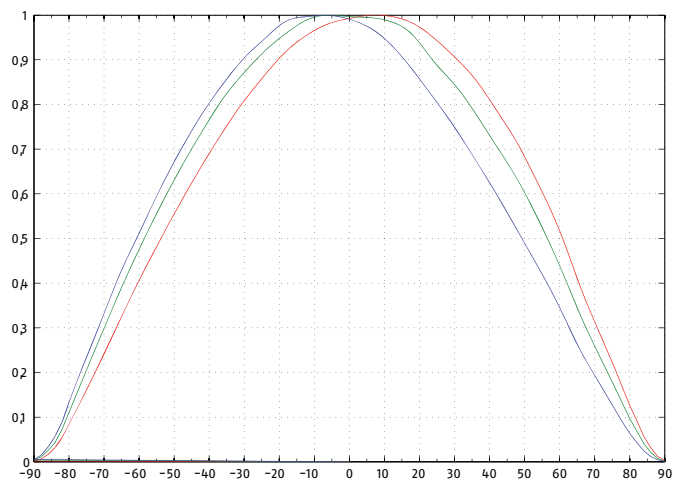
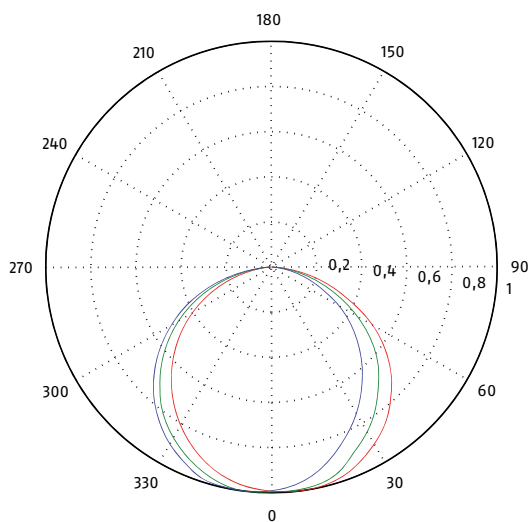
Distance/Lux table

Distance	LED-Strip B50-200	LED-Strip B50-250	LED-Strip B50-400	LED-Strip B50-450	LED-Strip B50-500
0,5m	35,2lx*	44lx*	70,4lx*	79,2lx*	88lx*
1m	8,8lx*	11lx*	17,6lx*	19,8lx*	22lx*
2m	2,2lx*	2,75lx*	4,4lx*	4,95lx*	5,5lx*

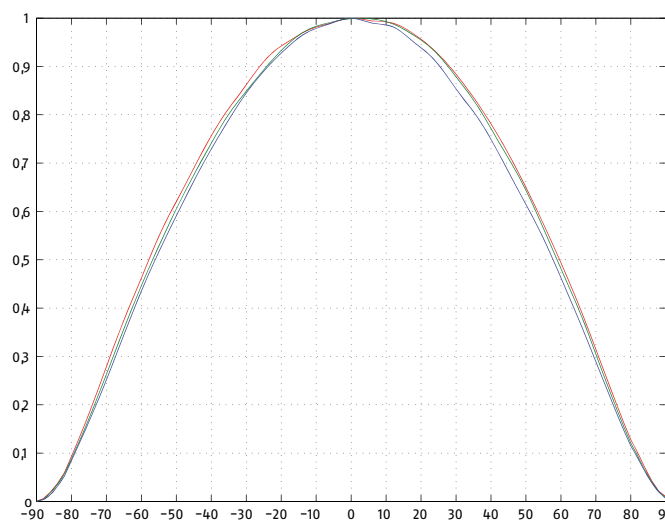
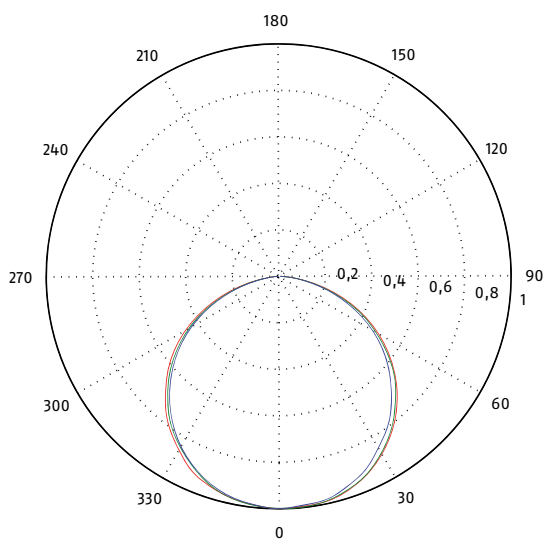
* The data provided are measured values. As these values are subject to fluctuations, the actual values of the delivered LEDs may deviate from them. The photometric values apply to full white with RGB = 255.



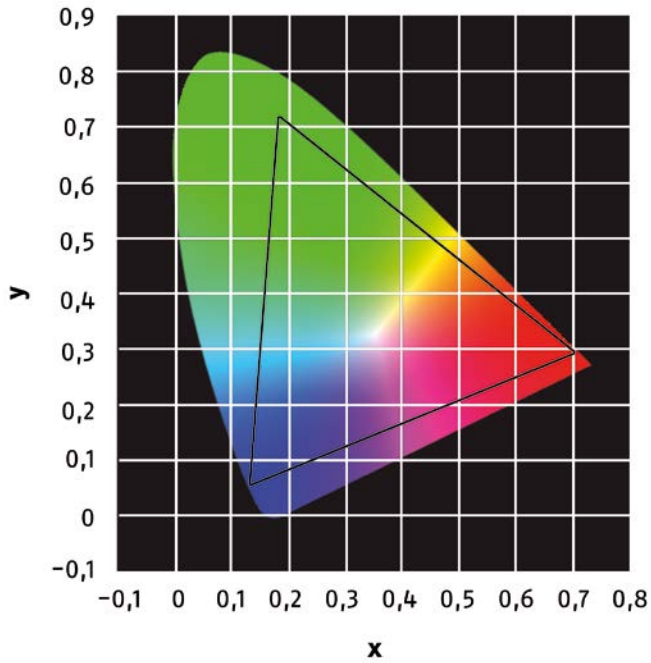
Light distribution curves, x-direction



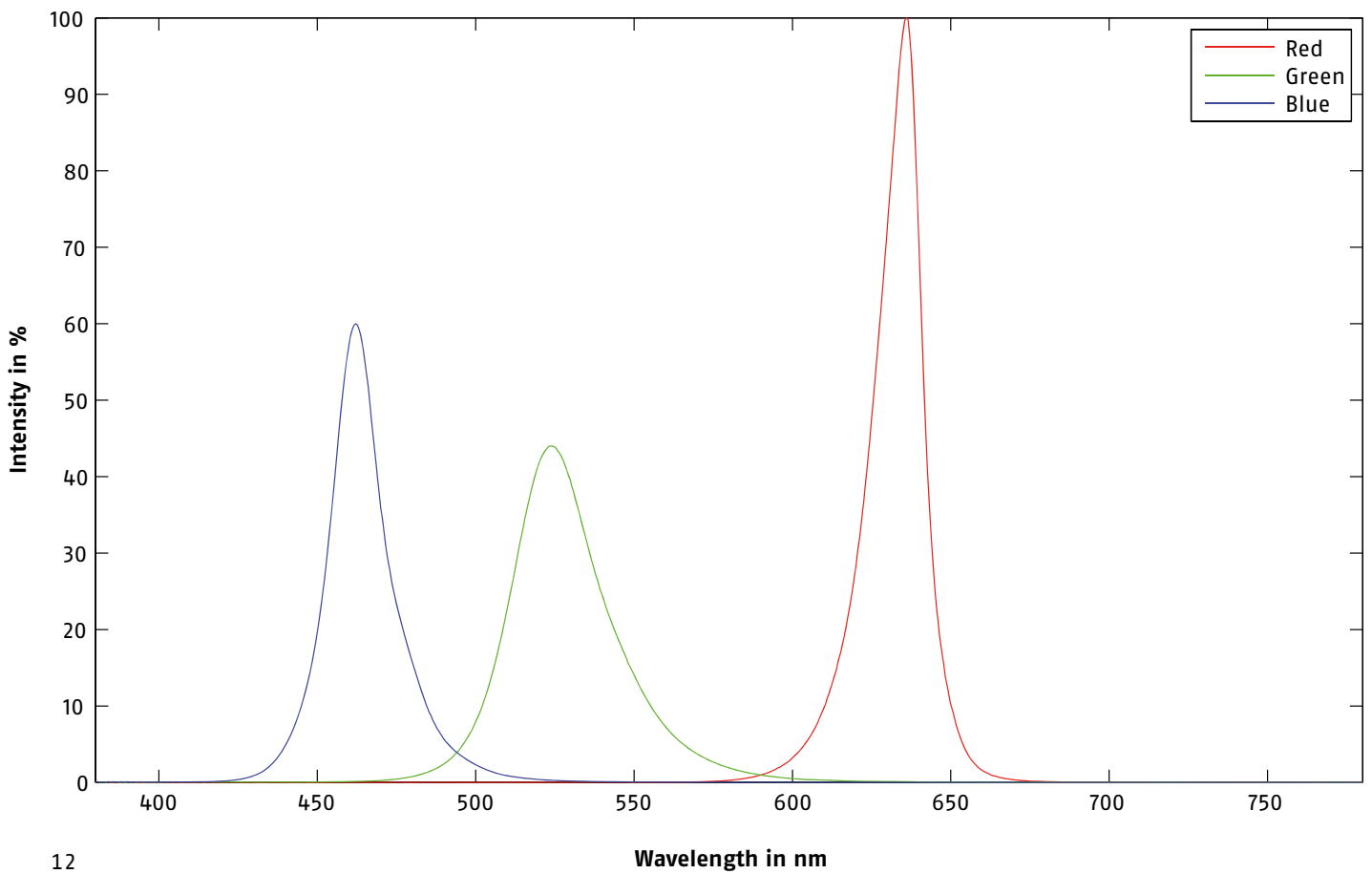
Light distribution curves, y-direction



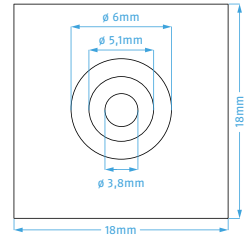
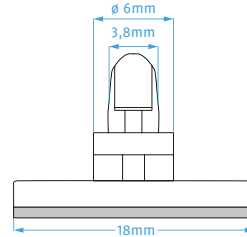
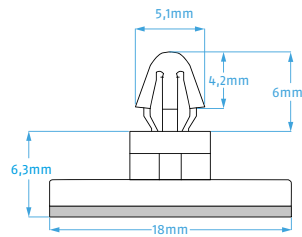
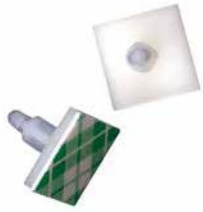
Gamut diagram



Spectral distribution



Mounting

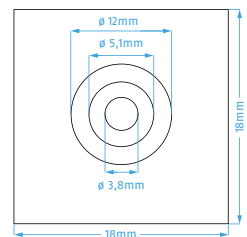
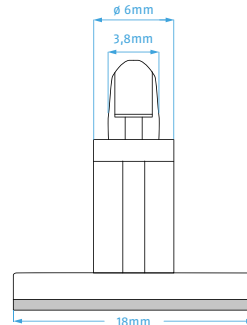
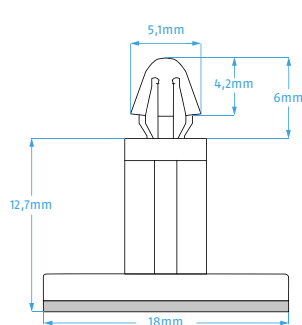


Description

PCB holders 6mm, self-adhesive version

Item number

802.0001

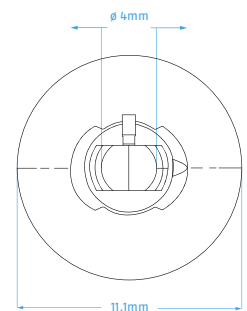
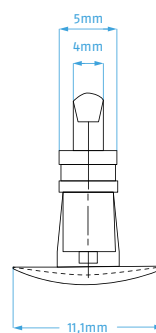
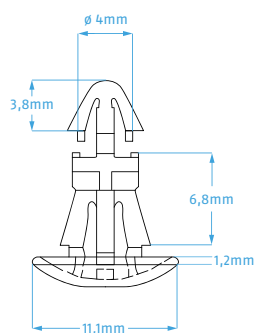


Description

PCB holders 12mm, self-adhesive version

Item number

802.0002



Description

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

Item number

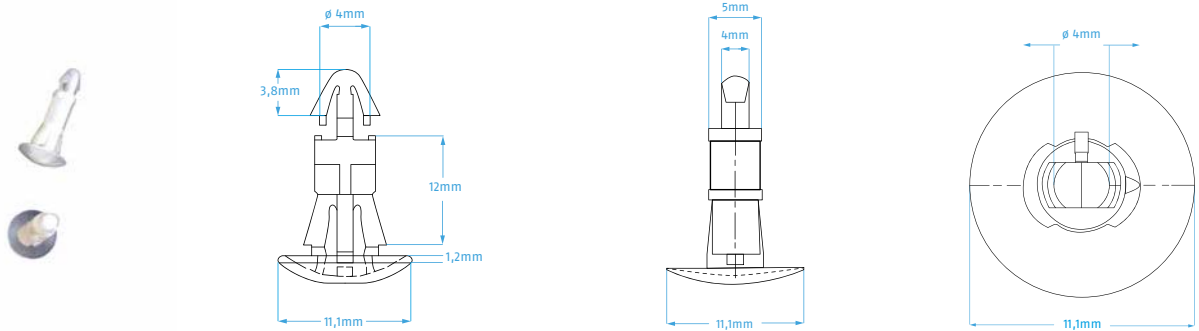
802.0003

Drill hole

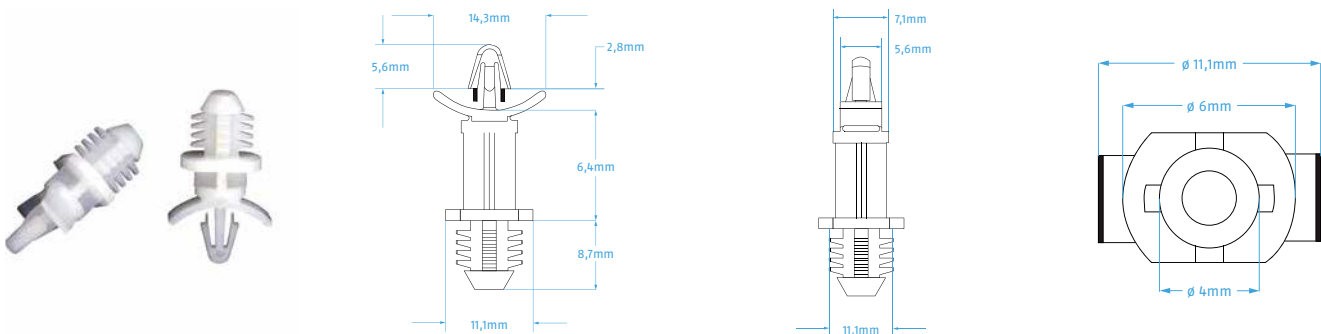
5,4mm

Material thickness

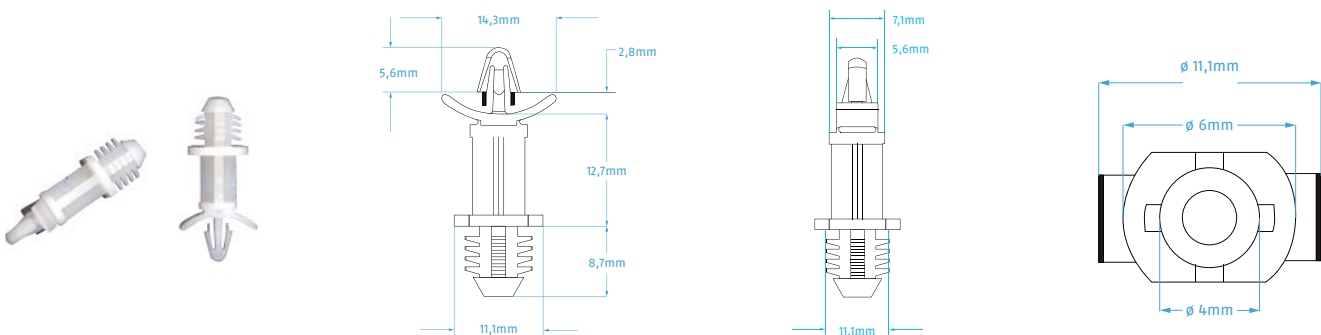
1,5-1,6mm



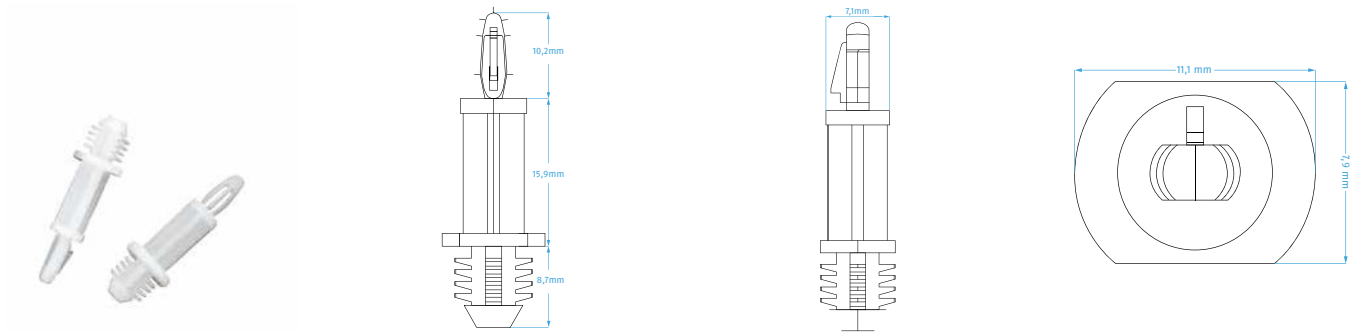
Description	Item number	Drill hole	Material thickness
PCB holder 12mm, plug-in version (for plates)	802.0004	5,4mm	1,5-1,6mm



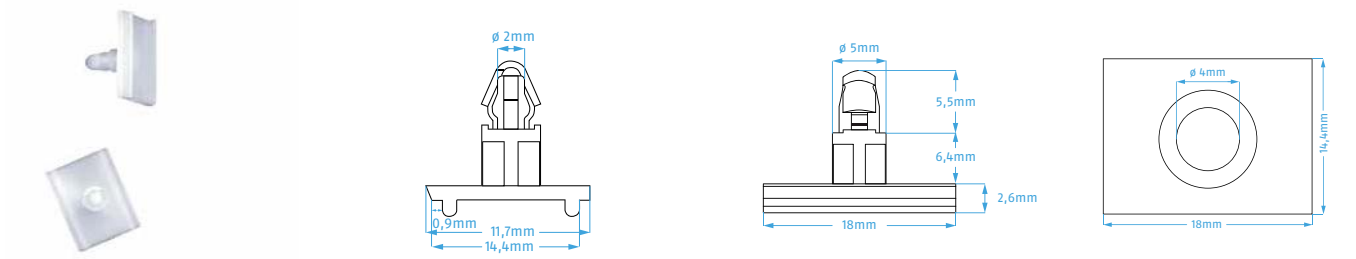
Description	Item number	Drill hole	Material thickness
PCB holder 6mm, drill version (for wood or plastic)	802.0006	7,9mm	minimum 6,4mm



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



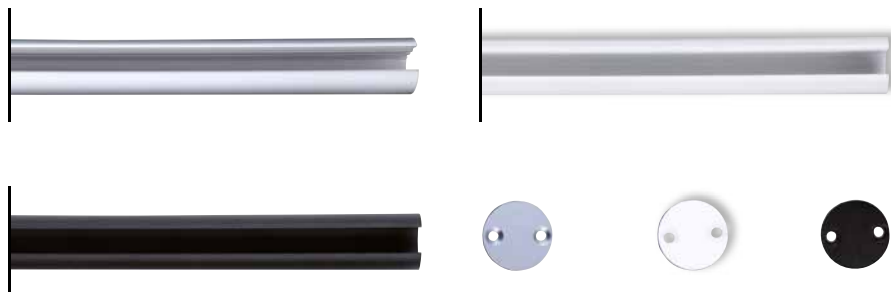
Description	Item number	Drill hole	Material thickness
PCB holder 16mm, drill version (for wood or plastic)	802.0008	7,9mm	minimum 6,4mm



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

Accessoires

Cylindrical profiles



Cylindrical profiles	Item number
Cylindrical profile, 2m, \varnothing 25mm, aluminium anodised	804.2504
Cylindrical profile, 2m, \varnothing 25mm, white	804.2505
Cylindrical profile, 2m, \varnothing 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

Electrical data

Features	LED-Strip B50-200/B50-250	LED-Strip B50-400/B50-450/B50-500
Voltage	24V	24V
Current (I_{\max})	0,09A	0,18A

Pin Connection

System connector blue

1	■	G -
2	■	R -
3	■	+
4	■	B -

Control options for LED-Strip B50

Long Distance Controller



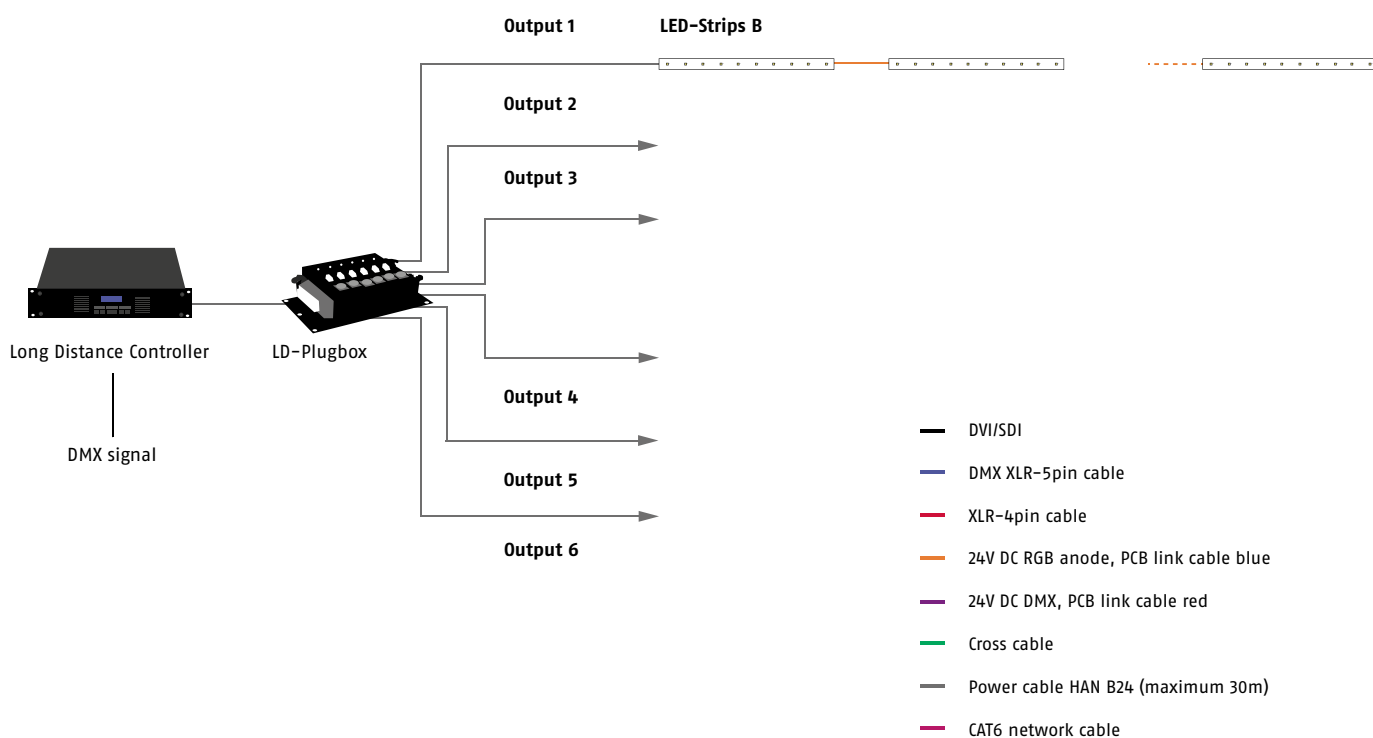
LED-Strip B50-200/B50-250

maximum 180 LED-Strips per controller
maximum 30 LED-Strips per output

LED-Strip B50-400/B50-450/B50-500

maximum 90 LED-Strips per controller
maximum 15 LED-Strips per output

Cabling example for Long Distance Controller and LD-Plugbox with LED-Strip B50



Sys One

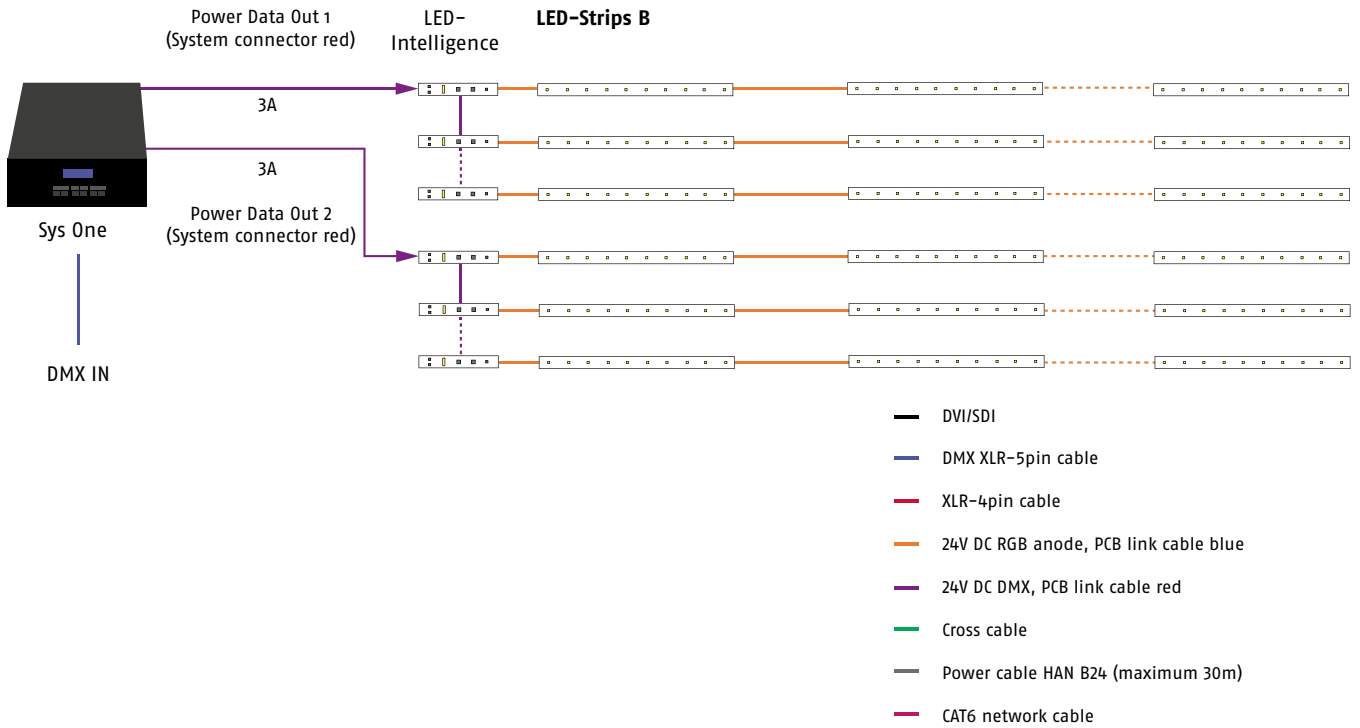
Specific feature: fanless operating



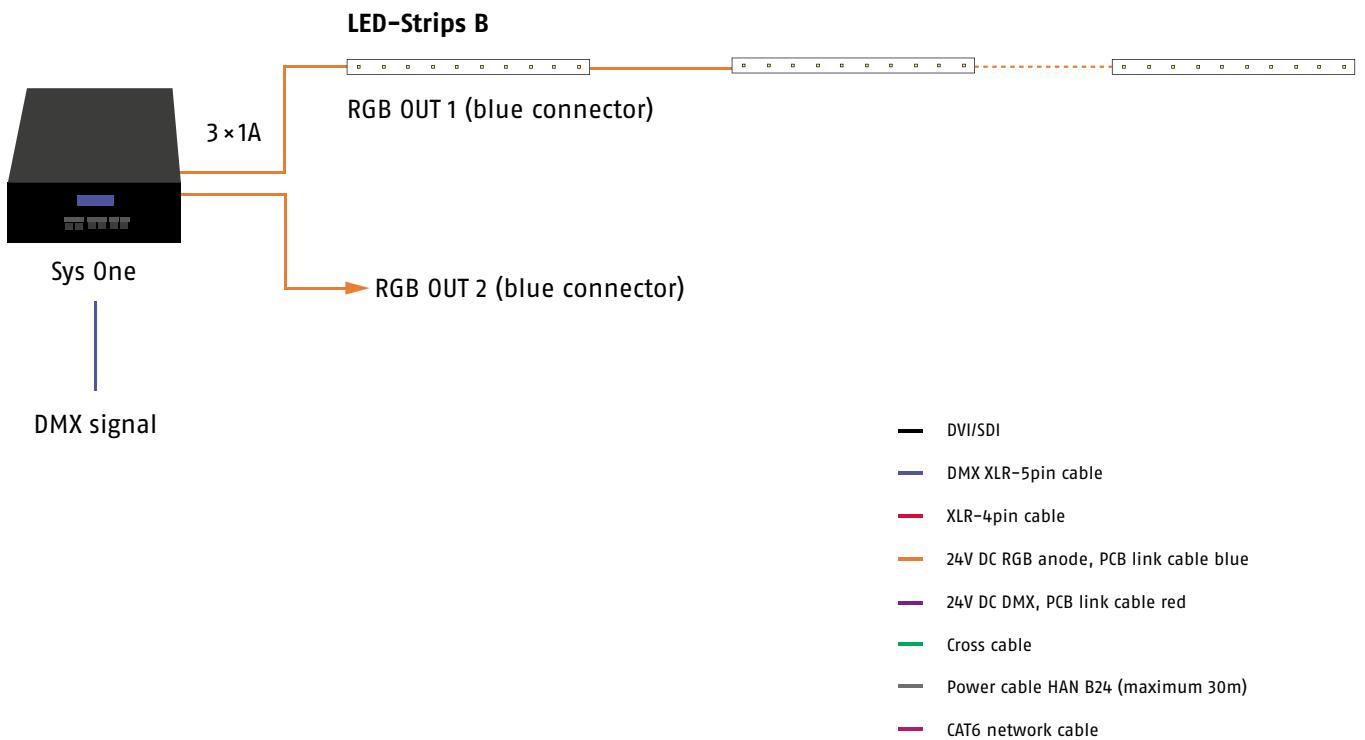
Power Data Out	LED-Strip B50-200/B50-250	LED-Strip B50-400/B50-450/B50-500
Output system connector red	maximum 48 LED-Strips per controller maximum 24 LED-Strips per output maximum 3 LED-Strips per intelligence	maximum 24 LED-Strips per controller maximum 12 LED-Strips per output maximum 1 LED-Strips per intelligence
Output system connector blue	maximum 66 LED-Strips per controller maximum 33 LED-Strips per output	maximum 32 LED-Strips per controller maximum 16 LED-Strips per output

Please note: connect only one output variable (System connector red or System connector blue)!

Cabling example for Sys One (system connector red) with Intelligence and LED-Strip B50



Cabling example for Sys One (system connector blue) with LED-Strip B50



System Power Supply 4E and System Power Supply 4**

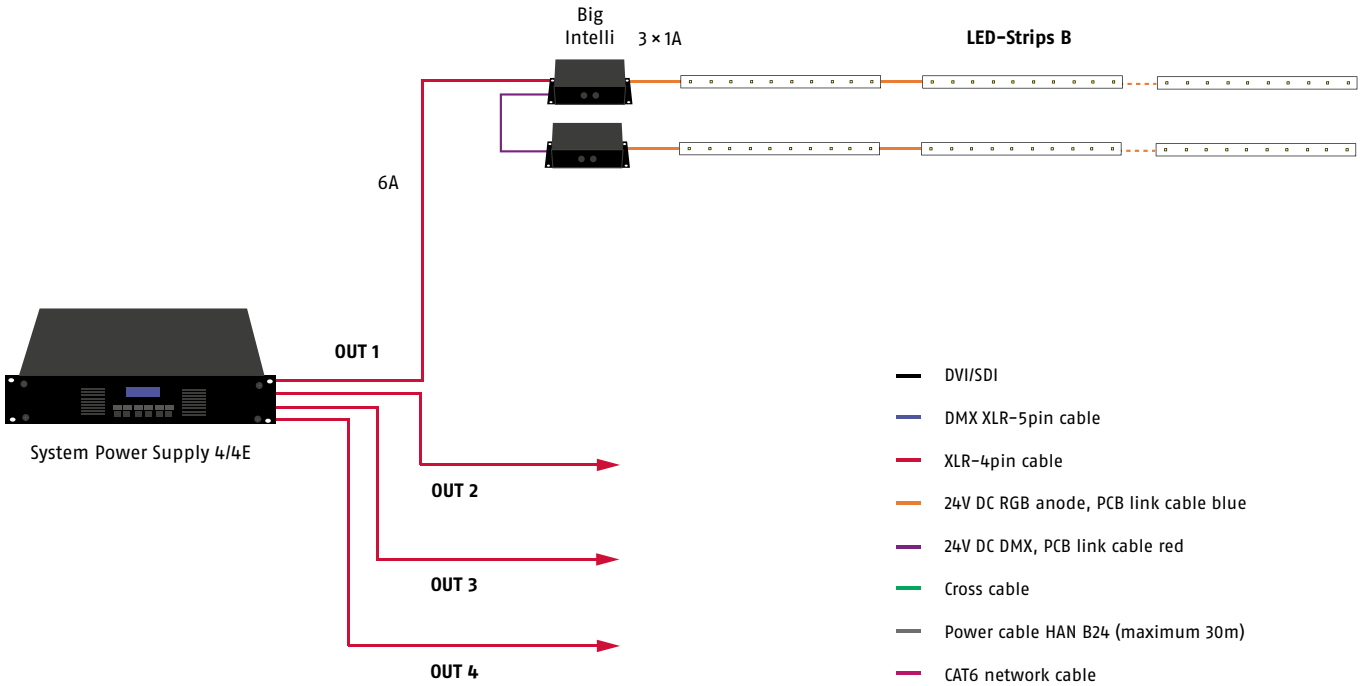


	LED-Strip B50-200/B50-250	LED-Strip B50-400/B50-450/ B50-500
with Big Intelli XLR*	maximum 256 LED-Strips per controller maximum 64 LED-Strips per output maximum 32 LED-Strips per Big Intelli XLR	maximum 128 LED-Strips per controller maximum 32 LED-Strips per output maximum 16 LED-Strips per Big Intelli XLR
with Intelligence*	maximum 240 LED-Strips per controller maximum 60 LED-Strips per output maximum 10 LED-Strips per intelligence	maximum 120 LED-Strips per controller maximum 30 LED-Strips per output maximum 5 LED-Strips per intelligence

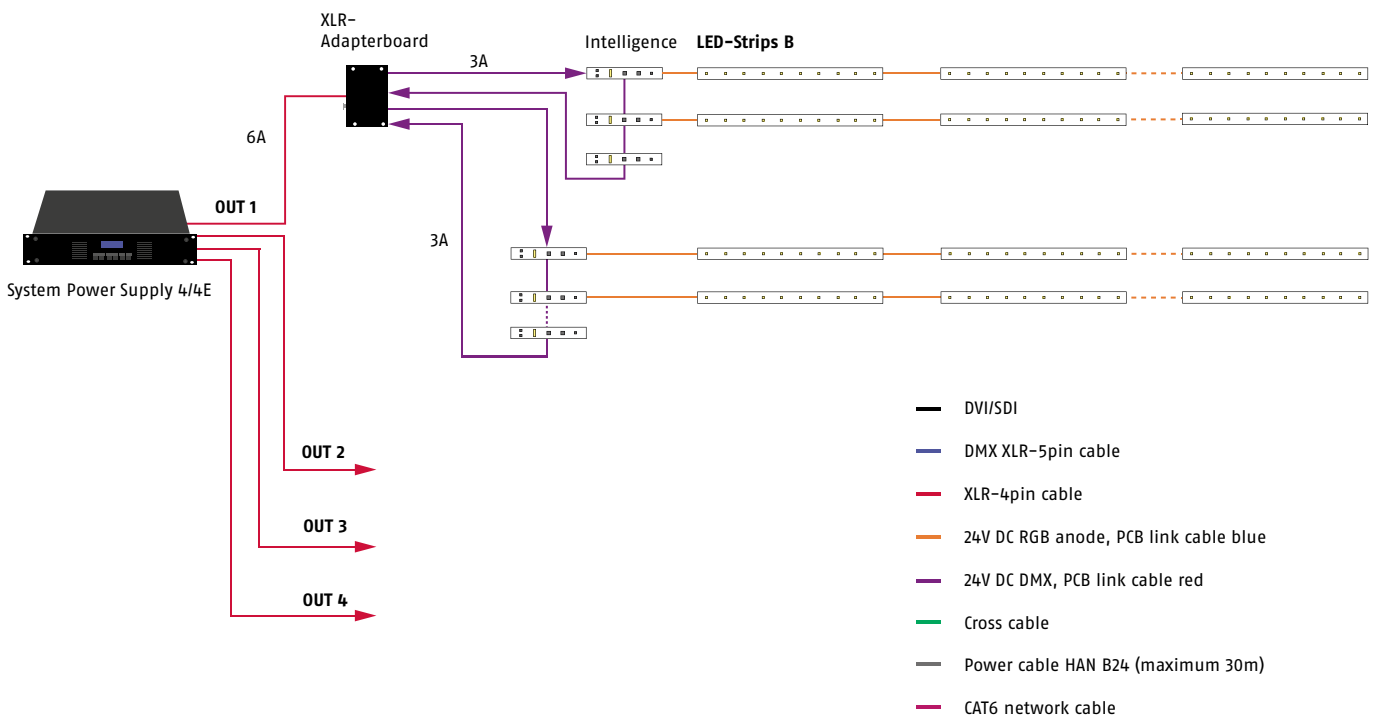
* The System Power Supplies 4 and 4E can only control the LED-Strips B with an additional Intelligence.

** 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 B50



Cabling example for System Power Supply 4 or 4E and Intelligence with LED-Strip B50



70W Power Supply and Big Intelli (dimmable)



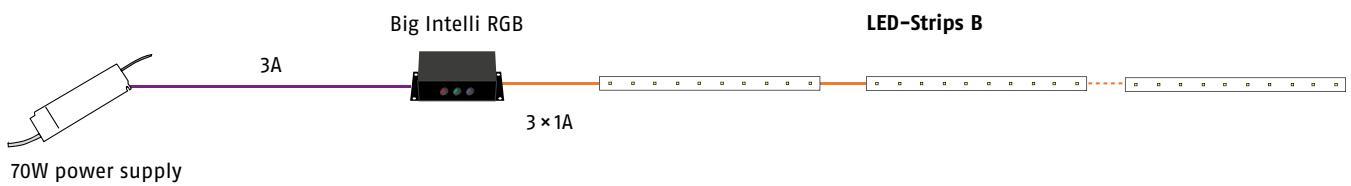
LED-Strip B50-200/B50-250

maximum 32 LED-Strips per controller

LED-Strip B50-400/B50-450/B50-500

maximum 16 LED-Strips per controller

Cabling example for 70W Power Supply and Big Intelli with LED-Strip B50



- 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

Order numbers

	Colour	LED-Pitch	Length	Power (I_{max})	Channels	Connection	Item number
LED-Strip B50-500 S ²	RGB	50mm	500mm	0,18A	0/3 ¹	System connector blue	101.0053
LED-Strip B50-450 S ²	RGB	50mm	450mm	0,18A	0/3 ¹	System connector blue	101.0056
LED-Strip B50-400 S ²	RGB	50mm	400mm	0,18A	0/3 ¹	System connector blue	101.0059
LED-Strip B50-250 S ²	RGB	50mm	250mm	0,09A	0/3 ¹	System connector blue	101.0062
LED-Strip B50-200 S ² MK2	RGB	50mm	200mm	0,09A	0/3 ¹	System connector blue	101.0065

1) The product can be controlled individually, or in groups using Intelligence.

2) Connector version. The products are also available as a solder pad only version.

	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 RGB (in case)	24V DC	3 × 1A		3	System connector red/blue	203.0032

	Operating voltage	Power (I_{max})	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

* 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.

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.

Schnick-Schnack-Systems GmbH

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