Radium
Die Lichtmarke

LED-Strips

Long light lines with LED strips
Successful planning and installation

Successfully planning and installing long light lines with LED strips
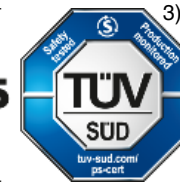## Content

– Features of Radium LED strips

– Accessories

– Product requirements for long light lines

– Easy product selection – The configurator

– Easily plan long lines of light
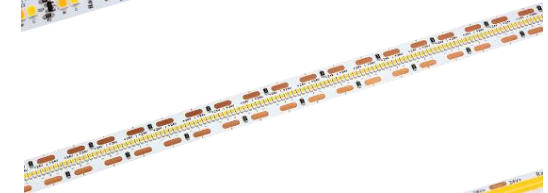
– Installation

– Coming Soon!

LED Strips – Star Portfolio
Product benefits

- Very long service life up to 60,000 h

- High efficiency up to 131 lm/W

- Luminous flux from 400 to 2300 lm/m

- High-quality IP67 silicone full encapsulation for water-protected LED strips

- Centimeter scale on the LED module

- Particularly robust thanks to extra-thick PCB and stable LEDs

- Very good binning with SDCM ≤3

- Short pitch dimensions

- Low LED spacing for homogeneous light

- Particularly long operable lengths of up to 18 m with one feed
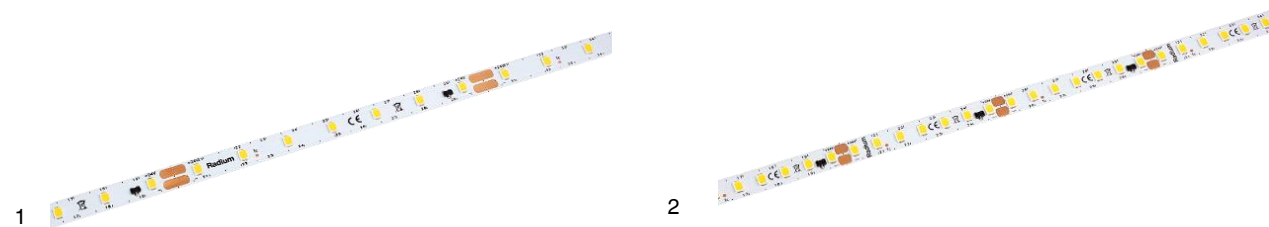
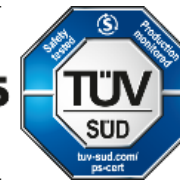- ENEC certification

LED Star Strip
White

Features

– Service life up to 60,000 h (L70B10)

– Can be operated on a single feeder for a particularly long time

– 24 V input voltage

– Very good binning with SDCM ≤3

– Ambient temperature range -20...+45°C

– 500 mm connection cable

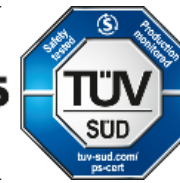|	1 LED STRIP 400 S	2 LED STRIP 900 S	2 LED STRIP 1700 S	2 LED STRIP 2200 S
Power (W/m)	3,6	7,2	14,4	19,2
Luminous flux (lm/m)*	460	920	1700	2180
Efficiency (lm/W)*	128	128	118	114
Max. operable length (m)	18	13	8	7
LEDs/m	70	140	140	140
Smallest ejectable unit (mm)	100	50	50	50
Pitch (mm)	14,3	7,1	7,1	7,1
Lightcolor	827, 830, 840, 865	827, 830, 840, 865	827, 830, 840, 865	827, 830, 840, 865
Width (mm)	8	8	8	8

LED Star Strip
RGB & Tunable White

Features

– Lifespan up to 60,000 h (L70B10)*

– 24 V input voltage

– Ambient temperature range -20...+45°C

– 500 mm connection cable

– Can be operated on a single feeder for a particularly long time

	[1] LED STRIP RGB S	[2] LED STRIP RGBW S	[3] LED STRIP TW S	[3] LED STRIP TWW S
Power (W/m)	14,4	12	19,2	19,2
Luminous flux (lm/m)	560	700	2020	1950
Efficiency (lm/W)	39	58	105	102
Max. operable length (m)	7	8	7	7
LEDs/m	70	70	140	140
Smallest divisible unit (mm)	100	100	50	50
Pitch (mm)	14,3	14,3	14,3	14,3
Lightcolor	RGB	RGB + 830	827 - 865	822 - 840
Width (mm)	10	12	12	10

LED Star Strip
White (water-protected)

Features

- High-quality IP67 silicone full encapsulation
- Excellent colour rendering CRI >80
- Service life up to 60,000 h (L70B10)
- 24 V input voltage
- Ambient temperature range -20...+45°C
- 500 mm connection cable
- Extra-strong 3M tape

	1 LED STRIP 400 S IP67	2 LED STRIP 800 S IP67	2 LED STRIP 1500 S IP67	2 LED STRIP 1900 S IP67
Power (W/m)	3,6	7,2	14,4	19,2
Luminous flux (lm/m)	400	800	1500	1950
Efficiency (lm/W)	111	111	104	102
Max. operable length (m)	18	13	9	7
LEDs/m	70	140	140	140
Smallest divisible unit (mm)	100	50	50	50
Pitch (mm)	14	7,1	7,1	7,1
Lightcolor	827, 830, 840, 865	827, 830, 840, 865	827, 830, 840, 865	827, 830, 840, 865
Width (mm)	10	10	10	10

*Gilt für Lichtfarbe 840

Standard Reels or Individual made?
The choice is yours!

5-meter reel

Your benefits

- Market standard unit of measure
- Low storage risk and high availability

50/30M Big Reel

Your benefits

- Low waste
- Maximum operable length can be used without additional strip-to-strip connectors
- Saves space and packaging material
- 50M at IP00 & 30M at IP67

Individual made

Your benefits

- Low installation effort
- Individual cuts
- Professional and ESD-protected processing
- 100% final inspection incl. functional test of the assembly

LED Strips – Essence Portfolio
Product benefits

- Long service life up to 50,000 h

- High efficiency up to 135 lm/W

- Very good colour rendering CRI >90

- Luminous flux from 400 to 2200 lm/m

- IP66 silicone extrusion for water-resistant LED strips

- Very good binning with SDCM ≤31)

- Unbeatable value for money

- ≥80 LEDs/m in the right combination with profile and cover ensure

  homogeneous light

¹⁾ ausgenommen ZeroPitch

LED Essence Strip
White

Features

– Lifespan up to 50,000 h (L70B50)

– 24 V input voltage

– Excellent color rendering with CRI >90 and SDCM ≤3

– Very high efficiency with up to 135lm/W

– 300 mm connection cable on both sides

	LED STRIP 500 E	LED STRIP 1000 E	LED STRIP 1500 E
Power (W/m)	3,6	8	12
Luminous flux (lm/m)	485	1040	1536
Efficiency (lm/W)	135	130	128
Max. operable length (m)	7	5,5	5
LEDs/m	80	80	80
Smallest divisible unit (mm)	100	100	100
Pitch (mm)	12,5	12,5	12,5
Lightcolor	927, 930, 940, 965	927, 930, 940, 965	927, 930, 940, 965
Width (mm)	5	5	5
Power (W/m)	8	8	8

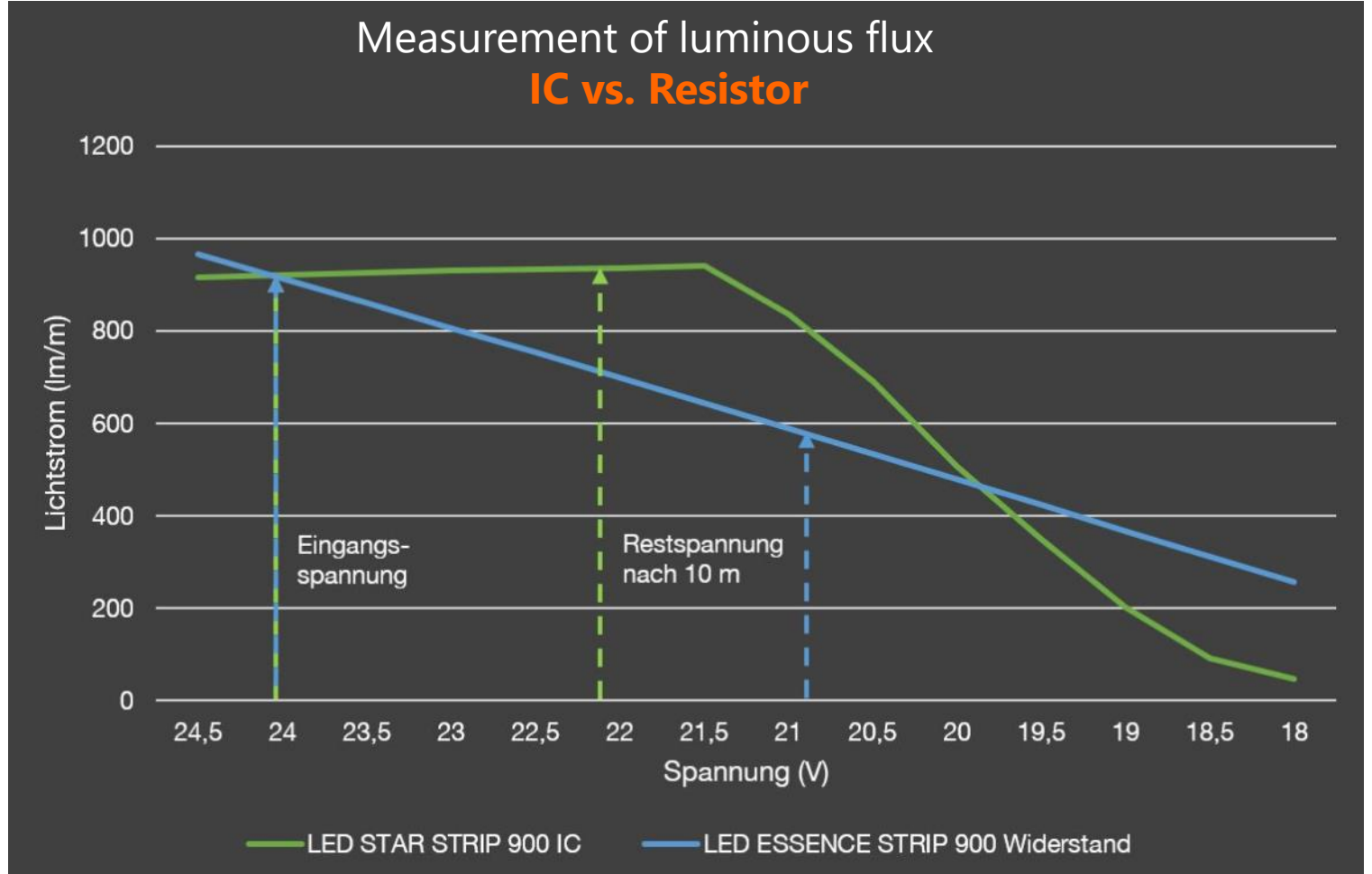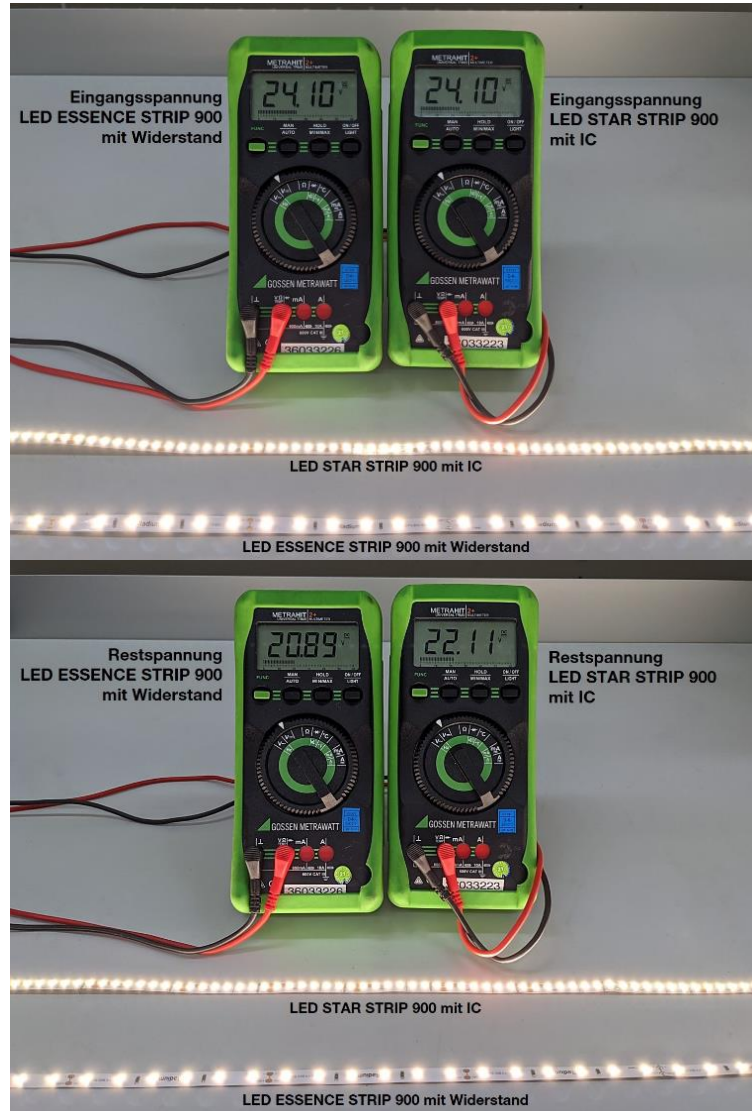# LED Essence Strip
White (water-protected)

Features

– Lifespan 50,000 h (L70B50)

– 24 V input voltage

– Very good binning with SDCM ≤3

– Ambient temperature range -20...+45°C
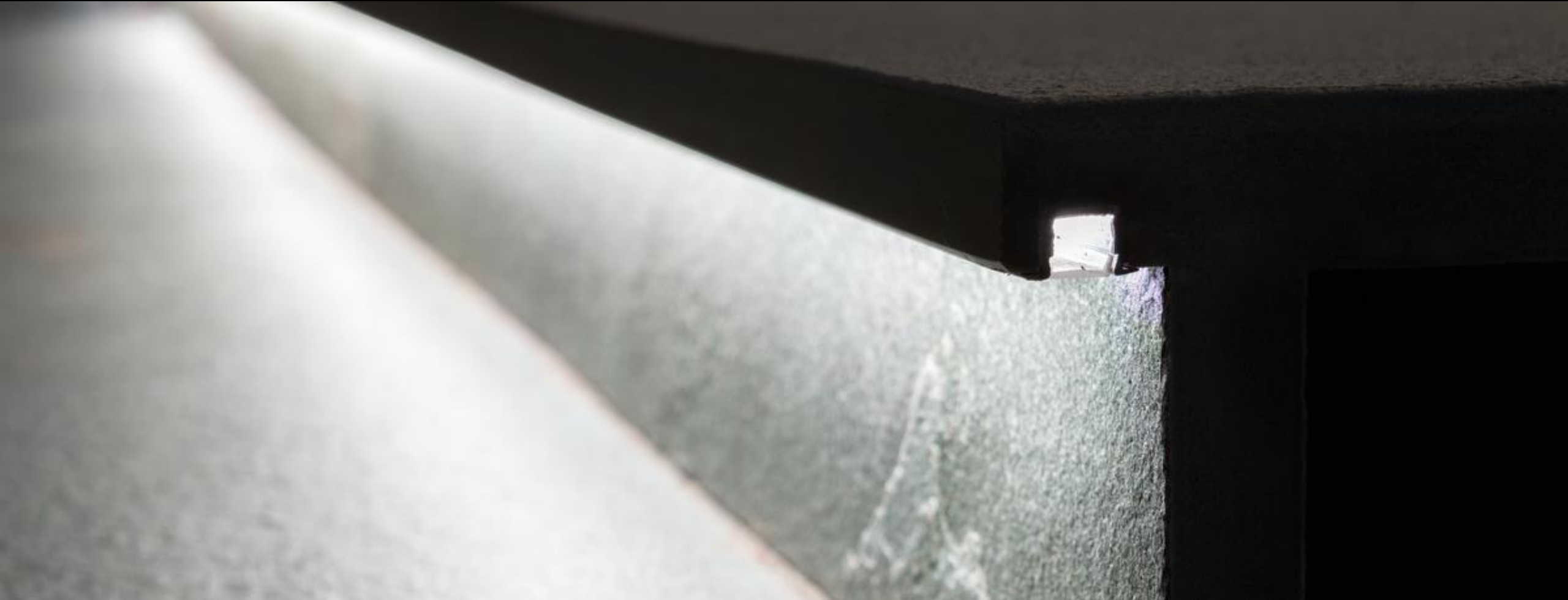
– 300 mm connection cable on both sides

	LED STRIP 400 E IP66	LED STRIP 1000 E IP66	LED STRIP 1400 E IP66
Leistung (W/m)	3,6	8	12
Lichtstrom (lm/m)*	460	988	1459
Effizienz (lm/W)*	128	124	122
Max. betreibbare Länge (m)	7	5,5	5
LEDs/m	80	80	80
Kleinste teilbare Einheit (mm)	100	100	100
Pitch (mm)	12,5	12,5	12,5
Lichtfarbe	927, 930, 940, 965	927, 930, 940, 965	927, 930, 940, 965
Länge (m)	5	5	5
Breite (mm)	10	10	10

Constant luminous flux over the entire length

IC vs. Resistor

Measurement of luminous flux
IC vs. Resistor

LED Strip Accessories

20.02.2024
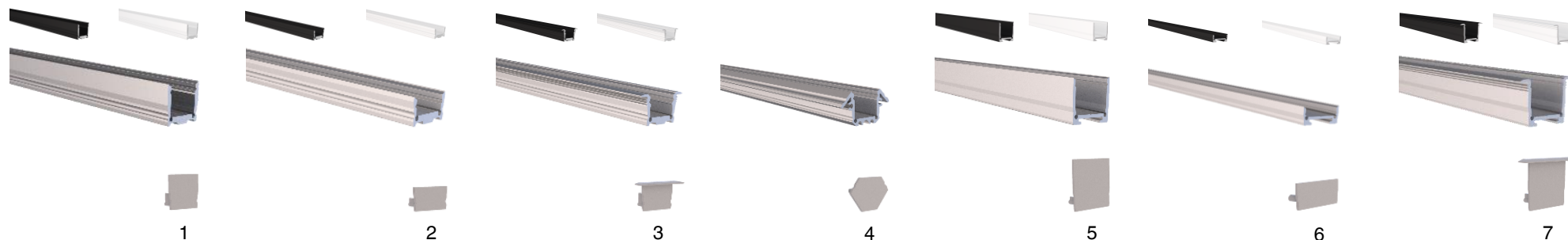
Profile, Cover & Accessories

Aluminum Profiles & End Caps

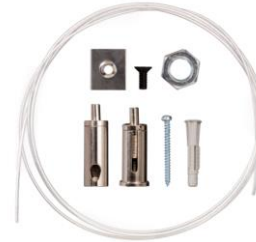1   2   3   4   5   6   7

Features

- High-quality anodised aluminium profile with almost rimless light emitting surface
- Optimal cooling and protection for LED strips
- different mounting options
- Simple and timeless design
- All profiles available in lengths of 1m, 2m and 3m, also 5m on request
- SQUARE end caps for U- and U-FLAT profiles are also available, matching the SQUARE cover

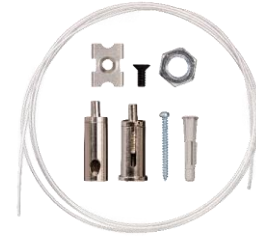|	Profile	l (mm)	w (mm)	h (mm)	wi (mm)	Appropriate end-cap
SMALL	1 PROFILE SMALL U	1010	13,3	16,0	13,5	ENDCAP PROFILE SMALL U
	2 PROFILE SMALL U FLAT	1010	17,3	9,6	13,5	ENDCAP PROFILE SMALL U FLAT
	3 PROFILE SMALL WING	1010	24,85	13,0	18,8	ENDCAP PROFILE SMALL WING
	4 PROFILE SMALL CORNER	1010	22,8	-	13,5	ENDCAP PROFILE SMALL CORNER
MEDIUM	5 PROFILE MEDIUM U	1010	27,0	25,9	22,2	ENDCAP PROFILE MEDIUM U
	6 PROFILE MEDIUM U FLAT	1010	27,0	10,2	22,2	ENDCAP PROFILE MEDIUM U FLAT
	7 PROFILE MEDIUM WING	1010	40,0	25,9	27,0	ENDCAP PROFILE MEDIUM WING

Profile, Cover & Accessories

Covers & Accessories

Accessories PROFILE SMALL

Accessories PROFILE MEDIUM

Features

- Clear and matt plastic covers, available in 1m, 2m, 3m and 20m*
- Rope suspensions with and without power supply
- Spring clamps for recessed ceiling mounting
- Mounting brackets in plastic and metal

	Cover	Rope suspension	Spring clip	Mounting bracket
PROFILE SMALL	COVER SMALL CLEAR	• SUSPENSION KIT S • SUSPENSION KIT S POWER	• BRACKET SPRING SMALL	• MOUNTING BRACKET SMALL MET • MOUNTING BRACKET SMALL PC
	COVER SMALL FROSTED			
	COVER SMALL SQUARE			
PROFILE MEDIUM	COVER MEDIUM FROSTED	• SUSPENSION KIT M • SUSPENSION KIT M POWER	• BRACKET SPRING MEDIUM	• MOUNTING BRACKET MEDIUM MET • MOUNTING BRACKET MEDIUM PC
	COVER MEDIUM SQUARE			

How to Plan Long Lines of Light
Product Requirements

How to Plan Long Lines of Light
Product Requirements

1. **Long maximum operable length**
   – up to 18m with one feed-in

2. **Same luminous flux over the entire length**
   – LED Strips with ICs for Consistent Voltage
   – Extra thick PCB for less resistance

3. **Easy to install**
   – Correct Length LED Strip
   – Long profiles and covers

4. **Few electrical connections**
   – Ballasts with up to 250W
   – Double-sided/central feed-in:
     up to 36m LED strip with one power supply

5. **Few mechanical connections**
   – 3m long Profile
   – Covers up to 20m long

Easy product selection

The configurator – time-saving and safe

Easily plan long lines of light

LDT Files

Safety information.
LED-Strips.

– The LED module itself and all its components must not be subjected to mechanical stress.

– Mounting must not damage or destroy PCB.

– To avoid mechanical damage, the LED modules should be securely attached to the intended substrate.

The LED module does not include protection against short circuits, overload or overheating.
In order to operate LED modules safely, it is necessary to operate them with an LED driver that protects against short circuit, overload and overheating.
To simplify luminaire/installation approval, LED drivers and LED modules must bear the CE mark.

– The installation of LED modules (with LED driver) must be carried out in compliance with all applicable electrical and safety standards. Only qualified personnel are allowed to carry out installations.

– Pay attention to the correct polarity! Incorrect polarity does not result in any light emission and can damage the LED module.

– Parallel connection is strongly recommended as a safe electrical mode of operation. Series connection is not recommended.

– When mounted on metallic or otherwise conductive surfaces, electrical insulation must be provided at the solder joints between the module and the mounting surface.
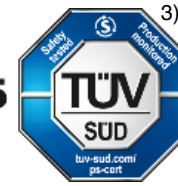
Safety information.

LED-Strips.

- When assembling the module, pay attention to ESD steps.

- Please make sure the LED driver has enough power to run the total load.

- It is the user's responsibility to provide appropriate protection against corrosive substances such as moisture and condensation, as well as other harmful elements.

- For applications that are exposed to moisture and dust, the module must be protected by a device or enclosure with an appropriate protection class.
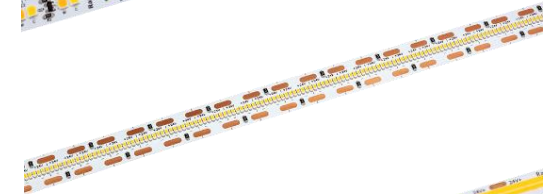
LED Strips
Comming Soon !

- LED Strip 400 CRI 90

- LED Strip 900 CRI 90

- LED Strip 1400 CRI 90

- LED Strip 2200 CRI 90

- LED Strip 3000 CRI 90

- Up to 166lm/w

- Up to 3160lm/m

- 160 LEDs/m

- 60.000h lifetime

Successfully planning and installing
long light lines with LED strips

Do you have any
questions?

Radium
Die Lichtmarke

Thank
you.

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