

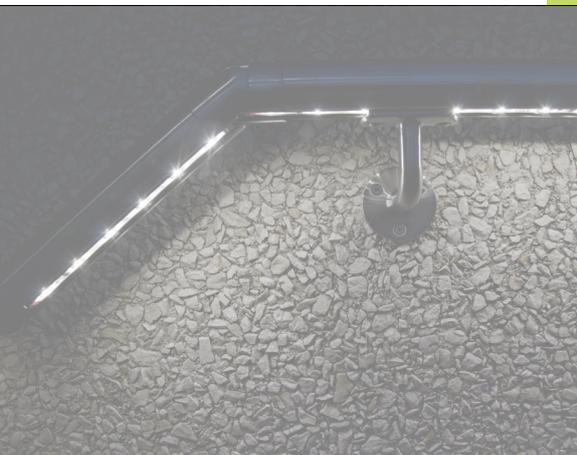
SYSTEMATIC QUALITY

# LaneLED INOX42

HANDRAIL LIGHTING SYSTEM



Product information



**GIFAS**  
ELECTRIC

09 | 15

## Hand rails with LED lighting: Increased safety in a sophisticated design

As an established manufacturer of emergency lights for road and rail tunnels using LED technology, we have accumulated a wealth of knowledge and know-how. Based on this experience, we are taking another step towards providing safety everywhere people go with our LED-illuminated hand rails.

### In general

A hand rail is a rail within easy reach that people can hold on to or allow themselves to be guided by. Most hand rails come in the form of posts, rails or bars. Common materials used are metal, wood, wood composites or plastic. A hand rail can be the upper part of a balustrade or railing. It can also be attached directly to a wall.

### Requirements

A «fixed» hand rail is required by law. «Rigging», meaning hand rails made with rope, are only intended as decoration since they could give way in case of a fall. They should be continuous and ideally extend past the first and last steps of stairs.

**This innovation is based on different directives, such as DIN 18065, information from the Swiss Competence Centre for Accident Prevention (bfu) and SUVA recommendations.**

It should be possible to grip them securely, they should be warm to the touch, round or oval and have a diameter between 30-45 mm. They must run continuously (even in front of windows and recesses), be installed at a height of 85 to 90 cm and should extend at least 30 cm past the first and last steps of stairs. Tactile, meaning noticeable and if possible contrasting, elements should signal the beginning and end.

### Applications

- underpasses and overpasses in railway stations
- escape route and emergency staircases
- decorative applications in office or exhibition wings
- hospitals and nursing homes
- schools and day care centres
- shopping and meeting areas
- hotels and restaurants
- private and public roads and pathways
- staircases



### Our services

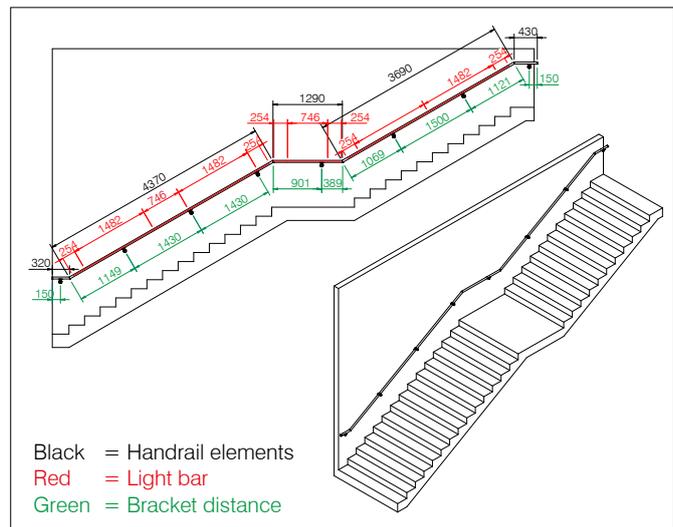
All of our calculations and drawings are prepared in close cooperation with planners. This guarantees that the LaneLED INOX42 handrail is implemented according to customer specifications.

GIFAS also offers the following services:

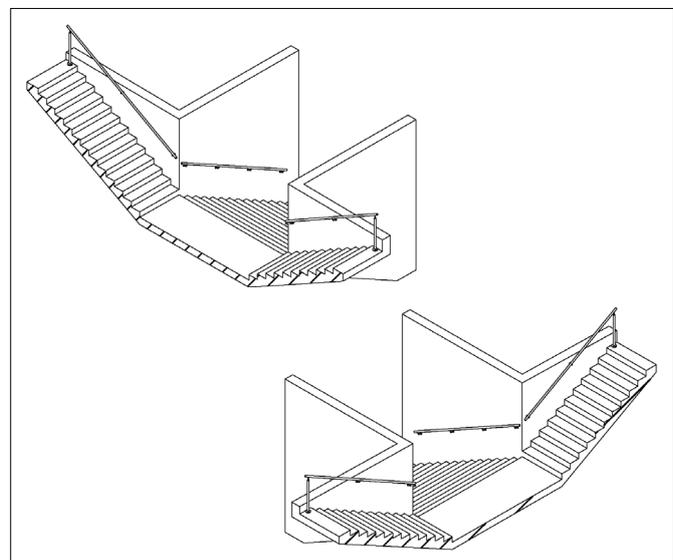
- planning and concept development as per specifications
- relux lighting calculation
- consultation and bracket through our field service
- creation of object-specific plans and documents
- mutual bracket among the partner companies, contact mediation

In the following pages, you will find an overview of the functioning principles and benefits of the LaneLED INOX42, as well as detailed information about the individual components.

We are always very happy to answer any of your questions.

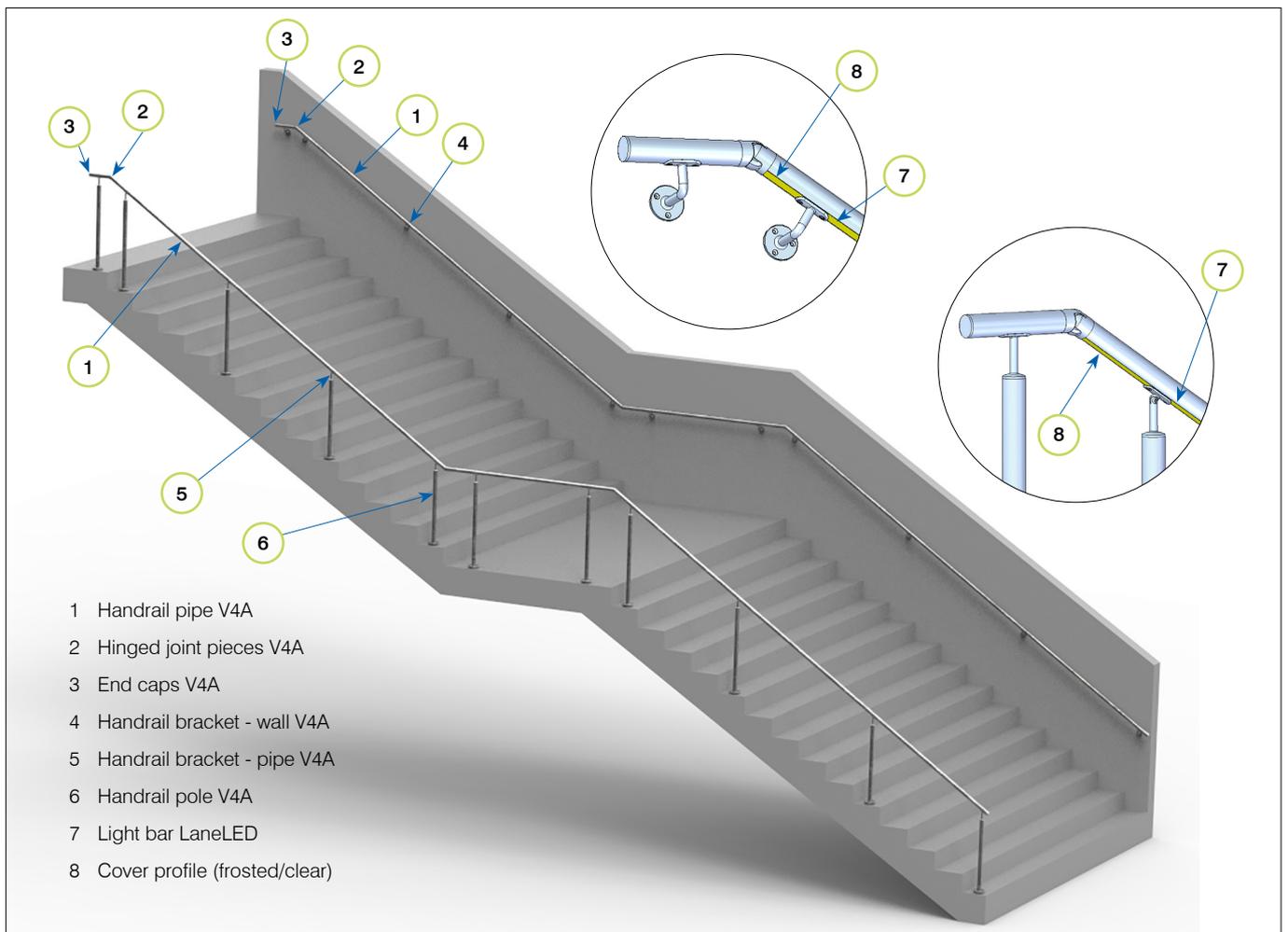


Detailed technical drawing of LaneLED INOX42 handrail project.



3D drawing of LaneLED INOX42 handrail

# System components of the LaneLED INOX42

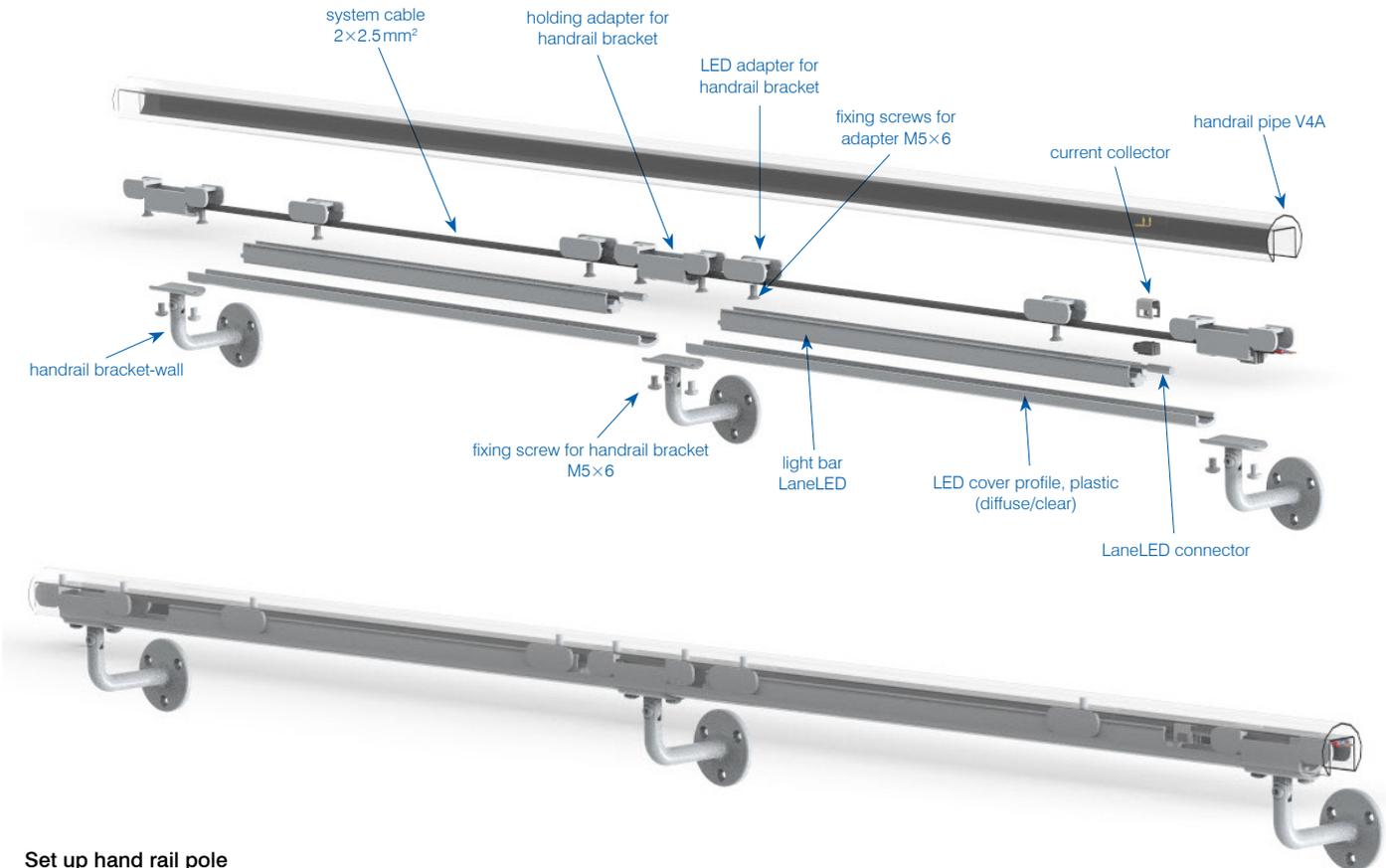


## Handrail system

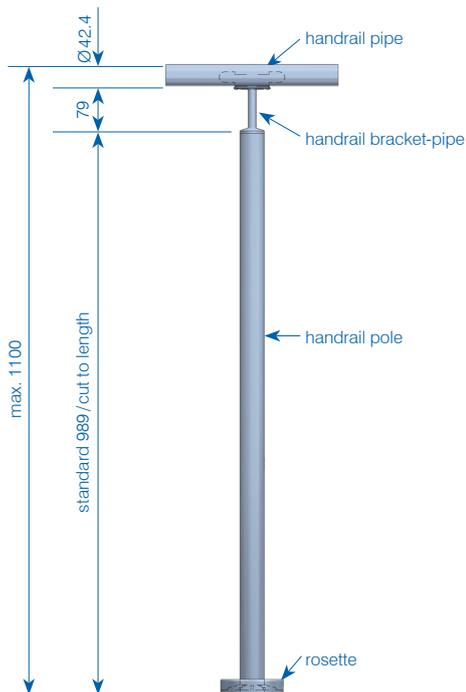
LED-equipped handrails for outdoor and indoor applications (balcony handrails, stairway handrails and terrace handrails) which can very easily be assembled on classic handrail posts using special pipe sections. The pipe brackets and adapters allow an inner cable guide with the GIFAS-developed connection cabling. All metal components are V4A-quality, with a protection class of IP66/69K.

## Wall handrail system

LED-equipped handrails for outdoor and indoor applications as anti fall guard and guide bracket on stairways with functional, accent or path lighting. A multitude of individual elements allows the needs-based supply of all kinds of wall handrails.

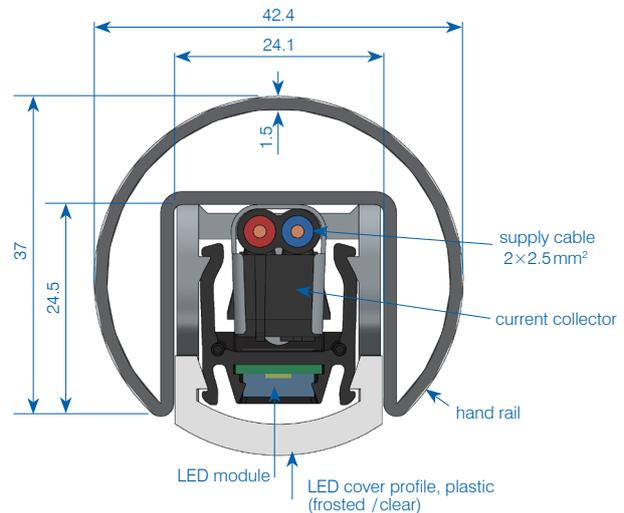


## Set up hand rail pole



## Handrail LaneLED INOX42

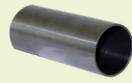
The GIFAS handrail profile is the carrier element for the LaneLED INOX42. The profile and the various fastening and connecting items are designed and coordinated in a way that ensures the electric supply with the cable.



## Overall product range

The basic product range already covers a multitude of requirements. The product range listed here is not complete. Just ask us, we will provide the ideal solution!

### LED handrail pipe

Item no.	Description	View
177071	LaneLED INOX42, LED handrail pipe, V4A-1.4401, Ø 42.4 × 1.5 mm, length 1'000 mm, brushed	
168078	LaneLED INOX42, LED handrail pipe, V4A-1.4401, Ø 42.4 × 1.5 mm, length 2'500 mm, brushed	
177070	LaneLED INOX42, handrail pipe round, V4A-1.4401, Ø 42.4 × 1.5 mm, length 2'500 mm, brushed	
168087	LaneLED INOX42, handrail pipe round, V4A-1.4401, Ø 42.4 × 2 mm, length 2'500 mm, brushed	

### Pipe connectors

Item no.	Description	View
860417	LaneLED INOX42, LED hinged joint piece, V4A-1.4401, Ø 42.4 × 1.5 mm, 25-55° downwards, brushed	
860418	LaneLED INOX42, LED hinged joint piece, V4A-1.4401, Ø 42.4 × 1.5 mm, 25-55° upwards, brushed	
860427	LaneLED INOX42, LED pipe connector, V4A-1.4401, Ø 42.4 × 1.5 mm, B=6 mm, brushed	
860424	LaneLED INOX42, Pipe hinged joint piece, V2A-1.4301, Ø 42.4 × 1.5 mm, 0-70°, H=30 mm, brushed	

### End pieces

Item no.	Description	View
860419	LaneLED INOX42, LED end cap, V4A-1.4401, Ø 42.4 × 1.5 mm, H=4 mm, brushed	
860425	LaneLED INOX42, end cap, V4A-1.4401, Ø 42.4 × 2.0 mm, H=4 mm, brushed	
860620	LaneLED INOX42, curved end, V4A-1.4401, Ø 42.4 × 2.0 mm, 90°, L=81 mm, brushed	

### Wall flange

Item no.	Description	View
860428	LaneLED INOX42, LED wall flange, V4A-1.4401, Ø 42.4/ D=90/ H=30 mm, brushed	

### Handrail brackets

Item no.	Description	View
860450	LaneLED INOX42, wall handrail support system cable, V4A-1.4401, Ø 42.4/ W=75/ H=50 mm, brushed	
860426	LaneLED INOX42, wall handrail support, V4A-1.4401, Ø 42.4/ W=75/ H=50 mm, brushed	
860434	LaneLED INOX42, wall handrail support joint, V4A-1.4401, Ø 42.4/ W=75/ H=50 mm, brushed	
860449	LaneLED INOX42, pipe handrail support system cable, V4A-1.4401, Ø 42.4/ H=79 mm, brushed	
860432	LaneLED INOX42, pipe handrail support, V4A-1.4401, Ø 42.4/ H=79 mm, brushed	
860433	LaneLED INOX42, pipe handrail support joint, V4A-1.4401, Ø 42.4/ H=79 mm, brushed	
860430	LaneLED INOX42, handrail post, V4A-1.4401, Ø 42.4 × 2.0 mm, H=989 mm, incl. flange, brushed	
860431	LaneLED INOX42, rosette for posts, V4A-1.4401, Ø 110 mm, H=27 mm, brushed	

### Cover

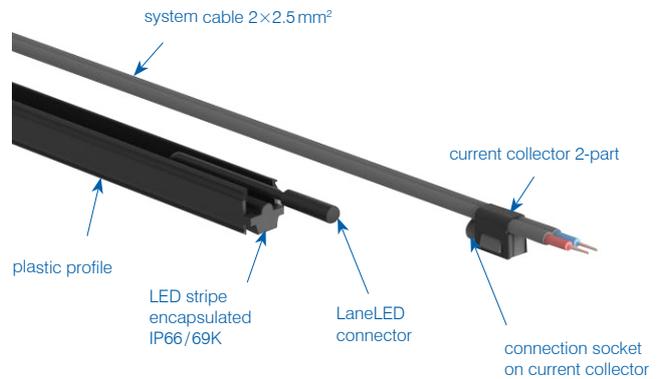
Item no.	Description	View
860557	LaneLED INOX42, LED cover profile clear, plastic, length 1'600 mm	
860558	LaneLED INOX42, cover profile frosted, plastic, length 1'600 mm (45% reduction in luminous flux)	

### Adapter

Item no.	Description	View
860411	LaneLED INOX42, adapter LED, V4A-1.4401, 23.5 × 50 mm, frosted	
860410	LaneLED INOX42, holding adapter, V4A-1.4401, 23.5 × 114 mm, frosted (fixing holes in line)	
* 860572	LaneLED INOX42, holding adapter, V4A-1.4401, 23.5 × 114 mm, frosted (fixing holes diagonal)	

Other versions on request

## LED-Set



## GIFAS LaneLED

The LaneLED light bar from GIFAS is the base element for the illuminated «Handrail Lighting System». The appropriate type is selected depending on the requirements of the operator, whereas the desired lighting strength is the most important specification.

The other parameters of the LaneLED are carefully defined.

- Light colour: ~ 3'000 K / ~ 4'400 K / ~ 5'800 K
- Beam angle: 120°
- Operating life: L90/B10 100'000 h +25° C
- Protection category: IP66/69K
- Impact resistance: IK10
- Operating range of temperature: -25° C to +45° C

## Composition of the LaneLED

The carrier profile of the LaneLED light bar consists of a special aluminium profile with special characteristics for mechanical and chemical properties.

A flexible and separable LED strip is inserted from below and incorporated into the ALU profile with 2K casting compound. The encapsulation leads to the high protection class of IP66/69K.

There is room for the cable guide and the current collector in the upper part of the profile (in between the flanks).

## LaneLED light bar

GIFAS LaneLED coated with special profile ALU, approx. 19x18x1'482mm with LED modules 21-32VDC, ~ 3'000K/~ 4'400K/~ 5'800K, beam angle 120°, completely ready for connection, not including assembly materials (system cable and current collector).

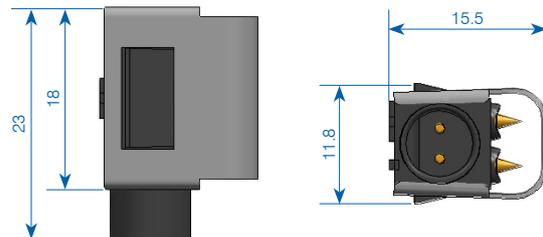


## Assembly equipment for rent

Item no.	Description
860565	Crimping tool (mechanical) for system cable
179280	Battery pack 24V, 7.2Ah

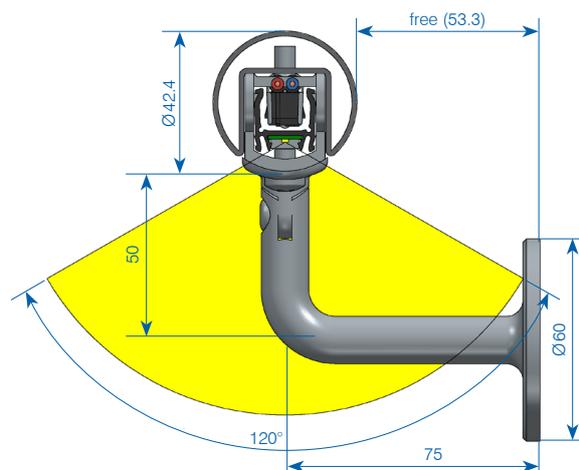
## Current collector

Each individual LaneLED is connected to the power supply via the current collector and is freely attachable to the flat cable 2x2.5mm². The connection socket serves as the interface to the current collector and the connection cable with plug of the LaneLED (IP66/69K connection).



## Illumination

Cone of light when in use with the LaneLED INOX42 hand rail:



## Accessories LaneLED

Item no.	Description
209768	LED, system cable black, 2x2.5mm² flat cable CPR B2ca XLPO/XLPO
860120	LED, current collector SNAP 2P, 42V-5A, V2A 1.4310 (requires special pliers Item no. 860565)

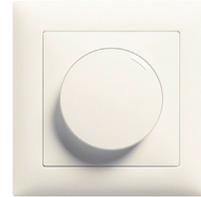


Staircase lighting entrance area

## Standard with output 60W/120W

The LaneLED INOX42 light bars can be dimmed – using a regular 1-10 VDC rotary dimmer, their brightness is freely adjustable!

## For dimming



Item no.	Description
104780	Recessed rotary dimmer 1-10VDC Edizio, white

## Technical data LaneLED – Light comparison measurements

Perfect light for each application! An overview of the values that can be achieved with the LaneLED light bars.

### Basis

LaneLED in a hand rail at a height of 80cm across a 2m wide staircase provide the following values with regard to their lighting strength.

### LaneLED light bar type 11, 3'000K, IP66/69K, 21-32VDC, 400Lux-95cm

Item no.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm
860550	190	6	2	80	120
860551	560	18	6	240	360
860552	928	30	10	400	600
860553	1'482	48	16	640	960

### LaneLED light bar type 11, 4'400K, IP66/69K, 21-32VDC, 400Lux-95cm

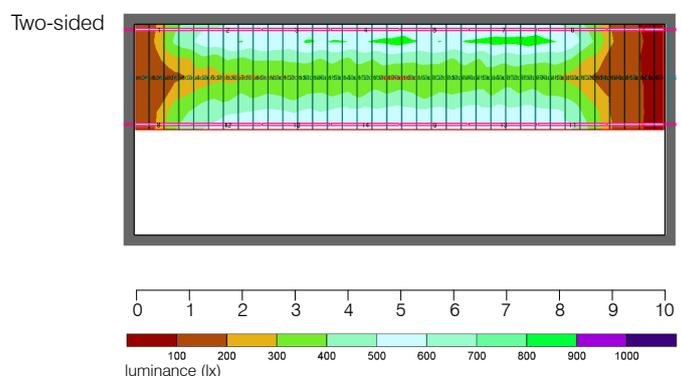
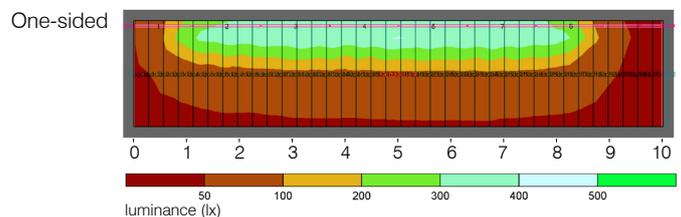
Item no.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm
860445	190	6	2	80	120
860446	560	18	6	240	360
860447	928	30	10	400	600
860448	1'482	48	16	640	960

### LaneLED light bar type 11, 5'800K, IP66/69K, 21-32VDC, 400Lux-95cm

Item no.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm
860388	190	6	2	80	120
860389	560	18	6	240	360
860390	928	30	10	400	600
860420	1'482	48	16	640	960

Maximum length with LaneLED type 11 to 36m per 30VDC infeed is possible.

Hand rail height 100 cm, stair case width 2 m, beam angle hand rail 0°:



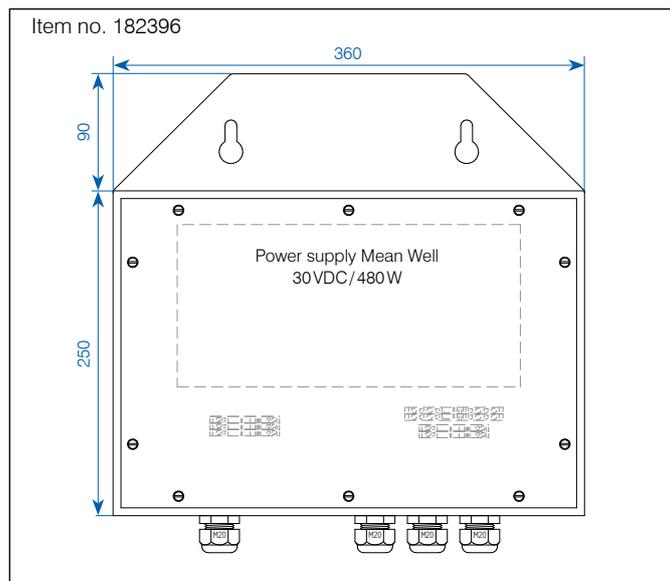
## System components power supply

The electric power supply of the LaneLED light bar is ensured through power supplies that are individually installed into the main or sub-distribution or that are directly built into the housing on site. (housing hard rubber or in polycarbonate housing)

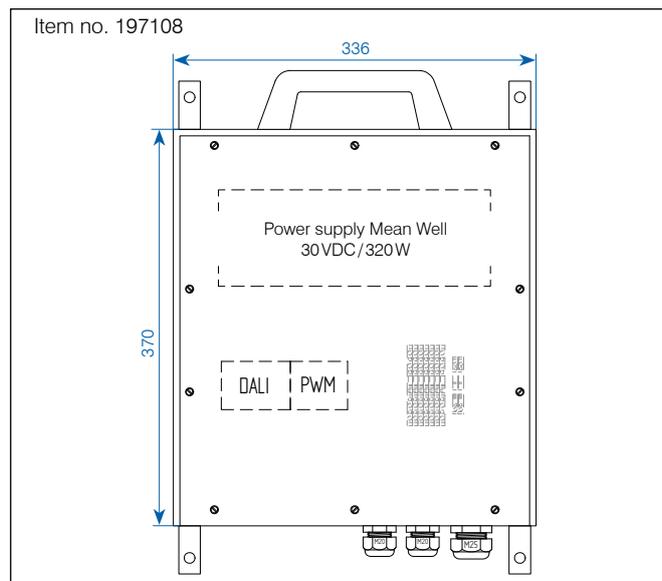
The supply voltage is 24VDC and it is generated with a power pack 230VAC – different output sizes are available! (In each case depending on the total lighting length and the performance of the desired LED light output).

A simple 230VAC/240VDC (21-32VDC) power supply is required. According to customer requirements, it can also be installed anywhere in the distributor or in the socket.

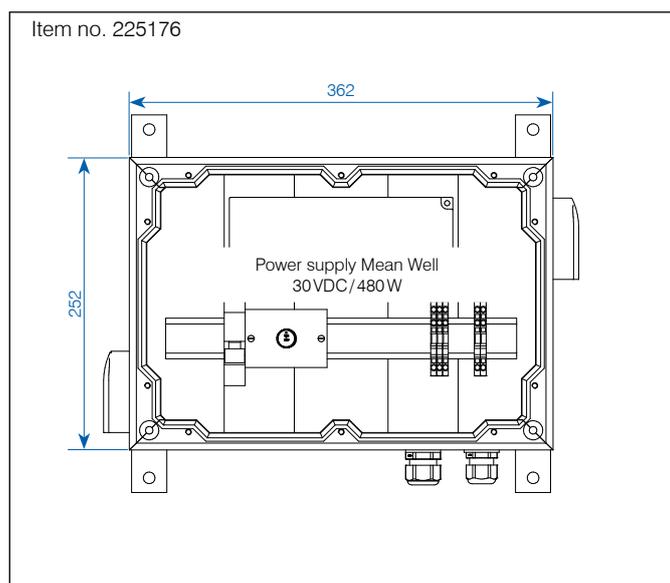
## Recessed/surface-mounted power supply with service socket



Item no.	Description
182396	Hard rubber distribution box type 3020 grey 1 × operating units 480W



Item no.	Description
197108	Hard rubber distribution box type 7750 grey 1 × operating units 480W (Mean Well HLG-480H series) dimmable with DALI



Item no.	Description
225176	Hard rubber distribution box type 3800 light grey 361 × 252 × 133mm, with mounting brackets V2A 230V/24VDC/120W, dimmable via built-in potentiometer

# System components power supply

## System components for power supply

The INOX42 system can be operated via a power supply (24-32VDC) or a similar DC supply.

Power supplies and operating units are available in various power outputs and sizes.

The power supply can be installed in surface mounted or recessed mounted cabinets in different sizes.

The INOX42 system can be dimmed via a pulse width modulation module.



Item no.	Description
196048	Power supply 230VAC/24VDC -5A/120W IP67, DALI, 191×63×37.5mm, dimmable
207188	Power supply 230VAC/24VDC -2.5A/60W IP67, DALI 2, 150×53×35mm, dimmable
198788	Power supply 230VAC/24VDC -250W, IP67, 252×90×44mm, dimmable
179378	Power supply 230VAC/30VDC-8A/240W metal case 244×68×39mm, IP65

Item no.	Description
199429	Power supply LED 230VAC/24VDC -5A/120W IP67, plastic case 191×63×37.5mm, dimmable
190156	Power supply LED 230VAC/24VDC -2.5A/60W IP67, plastic case 150×53×35mm, dimmable



*Crans Montana*



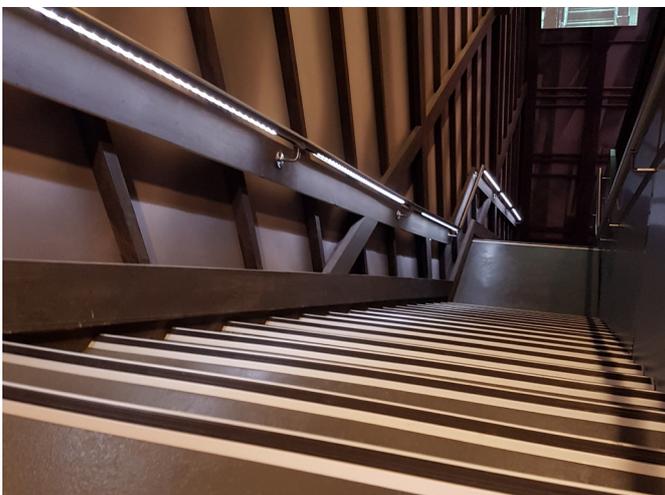
*Säntispark St. Gallen (waterpark)*



*Alpiq St. Gallen*



*Railway station Sembrancher*



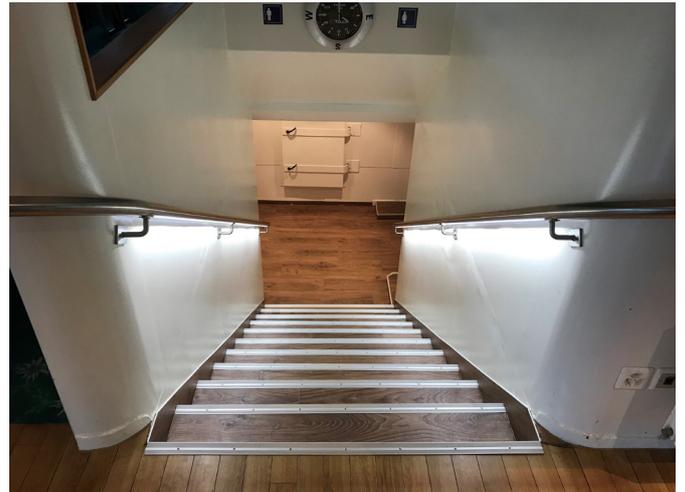
*Charlie Chaplin museum*



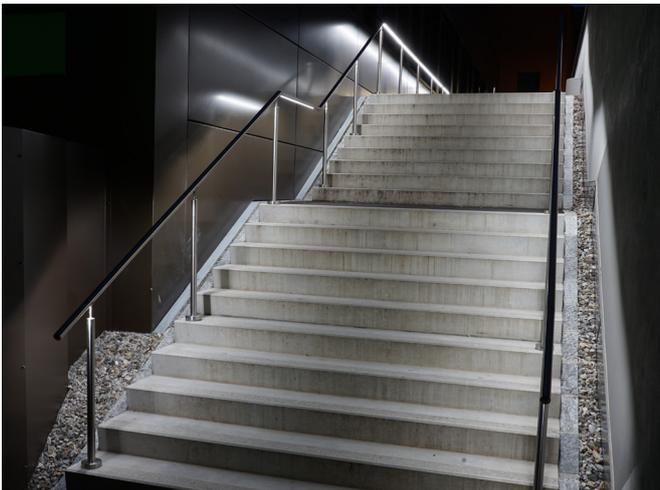
*Health centre Stein*



Witzenzel, Romanshorn



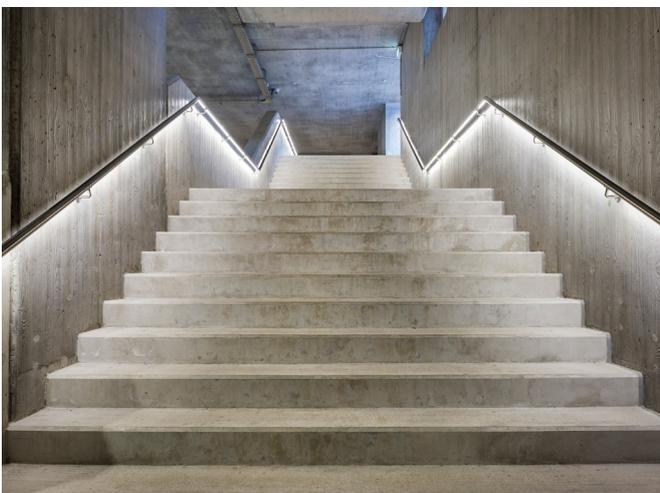
MS Jungfrau, Brienersee



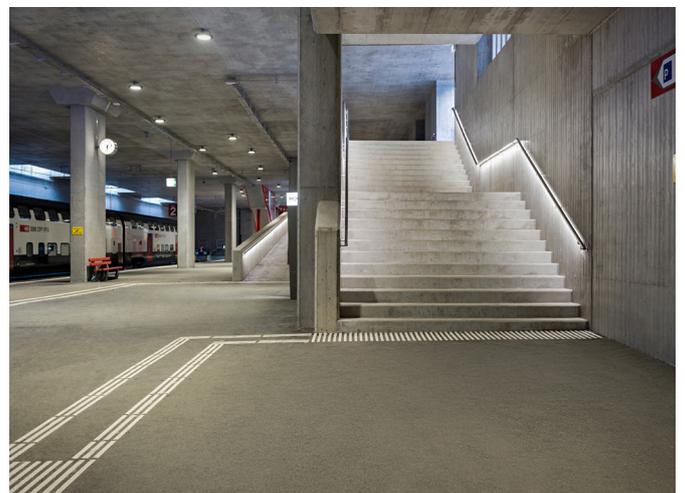
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Railway station Le Châble



Railway station Le Châble

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We reserve the right to make technical modifications. V0821



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