SYSTEMATIC QUALITY

LaneLED INOX42

Handrail Lighting System

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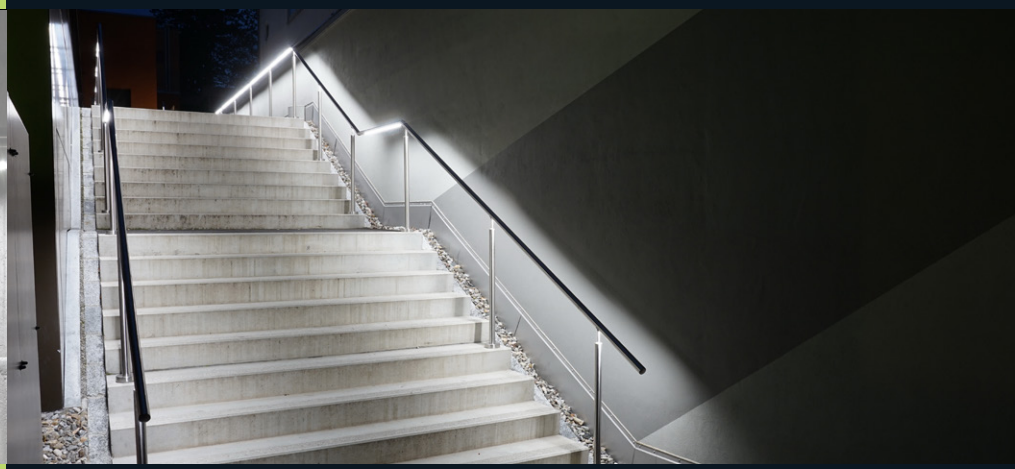


GIFAS ELECTRIC

Utilising synergies – creating safety

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
- staircases

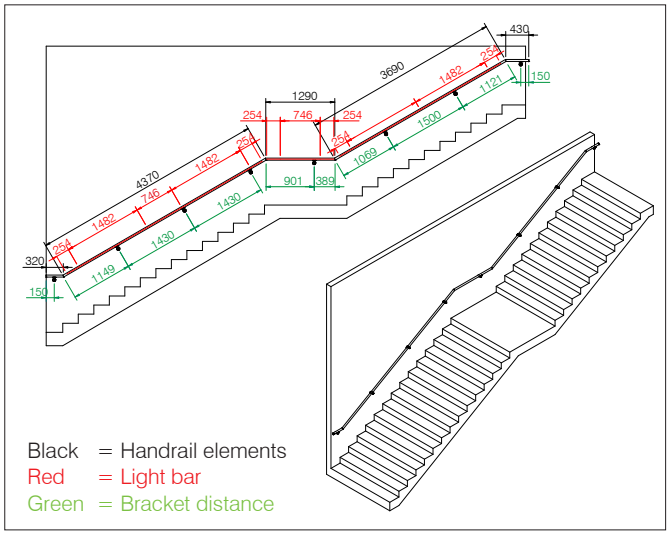
Our services

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

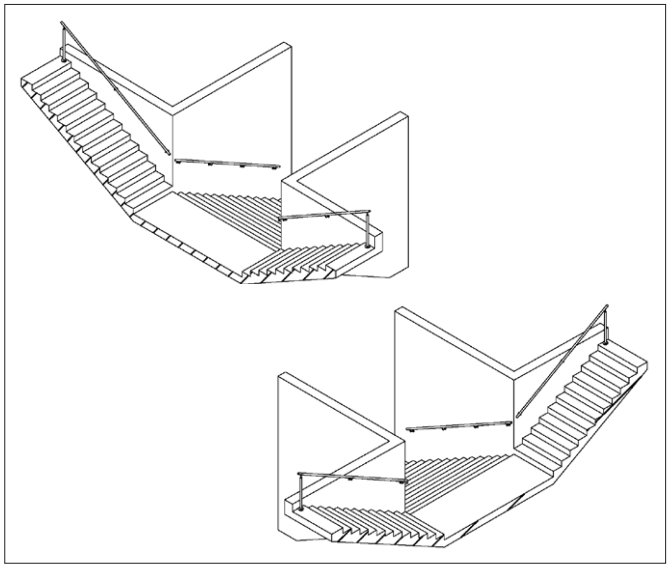
GIFAS also offers the following services:
- planning and concept development as per specifications
- relux lighting calculation
- consultation and bracket through our field service
- creation of object-specific plans and documents
- mutual bracket among the partner companies, contact mediation

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.

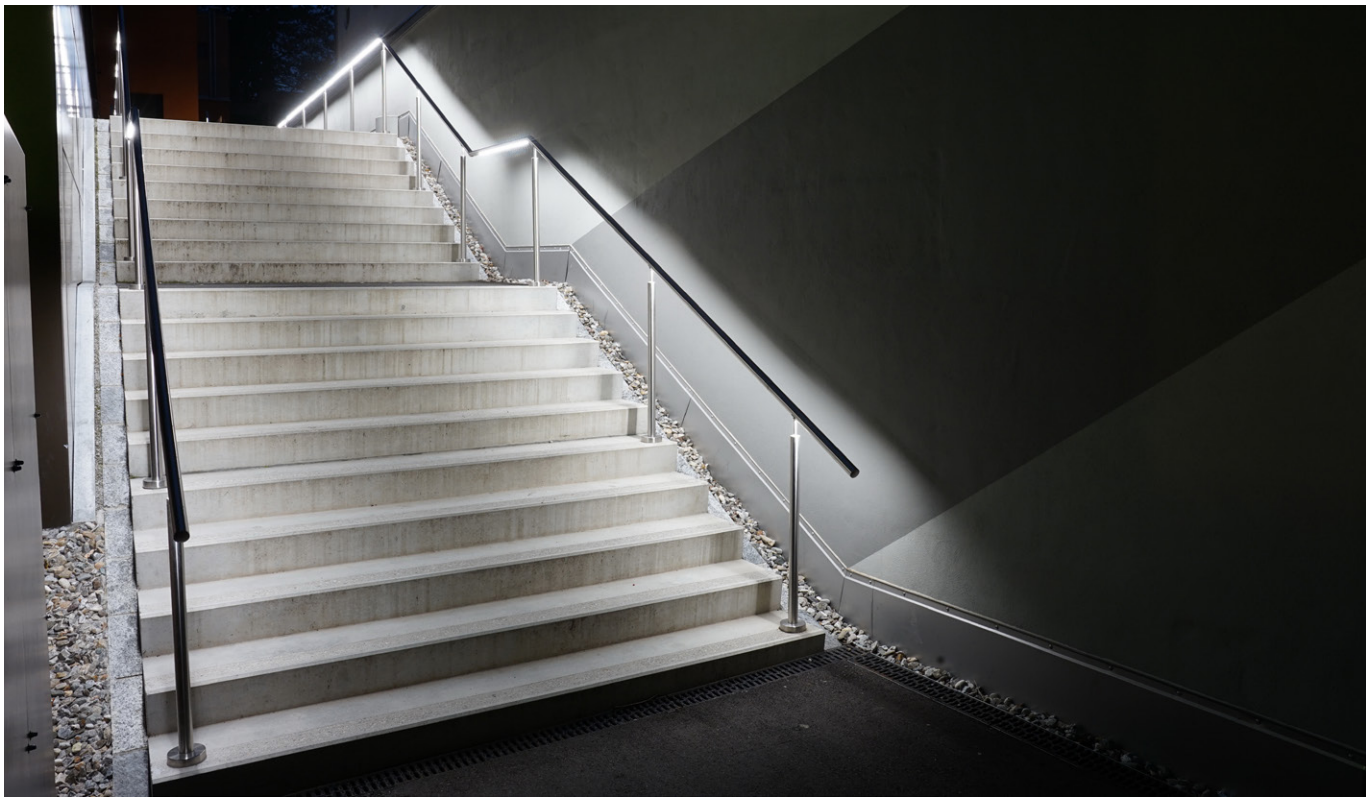


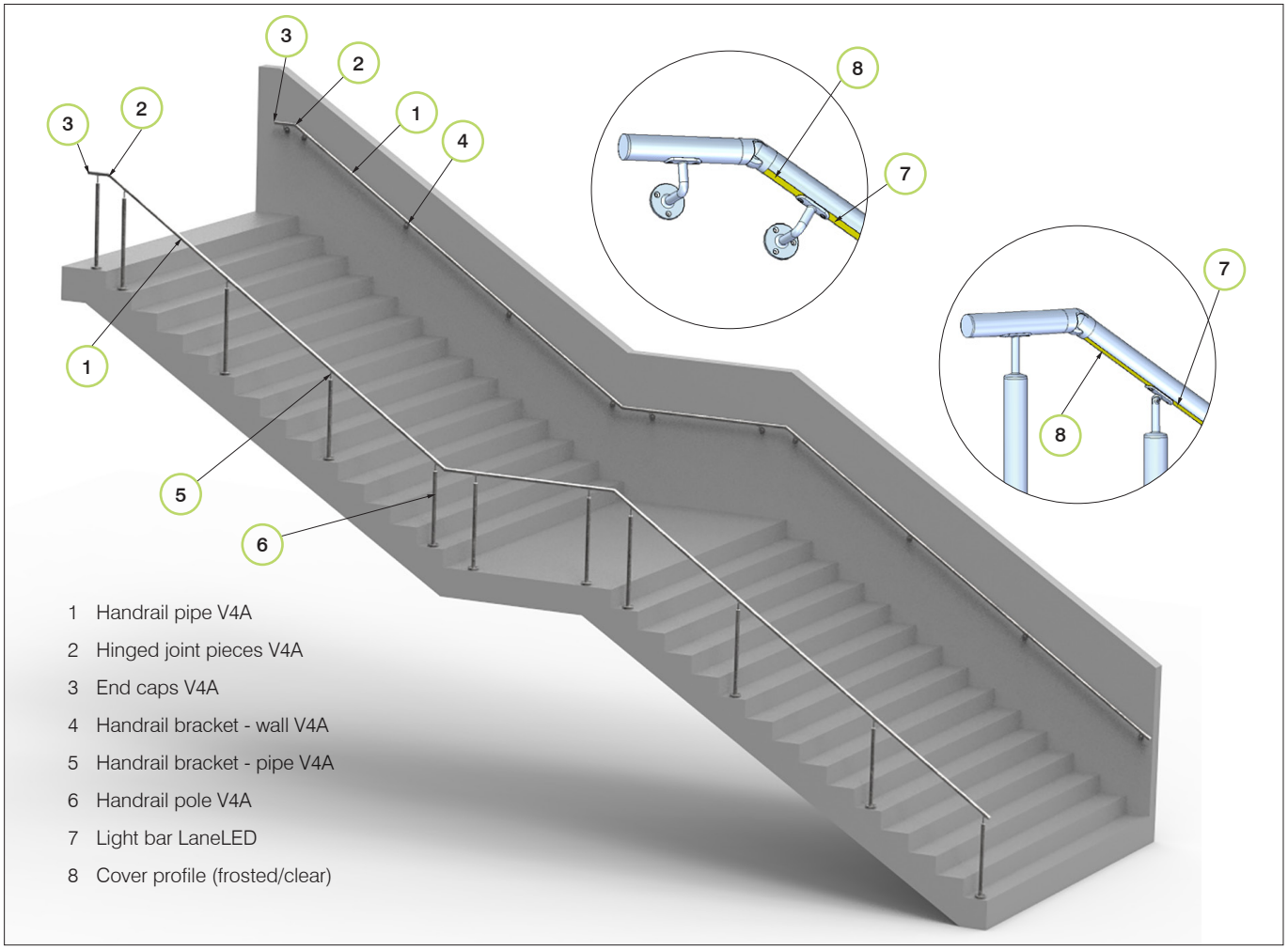
Detailed technical drawing of LaneLED INOX42 handrail project.



3D drawing of LaneLED INOX42 handrail

System components of the LaneLED INOX42





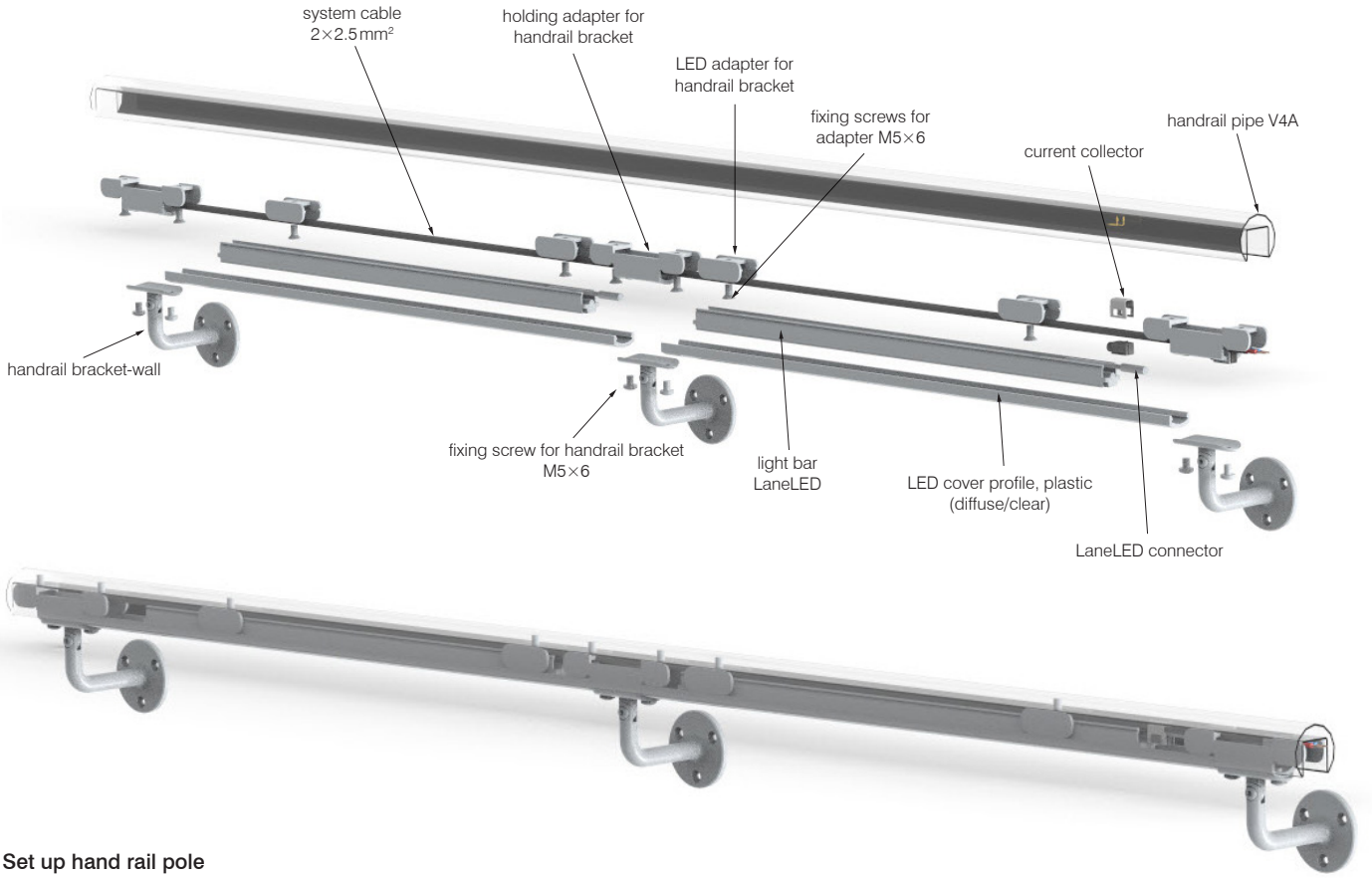
1 Handrail pipe V4A
2 Hinged joint pieces V4A
3 End caps V4A
4 Handrail bracket - wall V4A
5 Handrail bracket - pipe V4A
6 Handrail pole V4A
7 Light bar LaneLED
8 Cover profile (frosted/clear)

Handrail system

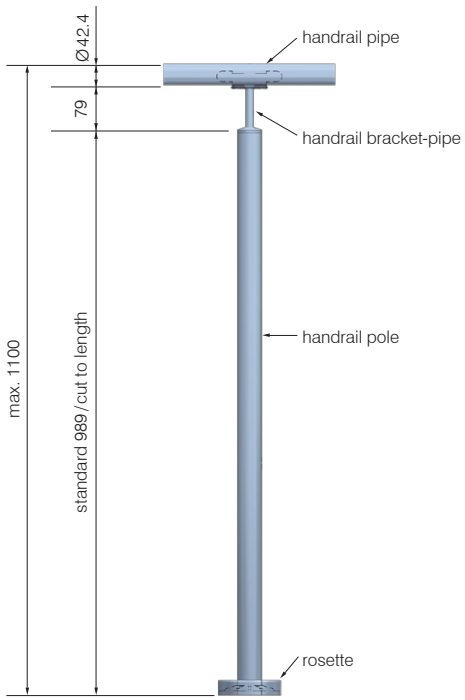
LED-equipped handrails for outdoor and indoor applications (balcony handrails, stairway handrails and terrace handrails) which can very easily be assembled on classic handrail posts using special pipe sections. The pipe brackets and adapters allow an inner cable guide with the GIFASde-veloped connection 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.

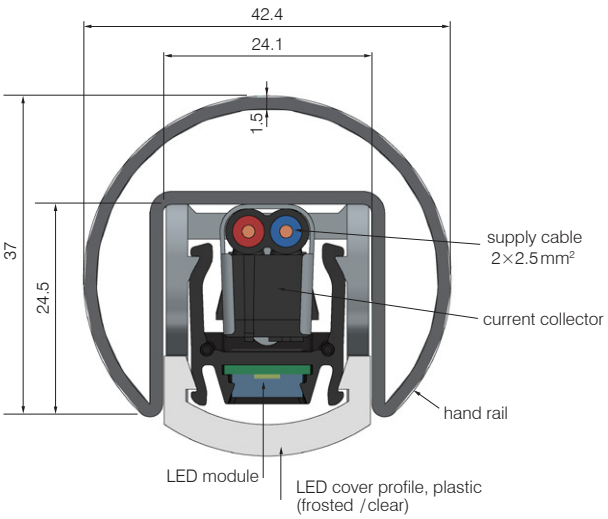


Set up hand rail pole



Handrail LaneLED INOX42

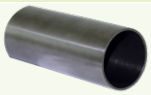
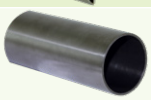
The GIFAS handrail profile is the carrier element for the LaneLED INOX42. The profile and the various fastening and connecting items are designed and coordinated in a way that ensures the electric supply with the cable.



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

EDP No.	Description	View
CH-177071	LED handrail pipe, V4A-1.4401, Ø 42,4×1,5 mm / L = 1.000 mm, brushed	
CH-177070	Handrail pipe round, V4A-1.4401, Ø 42,4×1,5 mm / L = 2.500 mm, brushed	
CH-168078	LED handrail pipe, V4A-1.4401, Ø 42,4×1,5 mm / L = 2.500 mm, brushed	
CH-168087	Handrail pipe round, V4A-1.4401, Ø 42,4×2 mm / L = 2.500 mm, brushed	

Pipe connector

EDP No.	Description	View
CH-860417	LED hinged joint piece, V4A-1.4401, Ø 42,4×1,5 mm, 25-55° upwards, brushed	
CH-860418	LED hinged joint piece, V4A-1.4401, Ø 42,4×1,5 mm / 25-55° downwards, brushed	
CH-860427	LED pipe connector, V4A-1.4401, Ø 42,4×1,5 mm, B=6 mm, brushed	
CH-860424	Pipe hinged joint piece, V2A-1.4301, Ø 42,4×1,5 mm / 0-70° / H=30 mm, brushed	

End cap

EDP No.	Description	View
CH-860419	LED end cap, V4A-1.4401, Ø 42,4×1,5 mm / H=4 mm, brushed	
CH-860425	End cap, V4A-1.4401, Ø 42,4×2,0 mm / H=4 mm, brushed	
CH-860620	Curved end, V4A-1.4401, Ø 42,4×2,0 mm / 90° / L=81 mm, brushed	

Wall flange

EDP No.	Description	View
CH-860428	LED wall flange, V4A-1.4401, Ø 42,4 / D=90 / H=30 mm, brushed	

Handrail support

EDP No.	Description	View
CH-860450	Wall handrail support system cable, V4A-1.4401, Ø 42,4 / W=75 / H=50 mm, brushed	
CH-860426	Wall handrail support, V4A-1.4401, Ø 42.4 / W=75 / H=50 mm, brushed	
CH-860434	Wall handrail support joint, V4A-1.4401, Ø 42.4 / W=75 / H=50 mm, brushed	
CH-860449	Pipe handrail support system cable, V4A-1.4401, Ø 42.4 / H=79 mm, brushed	
CH-860432	Pipe handrail support, V4A-1.4401, Ø 42.4 / H=79 mm, brushed	
CH-860433	Pipe handrail support joint, V4A-1.4401, Ø 42.4 / H=79 mm, brushed	
CH-860430	Handrail post, V4A-1.4401, Ø 42.4×2.0 mm / H=989 mm, incl. flange, brushed,	
CH-860431	Rosette for posts, V4A-1.4401, Ø 110 mm, H=27 mm, brushed	

Cover

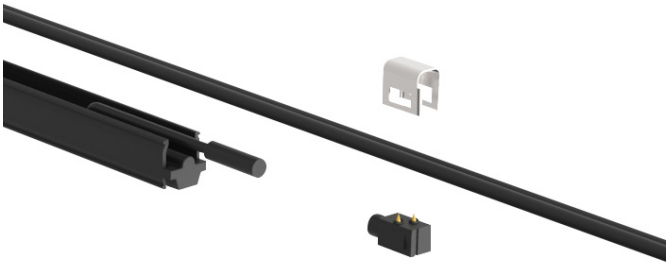
EDP No.	Description	View
CH-860557	LED cover profile clear, plastic, L = 1.600 mm	
CH-860558	Cover profile frosted, plastic, L = 1.600 mm	

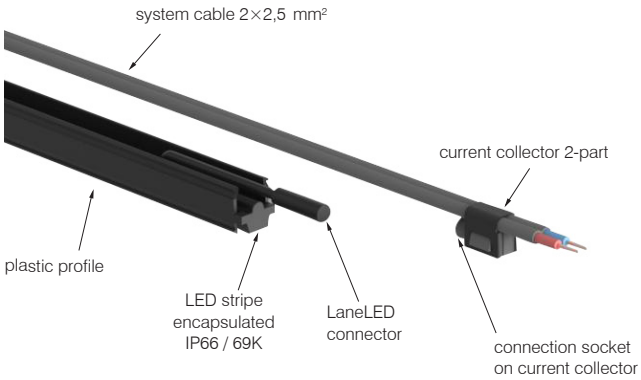
Adapter

EDP No.	Description	View
CH-860411	Adapter LED, V4A-1.4401, 23,5×50 mm, frosted	
CH-860410	Holding adapter, V4A-1.4401, 23,5×114 mm, frosted (fixing holes in line)	
CH-860572	Holding adapter, V4A-1.4401, 23,5×114 mm, frosted (fixing holes diagonal)	

Other versions on request

LED-light bar LaneLED





GIFAS-LaneLED-INOX

The batten light fitting LaneLED-INOX from GIFAS is the base element for the illuminated hand rail HR. 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	~ 3.000K / ~ 4.400K / ~ 5.800K
– Beam angle	120°
– Protection class	IP66 / 69K
– Impact protection rating	IK10
– L90/B10	100.000 h +25° C
– Operating temperature range	– 25° C to +45° C

Composition of the LaneLED-INOX

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

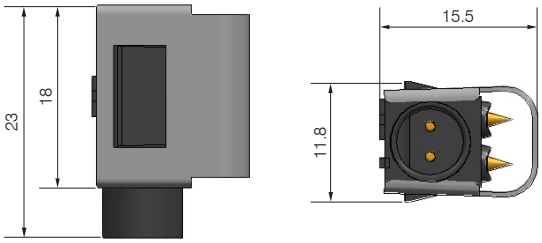
GIFAS LaneLED coated with special profile ALU, approx. 19×18×1.482 mm with LED modules 21 - 32 VDC, ~ 3.000K / ~ 4.400K / ~ 5.800K, beam angle 120°, completely ready for connection, not including assembly materials (system cable and current collector).

EDP-No. 860565

EDP-No.179280

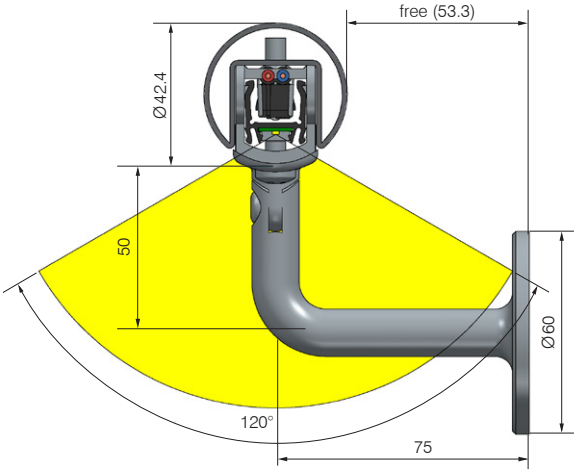
Current collector

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



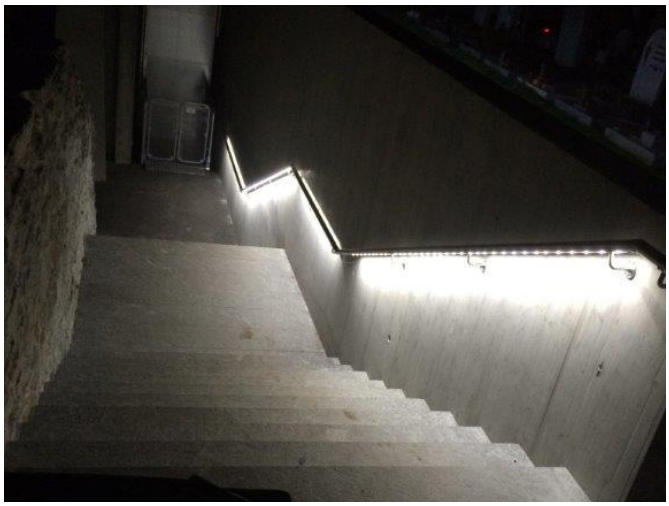
Illumination

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



Assembly equipment for rent	
EDP No.	**Description**
CH-860565	Crimping tool (mechanical) for system cable
CH-179280	Battery pack 24 V, 7.2 Ah

Accessories LaneLED	
EDP No.	**Description**
CH-209768	LED, system cable light black, 2×2,5 mm² flat cable copper tinned, EPR/EPR
860120	LED, current collector SNAP 2P, 42V - 5A, V2A 1.4310 (requires special pliers EDP No. 860565)



Staircase lighting entrance area

Standard with output 60 W / 120 W

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

For dimming

Rotary dimmer	
EDP No.	**Description**
CH-104780	UP Drehregler 1 - 10 VDC 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 80 cm across a 2 m wide staircase provide the following values with regard to their lighting strength.

LaneLED light bar type 11 3.000 K,
IP66 / 69K, 21 - 32VDC, 400 Lux - 95 cm

EDP 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, 4.400 K,
IP66 / 69K,, 21 - 32VDC, 400 Lux - 95 cm

EDP No.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm
CH-860445	190	6	2	80	120
CH-860446	560	18	6	240	360
CH-860447	928	30	10	400	600
CH-860448	1.482	48	16	640	960

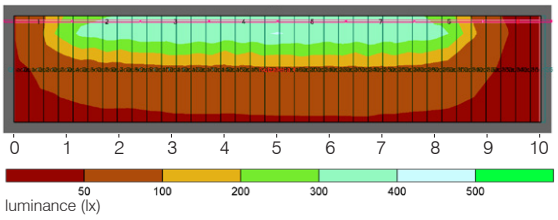
LaneLED light bar type 11, 5.800 K,
IP67, 21 - 32VDC, 400 Lux - 95 cm

EDP No.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm
CH-860388	190	6	2	80	120
CH-860389	560	18	6	240	360
CH-860390	928	30	10	400	600
CH-860420	1.482	48	16	640	960

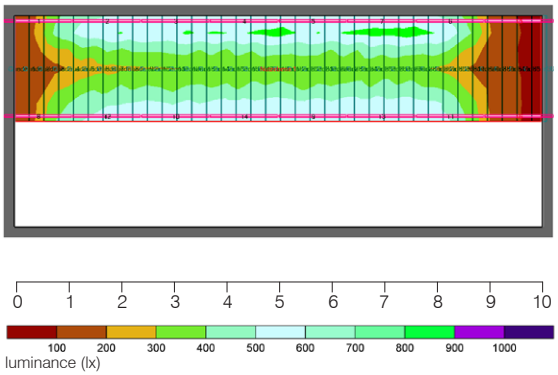
Maximum length with LaneLED type 11 to 36 m per 24V DC infeed is possible.

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

One-sided



Two-sided



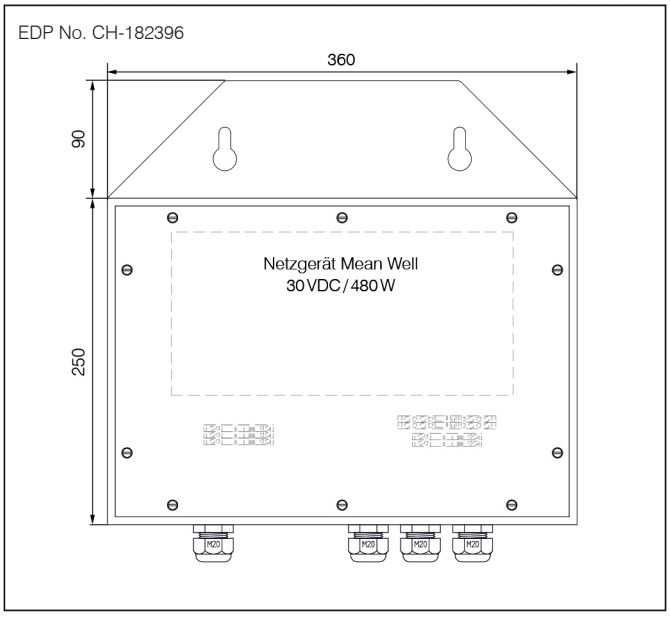
System components power supply

The electric power supply of the LaneLED light bar is ensured through power supplies that are individually installed into the main or subdistribution 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).

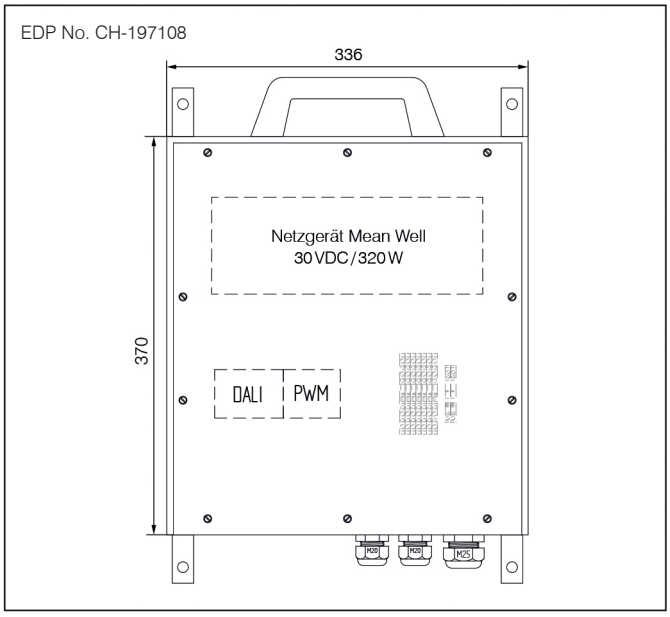
A simple 230VAC / 240VDC (21 - 32VDC) power supply is required. According to customer requirements, it can also be installed anywhere in the distributor or in the socket.

Netzversorgung UP/AP mit Service-Steckdose

EDP No. CH-182396



EDP No. CH-197108



EDP No.	Description
CH-182396	Hard rubber distribution box type 3020 with 1x dimmer switch 1-10V and 1x Osram Optotronic control unit

EDP No.	Description
CH-197108	Hard rubber distribution box type 3020 with 1x dimmer switch 1-10V and 1x Osram Optotronic control unit

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.

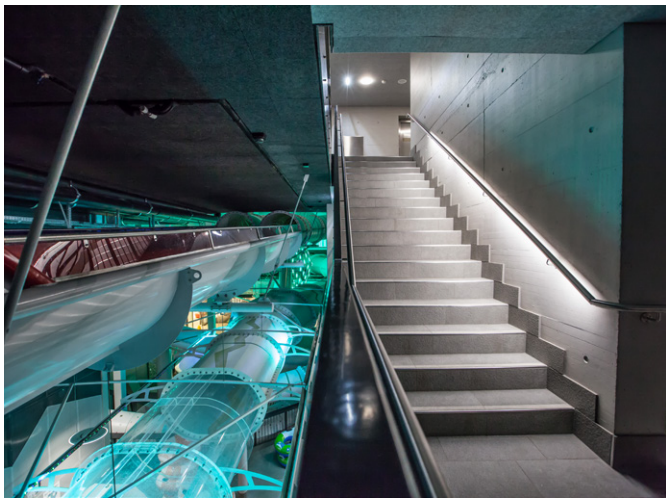
EDP No. CH-198788

EDP No.	Description
CH-198788	Power supply 230VAC/24VDC - 250W, IP67, 252×90×44 mm, dimmable

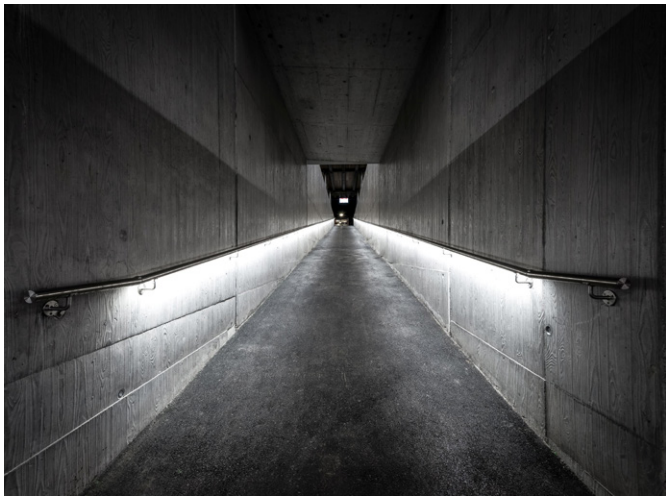
EDP No.CH-180415

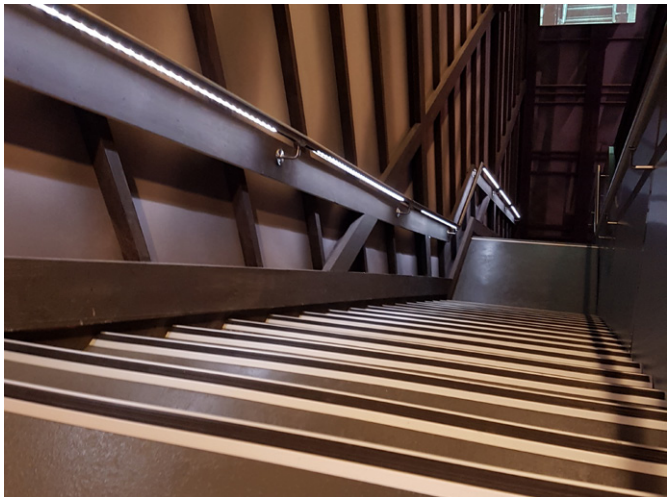
EDP No.	Descriptionb
CH-180415	Power supply Mean Well 230VAC / 30VDC - 16 A / 480W 262×125×44 mm, IP67


Crans Montana

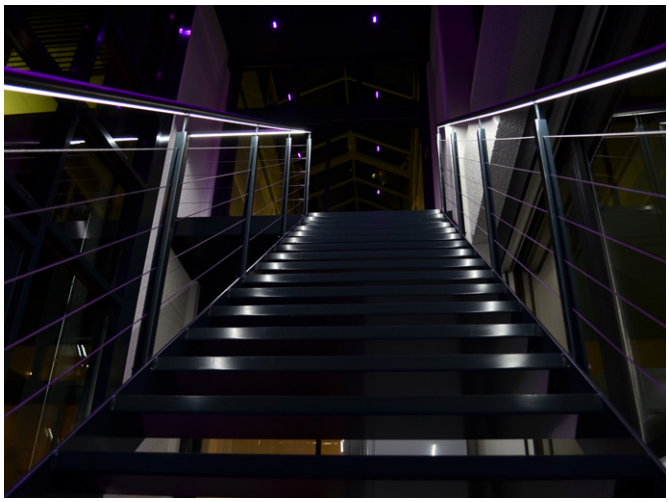

Säntispark St. Gallen (waterpark)


Alpiq St. Gallen


Railway station Sembrancher

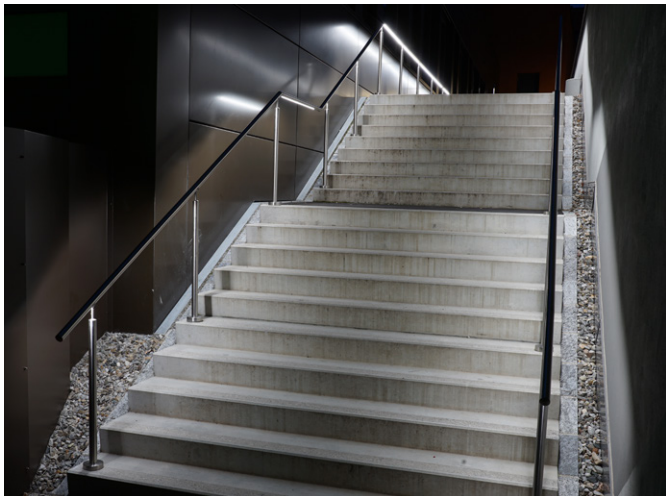

Charlie Chaplin museum


Health centre Stein



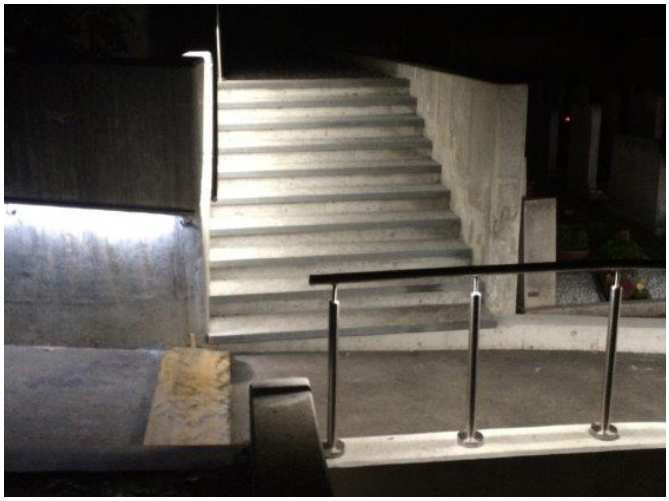
Staff entrance, GIFAS-Electric GmbH, Rheineck

Staff entrance, GIFAS-Electric GmbH, Rheineck

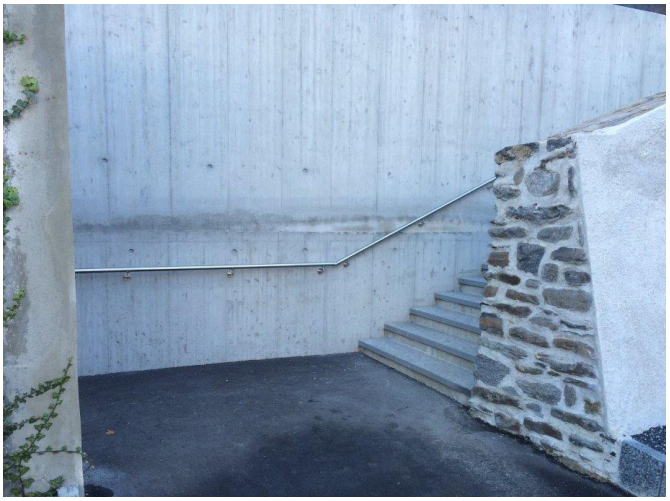


Lindenplatz Baden

Lindenplatz Baden



Cemetery Glis



Cemetery Glis

CONTACT US

Subject to technical changes 07/2020/1.0

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