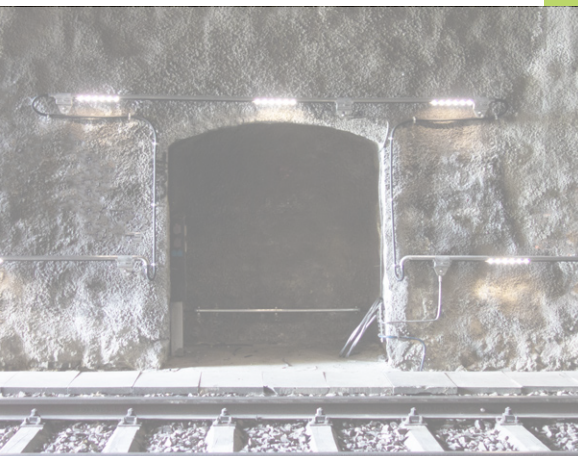


SYSTEMATIC QUALITY



# LaneLED INOX48

Handrail Lighting System



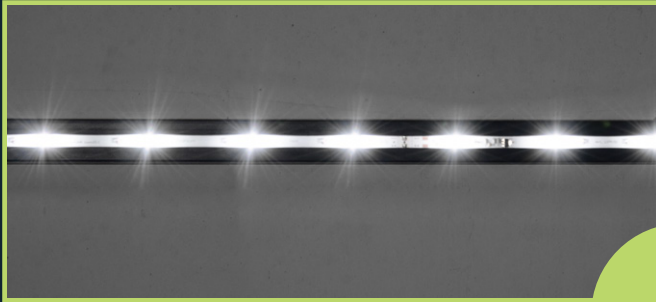
**GIFAS**  
ELECTRIC



# System components LaneLED INOX48

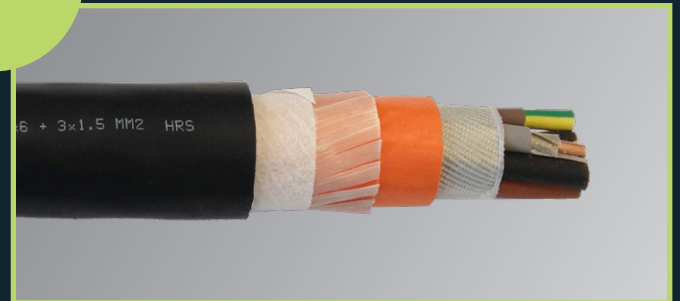
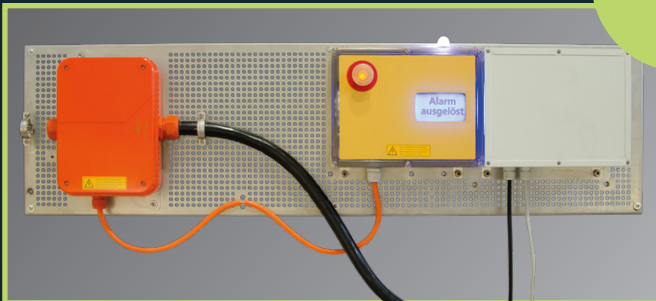
## Lighting components

- LaneLED light bar incl. electrical supply



## Mechanical components

- INOX48 – V4A handrail
- wall mounting, brackets and accessories V4A
- connectors and angle parts



## Safety components

- fire-resistant junction box, fully equipped
- optional alarm unit, individually manufactured
- fire-resistant junction box, fully equipped

## Connecting components

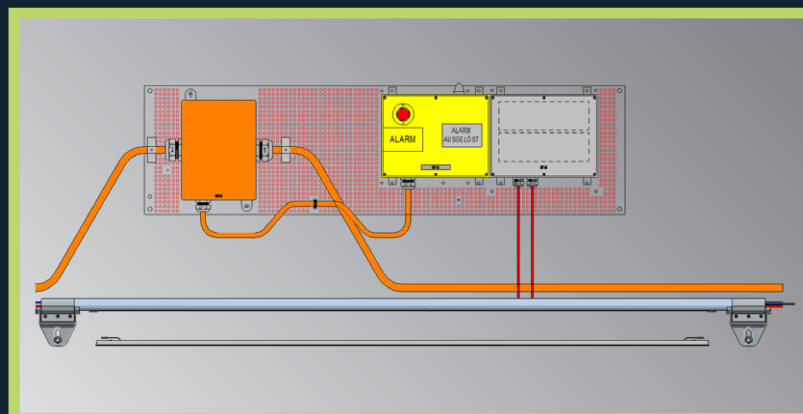
- main or supply cable; project-based for control and supply
- junction, ending and mounting parts

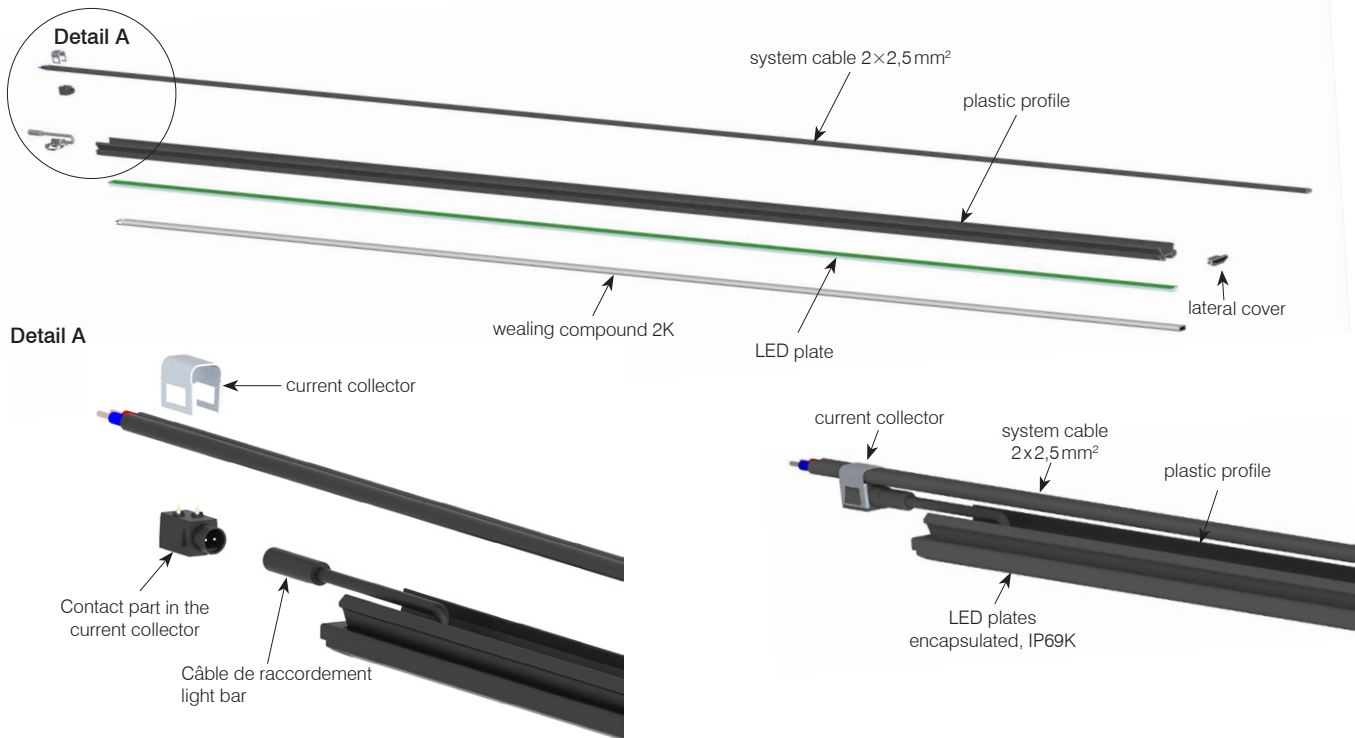


A product that has come from successful GIFAS development!

## LaneLED INOX48

Handrail with integrated emergency escape route lighting





## GIFAS-LaneLED

The «LaneLED» light bar from GIFAS is the base element for the illuminated handrail LaneLED INOX48. The appropriate type is selected depending on the requirements of the operator, whereas the desired average luminance is the most important specification. The other parameters of the LaneLED are carefully defined.

- Light colour 4.400 K
- Beam angle 120°
- Protection class IP66 / 69K
- L90 / B10 100.000 h +25° C
- Operating temperature range -25° C to +45° C

## Composition of the LaneLED

The carrier profile of the «LaneLED» light bar consists of a special synthetic profile with special characteristics for mechanical and chemical strains.

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

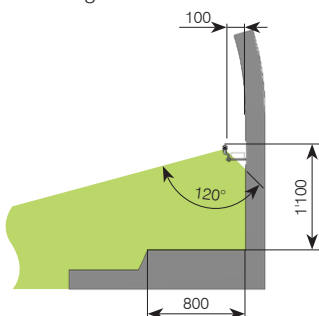
There is room for the cable guide and the current collector in the upper part of the profile (in between the flanks).

## Light bar LaneLED

GIFAS-LaneLED coated with special profile plastic, approx. 30 x 26,5 x 2.227 mm with LED modules 21-32VDC, 4.400K, beam angle 120°, completely ready for connection, not including assembly materials (system cable and current collector). Assortment see page 5.

## Illumination

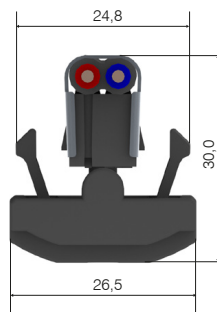
Light emission when using INOX48.



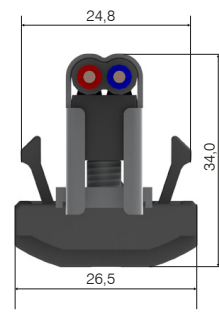
## Current collector type SNAP

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

### Typ SNAP



### Typ SCREW



View: cut profile with current collector

## Accessories LaneLED

EDP No.	Description
CH-209768	LED, system cable black, 2x2,5 mm² flat cable CPR B2ca XLPO/XLPO
134109	LED, system cable red, 2x2,5 mm² flat cable CPR B2ca XLPO/XLPO
134108	LED, system cable blue, 2x2,5 mm² flat cable CPR B2ca XLPO/XLPO
124793	LED, current collector SCREW 2P, 42V-5A, V4A 1.4401, with metal bracket, thread base plate and set screw
860120	LED, current collector SNAP 2P, 42V-5A, V2A 1.4310 (requires special pliers EDP No. 860565)



# Light data / Assortment LaneLED INOX48

## Technical data LaneLED – Light comparison measurements

Perfect light for each application! An overview of the values that can be achieved with light bars LaneLED type 1 to 5 follows.

- maintenance factor: 1 (value as new)
- light mounting height: 95 cm
- emergency escape route width: 1 m

Assortiment Standard					
EDP No.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm

### Type 1: LaneLED INOX48, 4.400 K, 21 - 32 VDC

CH-860353	380	12	0,12	5	8
CH-860354	1118	36	0,36	15	24
CH-860355	2224	72	0,75	30	48

### Type 3: LaneLED INOX48, 4.400 K, 21 - 32 VDC

CH-860356	380	12	0,5	20	32
CH-860357	1118	36	1,5	60	96
CH-860352	2224	72	3,0	120	192

### Type 4: LaneLED INOX48, 4.400 K, 21 - 32 VDC

CH-860514	380	12	1,0	40	64
CH-860515	1118	36	3,0	120	1928
CH-860516	2224	72	6,0	240	384

### Type 5: LaneLED INOX48, 4.400 K, 21 - 32 VDC

CH-860358	380	12	1,5	60	96
CH-860359	1118	36	4,5	180	288
CH-860360	2224	72	9,0	360	576

Other versions on request.

## Redundancy

The LaneLED light bar has two independent lighting circuits, which are fed separately. This ensures that, if one lighting circuit fails (power supply failure, wire breakage, electronics defect, etc.) the LaneLED light bar retains 50% of its functionality.

Assortiment Redundant					
EDP No.	Length mm	Number of LED	Output W	Power mA	Luminous flux lm

### Typ 2: LaneLED INOX48 redundant, 4.400 K, 21 - 32 VDC

CH-860361	384	12	2x0,12	2x 5	2x 8
CH-860362	1118	36	2x0,36	2x 15	2x 24
CH-860363	2227	72	2x0,75	2x 30	2x 48

### Typ 3: LaneLED INOX48 redundant, 4.400 K, 21 - 32 VDC

CH-860364	384	12	2x0,25	2x 10	2x 16
CH-860365	1122	36	2x0,75	2x 30	2x 48
CH-860366	2224	72	2x1,50	2x 60	2x 96

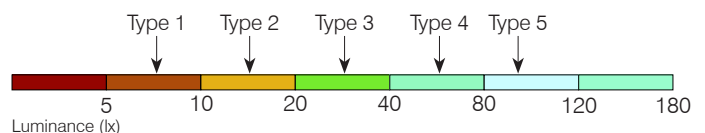
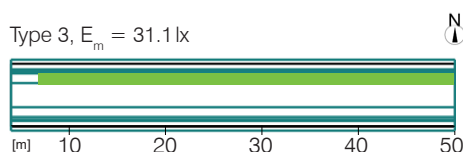
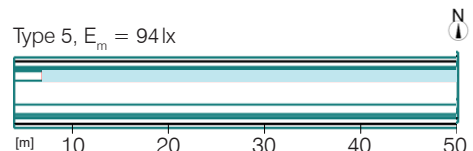
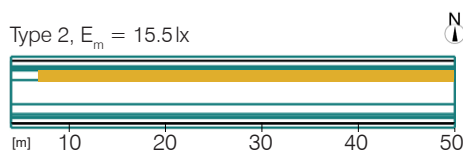
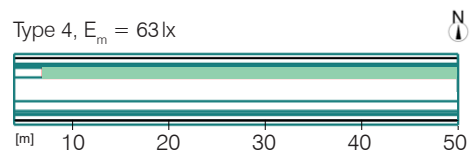
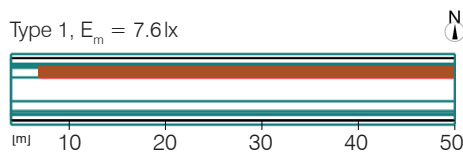
### Typ 4: LaneLED INOX48 redundant, 4.400 K, 21 - 32 VDC

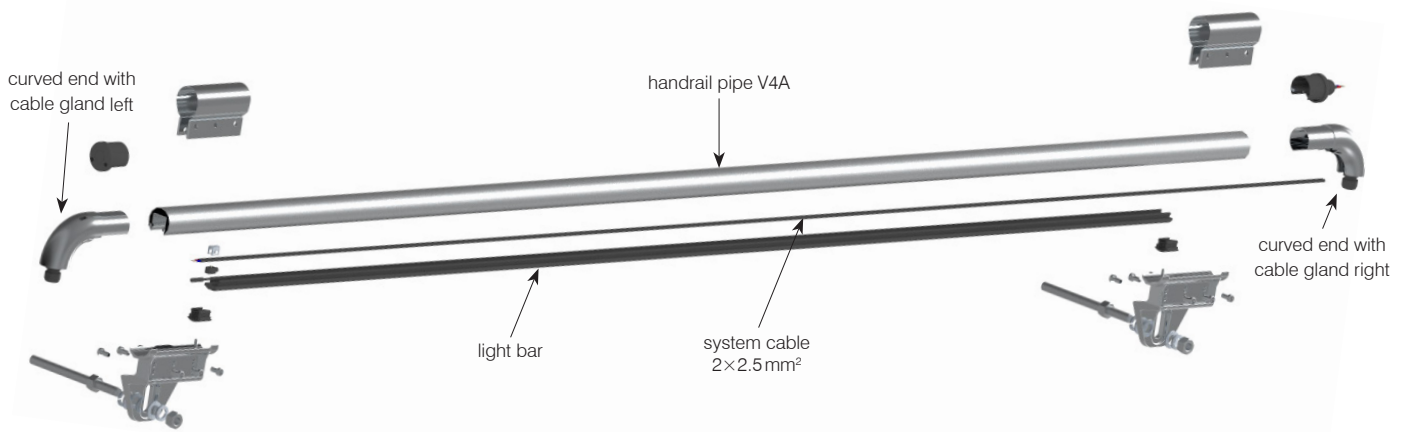
CH-860520	384	12	2x0,50	2x 20	2x 32
CH-860521	1122	36	2x1,50	2x 60	2x 96
CH-860522	2227	72	2x3,00	2x120	2 x 192

### Typ 5: LaneLED INOX48 redundant, 4.400 K, 21 - 32 VDC

CH-860367	384	12	2x0,75	2x 30	2x 48
CH-860368	1122	36	2x2,20	2x 90	2x 144
CH-860369	2227	72	2x4,50	2x 180	2x 288

Other versions on request.





## Handrail – INOX48

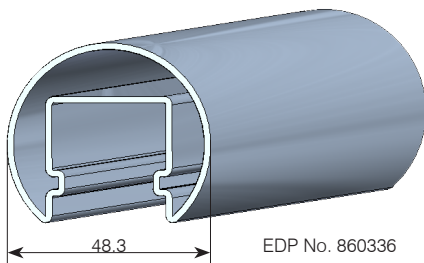
The LaneLED INOX48 handrail, made from stainless steel V4A, is the alternative to the LaneLED GFK handrail if the requirement or specification is for stainless steel.

The profile shape is selected to guarantee the safety handrail function, as also to allow the installation of the light bar (by click function) and the necessary power supply. The handrail has been a proven product for many years, with conceptual adaptations for use as self-rescue measures in railway tunnels.

- Handrail pipe V4A, steel 1.4571, (AISI 316Ti), cold-rolled
- special accessories for quick and easy assembly
- many specific featured items for special solutions

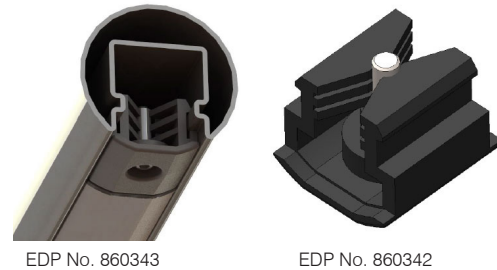
## Profile Handrail

The profile for the LaneLED handrail is the core element of the setup. The LaneLED light bar (supplied with the necessary installation items) is clicked into the «light slot» from below after completing the hand rail assembly.



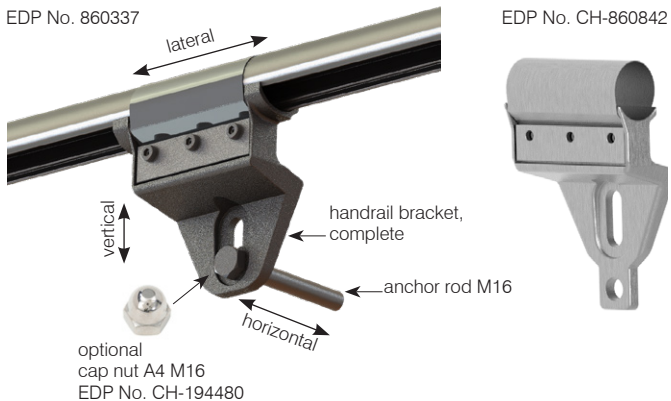
## Blind cover and securing element

Similar in design to the LaneLED profile, a blind cover is available that covers gaps in the longitudinal direction. A securing element is used for the assembly.



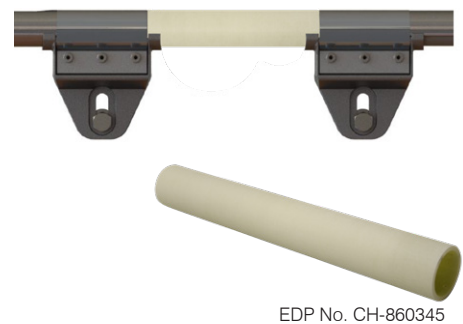
## Handrail bracket

The specially designed handrail bracket, made from V4A steel casting, is placed directly on the anchor rod. It is designed in such a way that the mounting tolerances can be absorbed in all three axes. It also guarantees proper and quick assembly.



## Insulating piece

An Insulating piece is available to avoid potential shift and to separate electrically individual supply sections from each other.



## Corner connector

Angle connectors are used to change the direction. The supply cable can be inserted inside without interruption. The angle connectors allow changes in direction of  $+30^\circ$  and  $-30^\circ$ .



EDV-Nr. CH-860850



EDV-Nr. CH-860851

## Corner connector

A corner connector is used for any direction change (horizontal and vertical). The supply cable can be inserted without any interruption. The corner connector allows a directional change of  $\pm 90^\circ$ .



EDV-Nr. CH-860341

## For direct feeding via handrail pipe profile

A supply element, straight and angled connection nipples as well as the appropriate flexible conduit are available for feeding via the handrail pipe profile.



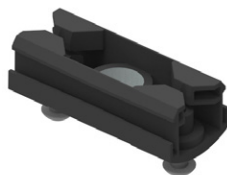
EDP No. CH-155544



EDP No. CH-155547



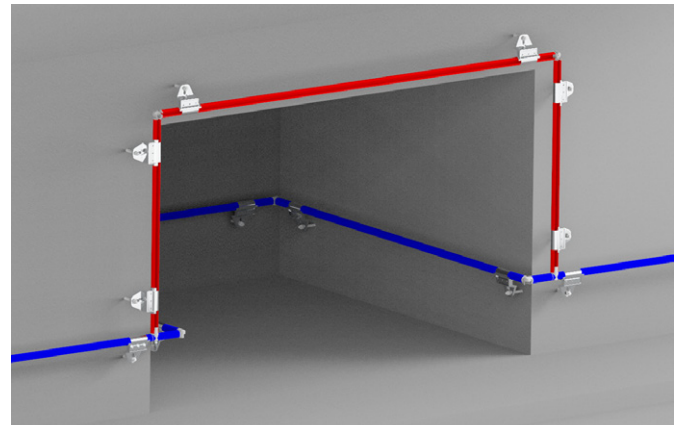
EDP No. CH-218301



EDP No. CH-860843

## Optional bypasses

Bypasses in all directions can also be realised by means of corner connectors.



## Handrail bend left / right Supply element

There are two end bends (left / right) with cable entry for the supply available.



EDP No. 840656



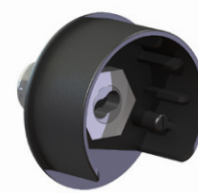
EDP No. 840657

## End cap

There are three end caps in the product range (with / without cable gland).



EDP No. 860339



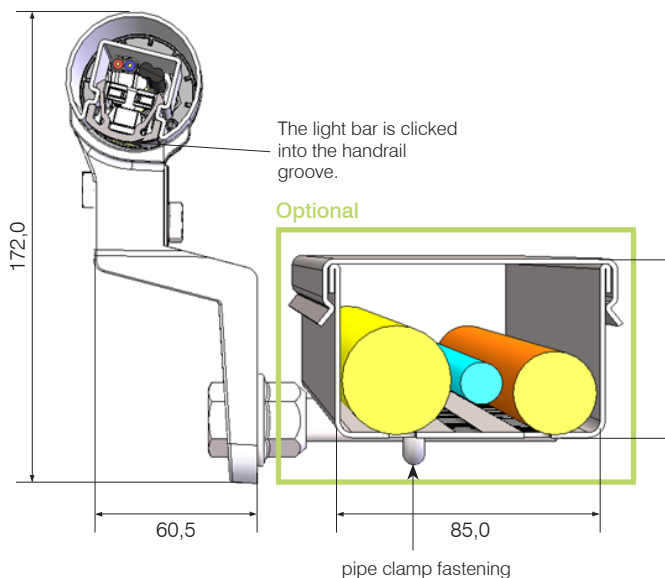
EDP No. CH-860340



EDP No. CH-194479

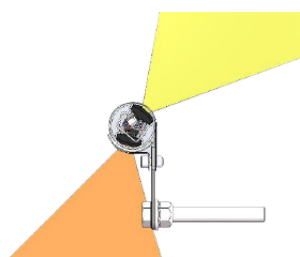
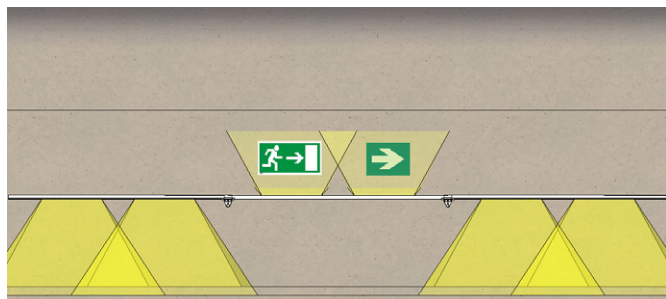
## Optional cable conduit

The handrail can be used either with or without a cable conduit (cable tray). A cable tray can be secured to the M16 anchor rods by pipe clamps.



## Optional sign lighting

Certain elements of the hand rail can be turned 180° upwards for any necessary lighting of warning signs (installed above the hand rail). This does not interfere in any way with the overall appearance of the illumination.



## Accessories

EDP No.	Description
860336	LaneLED INOX48, LED-Tubo corrimano V4A, acciaio 1.4571 Ø 48,3 x 1,5 mm, lunghezza 2.500 mm, laminato a freddo
860337	LaneLED INOX48, supporto per corrimano in getto di acciaio V4A, 1.4401 incl. lamiera di serraggio e viti di sicurezza
CH-194480	LaneLED INOX48, cap nut A4, M16 high profile
CH-860842	LaneLED INOX48, hand rail support V4A, 1.4401 with end connection incl. clamping plate and securing screws
860343	LaneLED INOX48, blind cover V0 UL94
860342	LaneLED INOX48, securing element GRP, V0 UL94
CH-860345	LaneLED INOX48, insulating piece GRP 15kV, Plastic pipe 1 1/2", length 350 mm
CH-860850	LaneLED INOX48, elbow V4A 30° right closed, Licht-Neigung 20°
CH-860851	LaneLED INOX48, Winkelstück V4A 30° left closed, light inclination 20°
CH-860341	860341 LaneLED INOX48, corner connector GRP, V0 UL94
CH-860843	LaneLED INOX48, supply element GFK, V0 UL94 with thread M16
CH-218301	Conduit gland AGRO M16 sz 90°, for Kst.-Schlauch ø15,8 mm
CH-155544	Conduit gland AGRO M16 sz gerade, for plastic hose ø15,8 mm
CH-155547	Flexible conduit ROHRFLEX PA12 black 12, 0 / 15,8 mm flexible (VE=50 m)
840656	LaneLED INOX48, curved end with cable gland right
840657	LaneLED INOX48, curved end with cable gland left
860339	LaneLED INOX48, end cap GRP, V0 UL94
CH-860340	LaneLED INOX48, end cap GRP with cable gland M20, V0 UL94
CH-194479	LaneLED INOX48, end cap V4A
CH-860344	LaneLED INOX48, compensating element GRP, V0 UL94
CH-170859	LaneLED INOX48, cable channel V4A, steel 1.4571 80 x 59,2 x 1,0 mm, length 2.500 mm, cold-rolled
CH-170860	LaneLED INOX48, cable tray cover V4A, stainless steel 1.4571 80 x 20 x 1,0 mm, length 2.500 mm, cold-rolled
CH-170890	LaneLED INOX48, cable tray connector V4A, stainless steel 1.4404, 36 x 2.135 x 1,0 mm, (2 pcs. per connection)
CH-181242	LaneLED INOX48, cable tray connector, screw kit M6 - 8 pcs. (PU 100)
CH-181243	LaneLED INOX48, cable tray mounting kit/pipe clamp M6 - 2 pcs. (PU 10)



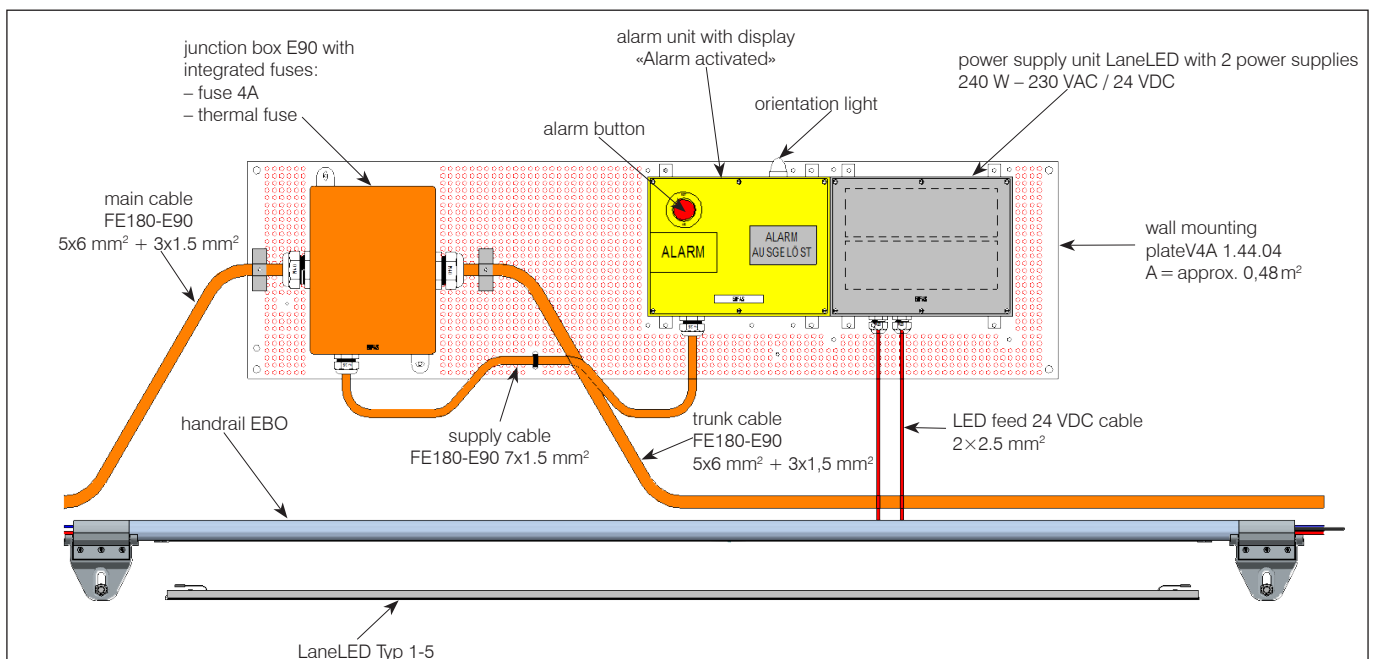
## Feeding unit

The orientation light in the hand rail is supplied by the feeding unit. At the same time, it ensures connection to the mains and also fulfils the relevant regulations for fire-resistant design. In order to make assembly easier, the feeding unit is mostly pre-assembled on a mounting plate at the factory.

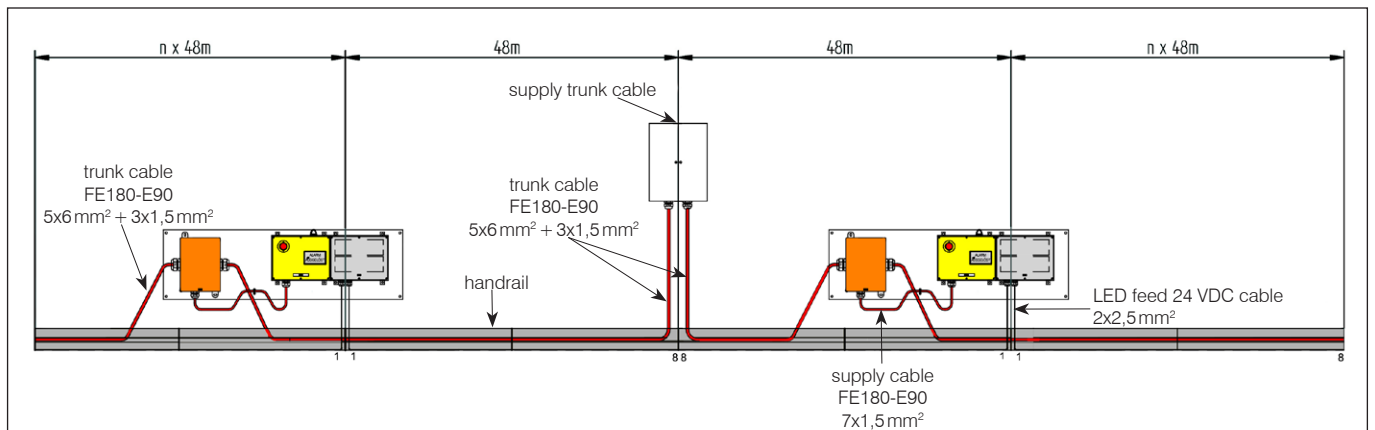
- A feeding unit consists of a maximum of 3 elements:
- junction box E30/E90
- control-/alarm unit
- mains supply distributor

Example: (In accordance with SBB directive 1-20036)

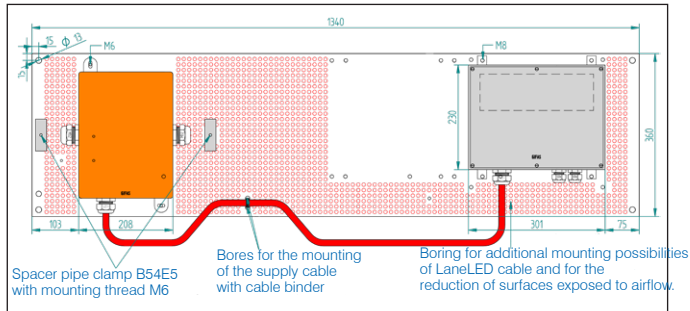
Feeding unit design, alarm button at the front (EDP No.CH-130352)



Feed concept of the supply section (length of lines are project specific)



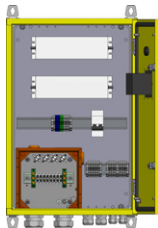
## Feeding unit without BG alarm (EDP No. CH-134388)



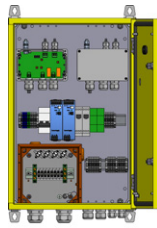
Example feeding units	
EDP No.	Description
CH-130352	LaneLED, feeding unit E30/E90 complete to plate V4A BFA, alarm (ME+A at the front), mains unit 2x 240W
CH-134388	LaneLED, feeding unit E30/E90 complete to plate V4A BFA, mains unit 240W
CH-177406	LaneLED, anchor rod V4A, M12 x 200 mm, including incidentals
CH-177409	LaneLED, injection mortar 500 ml to anchor rods for: 30 pieces. M16 / 40 pieces. M12

Other versions on request

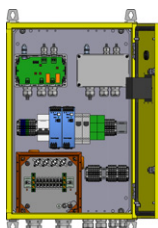
## Examples for power supply cabinet



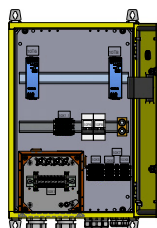
EDP No. CH-188456



EDP No. CH-192834



EDP No. CH-193933



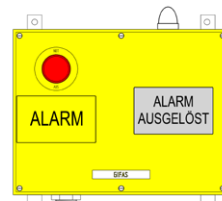
EDP No. CH-213219

EDP No.	Description
CH-188456	LaneLED, power supply cabinet, 1.4301 (V2A) RAL 1023 (yellow signal colour), 400 x 645 x 260,8 mm 2 power supplies 230VAC/24VDC-20W, IP66
CH-192834*	LaneLED, power supply cabinet, 1.4301 (V2A) RAL 1023 (yellow signal colour), 400 x 645 x 260.8 mm 2 power supplies 230VAC/24VDC-240W, IP66
CH-193933*	LaneLED, power supply cabinet, 1.4301 (V2A) RAL 1023 (yellow signal colour), 400 x 645 x 261 mm 2 power supplies 230VAC/24VDC-240W, IP66
CH-213219*	LaneLED, power supply cabinet, 1.4301 (V2A) RAL 1023 (yellow signal colour), 400 x 645 x 261 mm 2 power supplies 230VAC/24VDC-240W, IP66

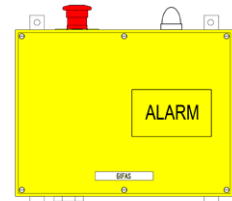
Other versions on request

\* plus failure monitoring when switched off (cold conductor monitoring), failure monitoring during operation (current monitoring relay) and power supply feedback via DC-OK contact

\*\* power supply feedback via DC-OK conta

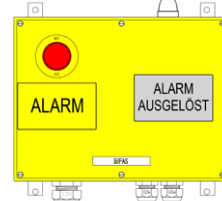


EDP No. CH-136104

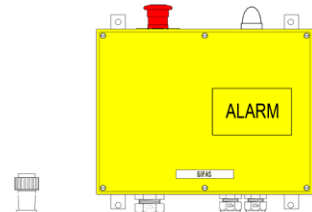


EDP No. CH-136136

## Spare for SRM\* SBB AG



EDP No. CH-155622



EDP No. CH-155624

\*SRM = self-rescue measure

## Standard item control-/alarm unit

EDP No.	Description
CH-136104	LaneLED, alarm unit, plastic Schaltbau, 300 x 230 x 110mm, with alarm button at the front, with display at the front, IP66
CH-136136	LaneLED, alarm unit, plastic Schaltbau, 300x230x110mm, with alarm button above, without display, IP66
CH-155622	LaneLED, alarm unit, plastic Schaltbau, 300x230x110mm, with alarm button at the front, with display at the front, IP66, with connection cable
CH-155624	LaneLED, alarm unit, plastic Schaltbau, 300x230x110mm, with alarm button above, without display, IP66, with connection cable

Other versions on request

## Cable



The trunk or feeder cables are also dependent on device: With/without callback, fireproof cabling to FE180/E90 or FE05 finish. We are happy to advise!

EDP No.	Description
CH-141138	LaneLED, high voltage cables FE180/E90 Hybrid, balck, 5 x 6 mm <sup>2</sup> (LNPE) + 3 x 1,5 mm <sup>2</sup> (1 - 3), Ø 29,4 mm
CH-178362	LaneLED, supply cable FE180/E90, orange, 5 x 6 mm <sup>2</sup> (LNPE), Ø 20,1 mm
CH-115421	LaneLED, supply cable FE180/E30, orange, 5 x 6 mm <sup>2</sup> (LNPE), Ø 14,2 mm
CH-037552	LaneLED, control cables FE180/E30, orange, 3 x 2,5 mm <sup>2</sup> (LNPE), Ø 9,9 mm
CH-132930	LaneLED, control cables FE180/E30 orange, 7 x 1,5 mm <sup>2</sup> (Num. +PE), Ø 11,5 mm


Other versions on request

## Our services

- planning and concept development as per specifications
- lux lighting calculation
- assembly support on site
- consultation and support through our field service
- creation of object-specific plans and documents
- on-site instruction and assistance

## Assembly

- ask for our detailed installation instructions!

 A complete system can be viewed in the «Hagerbach» test gallery



## Assembly equipment for rent

EDP No.	Description
CH-138174	Assembly training for feeding unit
CH-138524	LaneLED cable reel trolley for cable reel max. Ø 500 x 500 mm
CH-176955	Wall scanner (for object detection inside walls)
CH-137634	LaneLED GFK installation holding tool aluminium, 270 x 50 x 40 mm
CH-860565	Crimping tool mechanical for current collector / system cable
CH-179280	Battery pack 24 V, 7.2 Ah

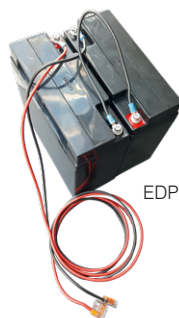
Other versions on request



EDP No. CH-860565



EDP No. CH-176955



EDP No. CH-179280



EDP No. CH-137634



EDP No. CH-138174






EDP No. CH-138524

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We reserve the right to make technical modifications. 01/2022/1.0