

## Installation Instructions – LaneLED for the HRS System

### Imprint:

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Version: V1.01/0814  
English

## Introduction

For proper installation, it is imperative to comply with the following steps and notes. This is the only way to ensure that the product will work to complete satisfaction.



Read all instructions before starting installation. Our sales department will be happy to answer any questions you may have.

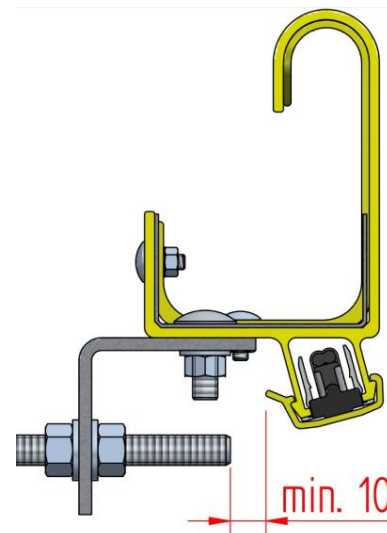
## Installation Conditions for LaneLED

- To comply with the necessary operating voltage, the number of connected LaneLED light strips must be adjusted to the line length.
- The maximum line length for the number of LaneLED light strips required must be calculated for the specific installation.
- Install only in dry weather or with the installation site covered.
- For information on correct installation, protective measures and responsibilities please see the LaneLED manual.
- When mounting the GFK handrail, observe the manufacturer's provisions and instructions and the regulations for the specific installation setting (specifications for dowels and threaded rods, supporting distance, SIA standards, etc.). Ensure compliance with all applicable standards and proper technical execution of the installation.



## Recommendations for Efficient Installation

- For efficient LaneLED mounting, we recommend using the matching auxiliary tools. They can be rented from Gifas.
- A 230V connection should be present nearby to perform the function inspection at the same time as the installation.
- To ensure the proper polarity and thus function even during installation, we recommend attaching the supply voltage of 24V DC to the flat cable during installation (you can also use a truck battery for this).
- General recommendation: Start assembly with the first LaneLED unit right next to the supply unit, flush with the start of the handrail.
- The threaded bolts for affixing the handrail must have a distance of at least **10 mm** from the LaneLED light strip to avoid space conflicts when mounting.



## Required tools

- Cordless drill with adjustable torque (torque of 0.75Nm is required)



- Allen key size 2.5, or use cordless drill



- Pliers to cut cable



- Stripping pliers for flat cable diameter 2.5 mm<sup>2</sup>



- Hot-air gun



- LaneLED assembly tool with rollers  
Item No. 138291 (GIFAS rental equipment)



- LaneLED mounting hooks  
Item No. 137634 (GIFAS rental equipment)



- 24VDC battery power supply (or as in picture 2 x 12V in series)



- Large utility knife



- Recommended: Equipment for unreeling cable  
Cable lug crimping pliers for compression joints



Screwdriver size 5 (to dismantle LaneLED in case of incorrect connection)

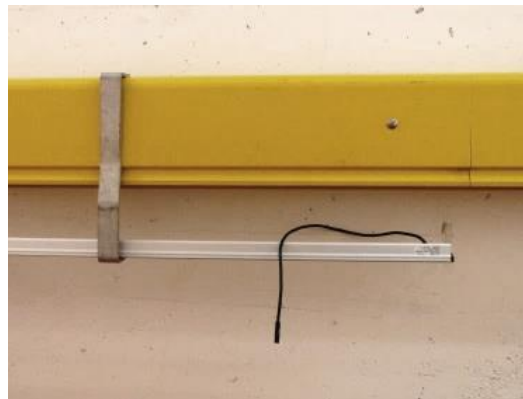
Headlamp, folding metre stick, measuring tape, materials/tool cart, etc.

### **Consumables**

- |  |                       |
|--|-----------------------|
| • Shrink hose with adhesive (6mm / 2mm):                             | GIFAS Item No. 010300 |
| • If necessary, 3M Scotch vinyl electrical tape No. 23, black:       | GIFAS Item No. 152743 |
| • If necessary, Raychem heat-shrinkable joint sleeves 1.5-2.5, blue: | GIFAS Item No. 019875 |

## **Installation Instructions: Connection Sequence of the LaneLED Light Strips**

- Suspend LaneLED
- Suspend the first LaneLED light strip from the EBO GFK handrail with auxiliary tools.



- Insert flat cable into the LaneLED unit from the bottom.

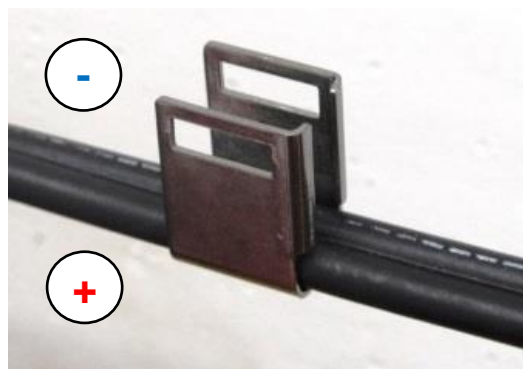


- Create a contact between the current collector and the flat cable.

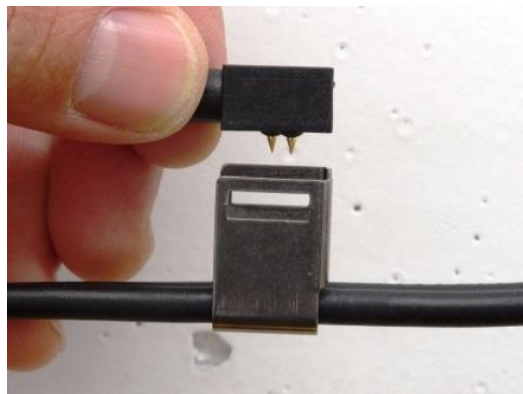
Follow these 5 steps:

Step **1**: Put metal bracket onto the flat cable.

**INDICATION** At a distance of appr. 20cm from the end of the LaneLED light strip on the side of the connection cable.



Step **2**: Insert contact element into metal bracket.



Slightly push contact element into the cable.





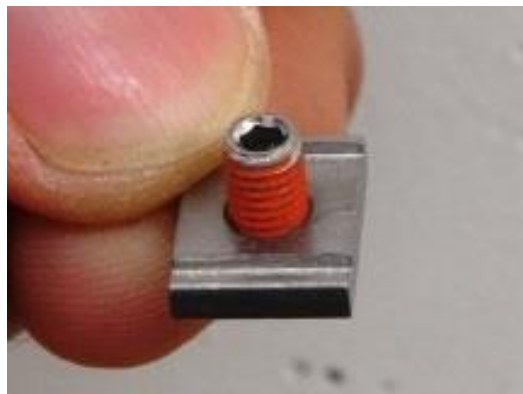
Step ③: Attach threaded pin on threaded plate.

**INDICATION**

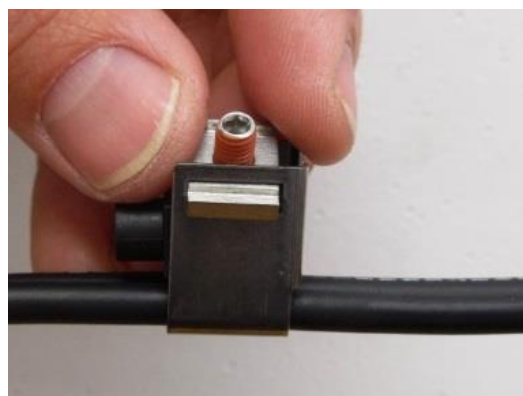
The threaded pin is secured against vibration with Loctite.



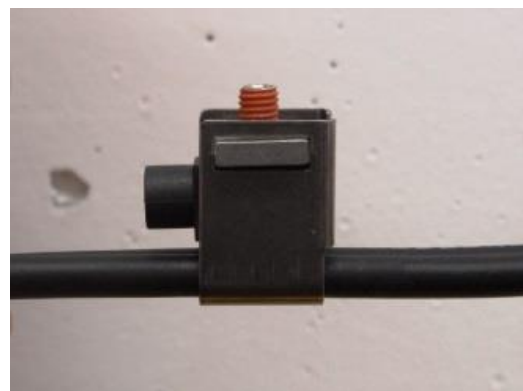
The threaded pin therefore must not be screwed in a second time.



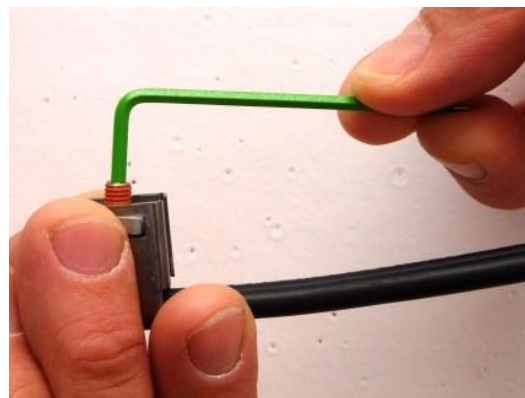
Step ④: Insert threaded plate.



Side view



- Step ⑤: Tighten threaded pin until the pin is flush with the threaded plate.  
Max. torque 0.75 Nm



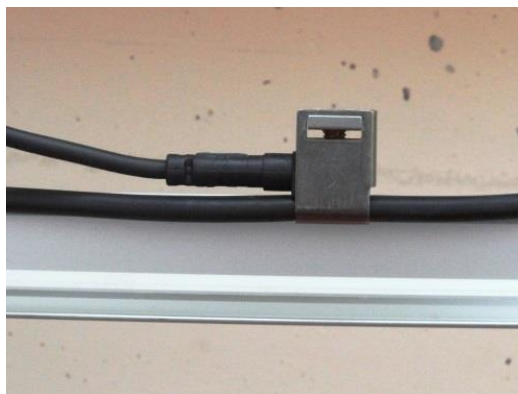
- Step ⑥: Done. Detailed picture with correctly screwed-on current collector.





- Connect the LaneLED connection cable to the current collector with the white markings at the top.

If the LaneLED light strip is not lit, check polarity now!

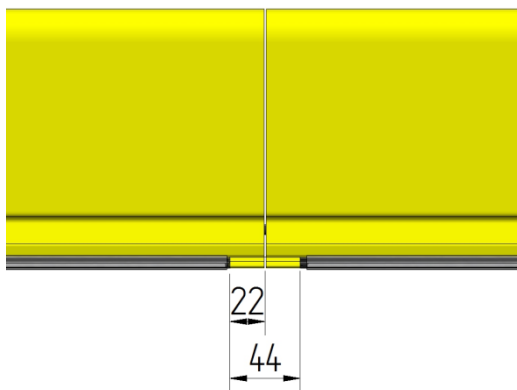


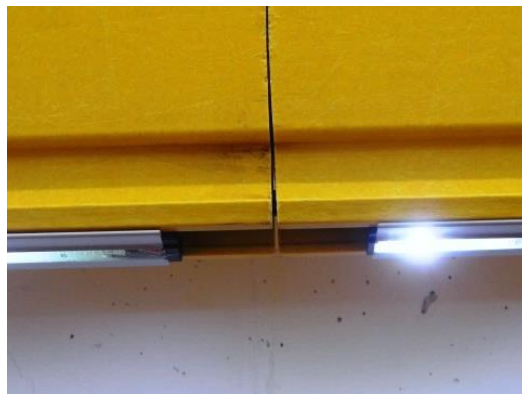
- Insert connection cables of the LaneLED light strip and flat cable in aluminium profile.



- Latch LaneLED light strip into the handrail.

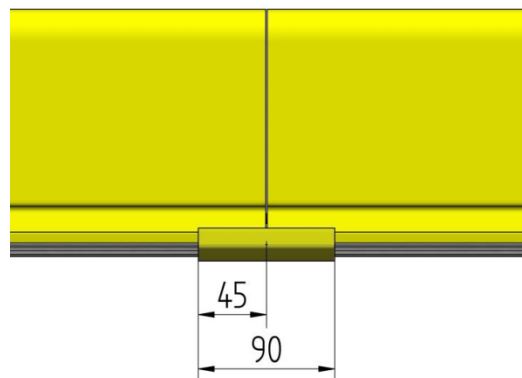
Insert the LaneLED light strip into the GFK profile 22 mm from the handrail end until it latches noticeably.



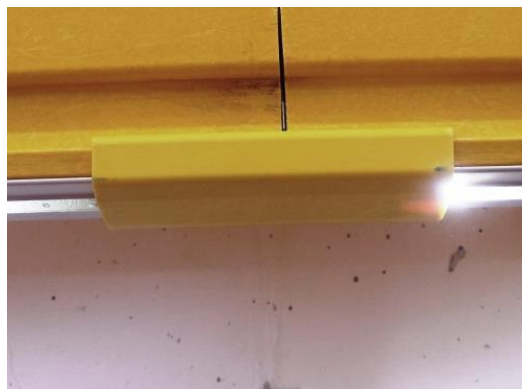


- Attach protective bracket.

Install the protective bracket on both sides of the LaneLED profile between the individual LaneLED units.



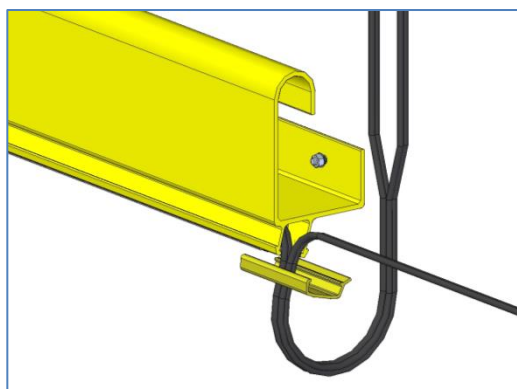
To do so, apply the protective bracket with the grip tab against the tunnel wall and push up until it latches noticeably.



- Protective bracket at cable insertion.

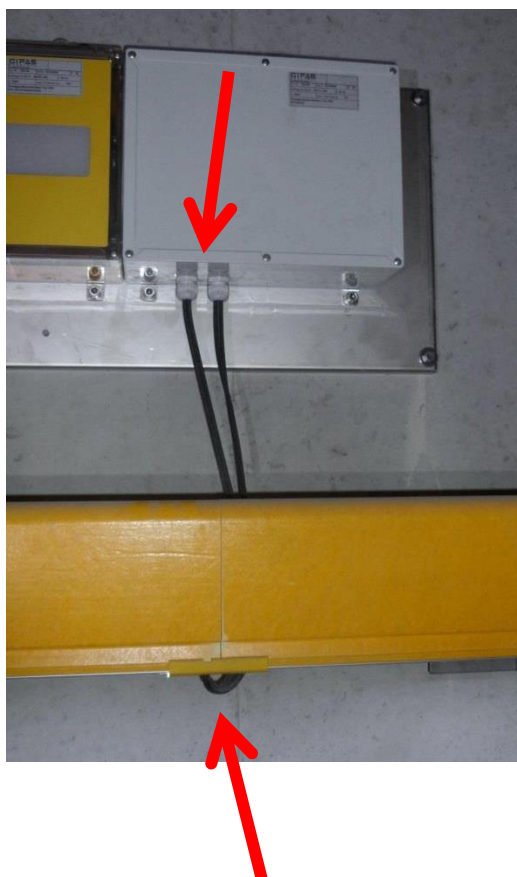
**INDICATION**

Push the cable through the bore in the protective bracket before connecting it to the supply unit.



**INDICATION**

Ideally place the infeed into the GFK handrail and the ends of the LaneLED light strip right under the supply unit.



- End with a function check of the LaneLED.

### Finishing the flat cable ends

- The cable end must be insulated against moisture.



The cable end must be cut cleanly,  
with no loose wires.  
Do not use common adhesive tape!



- Open up the strands of the flat cable along a length of 5 cm.

**INDICATION**

Use a large blade for this.  
Cut on a hard, level surface



Do not damage the strand insulation when cutting.

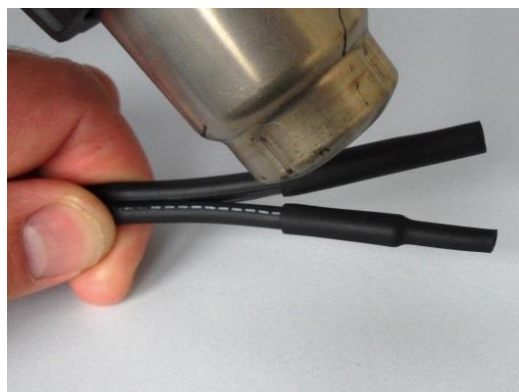


- Insulate every strand separately.  
Cut 2 x 5 cm shrink hose to size.  
Use shrink hose with inner adhesive.

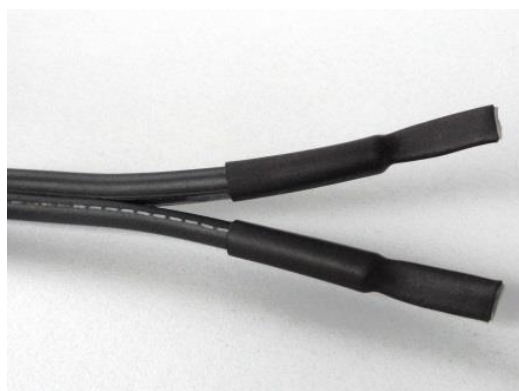
Shrink hose (6 mm/2 mm): Gifas Item No. 010300



- Shrink with hot-air gun (shrink temperature 110°C).



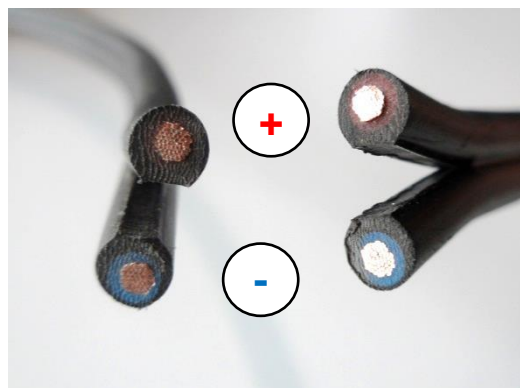
- Compress shrink hose ends while still hot.



Finish.

### Connecting/ repairing flat cable

- Connect wires with the same polarity



- Cut apart the wires of both flat cables to a length of 5 cm.

#### **HINWEIS**

Use a large utility knife for this purpose.  
Cut on a hard, flat surface.



Do not harm the wire insulation when cutting.



- Strip the wires



no loose wires





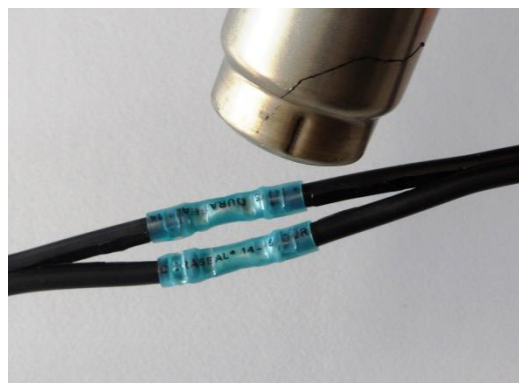
- Crimp the compression joints.  
Use waterproof compression joints with inner adhesive.  
  
Heat-shrinkable joint sleeves 2.5mm<sup>2</sup>: GIFAS Item No. 019875



- Crimp the second side of the compression joint.



- Heat with hot-air gun until the insulation shrinks  
(shrink temperature 110°C)



Finish.



### Insulation of flat cables

- A current collector that is installed incorrectly or in the wrong location will leave 2 small holes in the flat cable that must be insulated against moisture.



- Insulation of the holes



For this purpose, use self-welding insulation tape.

Insulation tape: Gifas item no. 152743

Manufacturer's designation: 3M Scotch vinyl electrical tape  
No. 23, black, (19 mm/19.4 m)



Finish.

**Connection with two supply lines**

Special emergency lighting control or two-level activation options require two power supplies (redundant circuits) in the same handrail. They are implemented with different cable colours for the supply circuits.

The electronics are protected against polarity reversal so that a false connection will not damage the LaneLED light strip. In this case, the LED will simply not light up.

Cable polarity: Minus **-**      **marked with code on the flat cable**  
Plus **+**

