LaneLED WALL

Installation instructions

VERSION	Modifications
01	First edition

Content

1 General information

1.1 Marking concept for hazards and hints

Hazard

Hazardous situation which will cause serious injury or even death if it is not prevented.

Caution

Hazardous situation which could cause slight to moderate injury if it is not prevented.

Hint

Indicates information which does not concern personal injury, e.g. hints in respect of material damage.

Protective measures

Increase safety by applying a protective measure.

1.2 Responsibilities of the operator

- Make sure that this document is always kept in a safe place in a legible form together with the product.
- Read these instructions carefully before first start-up of the product.
- This product has been developed and produced exclusively for the use indicated in these documents. Every other use, which is not mentioned explicitly, could affect the intactness of the product and/or could constitute a source of danger.
- The manufacturer rejects any liability for damage which has been caused by incorrect or non-intended use of the product.
- In countries, which do not belong to the European Community, the national legal reference regulations as well as the standards and regulations applicable in these countries have to be observed for warranty of a corresponding safety level.
- The installation has to be carried out according to the applicable regulations.
- The manufacturer assumes no liability for inexpert execution of installation as well as deformations which may occur during operation.
- The electric power supply has to be switched off before executing any action on the installation.
- Exclusively original parts of the manufacturer shall be used for maintenance. Maintenance work may be carried out by qualified staff only.
- All procedures which are not explicitly mentioned by the manufacturer in the instructions are not permitted.
- The packing material must not be stored within the reach of children as it could be a potential source of danger.
- damage.

2 Introduction

To ensure proper installation, the following steps and notes must be complied with under all circumstances. Only this way can it be ensured that the product will work to complete satisfaction.

Hint

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

2.1 Installation conditions LaneLED WALL

- To comply with the necessary operating voltage, the number of connected LaneLED light bars must be adjusted to the line length.
- The maximum line length for the number of LaneLED light bars required must be calculated for the specific installation.
- LaneLED light bars must be calculated specifically for the plant.
- Installation only in dry weather or with the installation site covered.
- For mounting of the WALL handrail, observe the provisions and instructions of the manufacturer and the local object provisions (specifications for dowels and threaded rods, supporting distance, SIA standards, etc…). Observe a standard-compliant and technically properly executed installation.

2.2 Various linear expansion coefficients for light bar support profiles

The plastic profile expands approx. 1mm per m and the stainless steel profile approx. 0.35mm per m for each 10°C temperature difference. (see also Section 5.4)

2.3 Recommendations for efficient installation

- We recommend that the appropriate auxiliary tools are used for efficient installation of the LaneLED. These can be obtained from GIFAS on a loan basis.
- We recommend that a supply voltage of 24VDC is connected to the flat cables with the correct polarity during the installation (a 24V battery can also be used for this if necessary), in order to ensure the correct polarity and therefore function at the installation stage.
- General recommendation: Start the installation with a LaneLED unit directly by the supply unit flush with the start of the support profile.

3 Required tools

3.1 Auxiliary tool

Crimping pliers for current collectors. Item no 860457 (for purchase) or item no. 860565 (for rent).

3.2 Standard tool

Pliers to cut off cables

Light barping pliers for system cables 2x2.5 mm²

Hot-air gun for termination

Circular saw cutting device

Hint

Ensure the correct saw blade is used (V4A, AISI316L)
Never cut different materials with the same cutting disc; this could cause corrosion.

Large utility knife

Notching pliers

Recommended:

- Device for unrolling cables
- Cable lug crimping pliers for press connector
- Screwdriver size 5 (to dismount LaneLED after wrong connection if necessary)

Head lamp, measuring tape, material/tool cart

3.3 Consumables

Heat shrink tube with glue (6 mm/2 mm):	Item no. 010300
If appl. insulation tape 2 M Scotch no. 23, black	Item no. 152743
If appl. crimp connector 1.5-2.5 hot-shrinking Raychem, blue	Item no. 019875
Solder connector 1.5-2.5 heat-shrinkable NSPA, transparent	Item no. 172745

4 Montage LaneLED WALL carrier profile

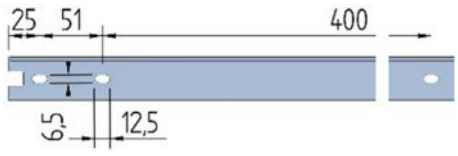
4.1 In general

Hint

An inventory of the material is recommended before starting the installation. Are all the parts for the installation available? Do support profiles have to be cut to the correct length on site? The available lengths of the LaneLED WALL light bars must be considered in this respect.

4.2 Mounting the carrier profile

- Remove the protective film from the support profile.
- Position the support profile with the attached plastic fastener in such a way that the hole in the plastic fastener is perpendicular to the feed-in cable.
- Provide the support profile with 3 stainless screws with a ø 4.5 - 5mm per unit. (recommendation).
- Always insert a plastic fastener item no. 860209 between the support profiles on each side with an air gap of at least 1mm (compensation for temperature expansion) .
- Align the hole for the feed-in cable in the plastic fastener item no. 860209 depending on whether the feed-in cable is led in from above or below.



4.3 Laying out the flat cable

- Lay out the flat cable on the floor first of all
- Then insert the GIFAS flat cable in the support profile along the length of the supply section and provisionally snap on plastic safety brackets item no. 860210 over the support profile at regular intervals, so that the flat cable does not fall out of the support profile.
- Insert different coloured GIFAS flat cables when installing 2 system cables (dual line / redundant).

4.4 Connecting the flat cable

- Pass the flat cable through the opening/cut-out in the plastic fastener before connection to the sup-ply unit. Remove or break out the plastic strap when using 2 flat cables.
- If shortened support profiles are required at the beginning or end of the section, these have to be cut to the required length by the installer.
- Deburr the cut edges.

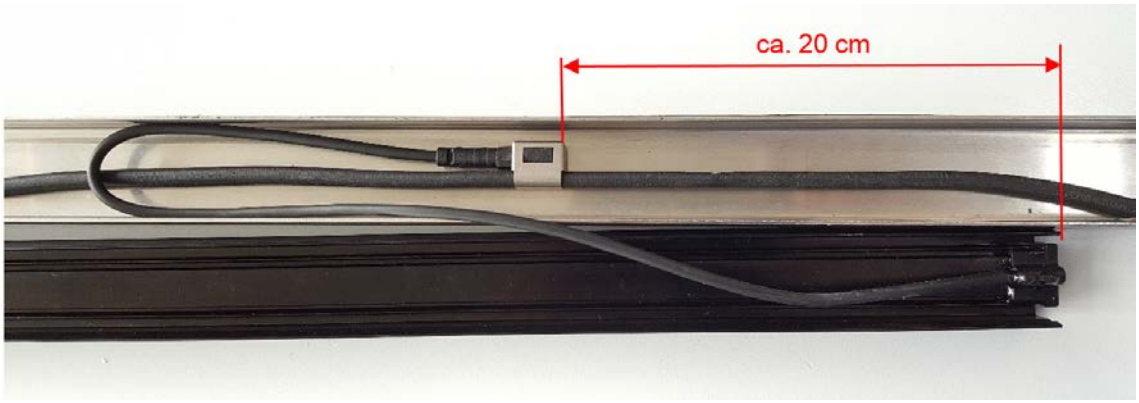
5 Installation of LaneLED light bars

5.1 Positioning current collectors

Hint

Installation of the current collectors is described in detail in 5.3.

- Mount current collectors on the flat cable at a distance of approx. 20cm from the desired end position of the LaneLED light bar.



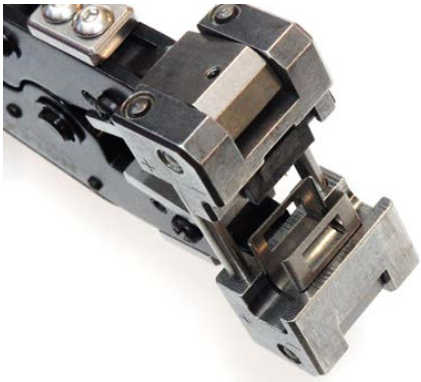
5.2 Positioning of current collectors for redundant execution

- When wiring up "LaneLED redundant", mount the current collector of feeder 1, left, on the flat cable at a distance of approx. 20cm from the left-hand end of the light bar.
- Mount the current collector of feeder 2, right, on the flat cable at a distance of approx. 20cm from the right-hand end of the light bar.
- The current collector must point towards the middle of the light bar with the side of the connector.

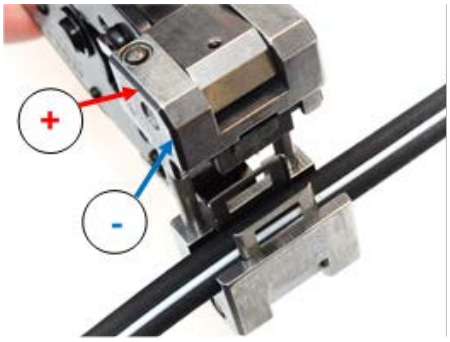
- The two flat cables must be connected to 2 separate supply units for operation with 2 system cables (dual line / redundant).

5.3 Installation instructions for the current collector

- Insert metal bracket into lower plier jaw, with the contact element in the upper plier jaw.



- Insert the system cable into the metal bracket and turn it until it lies flat in the bracket. The negative pole (white marking) must be aligned toward the front of the pliers and correspond with the + and - imprints on the sides of the pliers. Operate the crimping pliers.



- Insert the LaneLED connection cable (with the white marking aligned upwards) into the current collector until it stops. If the system cable was previously connected to a 24 VDC supply, the LaneLED light bars must now illuminate.

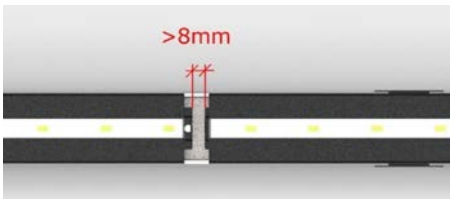
- Lay the connecting cable in the plastic profile in the form of a loop. Place the flat cable with the inserted LaneLED connection cable in the plastic profile. Snap the LaneLED light bar in the support profile.

5.4 Mounting the light bars in the support profile

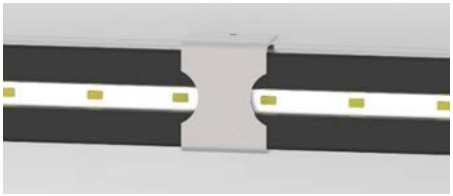
Hint

The specified distance between the LaneLED Wall plastic profiles must be complied with without fail on account of the varying linear expansion (see 1.2) of the plastic profiles and the stainless support profiles.

- Snap the first light bar into place at the start of the support profile offset by approx. 3mm.
- Connect all the other light bars as described in 4.1 and 4.2 and snap into place in the support profile with a spacing of at least 8mm.



- Remove the previously attached plastic safety brackets for retaining the flat cable directly before the light bars are snapped into place.
- Snap protective brackets into the spaces between the light bars and check that they grip firmly.

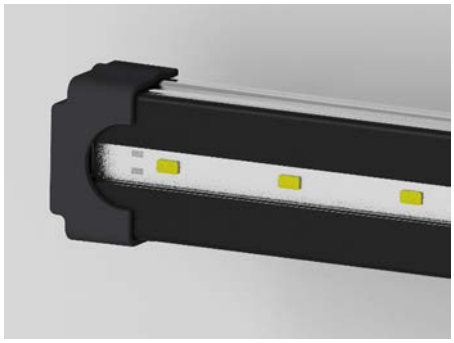


5.5 Drilling holes for feed-in cables individually

- If required, a hole for the feed-in cable can be drilled on the light bar and in the plastic fastener, and a matching cut-out can be made for the cable entry (with the notching pliers) at the desired point of the support profile.

5.6 Mounting end caps of plastic

- Mount the plastic end caps on the first and last support profile of each section.



5.7 Mounting end caps of stainless steel (optional)

- Place the V4A end caps item no. 860458 on the first and last support profile of each section and screw tight.

5.8 Mounting the fixing bracket (optional)

- If required, the light bars can also be fastened with V4A fastening brackets item no. 860323. This provides greater protection against damage from vandalism.
- Place the fastening bracket between 2 LEDs in such a way that the LEDs are not covered.

6 Flat cable

6.1 Finishing the system cable ends

- The cable end must be isolated against moisture.

Hint

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

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

Hint

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

Caution

Do not damage the strand isolation when cutting.

- Isolate every strand sepa-rately Cut 2x 5cm shrink tube to size
- Use water-tight heat shrink tube with inner adhesive
- Shrink tube (6 mm/2 mm): Item no. 010300

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

- Compress shrink tube ends in the hot condition

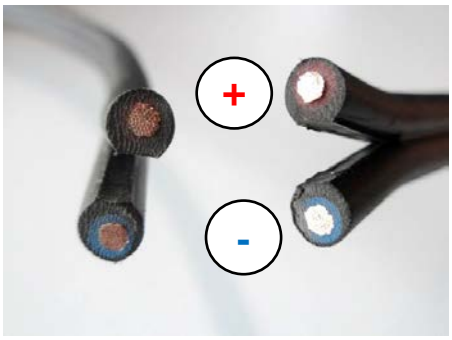
Caution

Do not burn your fingers!

7 Connecting/repairing the system cable

7.1 Connecting the system cable

- Connect strands of the same polarity to each other



- Open up the strands of the two system cables along a length of 5 cm
- Use a large blade for this cut on a hard, level surface

⚠ Caution

Do not insure the strand isolation when cutting

- Strip strands

⚠ Caution

No loose wires

- Crimp press connector
- Use water-tight press connector with inner adhesive

  Press connector 2.5 mm² heat-shrinking: Item no. 019875

- Press connector 2. crimp side

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

7.2 Repairing flat cables

- A current collector that is installed incorrectly or in the wrong location will leave 2 small holes in the system cable that must be isolated against moisture
- Clean and degrease the cable around the area to be repaired

- Isolation of the holes (current collector)

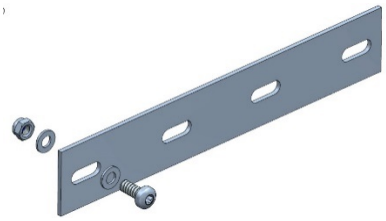
Hint

Use only self-welding insulation tape!
Insulation tape: Item no. 152743
Manufacturer's designation:
3 M Scotch table no. 23, black, (19 mm/19.4 m)

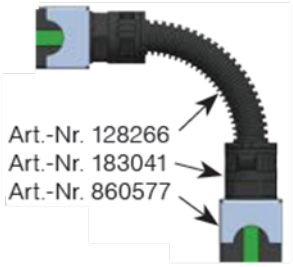
- Press self-amalgamating insulating tape firmly on flat cables, especially in the bilateral recesses between the two stranded conductors.

8 Equipment (INOX)

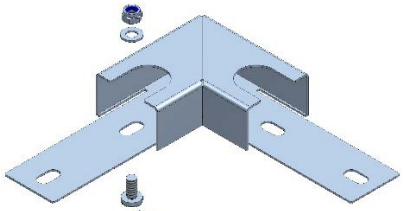
- Connector V4A 1.4404 Item no. 860455
- Lens head screw A4 M5x12 TX25 Item no. 190598 (4x)
- Washer A4 5,3/10/1,0 Item no. 135959 (4x)
- Locking nut A4 M5 Item no. 185789 (4x)



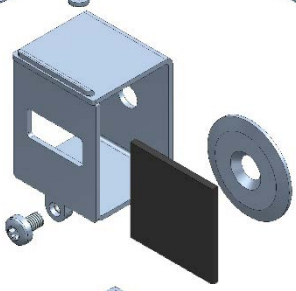
- Flexible conduit Item no. 128266
- Conduit gland Item no. 183041
- End cap with drilling V4A 1.4404 Item no. 860577



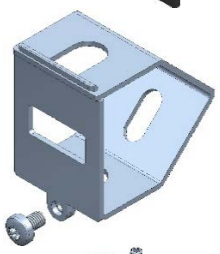
- Flat angle V4A 1.4404 90° Item no. 860578
- Lens head screw A4 M5x10 TX25 Item no. 185790 (4x)
- Washer A4 5,3/10/1,0 Item no. 135959 (4x)
- Locking nut A4 M5 Item no. 185789 (4x)



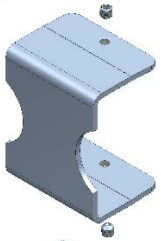
- Mounting bracket V4A 1.4404 Item no. 860585
- Lens head screw A4 M4x6 TX20 Item no. 185791
- Washer A4 ø29.8 x 2 Item no. 017024
- Foam rubber strip 30 x 2 mm Item no. 134774



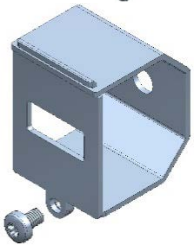
- Mounting bracket V4A 1.4404 45° Item no. 860579
- Lens head screw A4 M4x6 TX20 Item no. 185791



- Safety bracket V4A 1.4404 Item no. 860586
- Threaded pin A4 M3x3 I-6 Kt. Item no. 185792 (2x)



- Mounting bracket V4A 1.4404 Item no. 860595
- Lens head screw A4 M4x6 TX20 Item no. 185791



9 Cleaning

The LaneLED WALL light bars should be cleaned at regular intervals for efficient operation.

- Please do not use any hard objects or brushes to clean the light bars otherwise the surface will be scratched.
- The luminaires can be cleaned with water and a cloth or with a high-pressure cleaner with water (without cleaning additives) at a max. of 80 bar, a max. of 80°C, a max. flow of 16l/min and at walk-ing pace as well as a jet nozzle distance of at least 15 cm.
- Consider the resistance to chemical attack when using cleaning additives and only use cleaning agents suitable for plastics when cleaning plastic.
- Do not use cleaning agents containing alcohol or ammonium chloride, nitro & synthetic resin thinners or cleaning agents on a nitro basis.

10 Service

10.1 Service addresses

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10.2 Imprint

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