

LDR LED-Line Operating and Installation Instructions

For installation in/on (special) vehicles and applications in mechanical engineering

Before installing and using the LDR-LED Line, please familiarize yourself with these operating and assembly instructions. Only proper installation guarantees long, reliable and trouble-free operation.

Use LDR LED-Line products only for the purpose intended. Incorrect or inadmissible use as well as non-compliance with the instructions in this operating manual will invalidate any warranty on our part. Modifications and changes to the light that affect operation are not permitted. The lights may only be operated if they are undamaged and in perfect condition.

The following must be observed during installation and operation:

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- The generally accepted rules of technology
- The safety instructions in this operating and assembly manual
- Information on type and data plates
- Installation may only be carried out by qualified staff
- Connection to the vehicle on-board system or the power supply may only be made by qualified electricians / mechatronics technicians
- The LDR LED Line products may only be operated outside vehicles when the vehicle is at a standstill. Operation while driving must be blocked by the on-board electronics (e.g. handbrake released -> LEDs off)

Intended use as:

- Ambient lighting on (special) vehicles
- Interior and background lighting in (special) vehicles and their cargo holds
- Lighting in mechanical engineering
- Handle with LEDs in vehicles
- Labelling and marking of vehicle steps, vehicle entries and folding steps
- Tank level indicator outside the vehicles (except ADR and Atex applications)
- Status, information and signal messages in mechanical engineering

Any use outside the intended points listed is considered improper. The following listed uses are not as intended:

- Use as general lighting
- Use as escape route lighting or warning light
- Use as lighting for aquariums and terrariums
- Use as plant lighting
- Underwater use
- Use as vehicle headlights, rear lamps or front position lamps on vehicles in general public road traffic
- Use in potentially explosive atmospheres (ATEX)
- Use as hand lamp, working lamp
- Use in ADR areas (ADR vehicles, hazardous goods transporters)
- Direct connection to AC mains voltage (230 V alternating voltage)

(1) Assembly

It must be mentioned that intensive light sources have a high secondary hazard potential due to their glare effect. After looking into a bright light source (e.g. spotlights, sun), a temporarily impaired vision or afterimages can lead to irritations, annoyances, impairments or even accidents. Do not look directly into the LEDs!

Therefore, special attention must be paid to glare-free installation in the passenger compartments of vehicles. This is best achieved by aligning the light exit side towards the mounting surface, thus achieving indirect illumination. When selecting the installation location, please also note that light sources may also be reflected by the vehicle windows, which can also lead to glare.

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The assembly of our LDR-LED Line products must be carried out with suitable screws or rivets (e.g. ISO 7380 flat head screws, ISO 10642 countersunk screws) at a sufficient distance (approx. 800 mm). In addition to screw connection, we recommend the use of bodywork adhesive. Depending on the aluminium profile, optional metal and/or plastic holders are included in the scope of delivery, which are to be used.

The surface on which the light is mounted must not be vaulted over or under in the mounting area. A light mounted under mechanical stress is destroyed in the long term because the electronic components are subjected to high loads.

When mounting LED-Line aluminium profiles, screw connections must be designed in such a way that the screw connection cannot get loosened or unscrewed on its own. For this purpose, please use the screw-locking device suitable for your application. Please note that over-tightening the screws will cause surface damage to the anodized finish.

Work on the vehicle on-board system or on the power supply may only be carried out by qualified electricians / mechatronics technicians !

The products of the LDR LED-Line are designed for DC voltage operation.

Please note the corresponding voltage ranges (12 VDC **OR** 24 VDC, **no multi-voltage**) for which the lights are designed. Direct operation on alternating voltage leads to destruction of the electronics.

Supply lines and the **associated back-up fuses** (sufficient cable cross-sections, current strength of the fuse) **must be dimensioned** to the electrical power consumption of the LED-Line products. The on-board voltage must be maintained on the original LED-Line connection cable during operation of the LED. Too small a conductor cross-section leads to voltage drops and can endanger the operation of our light. Despite built-in protective measures, the lights may be damaged in the long run.

If you are not sure, please refer to the corresponding data sheets at www.ldr-rolltechnik.de/downloads.

(2) Safety instructions

Work on the vehicle electrical system or on the power supply may only be carried out by a specialist. Improper handling or incorrect installation can result in serious damage to the vehicle or the machine, e.g. cable fire, as well as personal injury (installer)!

Cables must always be protected (e.g. with rubber grommets) when they routed through bores (e.g. in metal sheets). When install the cables, make sure that the cables are not pinched. A defective cable can be very dangerous for people and technology, as it can lead to accidents such as cable, machine and vehicle fire!

In the event of visible, foreseeable injury, cables must also be protected by braided sleeving or other constructive measures.

In any case, it must be ensured that the operating conditions are observed. Caution: In every operating condition, maintain the respective operating voltage and the maximum permissible surface temperature (measured on the surface of the LED aluminium profile) of 55 deg. C. We recommend checking the condition of the supply lines at regular intervals.

(3) Cleaning and care

Do not use any aggressive, chemical or abrasive cleaning agents as this may cause discolouration or even material changes. **When using high-pressure cleaners, a distance of 30 cm from the LDR LED Line product must be maintained! Non-compliance can result in damage to the surface and failure of the LED light!**

(4) Disposal

Waste electronic equipment is recyclable and should not be disposed of with household waste. At the end of its service life, dispose of the device in accordance with the applicable legal regulations; return it to an appropriate municipal collection point. Disposal with household waste is prohibited!

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