



LED light profiles for interior and exterior use in (special) vehicles as well as for applications in mechanical engineering.

The powerful LED-Line products from LDR-Rolltechnik guarantee uniform, almost shadow-free and glare-free illumination in every situation.

Our specially developed printed circuit boards are encapsulated with an opaque, turbid polyurethane compound and thus protected against all influences such as moisture, dust and vibrations as well as external damage.

Detailed technical information is contained in our configurators, which can be downloaded from our homepage.



(1) LDR LED-Line A30 - 18 x 11 mm

- Typical application in vehicle equipment compartments and engine compartments.
- Mounted behind the side roller shutter guide rails for ideal illumination from both sides.
- Glare-free and uniform illumination despite possible subdivisions such as shelves and drawers.
- Compact aluminium profile with 18 x 11 mm cross-section.
- Anodized profile surface (E6 / EV1).
- Total length of the aluminium profile up to **max. 4,050 mm** length, division of the LED light sections in 200 mm steps variable (200 mm, 400 mm, 600 mm > 4,000 mm), on request also in the variant:
- A60 (60 LEDs/m pitch 100 mm), as well as with B30 (30 LEDs/m separation 200 mm) in blue, B35 (34 LEDs/m separation 175 mm) in red, green, blue and orange or with RGB LED (separation 125 mm, 60 LEDs/m).
- Standard cable length 700 mm.
- Universal holder with adjustable angle of inclination for easy mounting on flat surfaces, on roller shutter guide rails and on aluminium profile systems, as used for the interior installation of equipment compartments and in mechanical engineering.
- Thus, very simple retrofitting in existing vehicles, installation in new vehicles as well as in machines and their enclosures.
- Further holders in the form of U-holding clamps for a flat fastening, as well as folded sheet metal holders for a robust angled fastening.
- Power consumption of
 - Variant A30 of approx. **12W/m at 12V** and **12.5W/m at 24V**.
 - Variant A60 of approx. **30W/m at 12V** and **24V**.
- Diffuse grouting results in a uniform light effect without dazzling light spots.
- Sheathed automotive cables offer the possibility of correct electrical installation.



(2) LDR LED-Line A60 - D002

- For ambient lighting of (special) vehicles.
- Roof edge profile with the following functions:
Outside lighting, rain gutter and sealing to the roller shutter.
- Low glare due to elongated light distribution.
- Uniform and almost shadow-free illumination of the vehicle surroundings.
- Depending on mounting height, illumination up to approx. 6 m distance from vehicle.
- Power consumption of the light approx. **30W/m** at **12V** and **24V**.
(additional LED boards and LED light colours on request).
- The total length of the aluminium profile is variable up to **max. 5,300 mm** and the partition of the LED light sections in the variant A60 in 100 mm steps can be ordered variably, e.g. aluminium length 5,290 mm > **here LED length 5,100 mm possible**.
- Cable lengths selectable in 1,000 mm, 2,000 mm, 2,600 mm, 6,000 mm and 10,000 mm.
- Rear cable duct for easy cabling and the possibility of mounting the R135-A roller shutter sealing.
- Sheathed automotive cables offer the possibility of correct electrical installation.
- Anodized profile surface (E6/EV1).
- Additional colour shades as powder coating on request.
- Compact dimensions of 85 x 22 mm, light unit inclined 30 deg. outwards.
- Suitable for waterproof and high-pressure cleaners (IP protection class similar to 69 K).
- Simple retrofitting of existing vehicles. Mounting directly above the roller blind or on any flat surface.



(3) LDR LED-Line A60 - D003

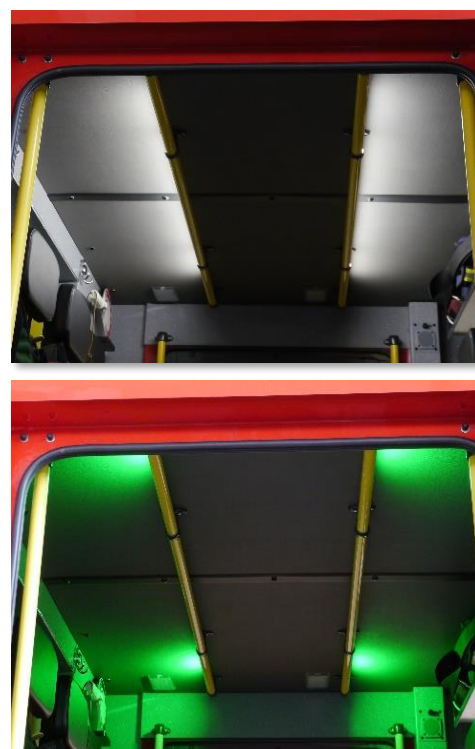
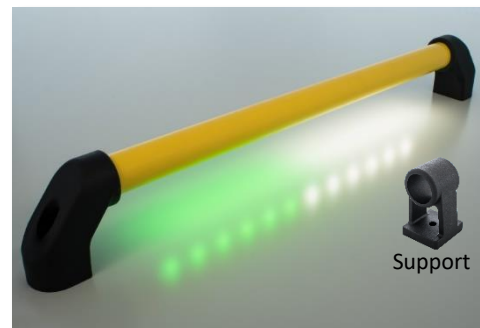
- For ambient lighting of (special) vehicles.
- Aluminium profile for facing the upper, right-angled construction edge, without integrated rain gutter in the profile.
- Low glare due to elongated light distribution.
- Uniform and almost shadow-free illumination of the vehicle environment.
- Depending on mounting height, illumination up to approx. 6 m distance from vehicle.
- Power consumption of the light approx. **30W/m at 12V and 24V.**
(additional LED boards and LED light colours on request).
- The total length of the aluminium profile is variable up to **max. 5,200 mm** and the division of the LED light sections in the variant A60 in 100 mm steps can be ordered variably e.g. aluminium length 5,110 mm > **here LED length 5,000 mm possible.**
- Cable lengths selectable in 1,000 mm, 2,000 mm, 2,600 mm, 6,000 mm and 10,000 mm.
- Rear cable duct for easy cabling.
- Sheathed automotive cables offer the possibility of correct electrical installation.
- Anodized profile surface (E6/EV1). Additional colour shades as powder coating on request.
- Compact dimensions of 35 mm x 43 mm, lighting unit inclined 30 deg. outwards.
- Suitable for waterproof and high-pressure cleaners (IP protection class similar to 69 K).
- Simple retrofitting of existing vehicles. Mounted directly on the upper edge of the structure or any right-angled edge (e.g. box bodies, containers and stowage boxes of turntable ladder structures).



Light output identical to that of D002.

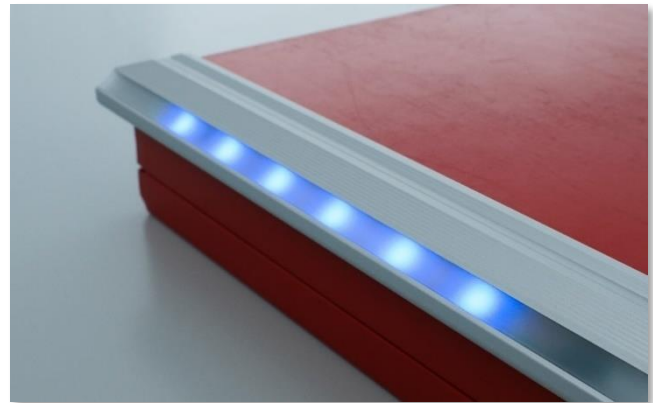
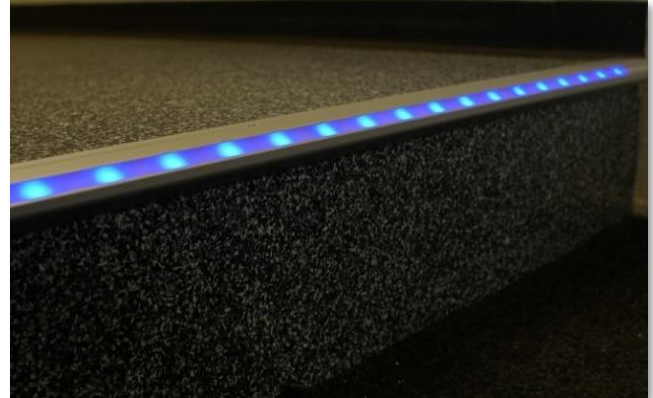
(4) LDR LED-Line - Handle

- The typical area of application for products from the LED-Line variant handle is, in the area of entrances, on doors and ceilings of crew cabins of fire brigade and commercial vehicles.
- Handles in vehicles ensure a safe stop during driving and when getting in and out of the vehicle.
- Integrated LED lighting in the handle, for direct or indirect lighting.
- Discreet illumination of the crew cabin in red, green, orange or blue colour (partition 175 mm, 60 LEDs/m).
- As background lighting (e.g. for special vehicles, ambulances and medical vehicles) optionally also available with RGB technology.
- Illumination at vehicle standstill with bright, white light.
- Power consumption of light approx. **12W/m at 12V** and **12.5W/m at 24V** in the segment neutral white (partition 200 mm).
- Powder coating in zinc yellow (RAL 1018), alternatively available with anodized surface (E6/EV1).
- Additional colour shades as powder coating on request.
- Handle diameter **30 mm**.
- The total length of the aluminium profile can be ordered up to **max. 5,300 mm** - approx. 700 mm cable length (3-wire cable, for white and colour).
- Possible further areas of application are e.g. use in public transport, as LED roof rails / ambient lighting (use of the variant A60, 60 LEDs/m, partition 100 mm), installation as LED machine handle, use in equipment construction (in combination with 30 mm pipe system), as status signals on machines (e.g. red/green or blue/orange), use as external level indicator on tank vehicles (except ADR applications).
- Detailed technical specifications are listed in the handle configurator which can be downloaded from the LDR homepage.



(5) LDR LED-Line colour - step

- Protection against tripping hazards such as steps by improving optical visibility.
- The robust LED technology remains protected by abrasion-resistant polyurethane encapsulation.
- Power consumption of the light approx. **1W/m** at 12V and 24V.
- Standard colour blue (B30, partition 200 mm) or with high-quality RGB LEDs (partition 125 mm, 48 LEDs/m).
- Standard cable length 700 mm.
- Anti-slip due to grooved tread surface.
- Production is ensured in order-specific lengths up to **max. 4,000 mm**.
- Fitting during assembly is possible by slightly shortening the lateral protrusion (left and right side max. 10 mm each).
- Rear cable duct for easy cable routing.
- Wear-resistant and easy to clean due to anodized surfaces (E6/EV1).
- Typical applications: Marking of access stairs in crew cabins of fire-fighting vehicles, commercial vehicles and buses, as well as folding steps on fire-fighting vehicles.



(6) LDR LED-Line colour - Hat 22

- The typical application of the hat 22 profile from our product range is the use as a level indicator (e.g. water tank and foam tank, except ADR applications) on the outside of the vehicle when the vehicle is stationary.
- Usually blue and red LEDs for the water tank and orange and red LEDs for the foam tank are used for this purpose.
- Of course, green LEDs or our RGB LED products can also be installed in this profile to offer you individual combination options.
- Other applications e.g. as background lighting in special vehicles, ambulances and medical vehicles, status signalling in mechanical engineering (e.g. red/green) or use as interior lighting.
- Use as general lighting (use of variants A30, 30 LEDs/m, partition 200 mm / A60 on request).
- Power consumption of the colour LEDs between **18W/m** and **25W/m**, depending on voltage and light colour.
- Production is carried out in order-specific lengths.
- Standard length aluminium profile **2,000 mm**, other lengths upon request.
- Cable length 2,000 mm.
- Anodized profile surface (E6/EV1).
- Rear cable outlet for simple, concealed cable routing.
- Flush, recessed mounting possible by recessing the profile. The hat 22 contour covers the cut-out, and you get a clean, elegant look.
- Compact dimensions **22 mm x 12.15 mm**.

Foam tank filling level in e.g. orange LEDs.

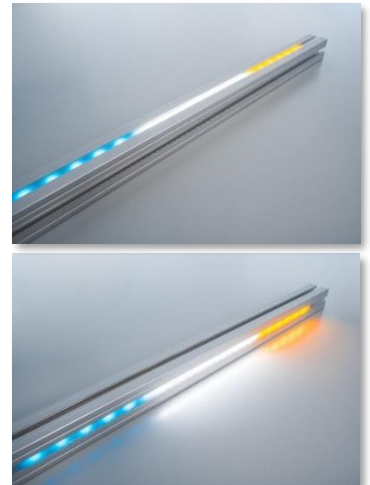
Tank empty signal carried out with red LEDs.



Water tank level also possible with blue LEDs.

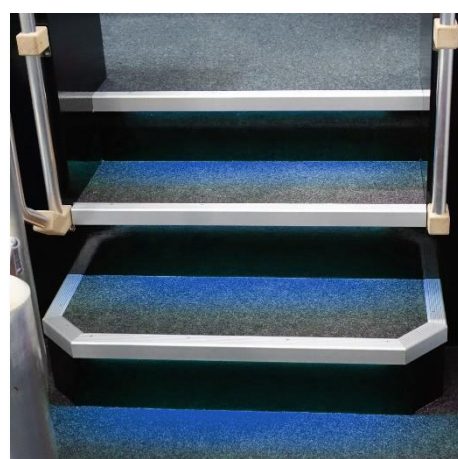
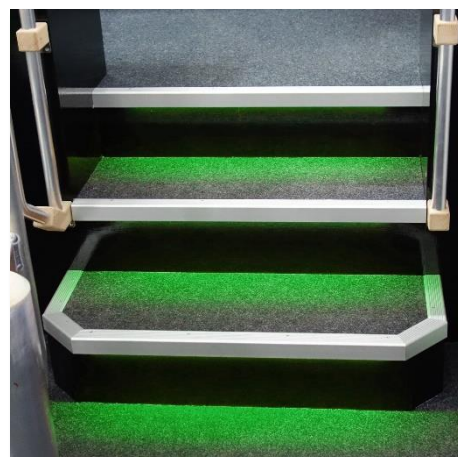
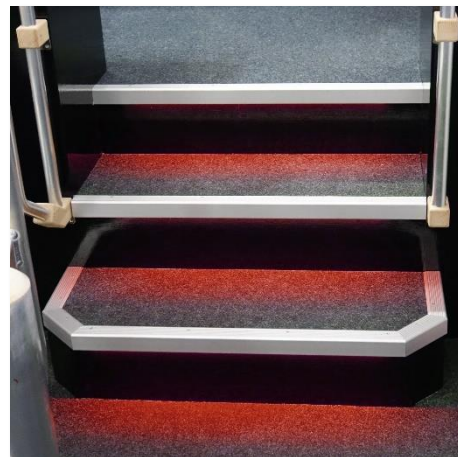
(7) LDR LED-Line - Aluminium engineering profile

- Use of the mounting groove of profile systems for integrated lighting.
- Completely without interfering contours - this opens up completely new areas of application.
- No additional space required, flush with the outside surface.
- Protection against mechanical damage. The encapsulation protects the electronics from external influences such as moisture, dust and vibrations.
- Cable output definable (Output in opposite groove or in the frontally LED groove).
- Power consumption of the light approx. **30W/m** at **12V** and **24V**.
- Combinations of white boards and colour boards in red, green, blue and orange are possible (B35, partition 175 mm).
- Total length of the aluminium profile up to **5,300 mm**, division of the LED light sections in 100 mm for variant A60 (60 LEDs/m) and 200 mm for variant A30 (30 LEDs/m).
- Installation of the desired boards also in sections in the middle of the profile (e.g. 2,000 mm aluminium profile, 1,000 mm LED board).
- Possible applications could be:
Signalling tasks such as machine status using coloured light segments, optionally in red, green, blue, orange or with high-quality RGB LEDs.
- Standard cable lengths in 1,000 mm or alternatively 2,000 mm, 2,600 mm, 6,000 mm and 10,000 mm.
- Please note that for constructive reasons, the entire groove must be grouted.
- Requirements for the profile / groove to be grouted:
 - Minimum groove width 10 mm.
 - Flat groove bottom.
 - No connectors, bores, pockets or other cut-outs in the groove.
- Due to the large variety, the corresponding machine construction profiles must be provided by the customer.



(8) LDR LED-Line - RGB

- Basically it is a multi-LED with three luminous colours red, green and blue.
- The advantage is that the three coloured LED chips are installed in this LED housing to save space.
- The three basic colours can be connected to the supply voltage individually or together.
- Power consumption only **12.3 W/m** at **12V** and **12,8W/m** at **24V** in white (three colours of 100 percent each).
- Mainly intended as background lighting.
- Dimming and colour mixing of **all** colours, works with RGB controllers, by controlling the LED colour chips.
(RGB controllers **cannot** be purchased from LDR; different variants are offered by the free electronic markets!)
- LDR RGB boards are, as usual in the LED market, **minus controlled** (1 x plus, minus for each colour).
- The RGB LEDs are available in 12V **OR** 24V, with **48 LEDs per metre**.
- LED lengths of up to 4 m are possible for your projects and conditions.
- RGB connection cables 4 x 0.34 sqmm with lengths of 1,000 mm and 2,000 mm are in stock.
- Possible applications and locations are:
 - In vehicle construction as background lighting e.g. in mobile homes, ambulances and rescue vehicles, in road, bus and rail traffic as marking for steps, handholds and handrails.
 - As signal, status, position and information display for machines and vehicles indoors and outdoors (**can only be used on the outside of vehicles when the vehicle is stationary**).



(9) Technical data of all LDR LED-Line products:

- Supply voltage 12V **OR** 24V (**no multi-voltage!**).
- Integrated protection against over-voltage and reverse polarity.
- Two colour temperatures are available (neutral white, daylight white as standard).
- LED profile lengths are variable; maximum overall length depending on aluminium profile up to approx. 5,300 mm.
- Vehicle cable in keeping with ISO 6722(-1) / ISO 14752.
- RGB cable construction based on VDE 0812.
- Ambient temperature -40 deg. C up to +50 deg. C
- Protection against external influences such as moisture, dust and vibrations through polyurethane encapsulation of the electrical components.
- LDR LED Line products are in conformity with REACH and RoHs.
- IP protection class similar to 69 K.

(10) General data

- Production according to specific customer requirements (length, selection from our LED colours) within two to three weeks.
- Components from renowned quality manufacturers (Samsung, Osram, Phillips, Everlight, Infineon).
- From the development of the printed circuit board (we do not use stripes), the assembly of the components, the assembly into the aluminium profiles, as well as the grouting, up to the final inspection at LDR, everything is "Made in Germany".
- Diffuse light with low glare due to opaque, cloudy grouting.
- LDR offers various aluminium profiles in anodized aluminium (E6/EV1) and powder coatings in the colour of the customer's choice upon request.
- **All LDR LED-Line products are manufactured in the proven LDR quality and tested in a function test lasting several hours before delivery!**
- Detailed and further information can be found in the LED-Line configurators, which are available for download on our homepage.

Download at <http://www.ldr-rolltechnik.de/de/downloadbereich.html>

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