

MULTILED-SL

LED shaft light for lifts

Status: 4.4.2023



Important note

The data and information in this documentation were compiled with greatest care. Although every reasonable effort has been made to make the information contained in this documentation correct and up to date at the time of publication, no guarantee can be given for absolute freedom from errors.

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Document changes

<i>Date</i>	<i>Page</i>	<i>Changes</i>
21.2.2016		1st official issue
31.7.2016	5 7	Technical data: definition IP68 Renewal of the EU declaration of conformity
22.8.2017	0 4 7	New support E-Mail address Supplementary safety instructions for assembly Renewal of the EU declaration of conformity
10.1.2018	6	Renewal of the EU declaration of conformity
10.1.2019	0, 5, 6	Fax number -99 Extended product length from 50 to 100 m, updated technical data (length + wire diameter) Renewal of the EU declaration of conformity
28.3.2019	5	Dimensions adapted for the new electronics
20.2.2021	6	Renewal of the year of construction in the EU declaration of conformity
7.7.2021	6	Conformity EN 81-20:2014 → EN 81-20:2020

1 General notes

The documentation contains instructions which must be complied with under all circumstances in order to protect the life or health of persons. Knowledge and technical implementation of the safety instructions included in this documentation as well as the accident prevention regulations applying to the place of installation of the plant are required for a safe installation and commissioning. The documentation does not include all details on all plant designs and is unable to take into account any conceivable setup, operation, repair, maintenance and commissioning scenario.

Typographic conventions

Font / symbol	Meaning
	Hazard warning. Neglecting the regulations may pose a risk of an accident, including personal injury or property damage.
	Special information or useful tips

2 Intended use

MULTILED-SL is a shaft lighting system for lifts as defined by the Lift Directive 2014/33/EU.

All chapters of this operating manual include important information for the intended use of the product. These chapters exclusively apply to technically qualified personnel trained especially for the installation, commissioning, maintenance and repair of lifts, which have been constructed according to the relevant standards. The product described may only be installed, operated, serviced and repaired by this group of people. It must be ensured that all activities are carried out according to the respective statutory provisions of industrial safety.

In order to ensure a trouble-free and safe operation of the plant, the notes and instructions in the documentation included in the delivery of the plant must always be observed. The product may not be changed before and after putting it on the market without consulting the manufacturer **STRACK LIFT AUTOMATION GmbH**.

3 Description

MULTILED-SL is very inexpensive, quickly mounted, very small, totally waterproof and ready for connection. MULTILED-SL provides an EN 81-20 compliant, equally bright and almost shadow-free illumination of the shaft up to 10m² floor space in concrete walls. At very large shafts a second lighting can be installed e.g. at the opposite shaft wall, and at very high lifts more lightings can be installed one above the other.

The default colour is daylight white, giving a real colour reproduction and a high contrast of all illuminated items in the shaft.

MULTILED-SL consists of flexible circuit boards, embedded in a transparent PVC sheath. The inner white moulding of printed circuit boards with side panels provides more light output than competitive products. The special seals of all interchanges and the fully encapsulated control electronics integrated in the cable secure IP68. The MULTILED LED chips are connected 3 times parallel, thus not only very bright, but also durable. Should it nevertheless come to a PCB track failure or component failure, only one LED or maximum one meter of the lighting would fail.

4 Assembly

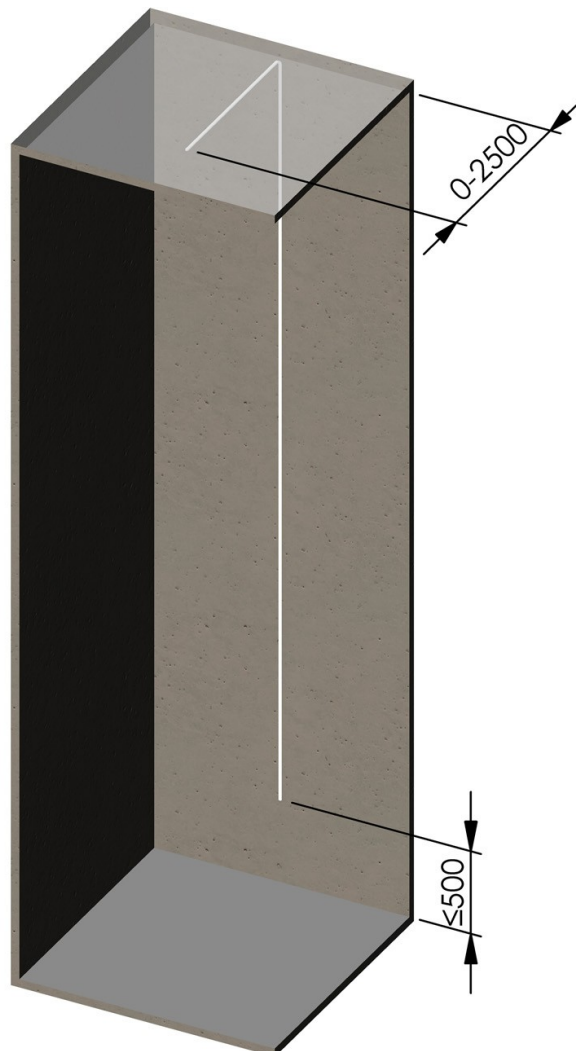


Minimum required LED strip length:

Attach the MULTILED strip in full-shaft height. The distance to shaft ceiling and pit has to be max. 0.5m.

**Optimal length:**

It is even better to fix the MULTILED strip under the shaft ceiling, depending on the available length of the LED strip.



The connection cable can be positioned up or down, depending on the position of the lift control.

Be careful!

- Do not assemble the LED strip on flammable materials.
- Do not cut the LED strip.
- Do not separate the cable between the control unit and the LED strip.
- Protect it with 4A (B) or 6A (B).

Fixation:

1. When mounting under the shaft ceiling:
drill a 6mm hole with a depth of 40mm every 0,5m.
When mounting at the wall:
drill a hole every 2m.
When mounting in a corner:
drill a hole before and behind the corner at a distance of approx. 5cm.
2. Punch-in the black dowels (included)
3. Fasten the MULTiLED strip with the black cable ties (included)



Important!



- Avoid any tensile stress during installation on the MULTiLED tape!
- Do not roll the MULTiLED tape more than 5 meters in front of each fixture and do not let it hang (even only briefly) in the shaft!
- Tighten each cable connector well, so that the MULTiLED tape can not slip through the cable ties over the years, resulting in impermissible tensile load on the upper holders!



Not observing these instructions leads to hair cracks in the flexible conductor tracks within the MULTiLED tape and leads immediately or later to the breakdown of lighting parts.

Fixation in a corner:



5 Technical data

General		
	Unit	Value
Height of installation	m	2000 above mean sea level
Mounting position		randomly
Ambient temperature	°C	Operation/storage -25 to +55, transportation -25 to +70 (no icing and condensation)
Ambient relative humidity	%	Operation/storage/transportation 5 to 95
Installation dimensions (incl. wall brackets)	mm m	w x d: 22 x 16 (at the thickest points) length 1 - 100 (manufactured in full meters)
Bending radius min.	mm	50 front-back / 300 left-right
Weight	g	120 per meter (without cable)
Material of the strip		PVC white and transparent
Type of protection EN 60529		IP 68 (submersion depth 1m/1h)
Type of protection EN 61140		Protection class II (insulated)
Optical		
	Unit	Value
Luminous intensity	lx	280 @1m / 125 @2m (measure tol. ±3%)
Quantity of LEDs		60 per meter
Illumination colour of LEDs		Daylight white
Modulation frequency of LEDs	Hz	2x operating voltage frequency (e.g. 100 Hz)
Beam angle	°	120
Lifetime of LEDs	h	> 50.000
Electrical		
	Unit	Value
Operating voltage	V	200-250 AC/DC (0-60 Hz)
Power consumption	W	8 @230V per meter
Connection cable		PVC, round D = 6-7mm, fine-stranded: - 0.75 mm² when encapsulated electronics in the cable - 1.00 mm² when electronics directly on the LED tube
Connection		2 wires, open end
Required fuse protection		4A (B) or 6A (B)
Reverse polarity protection		yes
Dimmable		yes (with standard dimmers)
Conformity		(see declaration of conformity)

6 Maintenance

6.0 Precautions



Be careful!

There are dangerous voltages inside of the transparent LED strip. Watch out for damages. Insulation damages must be repaired or the lighting needs to be replaced. Changes to the device, additional dangers are added and can exclude a liability of the manufacturer for resulting damages.

6.1 Maintenance intervals

The MULTILED-SL is maintenance-free when installed correctly.

Depending on the degree of contamination of the facility, if necessary the front and side parts of the LED strip can be cleaned. Only clean the strip with a soft, damp cloth, if necessary with some washing-up liquid. Do not use abrasive cleaners or corrode plastic additives. Do not dry "scratch off", since the surfaces can become blind or increased bind dust and thus a reduction in light intensity can occur.

7 EU Declaration of conformity

We hereby declare that the product described below, based on its design and construction as well as the version that we have put into circulation, observing the operating manual included in the delivery, corresponds to the respective protection requirements of the directives specified below. The product complying with this declaration is provided with the CE mark. This declaration becomes invalid should the product be modified without our approval.

Type designation:	MULTILED-SL
Year of construction:	2023 / 2024 / 2025 / 2026 / 2027
Short description	LED shaft light for lifts
Relevant directives:	Lift Directive 2014/33/EU
Applied standards:	EN 81-20:2020

This explanation is issued by the responsible manufacturer

STRACK LIFT AUTOMATION GmbH

submitted on 4 April 2023 by Dipl.-Ing. Dirk Strack (Managing Director)



Note

The products specified above are exclusively intended for the installation in lifts or the assembly with other lift parts. The commissioning or distribution within the European Union is admissible only if the finished product conforms to the relevant harmonised directives of the EU.