LINEARlight FLEX Low Power Protect

– LED modules for professional and industrial applications



Product family benefits

- Color consistency up to 2 SDCM on entire light strip thanks to Single-bin technology
- Color rendering options R_a: 80 and 90
- Service lifetime (L80/B10): up to 60,000 h
- LM79 and LM80 compliant
- Embedded constant current regulators
- No solder-joints on circuit board
- Flexible and cuttable LED strips
- Dimmable (with suitable PWM dimming methods)
- Type of protection: IP68 due to high performance silicon

Areas of application

- For high-end application with dedicated equipment and accessories

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Technical data

	Electrical data						Photometrical data
Product description	**Nominal voltage**	**Type of current**	**Nominal wattage per meter**	**Rated wattage**	**Input voltage range**	**Accidental reverse input voltage protection up to**	**Light color LED**
LFP500 -G1-927-10 L1	24.0 V	DC	3.8 W	38.00 W	23…25 V	25 V	White
LFP500 -G1-930-10 L1	24.0 V	DC	3.8 W	38.00 W	23…25 V	25 V	White
LFP500 -G1-940-10 L1	24.0 V	DC	3.8 W	38.00 W	23…25 V	25 V	White

Product description	**Color render- ing index Ra**	**Lumi- nous flux per meter**	**Total useful luminous flux**	**Luminous efficacy**	**Standard deviation of color matching**	**Light color (designation)**
LFP500 -G1-927-10 L1	≥90	380 lm	3800 lm	100 lm/W	≤3 sdcm	2700 K
LFP500 -G1-930-10 L1	≥90	400 lm	4000 lm	105 lm/W	≤3 sdcm	3000 K
LFP500 -G1-940-10 L1	≥90	430 lm	4300 lm	113 lm/W	≤3 sdcm	4000 K

	Light technical data				LED module information	
Product description	**LED pitch**	**Beam angle**	**Starting time**	**Warm-up time (60 %)**	**Number of LEDs per meter**	**Number of LEDs per smallest unit**
LFP500 -G1-927-10 L1	14.29 mm	120 °	< 0.5 s	< 0.50 s	70	7
LFP500 -G1-930-10 L1	14.29 mm	120 °	< 0.5 s	< 0.50 s	70	7
LFP500 -G1-940-10 L1	14.29 mm	120 °	< 0.5 s	< 0.50 s	70	7

	Dimensions & weight				Temperatures & operating conditions	
Product description	**Length**	**Length – smallest unit**	**Height**	**Product weight**	**Performance temp. acc. to IEC 62717**	**Temperature range in operation at Tc point**
LFP500 -G1-927-10 L1	10000 mm	100.0 mm	4.50 mm	560.00 g	35 °C	-30…70 °C [1)]
LFP500 -G1-930-10 L1	10000 mm	100.0 mm	4.50 mm	560.00 g	35 °C	-30…70 °C [1)]
LFP500 -G1-940-10 L1	10000 mm	100.0 mm	4.50 mm	560.00 g	35 °C	-30…70 °C [1)]

		Lifespan			
Product description	**Temperature range at storage**	**Rated lamp life time**	**Nominal lamp life time**	**Lumen main. fact. at end of nom. life time**	**Number of switching cycles**
LFP500 -G1-927-10 L1	-40…85 °C	60000 h	60000 h	0.70	15000
LFP500 -G1-930-10 L1	-40…85 °C	60000 h	60000 h	0.70	15000
LFP500 -G1-940-10 L1	-40…85 °C	60000 h	60000 h	0.70	15000

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	Additional product data	Capabilities		
Product description	**ID of contained light source**	**Lowest bending radius**	**Self-adhesive**	**With connection set**
LFP500 -G1-927-10 L1	LS_TRV_286554	50 mm	Yes	No
LFP500 -G1-930-10 L1	LS_TRV_286555	50 mm	Yes	No
LFP500 -G1-940-10 L1	LS_TRV_286557	50 mm	Yes	No

		Certificates & standards		
Product description	**With end piece**	**Energy consumption**	**Standards**	**Type of protection**
LFP500 -G1-927-10 L1	No	43 kWh/1000h	CE/UL/ENEC/EAC	IP68
LFP500 -G1-930-10 L1	No	43 kWh/1000h	CE/UL/ENEC/EAC	IP68
LFP500 -G1-940-10 L1	No	43 kWh/1000h	CE/UL/ENEC/EAC	IP68

		Logistical data	Environmental information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACh)	
Product description	**Energy efficiency class of the contained light source**	**Commodity code**	**Date of Declaration**	**Primary Article Identifier**
LFP500 -G1-927-10 L1	F	85395100000	19-05-2023	4062172283168
LFP500 -G1-930-10 L1	F	85395100000	02-06-2023	4062172283182
LFP500 -G1-940-10 L1	F	85395100000	07-07-2023	4062172283229

Product description	**Candidate List Substance 1**	**CAS No. of substance 1**	**Safe Use Instruction**	**Declaration No. in SCIP database**
LFP500 -G1-927-10 L1	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	e8cb106c-1663-4f6c-a7dd-0272fcb26838
LFP500 -G1-930-10 L1	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	dcc9edea-4f7d-4ba5-9c0f-2c7656bf424f
LFP500 -G1-940-10 L1	Lead	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	422c8474-9dfc-40a1-bb30-087eb5d49be9

[1] Exceeding the maximum ratings will reduce expected life time or destroy the LED strip.

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Equipment / Accessories

- Flexessories: a complete set of aluminum channels with diffusers and lenses
- Connectors: quick-and-easy toolless installation with SLIMCONNECTsystem G2
- Drivers and dimmers: wide selection of OPTOTRONIC 24 V DALI, DMX and BLE
- Check for more detailed information the specification sheets in the download section

Application advice

For more detailed application information and graphics please see product datasheet.

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Additional product information

- Some LED modules are equipped with a self-adhesive tape for attaching the LED module to suitable materials, such as aluminum profiles, which must be clean and free of oil or silicone coatings, as well as other dirt/dust particles. The adhesive tape is intended for single use and if removed may damage the material to which it is stuck and the LED module itself, which must then be scrapped. Use the adhesive tape when the installation material temperature is in the 18 °C...35 °C range. Complete adhesion takes up to 72 h.
- LED modules are designed for static installations in accordance with IPC 6013C – Use A. Take material vibrations, repetitive torsion, and elongation/compression into account.
- If the operating environment covers a broad temperature range (e.g. outdoor applications) and the operating length is longer than 2 m, the use of adequate mounting surfaces is required. The use of an additional thicker adhesive tape between LED module and mounting surface is also recommended in order to absorb the stress of any mismatch in expansion. Assure enough space for module expansion with increasing temperature.
- The manufacturer is not responsible for damage due to chemical corrosion. The user must provide suitable protection against corrosive agents such as moisture and condensation and any other harmful elements/compounds. Make certain to avoid corrosive atmospheres. According to the current state of LED technology, hydrogen sulfide (H2S) causes accelerated corrosion which leads to shortened lifetime or premature failure. Sources of H2S may be rubber, foam rubber, soft-foam tapes, rubber-based sealing, natural sources (e.g. sulfur springs), etc. To avoid H2S from sulfur-vulcanized rubber use silicon-based materials or peroxide-crosslinked rubber instead. Follow the recommendations in the material datasheet of the rubber supplier.
- IP00 LED modules, as manufactured, have no conformal coating and therefore offer no inherent protection against corrosion. Conformal coating treatment is possible, however materials must be selected properly in order to avoid product damage or impaired performance; the user must also completely seal the cut parts (ends/edges).
- For applications involving exposure to humidity and dust the module must be protected by a fixture or housing with a suitable IP protection class.
- Consult OSRAM Technical Service for further advice.
- Only a qualified electrician may install the module.
- Handle with care and ensure that there is no mechanical product damage, including damage to invisible internal electronics parts.
- Exceeding maximum operating and storage temperature ratings can reduces the expected lifetime or even destroy the LED module. The temperature of the LED module must be measured at the Tc-point in accordance with EN 60598-1 under steady-state conditions, considering the worst case; drive all channels at 100 % power. Refer to the product drawing for the exact location of the Tc-point.
- Exceeding the maximum ratings for the operating voltage causes hazardous overload and will likely destroy the LED module.
- Installation of LED modules and connection to the power supply must comply with all applicable electrical and safety standards.
- Observe correct polarity and wiring diagrams! Incorrect polarity or wrong wiring can cause unpredictable permanent damage or even failure of the product.
- Never exceed the maximum operable length, including daisy-chaining connections.
- Always ensure electrical isolation between the LED module and the mounting surface, especially in the vicinity of connections or cut ends.
- IP00 LED modules are ESD-sensitive; take adequate precautions during installation and operation of the products.
- Use only SELV LED drivers in accordance with applicable lighting standards and LED module ratings. In order to safely operate OSRAM LED modules it is necessary to supply them with an electronically stabilized power supply providing protection against short circuits, overload and overheating. To simplify the approval process of the luminaire/installation, the electronic power supplies control gear for LED modules must bear the CE and ENEC marking. In Europe the Declarations of Conformity must include at least the following standards: EN 61347-2-13, EN 55015, EN 61547 and EN 61000-3-2. ENEC certification will be based on EN 61347-2-13 and EN 62384. OSRAM OPTOTRONIC LED drivers comply with all relevant standards and guarantee safe operation; see the relevant brochure for more detailed information about OSRAM OPTOTRONIC.
- Avoid installations in rural and urban areas with high industrial activity and heavy traffic (higher than class than 4C1 according IEC 60721-3) and as well as installation in spa, areas with chlorine atmosphere, direct exposure to blown sand.

Sales and Technical Support

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Download Data

	File
	User instruction LINEARlight FLEX Protect Low Power
	Product Datasheet LINEARlight FLEX Protect Low Power LFP500 (EN)
	Brochures Light is freedom of design (EN)
	Certificates VDE ENEC CERTIFICATE 40052516 160823
	Declarations of conformity LFP500 G1 CE 3657731 160623
	Declarations of conformity Manufacturers Declaration of Conformity 3657733
	Eulumdat Eulumdat LFP500-G1-927-10
	IES data IES data LFP500-G1-927-10
	Eulumdat Eulumdat LFP500-G1-940-10
	IES data IES data LFP500-G1-940-10

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Ecodesign regulation information:

- This product is considered to be a "containing product" in the sense of Regulations (EU) 2019/2020 and (EU) 2019/2015.
- Tolerances of the reported values, are according to LED Modules Performance standard IEC/EN 62717.
- In general, the replacement of the contained light sources without permanent damage to the product with the use of common available tools is possible in the final application when they can be dismantled from the installation environment and substituted for the necessary number of light sources restoring its full electrical/mechanical/thermal/optical functionality by means of a professional installer.In the contrary, and limited to the LINEARlight Flex Diffuse, LINEARlight Rigid Finesse, GINO LED Flex Diffuse and LUMINENT Milky product families, the contained light source is an integrated part of the containing product and its removal can only be done by causing a permanent damage to the containing product due to its tight mechanical, electrical, optical, thermal interaction and/or environmental protection with or from the containing product. Therefore, a replacement of the light source with the use of common available tools is not justified.
- Dismantling of light sources from containing products at end of life: Containing products with light sources which are scalable in length can be cut to the length of the contained light source and if applicable mechanically detached from protective and/or optical covers. Containing products shall be separated from building material and/or from other additional mounting accessories by means of a professional installer.Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172283168	LFP500 -G1-927-10 L1	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm^3	8698.00 g
4062172283182	LFP500 -G1-930-10 L1	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm^3	8698.00 g
4062172283229	LFP500 -G1-940-10 L1	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm^3	8698.00 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

Accessories Optional

Product description	Accessory name	Accessory code
LFP500 -G1-927-10 L1	JUMPER -FLEX-IP67-2P KIT 5PCS	4062172176576
LFP500 -G1-927-10 L1	CONN-FLEX -IP67-2P KIT 5PCS	4062172176590
LFP500 -G1-927-10 L1	LTS-SLIMTRACK -2000 KIT 5 PCS	4062172207300
LFP500 -G1-927-10 L1	CONN-FLEX -IP67-2P-300 KIT 5PCS	4062172230162
LFP500 -G1-930-10 L1	JUMPER -FLEX-IP67-2P KIT 5PCS	4062172176576
LFP500 -G1-930-10 L1	CONN-FLEX -IP67-2P KIT 5PCS	4062172176590
LFP500 -G1-930-10 L1	LTS-SLIMTRACK -2000 KIT 5 PCS	4062172207300

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LFP500 -G1-930-10 L1	CONN-FLEX -IP67-2P-300 KIT 5PCS	4062172230162
LFP500 -G1-940-10 L1	JUMPER -FLEX-IP67-2P KIT 5PCS	4062172176576
LFP500 -G1-940-10 L1	CONN-FLEX -IP67-2P KIT 5PCS	4062172176590
LFP500 -G1-940-10 L1	LTS-SLIMTRACK -2000 KIT 5 PCS	4062172207300
LFP500 -G1-940-10 L1	CONN-FLEX -IP67-2P-300 KIT 5PCS	4062172230162

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