

## LINEARlight FLEX Protect POWER 800

LED modules for professional and industrial applications



### Areas of application

- Facade accent lighting
- Ceiling integration
- Wall integration
- Cove lighting
- Machine lighting
- Path lighting
- Suitable for outdoor use

### Product family benefits

- Color uniformity better than 2 SDCM on the entire LED strip and between strips
- High luminous flux
- Great design freedom thanks to compact dimensions
- High-performance silicone for extremely long life and flexibility
- Simple connection thanks to premounted connectors
- Extraordinary design and high quality materials
- Toolless connection only if using the optional CONNECTsystem
- Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back
- Outdoor use possible: UV and salt mist resistant (UV acc. to ISO 4892-2 - Method A, salt mist acc. to IEC 60068-2-52 severity 1)



## Product family datasheet

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### Product family features

- Flexible and cuttable LED strip
- Luminous flux: up to 800 lm/m
- Type of protection: IP67
- Dimmable with PWM technology

## Product family datasheet

### Technical data

#### Electrical data

Product description	Nominal voltage	Type of current	Nominal wattage per meter	Rated wattage	Input voltage range	Accidental reverse input voltage protection up to
LFP800 -G3-824-09 <sup>1)</sup>	24.0 V	DC	7.6 W	68.04 W	23...24 V	25 V
LFP800 -G3-827-09 <sup>1)</sup>	24.0 V	DC	7.1 W	63.72 W	23...24 V	25 V

<sup>1)</sup> See product remark

#### Photometrical data

Product description	Light color LED	Color temperature	Color rendering index Ra	Luminous flux per meter	Total useful luminous flux	Luminous efficacy	Standard deviation of color matching
LFP800 -G3-824-09 <sup>1)</sup>	White	2400 K	>80	800 lm	7200 lm	106 lm/W	≤3,5 sdc
LFP800 -G3-827-09 <sup>1)</sup>	White	2700 K	>80	800 lm	7200 lm	113 lm/W	≤3,5 sdc

Product description	Light color (designation)
LFP800 -G3-824-09 <sup>1)</sup>	Warm White
LFP800 -G3-827-09 <sup>1)</sup>	Warm White

<sup>1)</sup> See product remark

#### Light technical data

Product description	LED pitch	Beam angle	Rated beam angle (half peak value)	Starting time	Warm-up time (60 %)
LFP800 -G3-824-09 <sup>1)</sup>	14.3 mm	120 °	120.00 °	< 0.5 s	0.00 s
LFP800 -G3-827-09 <sup>1)</sup>	14.3 mm	120 °	120.00 °	< 0.5 s	0.00 s

<sup>1)</sup> See product remark

#### LED module information

Product description	Number of LEDs per meter	Number of LEDs per smallest unit	Maximum operable length
LFP800 -G3-824-09 <sup>1)</sup>	70	7	9000 mm <sup>2)</sup>
LFP800 -G3-827-09 <sup>1)</sup>	70	7	9000 mm <sup>2)</sup>

<sup>1)</sup> See product remark

## Product family datasheet

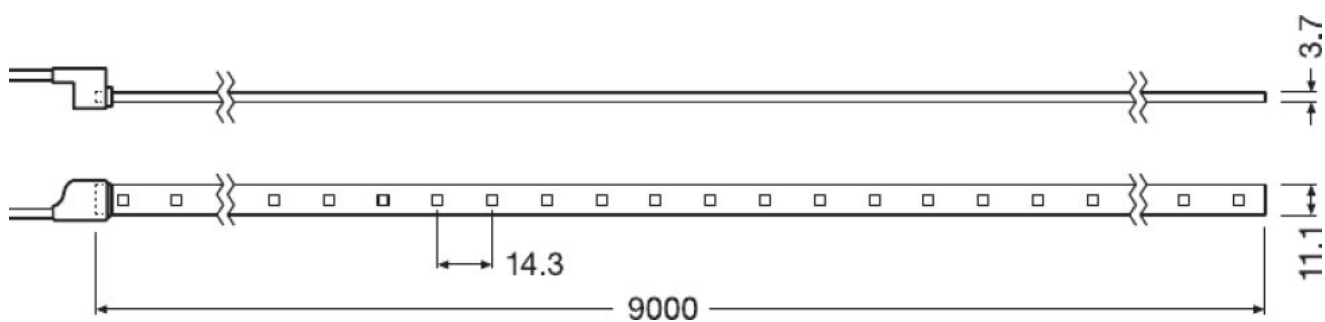
<sup>2)</sup> Max. cumulative product length powering it from a single end

### Dimensions & weight

Product description	Length	Length – smallest unit	Width	Height	Cable length	Product weight
LFP800 -G3-824-09 <sup>1)</sup>	9000 mm	100.0 mm	11.1 mm	4.5 mm	500.0 mm	523.00 g
LFP800 -G3-827-09 <sup>1)</sup>	9000 mm	100.0 mm	11.1 mm	3.7 mm	500.0 mm	523.00 g

<sup>1)</sup> See product remark

### Product line drawing



LFP800 -G3-824-09, LFP800 -G3-827-09

### Colors & materials

Product description	Cover material	Body material
LFP800 -G3-824-09 <sup>1)</sup>	Silicone	Silicone
LFP800 -G3-827-09 <sup>1)</sup>	Silicone	Silicone

<sup>1)</sup> See product remark

## Product family datasheet

### Temperatures & operating conditions

Product description	Performance temp. acc. to IEC 62717	Temperature range in operation at T <sub>c</sub> point	Ambient temperature range	Temperature range at storage
LFP800 -G3-824-09 <sup>1)</sup>	40 °C	-20...70 °C <sup>2)</sup>	-20...+50 °C <sup>3)</sup>	-40...+85 °C
LFP800 -G3-827-09 <sup>1)</sup>	40 °C	-20...70 °C <sup>2)</sup>	-20...+50 °C <sup>3)</sup>	-40...+85 °C

<sup>1)</sup> See product remark

<sup>2)</sup> Exceeding the maximum ratings will reduce expected life time or destroy the LED strip.

<sup>3)</sup> Rated ambient temp. 25°C/Providing that temperature at T<sub>c</sub> point is below max value during operation/Temperature ramping for environmental testing acc. to IEC 62717, 1K/min

### Lifespan

Product description	Rated lamp life time	Nominal lamp life time	Lumen main. fact. at end of nom. life time	Number of switching cycles
LFP800 -G3-824-09 <sup>1)</sup>	60000 h <sup>2)</sup>	60000 h	0.70	15000
LFP800 -G3-827-09 <sup>1)</sup>	60000 h <sup>2)</sup>	60000 h	0.70	15000

<sup>1)</sup> See product remark

<sup>2)</sup> L70/B50 at T<sub>c</sub> 40 °C

### Capabilities

Product description	Dimmable	Lowest bending radius	Self-adhesive
LFP800 -G3-824-09 <sup>1)</sup>	Yes	50 mm	Yes
LFP800 -G3-827-09 <sup>1)</sup>	Yes	50 mm	Yes

Product description	With connection set	With end piece
LFP800 -G3-824-09 <sup>1)</sup>	Yes	Yes
LFP800 -G3-827-09 <sup>1)</sup>	Yes	Yes

<sup>1)</sup> See product remark

### Certificates & standards

Product description	Energy efficiency class	Energy consumption	Standards	Type of protection
LFP800 -G3-824-09 <sup>1)</sup>	A+ <sup>2)</sup>	75 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP67
LFP800 -G3-827-09 <sup>1)</sup>	A++ <sup>2)</sup>	70 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP67

<sup>1)</sup> See product remark

<sup>2)</sup> Applicable to nearest length value to 50 cm (EN 62717 cl. 6.1)

## Product family datasheet

### Logistical data

Product description	Commodity code
LFP800 -G3-824-09 <sup>1)</sup>	940540399000
LFP800 -G3-827-09 <sup>1)</sup>	940540399000

<sup>1)</sup> See product remark

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### Product remark

Modules perfectly matched to OSRAM OPTOTRONIC LED drivers (see relevant table)/For current photometric data and important safety, installation and application information (see [www.osram.com/led-systems](http://www.osram.com/led-systems)),/All the technical parameters apply to the entire module. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values

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### Equipment / Accessories

- Simplified connection with optional matching CONNECTsystem
- Quick installation with optional SLIM TRACK System
- Perfectly matched to OPTOTRONIC 24 V electronic control gears

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### Application advice

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

## Product family 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 (H<sub>2</sub>S) causes accelerated corrosion which leads to shortened lifetime or premature failure. Sources of H<sub>2</sub>S may be rubber, foam rubber, soft-foam tapes, rubber-based sealing, natural sources (e.g. sulfur springs), etc. To avoid H<sub>2</sub>S 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 reduce the expected lifetime or even destroy the LED module. The temperature of the LED module must be measured at the T<sub>c</sub>-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 T<sub>c</sub>-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.















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### Sales and Technical Support

## Product family datasheet

Sales and Technical Support [www.osram.com](http://www.osram.com)

### Download Data

File
 User instruction LINEARlight FLEX Protect POWER
 Product Datasheet LINEARlight FLEX Protect Power Specification Sheet
 Brochures Light is freedom of design (EN)
 Certificates VDE-ENEC Certificate
 Certificates EAC Certificate
 Certificates VDE-ENEC+ Certificate
 Certificates ENEC10_VDE Certificate
 Certificates UL Certificate
 Declarations of conformity Declaration of conformity
 Declarations of conformity Manufacturer declaration
 Eulumdat Eulumdat LFP800-G3-824
 IES data IES LFP800-G3-824
 Eulumdat Eulumdat LFP800-G3-827
 IES data IES LFP800-G3-827

### Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899481565	LFP800 -G3-824-09	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	8402.00 g
4052899481589	LFP800 -G3-827-09	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	8402.00 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.



## Product family datasheet

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### Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.