

## LINEARlight FLEX ADVANCED

– LED modules for professional and industrial applications



### Product family features

- Flexible and cuttable LED strip
- Luminous flux: up to 400 lm/m
- Module efficacy: up to 88 lm/W
- Dimmable with PWM technology
- Fine White

### Product family benefits

- Very long for seamless bands of light
- Large selection of light colors
- Great design freedom thanks to flexibility and cuttability of module
- Simple mounting and connection
- Toolless connection with the optional CONNECTsystem
- Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

### Areas of application

- Cove lighting
- Signage
- Advertising and lettering



## Product family datasheet

### Technical data

Product description	Electrical data						Photometrical data
	Nominal voltage	Type of current	Nominal wattage per meter	Rated wattage	Input voltage range	Accidental reverse input voltage protection up to	Light color LED
LF05A2 -O3 <sup>1)</sup>	24.0 V	DC	8.3 W	83.00 W	23...25 V	25 V	Orange
LF05A2 -T3 <sup>1)</sup>	24.0 V	DC	4.9 W	49.00 W	23...25 V	25 V	Green
LF05A2 -Y3 <sup>1)</sup>	24.0 V	DC	8.3 W	83.00 W	23...25 V	25 V	Yellow
LF05A2 -B3 <sup>1)</sup>	24.0 V	DC	7.2 W	72.00 W	23...25 V	25 V	Blue

Product description	Nominal dominant wavelength	Luminous flux per meter	Light color (designation)	Light technical data		
				LED pitch	Beam angle	Rated beam angle (half peak value)
LF05A2 -O3 <sup>1)</sup>	602 nm	130 lm	Orange	20.0 mm	120 °	120.00 °
LF05A2 -T3 <sup>1)</sup>	525 nm	180 lm	Green	20.0 mm	120 °	120.00 °
LF05A2 -Y3 <sup>1)</sup>	587 nm	110 lm	Yellow	20.0 mm	120 °	120.00 °
LF05A2 -B3 <sup>1)</sup>		80 lm	Blue	20.0 mm	120 °	120.00 °

Product description	LED module information					Dimensions & weight
	Starting time	Warm-up time (60 %)	Number of LEDs per meter	Number of LEDs per smallest unit	Maximum operable length	Length
LF05A2 -O3 <sup>1)</sup>	< 0.5 s	0.00 s	50	5	10000 mm <sup>2)</sup>	10000 mm
LF05A2 -T3 <sup>1)</sup>	< 0.5 s	0.00 s	50	5	10000 mm <sup>2)</sup>	10000 mm
LF05A2 -Y3 <sup>1)</sup>	< 0.5 s	0.00 s	50	5	10000 mm <sup>2)</sup>	10000 mm
LF05A2 -B3 <sup>1)</sup>	< 0.5 s	0.00 s	50	5	10000 mm <sup>2)</sup>	10000 mm

Product description	Length – smallest unit	Width	Height	Product weight	Temperatures & operating conditions	
					Performance temp. acc. to IEC 62717	Temperature range in operation at Tc point
LF05A2 -O3 <sup>1)</sup>	100.0 mm	8.0 mm	2.4 mm	125.00 g	25 °C	-20...75 °C <sup>3)</sup>
LF05A2 -T3 <sup>1)</sup>	100.0 mm	8.0 mm	2.4 mm	125.00 g	25 °C	-20...75 °C <sup>3)</sup>
LF05A2 -Y3 <sup>1)</sup>	100.0 mm	8.0 mm	2.4 mm	125.00 g	25 °C	-20...75 °C <sup>3)</sup>
LF05A2 -B3 <sup>1)</sup>	100.0 mm	8.0 mm	2.4 mm	125.00 g	25 °C	-20...75 °C <sup>6)</sup>

## Product family datasheet

Product description	Ambient temperature range	Temperature range at storage	Lifespan		
			Rated lamp life time	Nominal lamp life time	Lumen main. fact. at end of nom. life time
LF05A2 -O3 <sup>1)</sup>	-20...+50 °C <sup>4)</sup>	-20...85 °C	50000 h <sup>5)</sup>	50000 h	0.70
LF05A2 -T3 <sup>1)</sup>	-20...+50 °C <sup>4)</sup>	-20...85 °C	50000 h <sup>5)</sup>	50000 h	0.70
LF05A2 -Y3 <sup>1)</sup>	-20...+50 °C <sup>4)</sup>	-20...85 °C	50000 h <sup>5)</sup>	50000 h	0.70
LF05A2 -B3 <sup>1)</sup>	-20...+50 °C <sup>4)</sup>		50000 h <sup>5)</sup>	50000 h	0.70

Product description	Capabilities	Certificates & standards		
	Lowest bending radius	Energy consumption	Standards	Type of protection
LF05A2 -O3 <sup>1)</sup>	20 mm	92 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP00
LF05A2 -T3 <sup>1)</sup>	20 mm	54 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP00
LF05A2 -Y3 <sup>1)</sup>	20 mm	92 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP00
LF05A2 -B3 <sup>1)</sup>	20 mm	80 kWh/1000h	CE; ENEC 10 VDE/EAC/UL Recognized component according UL 8750	IP00

Product description	Logistical data	Environmental information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)		
	Commodity code	Date of Declaration	Primary Article Identifier	Declaration No. in SCIP database
LF05A2 -O3 <sup>1)</sup>	940542319000	18-04-2022	4052899924093	In work
LF05A2 -T3 <sup>1)</sup>	940542319000	18-04-2022	4052899924116	In work
LF05A2 -Y3 <sup>1)</sup>	940542319000	18-04-2022	4052899924109	In work
LF05A2 -B3 <sup>1)</sup>	940542319000	18-04-2022	4052899924123	In work

<sup>1)</sup> 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

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

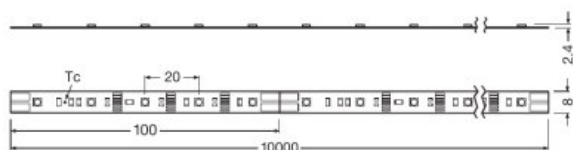
<sup>3)</sup> At the T<sub>c</sub> point

<sup>4)</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

<sup>5)</sup> L70/B50 at T<sub>c</sub> 40 °C

<sup>6)</sup> Exceeding the maximum ratings will reduce expected life time or destroy the LED strip.

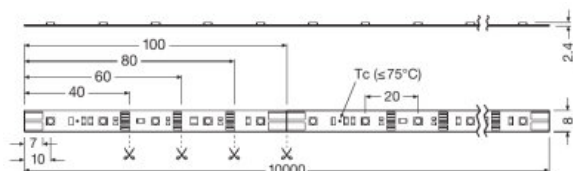
## Product family datasheet



485726\_LINEARlight FLEX ADVANCED



485724\_LINEARlight FLEX ADVANCED



485738\_LINEARlight FLEX ADVANCED

### Equipment / Accessories

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

### 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)

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### Download Data

File	
	User instruction LINEARlight POWER Flex, LINEARlight Flex ShortPitch, LINEARlight Flex Advanced, LINEARlight Flex Eco
	Product Family Datasheet 491092_LINEARlight Flex ADVANCED &#150; LF05A2 (Monochrome Versions)
	Brochures Light is freedom of design (EN)
	Certificates EAC Certificate
	Certificates ENEC Licence
	Certificates UL Certificate
	Declarations of conformity Declaration of conformity
	Eulumdat 496970_LF05A2-O3 - LDT
	Eulumdat 496972_LF05A2-T3 - LDT
	Eulumdat 496973_LF05A2-Y3 .LDT
	Eulumdat 496959_LF05A2-B3 LDT

## Product family datasheet

### Ecodesign regulation information:

- This product is considered to be a "containing product" in the sense of Regulations (EU) 2019/2020 and (EU) 2019/2015. The contained light source is intended for use in applications requiring high-quality coloured light.
- 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
4052899924093	LF05A2 -O3	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	4966.00 g
4052899924116	LF05A2 -T3	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	4966.00 g
4052899924109	LF05A2 -Y3	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	4970.00 g
4052899924123	LF05A2 -B3	Shipping carton box 8	365 mm x 286 mm x 366 mm	38.21 dm <sup>3</sup>	4966.00 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
LF05A2 -O3	FX -SC08-G2-CT4PJ	▶ 4052899464858
LF05A2 -T3	FX -SC08-G2-CT4PJ	▶ 4052899464858
LF05A2 -Y3	FX -SC08-G2-CT4PJ	▶ 4052899464858
LF05A2 -B3	FX -SC08-G2-CT4PJ	▶ 4052899464858

## 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.